INVESTMENT OUTLOOK

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Third Quarter 2015

THE LONG FAT TAIL

- The inflection point in interest rates and emerging asychronous global expansion will have a significant impact on long-term expected returns and risk measures, including evolving volatility and correlation, affecting optimal strategic policy allocations. Market volatility and economic uncertainty increased with global decoupling of increasingly divergent fiscal and monetary policy objectives, as well as differences in competitive advantages, potential growth, and debt burdens worldwide. Many imbalances have built up after years of exceptional monetary policy, including overvaluation of the bond market and private market alternatives. Leveraged bond portfolios could exacerbate market volatility resulting in an increased long bond risk premium. Private market risk has been understated and subject to increased cost scrutiny.
- U.S. monetary policy normalization is needed and inevitable, driving expectations of interest rate hikes that should begin in September, alongside the United Kingdom. Deflation concerns are unwarranted as transitory effects of falling energy prices sunset before year-end. Low inflation is symptomatic of policy problems, so boosting inflation risks stagflation.
- Economic growth has lagged potential with poor policy decisions, yet S&P 500 profit margins over 10% have never been so compelling. We observe that the U.S. surged ahead of other countries, in large part due to unleashing exceptional individual incentive-driven innovation that overwhelmed policy headwinds, which limited revenue growth, increased costs, and reduced competitiveness in the post-Financial Crisis period.
- Significant global monetary and misguided fiscal stimulus failed to spark growth in excess of potential, but stimulus warranted in 2008-09 is no longer needed. The economy is less cyclically fragile than assumed as increased regulation had greater adverse consequences than any period in modern history. Rising financial regulatory costs has increased uncertainty while limiting credit growth, bond market liquidity, investment, and productivity. Healthcare costs are also rising faster than inflation again.
- The Eurozone will continue wrestling with economic stagnation, high unemployment, and high debt. Japan's struggle with its debt burden is being overlooked with such focus on the Eurozone. While some countries, states, and municipalities have made progress, policy populism is convenient and too many are still spending far beyond their means. Euro and Yen hedges vs. the U.S. dollar now can be extended relative to the British pound and Canadian dollar.
- Creative destruction may have wrecked havoc with cost accounting and measuring labor productivity as national account measures (i.e., GDP, productivity, inflation deflators) have diverged from remarkable earnings and income growth. Economic variables are more difficult to measure accurately as data revisions persist in spite of better computational tools.
- Although equity returns have been spectacular for six years and earnings growth has slowed, global equity valuations are still reasonable with low interest rates and the S&P500 trading at a 17X multiple of forward earnings. Instead, investors should be more concerned about overvalued bonds and interest rate sensitivity susceptible to problematic fixed income liquidity and expected rate hikes. Recent emerging market equity weakness increases appeal of certain emerging markets, such as China and India.
- We are witnessing an era of great innovation and technological change. Leveraging technology has been the workhorse liberating The Long Fat Tail of a new *Industrial Renaissance*, resulting in rising living standards, creating immense value to society, and evident in earnings growth. New business models enable acquisition of services and products over the internet at almost no marginal cost, if not already free. Industries have changed dramatically or disappeared, while entire new industries emerged. Measuring output is increasingly difficult. Innovation continues to have profound effects in unanticipated ways. Thus, economically compelling fiscal, tax, labor, healthcare, energy, and financial policy reform hold tremendous potential to bolster global competitiveness.

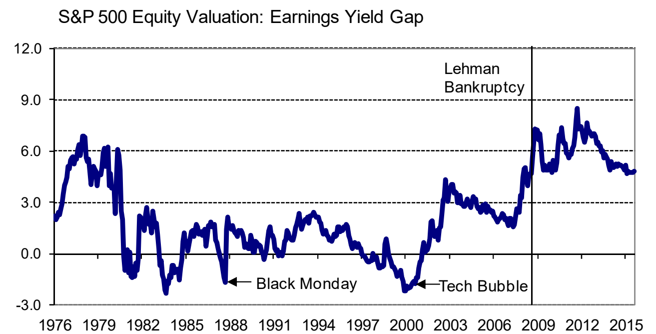
A Rising Tide

U.S. unemployment of 5.3% has tumbled well below the 6.2% historic average as U.S. GDP rebounded to $17.7 trillion, and now exceeds the 2008 pre-Financial Crisis peak by 19.2%. Moderate but persistent growth could have been better, but still bolstered earnings growth and increasing profit margins exceeding 10%. Companies have worked hard to minimize rising costs by leveraging investment, technology, innovation, and creativity. The *global synchronized recovery* has given way to a more typical *asynchronous global expansion*, characterized by lower cross-border and relative style correlations. In Q2 the economy recovered, as expected from its transitory Q1 slowdown. S&P 500 earnings growth forecast slowed with a stronger U.S. dollar and >50% decline in oil prices hitting the energy sector, but these effects are transitory. Yet, there is no evidence of a recession through 2016 as interest rates should begin normalizing. Risk to economic and earnings growth forecasts are biased to the upside over 2H/2015 and into 2016.

