

# MAKENA STRATEGY INSIGHTS – June 30, 2015

The Rate Hike: Deeper Dive into the Impact on Equities

Q2

PERIOD ENDING  
June 30, 2015

## *Portfolio Strategy & Macroeconomic Outlook*

In our last Strategy Insights letter we touched on the impact of a rate hiking cycle on equities and fixed income. Many of you were interested in that analysis, so we decided to refine and deepen our understanding of the impact of rate hikes on equities in particular. The impact of a rate hike could certainly be a negative long-term headwind for equities, as multiples are likely to decline as rates increase, so this is an important discussion.

### *Higher Rates are Coming - But How High and How Fast?*

In our discussion last quarter we showed that several situations will lead to increased inflation readings in the US in the near-term. If the expansion continues at its current pace, the labor market slack will continue to unwind, ultimately resulting in wage-driven inflation finally starting to come back. Finally, Fed officials have spoken many times about how zero rates are only appropriate in emergency situations and clearly the current situation is no longer an emergency. The combination of these factors means that we are likely to see a Fed rate hike within the next six months.

By now, many market participants are assuming smaller and less frequent hikes than in the past and a lower peak rate at the end of the tightening cycle – essentially making the assumption that the Fed will try to avoid provoking a significant market sell-off during the tightening cycle as multiples re-rate.

In other words, market participants are fairly complacent around the tightening cycle that is about to begin. One of the often-quoted reasons for this complacency is the belief that the Fed will only start hiking once growth has shown clear signs of accelerating so that the headwind generated by the rate hike will be offset by the tailwinds generated from a more robust economy.

The issue is that this time *is* different. As far as we can tell, *this will be the first time since at least the '80s that the Fed will be hiking rates in a situation where growth is not accelerating.* Figure 1 below shows the prior three rate hiking cycles in the red-dashed areas. The 1993-94 hiking cycle followed a clear acceleration in GDP growth that occurred about six months before the first hike. The 1998-99 cycle followed a four year run of the economy expanding at ~4%, almost twice the potential growth rate, and in mid-1998 the economy accelerated further before the Fed finally started hiking rates. For the 2004-06 rate hiking cycle, the Fed waited for almost a year of strongly accelerating growth, reaching levels again nearly twice the potential growth rate before hiking rates. This time, however, one can see that growth is not showing a particular trend; rather it is bumping along sideways now as it has since early 2010, right about at the potential growth rate of 2% where we placed the x-axis.

US GDP Growth and Federal Funds Rate: 1992 - Present

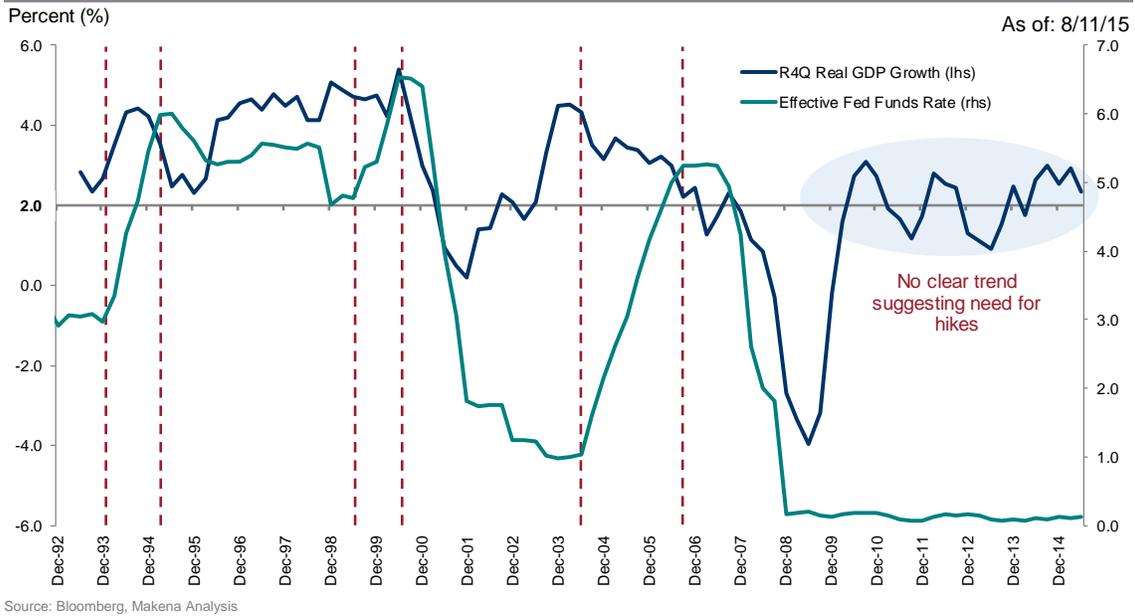


Figure 1: GDP Growth is Neither Accelerating nor Significantly Above Trend

Figure 2 below is the same analysis but with corporate earnings instead of GDP growth. The picture here is even more dramatic, since it is plainly obvious that corporate earnings have not responded much to the lower rate environment since the 2009 recovery, and earnings growth rates are below where they were in the preceding rate hike cycles.