Secular disinflationary forces such as globalization, outsourcing, Internet price transparency, innovation, hyper-competition, and creativity have bolstered high operating efficiency. Yet, investors are ignoring cyclical inflation threats in wages, services, housing, food, and other inputs as energy price declines have overwhelmed core components, including wages expected to increase faster with minimum wage hikes. High debt burdens and unrelenting fiscal deficits risk spiraling higher cost of capital as low interest rates must rise with inflation.

The U.S. equity market return of more than 230% since March 2009 lows has far surpassed bond and alternative asset classes for an exceptionally long time period. Moreover, the last meaningful global equity correction was in 2011, so it is not surprising investors are increasingly anxious about the next correction. However, economic and market cycles aren't determined by passing of time, just as flipping five heads in a row doesn't increase the odds the next flip is tails. Earnings are well above the previous peak, and strong enough to keep valuations from becoming extended. Although not as compelling as prior recent years, valuation has supported 17.6% average annual returns since 2009.

Our preferred equity valuation below continues to be predictive of future returns, as it has for the last 35 years. Equity and bond valuation indicators are critical, but not sufficient alone to forecast market returns. Our multifactor Global Tactical Asset Allocation (Global TAA) system spans stock, bond and currency markets in 15 countries, and began managing live assets successfully nearly 25 years ago. Our Global TAA system still favors equities vs. bonds given low interest rates, rising inflation, and relative valuations. The S&P 500 index plowing new record levels has flirted within 1% of our 2150 year-end target, yet valuation is still not a critical threat to U.S. equities with the S&P 500 Price/12m Forward Earnings at 16-17X.



Source: Datastream & Strategic Capital Management

Although U.S. earnings growth will likely slow to 1-2% in 2015, potential upside earnings surprise has increased and growth should re-accelerate toward 10-12% in 2016. European and Japanese equity valuations are marginally more compelling, benefiting from a weaker Euro and Yen, but their respective long-term growth has slowed. We maintained our equity overweight since 2009, but recommend higher cash exposure as hiking U.S. interest rates likely in September comes into focus. A neutral equity allocation provides a tactical opportunity to re-engage in 4Q/15-1Q/16 once rising rates is discounted.

International profit margins and economic growth have lagged the United States. S&P 500 profit margins rising steadily and now above 10% were a key reason for S&P 500 outperformance. In contrast, Emerging Market profit margins have declined by half to below 5%. Countries where labor inflation are a greater share of cost of goods sold, such as China, made the mistake of mandating increased wages after Guangdong strikes began April 2010. Rising government wages bled into the private sector, thereby undermining profitability, although growth remained resilient, albeit moderating from 10% to 6-7%.

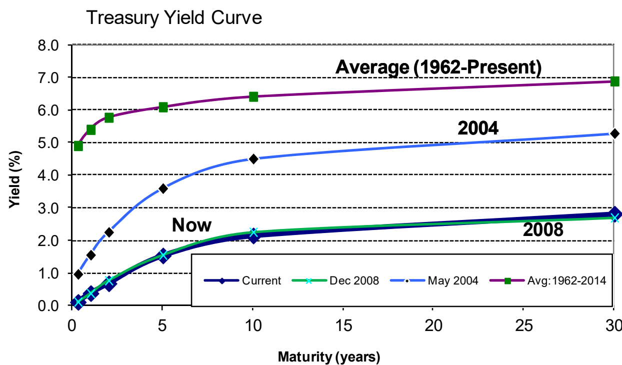
The most challenging call is Emerging Market equities. Volatility has increased despite a strong first quarter, but the causes appear unique to each country. Consider Brazil vs. China or Greece vs. Indonesia and Korea, while India seems unaffected. Relative growth rates and inflation are varied, as are relative valuations. In the near term, faltering European and Japanese demand will limit Emerging Market export growth. Brazil and Greece remain in recession and continue to struggle under failing Socialist leadership. Indonesia, Korea, and China enjoy strong growth, even if equities retreated from overvalued levels. Developing economies benefited from a constructive mix of urbanization and industrialization, coupled with an emerging culture of credit fueling insatiable consumption. A diversified equity portfolio of stronger growth countries above, as well as Mexico, Columbia, India, Poland, and Czech Republic should outperform world equity indices.

Economic Conditions

U.S. economic conditions strengthened in the second quarter after various transitory headwinds undermined growth during the first quarter. A stronger U.S. dollar has slowed exports but coincided with firming consumption, even as government activity is still relatively restrained. Economic performance is still well below potential growth in both Japan and Europe, but seems to be improving with their currency weakness. Exceeding even just 1-2% potential growth requires still lacking policy reforms. In contrast, the U.S. can exceed 2.5% potential growth this year, in spite of many policy headwinds.

Economic Forecasts	**2011**	**2012**	**2013**	**2014e**	**2015e**	**2016e**	**2017e**
U.S. GDP (Y/Y Real)	1.6	2.3	2.2	**2.4**	**2.5**	**2.8**	**3.0**
S&P500 Earnings	14.7	6.0	5.7	**8.3**	**2.0**	**11.0**	**10.0**
U.S. CPI Inflation (Y/Y)	3.0	1.8	1.8	**1.0**	**1.0**	**2.5**	**2.6**
U.S. Unemployment	8.5	7.8	6.7	**5.7**	**5.3**	**5.1**	**5.1**
Fed Funds Target	0.25	0.25	0.25	**0.25**	**0.75**	**2.25**	**3.00**
10y Treasury Notes	1.88	1.85	3.00	**2.17**	**2.80**	**4.00**	**4.50**
S&P 500 Target	1258.	1426	1848.	**2059.**	**2150.**	**2300.**	**2450**

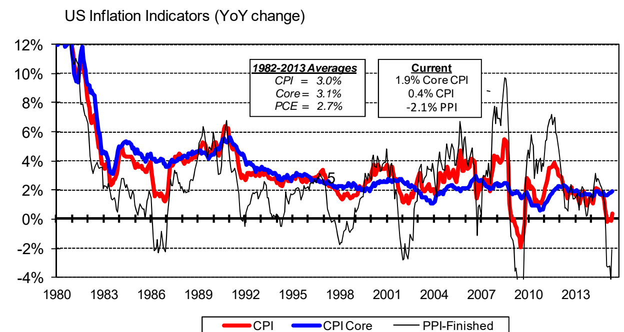
With cyclical inflation pressures building, investors should focus on the need for normalizing interest rates. While inflation is a key driver of bond yields, it is secondary to the need for yield curve normalization, as illustrated below. Even if policy rates rise above 1%, negative real interest rates will remain stimulative. As the bond market still hasn't discounted an imminent hike likely in September, the yield curve will need to steepen. Investor concerns that rate hikes will stall growth in the U.S. and most Emerging Markets are overblown.



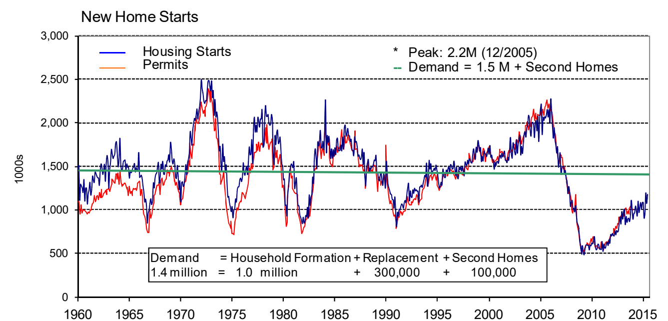
The chart above illustrates two important relationships. The yield curve isn't much different from what it looked like during the Financial Crisis on December 31, 2008. With growth and inflation measures closer to historical averages, how is the current over-stimulative monetary policy justified? Also, compare the current yield curve to May 2004, when interest rates last began to normalize, rising 4% in three years. In 1994, Treasury yields rose 2.5% to 7.8%, resulting in record bond market losses, although consumer price (CPI) inflation averaged just 2.8%. Yield curve comparisons suggest 10-year bonds need to rise at least 3% to just restore equilibrium.

With interest rates pegged near 0% since the end of 2008, the Federal Reserve suggests it is finally time to normalize monetary policy, suspend re-investment of maturing bonds, and hike interest rates. Emergency levels of monetary policy are no longer needed with the U.S. economy hovering near long-term potential growth and increasing risk of accelerating inflation. The United Kingdom should follow suit as its economy is performing far better now than the rest of the European Union.

In 2009, oil price swings impacted CPI and producer prices (PPI). As the 50% decline in oil prices sunsets, we expect 0.6% CPI inflation will rebound to 2%, thus investors seem too complacent about low inflation.