Russell 1000 Earnings Growth and Federal Funds Rate: 1995 - Present

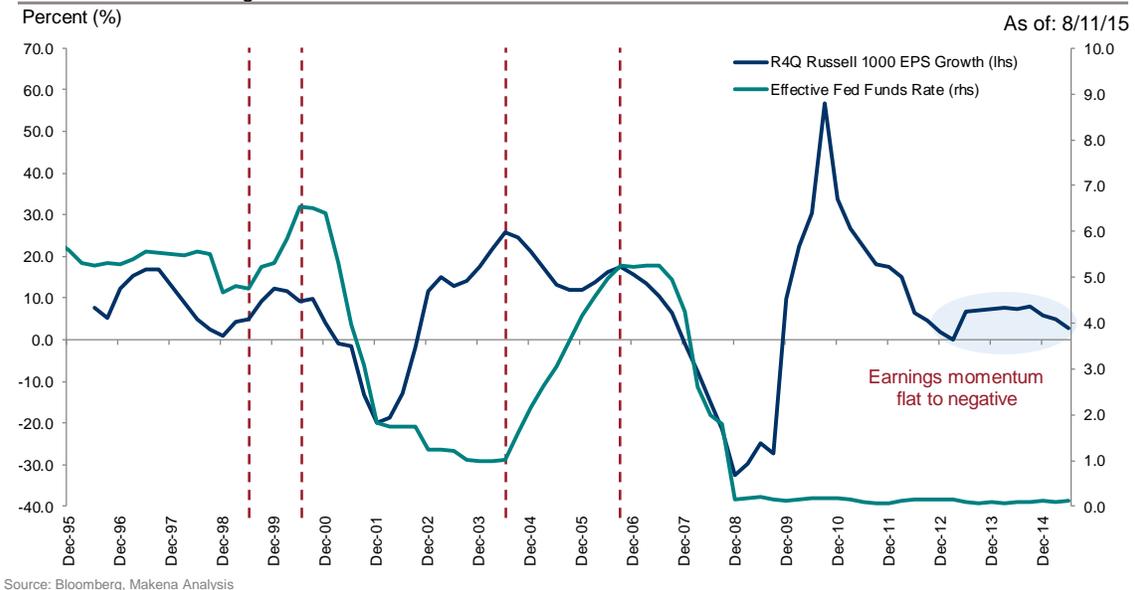
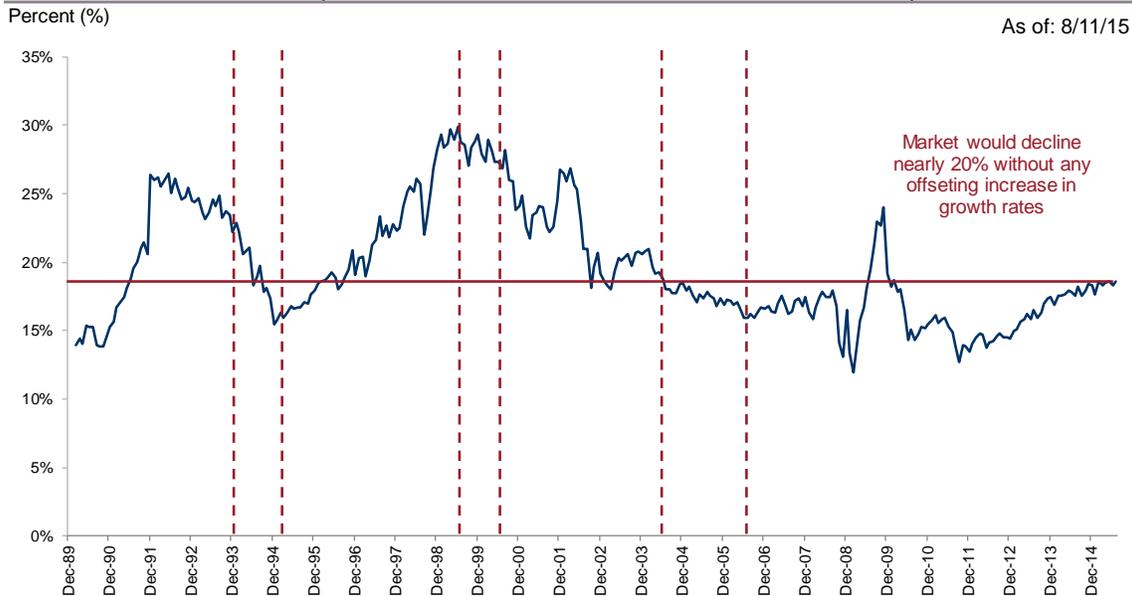