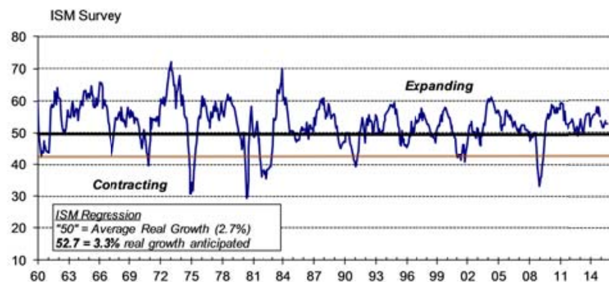
Housing demand has driven sales prices to record highs and inventory near record lows. Historically demand was driven by household formation, which has accelerated from 465K to 2.25M annually. This pushed up housing rent equivalent (36% of CPI) over 3.8%. The chart below illustrates the cyclical mean-reverting behavior of housing starts, consistent with intuitive sustainable demand estimates of 1.5 million housing units.



Historical household formation of 1.2 million plus replacement of 300K homes each year suggests demand of 1.5 million new home starts are required just to keep housing stock in equilibrium. Households have doubled-up generations with Grandparents and the kids moving in, so a burst of household formation may persist to unwind much deferred empty nesting. Home inventories are lean and current housing starts are just 1.2 million, so there is potential for a 25% increase in housing starts. Even if younger generations shunned

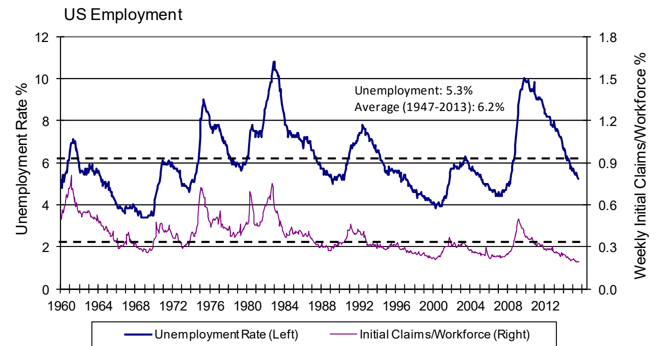
home ownership, they still get married have babies, and form households, so they will either rent or buy. Moreover, equilibrium of 1.5 million ignores vacation home demand that averages another 150,000/year, deferred for at least 7 years.

A significant leading indicator of economic growth is the Institute of Supply Management Survey. This timely gauge of changes in business sentiment has a long and consistent history without revision. Its methodology has been replicated globally with similar predictive success. Earlier this year it coincided with the transitory slowdown observed, but is strengthening again in recent months. The current 52.7 reading suggests real growth in GDP of 3.3% over the next year. Lower energy prices with oil prices falling more than 50% eventually boost discretionary spending like a material tax cut.



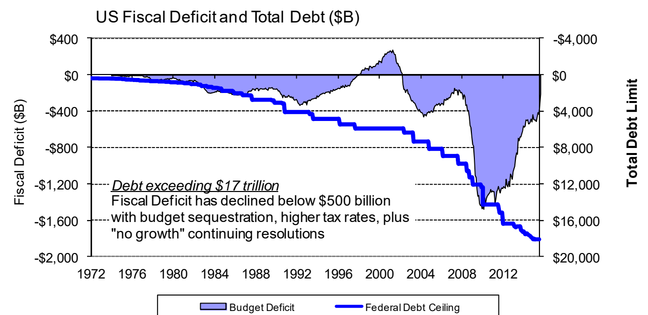
Monthly growth indicators have turned and leading indicators have risen 5.5%. With the strong U.S. dollar, it is not surprising that trade and business sales have turned negative, but currencies settle into their new ranges, trade is likely to begin rebounding in early 2016.Recessions are triggered typically by aggressive interest rate increases (reduce inflation by slowing demand for housing and capital goods), policy errors, or significant exogenous events. Equity bear markets are usually a consequence of recession or overvaluation, neither of which we expect in the foreseeable future. This may not preclude some other concern from arising, but improving economic momentum is consistent with *A Rising Tide* and better than 2.5% potential growth.

While consumption moderated, increased construction and business investment are leading economic growth[1]. Deferred investment after the financial crisis has limited commercial development, but combined with increasing home sales and low office vacancy. Strong construction demand (11.2%) has boosted average weekly wage earnings and drove down unemployment to 5.3%, below its 68-year average of 6.2%. Lower initial claims confirm that employment slack diminished. Inflation risk has increased, leaving no room for further patience in raising U.S. interest rates.



Global Fiscal Troubles Still Worrisome

The U.S. fiscal deficit declined to a manageable level of -2.5% of GDP after increasing individual and capital gains tax rates. However, the fiscal deficit is expected to increase again with rising interest rates and government spending, including higher medical costs. Mandatory federal spending on Social Security, Medicare, Medicaid, welfare and other entitlement programs, plus interest on the debt made up 66% of the 2014 budget. Treasury debt, not including growth in unfunded liabilities, has increased 160% in just 6.5 years. As interest rates more than double in the next five years, interest burdens will balloon and rolling maturities will become more difficult.



Exceptional debt and fiscal deficits are a precursor to *The Long Fat Tail* of greater uncertainty, led by Greece and Italy in the Eurozone, as well as Japan. Greece's debt agreement will impose sweeping fiscal reforms, and require privatization of state assets. Politically difficult but fundamental reforms are required to reduce fiscal deficits and slow growth of mandatory spending to have a chance of rescuing Greece, Venezuela, Brazil, and Japan, as well as Puerto Rico, Hawaii, Connecticut, Detroit, Chicago, and New York City. Interest costs can soar when investors lose confidence, compounding debt at an even higher rate. Coincident currency devaluation may be problematic if debt has been issued in other reserve currencies (i.e., U.S. dollar) to lower financing costs as local currency par value rises.

The emerging crisis of expanding global sovereign debt and fiscal deficit imbalances, including pension liabilities, is problematic for global bonds and currencies. The

[1] Growth drivers: (1) business investment (2) construction & housing (3) trade (4) consumption (5) inventory

number of uniquely problematic debt zones has set-up the *Great Global Debt Imbalance*. Crises always take longer to develop than expected, but years of central bank manipulation of bond markets will result in increased fixed income volatility and a risk premium of at least 0.5% on 10-year yields at significant cost to over $100 trillion in global debt. Yield curve normalization will compound losses and margin calls in leveraged bond portfolios. Winding down the slobbering love affair for overvalued bonds should trigger a Great Rotation reducing high strategic bond allocations. Fiscal deficits will become more intractable with ballooning pension liabilities and rising interest costs. Complacency about rate hikes risks exaggerated yield curve steepening and volatility, particularly for distressed issuers and municipal agencies with $3.7 trillion in tax-advantaged bonds held mostly by individuals. Fixed income illiquidity can increase quickly in manipulated and overvalued markets, as with failure of auction rate securities in 2007.

Spending well beyond one's means is unsustainable. Without real growth, tax revenue declines. Without competitiveness, there is no growth. Without pension and entitlement reform, high fiscal deficits will consume more discretionary tax revenue, particularly as interest expense increases with higher rates. Debt restructuring and devaluation only address symptoms, not the root cause. Experimentation with Democratic Socialism and attendant aggressive government intervention has failed again from Brazil to Greece, France, Italy, and Japan by undermining competitiveness, innovation, free markets, trade, potential growth, and productivity[2]. Austerity and sequestration are not without policy choices, but spending growth must be limited -- if a last resort. At a cost of $94 billion, Greece's exit from European Monetary Union was avoided for now by agreeing to tax increases, pension cuts, and asset privatization to liquidate government assets. Greece having the highest rate of tax evasion must also be addressed.

Regulatory and structural headwinds to productivity and higher profit margins limit potential growth, whereas fiscal deficits are difficult to extinguish without strong growth. Southern Europe and Japan have suffered to a greater extent than the U.S., in this regard. Countries recognizing this earlier and ahead of others will benefit most from reform, enabling them to better tackle their fiscal deficits. For political leaders: What is holding us back, will it continue, what policy mistakes were made, or is there something different this time?

While investors focused on Greece's $94 billion bail-out, Japan's fiscal deficit exceeded -7.7% of GDP in 2014 with below 1% real growth, and risks stagflation after the Bank of Japan (BoJ) targeted higher inflation. Promised government reforms (missing third arrow of Abenomics) have been politically unattainable. Inflation now exceeds the 10-year JGB yield of 0.41%. If bond vigilantes turn their sights on Japan's fiscal deterioration, its high and rising debt exceeding 230% of GDP is unsustainable. As global bond yields rise with U.S. Treasuries, interest costs must also increase. The BoJ owns bonds valued at over 60% of GDP, posing increased exposure to taxpayer losses and debt financing risk. Limited non-government ownership of Greek bonds insulated global investors, but if Japan gets rattled, the effects on capital markets will be significant. It is worrisome that few investors took notice of Fitch's downgrade on April 27th – over the next two months, JGB yields rose just 11 bps while U.S. Treasuries increased 28 bps to 2.2%. Failures to heed the lessons of history are doomed to repeat it.

China: Risk Moderating, Still Concern

Reports of China's economic demise have been grossly exaggerated (since 2012). There hasn't been much variance from the gradual slowing of real growth from 10% to 6-7%, and certainly no hard landing (of recession). Potential growth will continue slowing over time as China matures, reduces export dependency, and increases its share of global output. Our greater concern is the halving of profit margins over the last five years due to mandated higher labor inflation and basic material costs. China is mindful of various headwinds to its economy, but remains a compelling secular opportunity from urbanization and industrialization, as well as emerging culture of credit driving insatiable consumption. It will benefit significantly from ongoing financial liberalization, and anti-corruption reforms that are real and impressive.