Figure 2: Earnings Momentum has been Flat and Recently Decelerating

*Implications on equities of a rate hike without growth momentum*

Given the observation that we are about to enter a hiking cycle without growth accelerating, we set about calculating what the impact of a 100 bps rise on the 10-year treasury would be to stocks, assuming that stocks discount an infinitely-lived stream of earnings<sup>1</sup>. Figure 3 below shows the result of this analysis: a 100 bps *instantaneous* increase in the yield of 10-year treasury would lead to a 20% sell-off in the S&P 500, due to market participants essentially adjusting multiples in light of a new interest rate outlook. Note that this calculation in effect illustrates what in our mind would amount to a *Fed mistake* – in this case, hiking rates which is not offset by increasing optimism about long-term earnings (and economic) growth. As we have argued at length in the past, there is no economic rationale that implies that yields should move quickly upwards. However, should the Fed fail to communicate very clearly that the hiking cycle will be extremely gradual (i.e. measured over years), the markets could sell off by pricing in a hiking path even more dramatic than our assumptions. Should this occur, we would expect the Fed to quickly backpedal so that a rate-induced sell-off might turn out to be an excellent buying opportunity.

**S&P 500 Decline from 100bps Increase in Discount Rate under Current Market Implied Growth**



Source: Makena Analysis, Bloomberg  
 Note: Assumes ERP of 6%, uses 10 year US treasury as risk-free rate and trailing 12M earnings and single period Gordon Growth Model

**Figure 3: Market Would Sell Off Significantly if not Offset by Increasing Growth**

As we mentioned above, the markets seem quite complacent that the Fed will not make a mistake, though the Fed’s track record certainly does not inspire confidence; the last two hiking cycles led to the housing bubble bursting and to the dot-com sell-off. This is one of the reasons why we are believers in actively managing the risk within our portfolio, and why we maintain both our tail risk management program and our currency program. Both of those programs should provide material liquidity to us precisely during the moment when we would need to re-balance significant sums into assets that had sold off, allowing us to stick to our asset allocation even in times of trouble.

*Equity “Duration” – An Underused Concept*

We now turn to comparing the interest rate sensitivity of different indices and different investment styles (e.g. growth vs. value). Much like bonds, equities have an implied duration, directly related to the P/E ratio of the equity. This makes intuitive sense; higher P/E stocks are typically firms that have an accelerating earnings outlook in the future. As rates go up, the present value of those earnings decreases, and the further out in the future those earnings are, the bigger the hit to stock valuations as rates go up<sup>2</sup>. We can use this concept to try to understand what types of equities will be most sensitive to rate hikes.

<sup>1</sup> We assume an equity risk premium of 6% and back out long-term earnings growth of 3.5% from current market pricing. We then assume that earnings growth will remain relatively which seems reasonable assumption in light of Figure 11 above, where earnings are currently growing at ~4%.