Navigating a slow, but deliberate transition to greater economic dependence on domestic consumption, including an expansion of consumer credit, as well as a freer market-based system, exposes China to unpredictable global cross-currents that are difficult to manage. The recent devaluation only partial offsets its significant appreciation over the last year. The trade-weighted Chinese Yuan appreciated 14% on a real effective exchange basis over the last year as the U.S. dollar appreciated 11%. Given China's recent drop in exports, China can no longer afford a relatively fixed US$ exchange rate. A 2-3% adjustment is hardly cause for concern, even if further adjustment of up to 5-7% total revaluation is possible. Investors should consider Yuan adjustment in the context of far more significant devaluations of the Canadian dollar, Euro, and Yen. We reiterate an important theme last quarter that *Countries Still Matter*, including respective currency effects.

The Chinese stock market returned over 150% over the prior 18 months through May, particularly after launch of the Shanghai-Hong Kong Stock Connect last November. Market volatility and corrections are not surprising following such exuberance. With much narrower stock ownership than developed markets and Chinese

[2] Long-term growth = Productivity + Workforce Growth

consumption less dependent on wealth effects, it is unlikely the correction will have much economic impact. Valuations became stretched by May, but once stock market price stability is observed, there should be an interesting entry point this year. Volatility may undermine confidence for awhile, but financial liberalization and other government reform efforts are constructive.

Managing Other Peoples' Money

Asset management is on the threshold of profound changes impacting asset allocation to risk management, performance attribution, management fees, liquidity risk, and new investment services. These meaningful changes will reward creative destroyers and devastate incumbents that fail to adapt or compete. Investors are seeking new ways to access investment advice at lower cost. New investment products have increased access to tactical opportunities as these products and strategies from ETFs to risk factor indices. Risk management, hedging strategies, and derivative utilization are also evolving dramatically. Investor access to feature-rich applications, tools, and data has never been greater, but making value added decisions is still difficult and tactical opportunities are increasing with greater asynchronicity.

New portfolio allocation methodologies focused primarily on risk seemed appealing, but risk and return objectively go hand-in-hand. Yet, novel portfolio allocation schemes, such as risk parity and maximum diversification, have yielded disappointing risk-adjusted performance. Modern Portfolio Theory maximizing risk-adjusted return has stood the test of time for five decades. Often cited MPT shortcomings[3] relate to developing appropriate inputs, not the mathematical tool itself. Focusing on just risk or return has never worked well, and risk parameters have become more difficult to forecast as historical asset class volatility and correlation are evolving more quickly than ever observed. Implementation of liability driven investing (LDI) objectives has been flawed because long and leveraged bond portfolios are poor proxies for growth and inflation dependencies of pension liabilities. There is still much to learn about the behavior and effectiveness of new asset allocation schemes so dependent on uncertain risk measures.

Quantitative and repetitive job functions are experiencing wrenching upheaval enabled by technology in the machine age of an *industrial renaissance*---financial services are squarely in the bull's eye. Robo-advice has arrived, led by no less than Vanguard, Schwab, Fidelity, and more than 10 upstarts such as Wealthfront and Betterment. The investment advice given is still rather simplistic, relying predominately on passive strategies, but providers will become differentiated over time. The most immediate impact may be lower cost ETFs and mutual funds. Younger investors are more inclined than their parents to trust and utilize these services, and their retirement account balances are becoming meaningful. Broad-based evolution of advisory services leverages scale, efficiency, and consistency of providing investment advice at 15-20% of the cost. Of course, mPower and Financial Engines almost two decades ago pioneered self-directed online investment advice for participants' retirement plans and IRAs at a fraction of the 1.5-2.0% wealth management clients pay, including account rebalancing and mutual fund selection. ERISA retirement safe-harbor uncertainty impeded more rapid adoption a decade ago, but established platforms are making faster inroads. Virtual advice is the latest competitive threat to traditional advisory services. Advisors have shifted away from using only mutual funds, introducing ETFs and separately managed account (SMA) platforms. Laddered fee-only versus commission-based engagements are becoming more common with greater expense, attribution, risk, and holdings transparency.

The pendulum has swung back and forth over decades between predominance of specialist and balanced management. Global balanced and multi-asset investing is rightly increasing in popularity with increased resource commitments foretelling once again the return of an age of global balanced management. Appeal of a simpler and more conventional global balanced core strategy is accelerating and broader mandates increase potential value added. Factor investing and alternative beta continues to evolve in practical use and compliments global balanced management.

Simplifying complex portfolios with broader mandates can reduce administrative, management, and rebalancing costs. Nine equity style boxes can be collapsed into just large-cap and small-cap equities. Such broader mandates provide opportunistic and increased active share potential as the dispersion of listed security returns is no less today than decades ago. Cash also provides underappreciated portfolio diversification and risk reducing benefits with higher return and much lower risk than gold. Given expectations for higher interest rates, tactical cash is rarely so compelling.

Profit margins are lower for smaller firms lacking scale to absorb increased regulatory and overhead costs. Consolidation has restricted innovation, competition, choice, and new business formation. Collapse or acquisition of so many community banks and lack of new charters since Dodd-Frank rule-making began is indicative of unintended consequences of reform. Investors are revisiting whether alternative investments have added value and improved portfolio efficiency.

We should expect increasing price competition for asset management from new disruptive, unconventional

[3] Our proprietary Optimal Empirical Re-sampling has proved to be a more robust methodology, still leveraging a M-V objective.

entrants that will eventually drive lower costs, including utilization of performance incentive-based management fees. Smaller plans will merge, particular where there is a common stakeholder, for example city and county public plans. We also believe investors need to rationalize favoring passive public market strategies while advocating hedge fund, venture capital, and private equity investments that are so reliant on exceptional security or manager selection skill.

Seeing the future best achieved by inventing it---and leading institutions are figuring out how to increase net return through innovation and investing directly in peer collaboration or virtual partnerships. The same secular forces driving disinflation in other industries are knocking at the doorstep of asset management.

Challenges of Private Market Investments

Investors can benefit from underexploited private market opportunities in real estate, private equity, venture capital, and infrastructure projects. Disruptive new companies and compelling inefficiencies exists between-the-cracks of traditional investments and style boxes. Private markets provide many opportunities for exceptional returns, but fund costs reduced economic realization and deleveraging of banks has only increased the need for asset owners to step into the void. While critical of private fund costs and disappointing results of private fund co-investing, direct investing in private markets with a long-term focus on sustainable competitive advantages can exploit compelling opportunities and benefit from persistent risk premia. Illiquidity, unlisted, and small size risk premiums can provide compelling return in excess of public markets.

Private markets are no longer as novel or rewarding as demand increased. We believe excess private market returns of historically 6-9% are now less than 5% over public markets with erosion of risk premiums. Moreover, return assumptions often ignore higher transaction, legal and administrative costs. Illiquid, unlisted, and small-cap risk premiums are no longer sufficient to overcome 2+20% fund management fees, equivalent to 4.5% annual cost assuming 8% annual return over 10 years.

Private investments are illiquid, difficult to value and marked-to-market at best quarterly, but often semi-annually or even annually – it is hardly an exact science. Estimated valuations tend only to be adjusted when a material difference from fair value is perceived, and new investments are typically held at cost for up to two years initially. With so few data points, volatility and correlation are underestimated due to fair value pricing latency.

Misleading private market risk measures and unrealistic expected returns exaggerate portfolio diversification, resulting in over-allocation to private markets. Correcting alternative investment assumptions, particularly low volatility and correlation, can result in radically different recommended portfolio allocations. It is insidious to mistake stale pricing of unlisted investments for increased portfolio diversification. Risk premiums of capacity constrained private investments have declined with greater demand, and intuitively have greater value-at-risk than listed security portfolios. Alternative investment allocations over 25% may be imprudent given more realistic risk and return inputs, and considering liquidity risk.

Final Thoughts

The Long Fat Tail is a consequence of unpredictable exogenous events. Investors continue to be surprised and often overreact to events that take time to resolve or understand. As long-term investors, we can exploit emotional responses by rebalancing and evolving tactical advantages. It is a paradox that getting an edge to adding value is still as difficult as it ever way despite increasing sophistication with more advanced tools and ever expanding access to data. Inefficiencies derived cognitive and emotional biases are as great as ever.

Greater economic uncertainty and volatility should be expected at this interest rate policy inflection point, providing tactical opportunities for investors. As the *Long Fat Tail* is getting fatter, capital market distributions look more normal---suggesting another *New Normal* or *New Neutral* is so cliché! For over 30 years, bond yields have declined, resulting in assumptions of lower volatility and higher than normal returns. Over the next decade, Treasury returns will be lower and more volatile, likely yielding negative real returns with normalization.

As yields fell, investors leveraged and extended duration compelled by the Federal Reserve's forward guidance. Debt issuance has soared as increased bond allocations were reinforced by the hunger for yield and excess global savings glut. Persistently low global interest rates facilitated massive accumulation of government, corporate, agency, and asset-backed debt issued to yield-starved investors. Persistently negative bond returns should reduce the insatiable appetite for yield, and reminiscent of 1963-1973 as bond yields double.