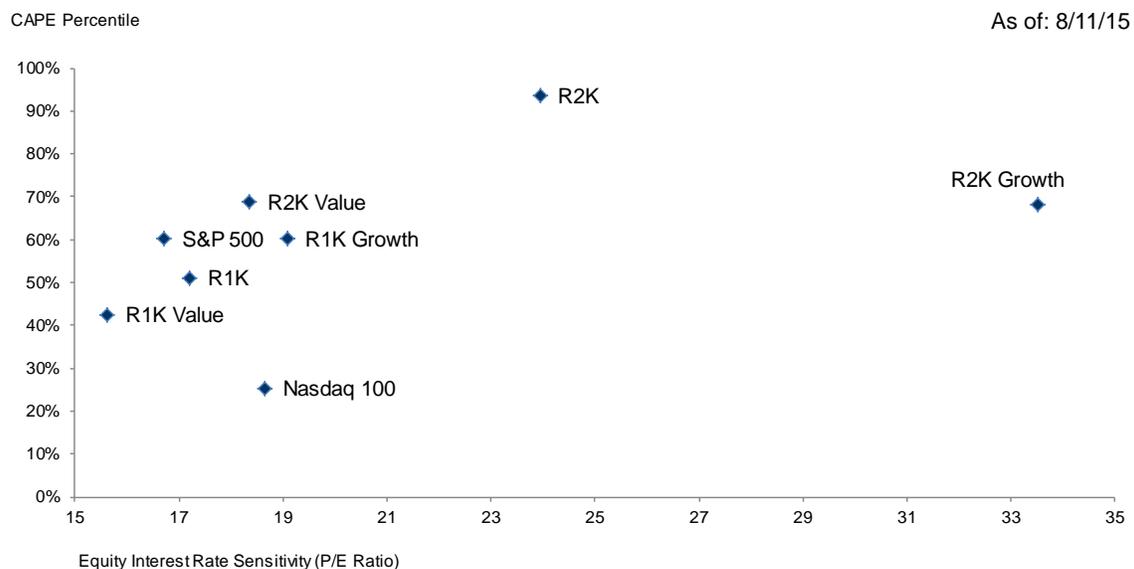
<sup>2</sup> See for instance Discussion of “Implied Equity Duration: A New Measure Of Equity Risk,” Review of Accounting Studies, 9, 229-231, 2004

Figure 4 below shows the interest rate sensitivity (x-axis) and valuation as measured by CAPE (y-axis) for different US equity indices differentiated by capitalization and style. For the most part, the indices are clustered around the 50<sup>th</sup> percentile in valuation and duration of 18. The clear outlier is the Russell 2000 Growth index. The implication is that for a 1% move in rates, the Russell 2000 Growth Index could stand to lose as much as 18% of its value.

*Is “value” finally back?*

In last quarter’s letter, we argued that lower growth for longer suggests higher multiples on growth equities. The necessary corollary is that growth equities will have higher interest rate sensitivity, which is precisely what we see when looking at the Russell 2000 Growth index in Figure 4. Meanwhile, the Russell 2000 Value index shows a lower valuation and a lower interest rate sensitivity compared to the Russell 2000 Growth index. A similar logic can be applied to the larger market cap cousins of the Russell 2000, e.g. the Russell 1000 Growth and Value indices. Said differently, growth might not be the place to be when growth is overvalued and strongly exposed to the first Fed tightening in a decade – maybe value is the right place to be.

**US Equity Valuation and Interest Rate Sensitivity by Size and Style**



Source: Bloomberg, Makena Analysis

**Figure 4: US Small Caps and Growth Overvalued and High Duration**

*International Comparisons*

Figure 5 below shows the same analysis but as applied to the country indices composing the MSCI EM index. As we have long argued, EM can no longer be treated as a monolith as demonstrated by the dispersion of the various countries both in terms of valuation and duration. Many have argued that EM’s are likely to be particularly vulnerable as the Fed hikes rates; however, we can see that most EM’s have significantly lower duration than the developed market indices (see S&P 500 and MSCI EAFE in red). There are a variety of ways to interpret this observation. One is that long-term growth estimates for many EM’s have been meaningfully reduced. Another is that country risk premia may have increased – we usually think of this as having to do with institutions and political risk, but it could also be a reflection of markets already pricing in the coming rate hike and the resulting outflows from EM (which first began during the taper tantrum). The ultimate conclusion is that on the eve of the rate hike, many EM’s are both undervalued relative to their own histories and meaningfully less sensitive to interest rate changes than are developed markets. In this framework, for instance, a 1% move in rates could only translate to a ~9% loss for China, Turkey or Korea. However, some of the frothier EM markets, such as Mexico or the Philippines could experience more dramatic drawdowns of ~20%, in-line with developed market rate sensitivities.