Fixed income liquidity has become problematic at a critical point in time, as the Federal Reserve considers when to begin normalizing interest rate and monetary policy. Many respected leaders have highlighted the concern about bond market liquidity including Larry Fink (BlackRock), Bill Gross (Janus), and Mark Carney (Bank of England). We also expressed our concern about declining inventory in Q1/2015: *Things That Matter* and important to understand. Principal bond trading remains fragmented and lacks pricing transparency, in contrast to equities. Illiquidity is inconvenient in a bull market, but catastrophic in a persistent bear market, as observed in the Credit Crunch of 2008. The 70-80% decline in dealer inventory held for trading in 8 years resulted from flawed

financial reform, including higher capital requirements. Reduced liquidity was masked by falling interest rates, central bank purchases, and strong investor demand for yield. As rates rise, reversal of fixed income sentiment could accelerate losses through rapid trading of ETFs and derivatives. The Treasury Flash Crash in October 2014 was a precursor to greater bond market volatility. Leveraged debt exposures were never so pervasive, and will tend to increase volatility as margin calls accelerate.

The greatest market risk is likely reduced bond liquidity resulting from extended central bank manipulation of interest rates, forward guidance promoting explicit moral hazard, and an overvalued bond market. This risk has been compounded by financial reform regulations that increased trading costs, market fragmentation, and administrative costs. Global bond investors should expect negative real returns and steeper than normal yield curves over at least the next five years. Thus, leveraged bond positions are a potential systemic risk, akin to Orange County's bankruptcy in 1994, triggered by rising U.S. interest rates. Risk allocation, LDI, and de-risking strategies have fostered toxic market imbalances.

Global equity valuations are not stretched with low interest rates and high profit margins. S&P 500 earnings growth should be barely positive in 2015, but expected to exceed 10% next year. This yields a 17.4X multiple of 2015 earnings, 15.4X multiple for 2016. We now recommend a neutral equity stance after capturing 230% return to the S&P 500 since the low of March 2009. Our negative bond return forecast suggests increasing the underweight relative to cash. As interest rates normalize toward 3.5%, 10-year Treasury yields should approach 5-6% over the next 2-3 years, dragging along global bond yields resulting in bond market losses.

Global equities have outperformed hedge funds and other alternative asset classes since the Financial Crisis, and should do so over the foreseeable future. Portfolios with high allocations to bonds and alternatives will continue to lag conventional global balanced (60/40) portfolios with much less liquidity and transparency, in our opinion. There are still significant special situations and opportunities "between-the-cracks" that will yield strong risk-adjusted expected returns.

Greater reliance on active management and reducing management fees has never been more valuable in a low return world with erosion of the small size, control, unlisted, and illiquidity risk premiums. Dispersion between investments hasn't diminished across public and private markets, thus significant potential to add value remains. Fundamentals drive economic cycles of growth, inflation and earnings, thus market returns. Well-defined investment disciplines provide confidence to implement difficult and complex decisions, when it is most uncomfortable, yet compelling to do so. Adding value reduces to seeking favorable odds and identifying factors that work most of the time.

Below we summarize our growing list of key themes:

- Greater return dispersion in asynchronous expansion
- Monetary and interest rate inflection points
- Global Debt Imbalance has adverse consequences
- Coming Rotation in Asset Allocation Preferences
- Industrial Renaissance in productivity boosts growth
- Increasing mergers, acquisitions, and consolidation
- Volatility and correlation more difficult to estimate
- Misleading return, risk measures of Private Assets
- Diminishing illiquidity premium for unlisted assets
- Global Bond and Private Market valuations stretched
- Equity valuations less compelling, but close to normal

The most significant investment decision for any investor is defining the strategic asset allocation. Tactical asset allocation has significant inherent appeal because of the persistently large return differentials between asset classes, countries, currencies, styles, and sectors relative to the strategic policy. We can now add to this the emerging rich parallel universe of risk factor premia.

Subscribing to the notion of Rational Beliefs theorized by Mordecai Kurz of Stanford University relaxes the assumption that all investors must have the same market view (thus, efficient markets). Diversity of beliefs is a well-established empirical fact, which must hold true, but is incompatible with the better recognized theory of Rational Expectations. This theory explains why investors are behaving rationally, even when market prices decouple and risk premia vary over time. Thus, market prices are set by the predominance of all beliefs. From this frame of reference, there are competing regimes, influenced by investors with different rational beliefs. This theory provides a logical basis for why we believe active management makes sense, including Global TAA. The market is the aggregate of all investors, so if markets can't compensate investors for exceptional agency costs (i.e., commissions, fees, etc.), then high costs are too difficult a hurdle to overcome on average.

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