## EM Equity Valuation and Interest Rate Sensitivity by Country

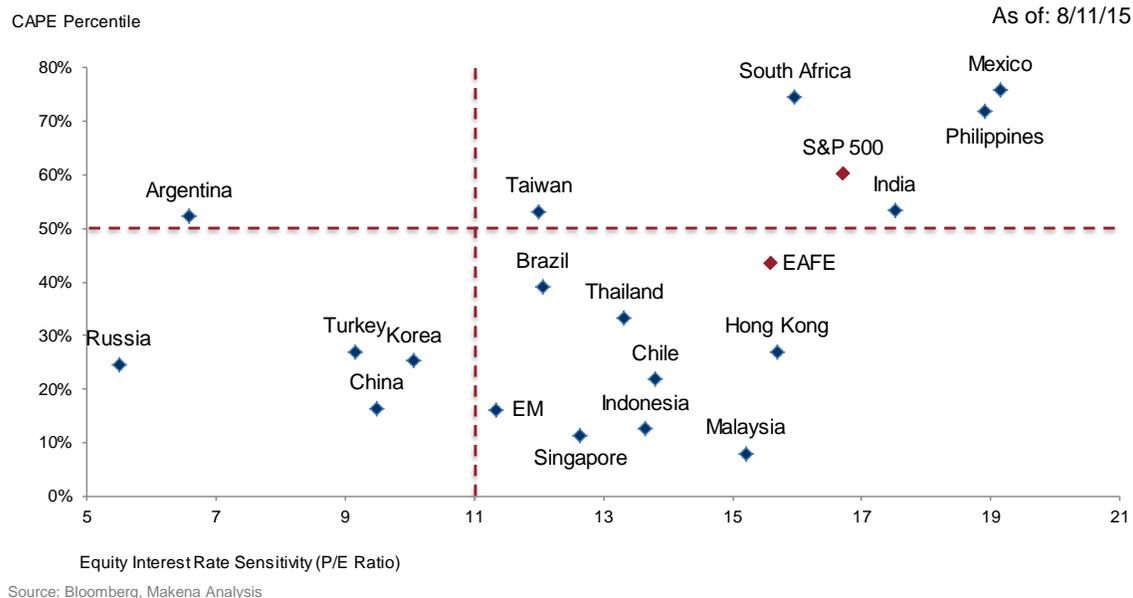


Figure 5: Many EM's Priced to Weather Rate Rise

*Summary of Investment Strategy*

In our Q1 2015 letter we outlined a series of investment recommendations. The above analysis lends further support to these recommendations and further suggests several additional strategies:

- i. *Caution over growth companies during the run-up to and immediate aftermath of the Fed's first hike.*  
Growth companies will likely exhibit heightened sensitivity to the effects of a rate hike. However, in a world of scarce growth, they should in general be able to attract and sustain higher valuation multiples than they have attracted historically, suggesting risk is perhaps somewhat muted.
- ii. *Similar to (i) above, buy into long-term growth via EM equities should there be a significant sell-off*  
Growth countries will also likely exhibit heightened sensitivity to the effects of a rate hike. Indeed, many EM markets seem to have already priced-in the effect of lift-off and are now lower duration than developed markets. Moreover, in a world of scarce growth, they should in general be able to attract and sustain higher valuation multiples than they have historically. Said differently, EM growth can be had at value presently.
- iii. *Longer duration vs. shorter duration in Fixed Income portfolios*  
Uncertainty over the timing and pace of the coming Fed hiking cycle is likely to continue generating substantial volatility in the short-end of the curve and potentially less in the longer-end. Additionally, should market expectations price a lower growth rate and a lower inflation outlook following a rate hike, we could actually see a rally in the long-end.
- iv. *Continued overweight to US dollar in currency portfolios*  
As we predicted, strong Q2 data suggests that Q1 weakness was anomalous leaving intact our thesis for continued US dollar strength. However, recent volatility and even transient weakness may continue as market predictions for lift-off change and thus the implied interest rate differentials on the major crosses (e.g. EUR).
- v. *US small and medium enterprise (including Private Equity) vs. large-caps*  
With a strong dollar and therefore weaker commodity prices, the US consumer will have newfound disposable income to spend, favoring more domestically-oriented companies.
- vi. *Competitive EM over commodity EM (across asset classes)*  
While weaker commodity prices hurt commodity exporting nations, it also benefits manufactured goods

producing nations through lower input costs. The stronger dollar and increased disposable income available to the US consumer should also benefit manufactured goods-producing nations.

vii. *Long Europe exporters and periphery intra-Europe exporters*

Between lower commodity prices and lower wages thanks to internal deflation across most of Europe, European exporters should see margins improve. The weaker Euro will also bolster exports to outside the Eurozone and from peripheral Europe to the core as a substitute for imports.

viii. *Long US services / non-traded goods companies vs. US exporters*

The flip side of a strong dollar is that export-led US companies will likely see earnings and earnings growth hampered from overseas operations. On the other hand, due to weak wage inflation dynamics, US services will benefit from a slower unwind of high margins as it takes time for declining labor slack to drive wage pressures.

ix. *Long EM reformers vs. laggards (across asset classes)*

Some countries have embraced reforms since the last few crises, embracing flexible exchange rates, minimizing interventions in their domestic economies, and in general fostering an environment where private industry can thrive. These countries should be able to navigate volatility driven by exchange rates and the Fed's moves more successfully than the laggards who have not reformed.

The Partners of Makena Capital Management

Analysis by

Michel Del Buono, Global Investment Strategist

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