STRATEGIC OUTLOOK

David Goerz
Strategic Frontier Management
Third Quarter 2018

IMAGINE WHAT IS POSSIBLE

- Capital markets are facing a tug-of-war between global economic fundamentals and risks of higher inflation, interest rates, and policy uncertainty, including trade and immigration reforms. Increased consumer, business, and investment activity have responded well to U.S. tax and regulatory reform. Buybacks could exceed $800 billion in 2018, as repatriated foreign earnings should boost research and development, investment, as well as jobs. Global competitiveness is improving even with a strong US$, which requires other countries to adapt.
- Potential growth and profit margins are rising again. *Imagine* if U.S. profit margins not only haven't peaked, but continue to climb. Earnings and economic growth forecasts are increasing even as inflation firms, but our bond forecast suggests negative returns as monetary policy normalizes. *Imagine What Is Possible* if stock returns even partially reflect expected earnings growth as equity valuations improve. U.S. Equity valuations declined, but are still favorable as equity indices rose. Still strong profit margins can leverage revenue growth.
- Many expected a synchronized global economy in 2018, but Japan and Europe faltered again, as Emerging Markets stumbled over trade uncertainty. Global monetary policy is no longer synchronized. Differences in fiscal and regulatory policy matter, with U.S. reforms driving competitiveness. Global economic divergences promote continuation of more common *Asynchronous Global Expansion*. We also suggest the inflection point in interest rates is causing evolving changes in asset class correlation and volatility for countries, sectors, risk factors, and alternative beta indices as ETFs.
- Our tactical models still suggest global equities will outperform bonds by a wide margin, but non-US equity forecasts have risen as much as U.S. forecasts declined. Given S&P 500 earnings growth estimates are likely to surpass our initial forecast of 16% in 2018 and 10% in 2019, we expect our U.S. equity forecast may rise through the end of 2018.
- We believe monetary normalization requires 4 x ¼% hikes per year until rates approach 3½%. Global bonds are overvalued after years of central bank intervention that drove interest rates to record low levels and extended their balance sheet, which is unwinding now. Banking liquidity and capital requirements have undermined principal bond trading, which can constrain fixed income liquidity, particularly as bond volatility increases. Treasury must increase debt issuance to support a fiscal deficit and refunding central bank holdings, which increase interest burdens as rates rise. This could be terrifying for overly indebted nations. Global bond yields must rise with Treasuries, but linkages explain why yield increases were limited.
- If the balance-of-power can be retained after the midterm election, we expect a notable pivot in U.S. fiscal reform to reduce our fiscal deficit by rationalizing spending and consolidating agencies. We'd expect real spending to decline, although still nominally positive (0-2% growth). The private sector is strong enough to expect the FY2019 Budget to be the next best opportunity to reset fiscal spending.
- *Imagine What Is Possible* if the liberal order of global trade policy is at a tipping point with the U.S. seeking freer and fair trade. Stakes are high if threatened tariffs and retaliation deteriorate into a trade war, rather than just using your leverage (Rule #5: Art of the Deal). After asking the world to *tear down all tariffs and trade barriers*, the gauntlet was set at the G-7 meeting for freer and fair trade, which was strategically astute or accidentally masterful.
- Calls for infrastructure investment coincide with strong demand for private investment opportunities. The U.S. Government has acquired a vast portfolio of land and property, which must be maintained at significant cost. We focus on our debt burden, but rarely consider assets purchased with that debt. Privatizations stalled with reluctance to relinquish control, but proceeds of selling certain assets could pay down debt and finance infrastructure needs.

Fiddling Around As Rome Burns

A great fire ravaged Rome for six days during Emperor Nero's reign, destroying 70% of the city and leaving so many homeless. According to folklore, an incompetent and decadent Nero "fiddled while Rome burned." When the Great Fire broke out, Nero was at his villa at Antium. Though he returned to begin relief measures, some believed he ordered the fire started to build his opulent Golden Palace and its pleasure gardens. Nero was inattentive to many important things, but the story of fiddling while Rome burned is likely popular legend, rather than truth. We live in a time that many investors fiddle around with issues that have marginal impact, and overlook critical changes that can have an impact on asset allocation, risk assessment, and performance.

Differences in monetary, fiscal, regulatory, and now trade policy drove wider global economic divergences between countries. Many year-end outlooks embraced a thesis of a "global synchronized economy", yet data confirm a continuing *Asynchronous Global Expansion,* as we identified five years ago. Since then, the gap in profit margins and productivity widened. Investors should spend less time *Fiddling Around* with erratic trends (including versions of *momentum*) and naïve short-cuts when secular economic changes are driving relative returns between countries, sectors, risk factors, and currencies with divergent competitiveness.

Investor expectations of equilibrium for key variables such as potential growth, productivity, profit margins, risk premiums, inflation, and normalized interest rates imply deep scarring due to lingering effects of the Financial Crisis (recency bias). In other words, normal expectations for key primary economic indicators were skewed since 2008. Consider the Fed's reduction in equilibrium interest rate assumptions from 3.9% in 2013 to 2.9% today---similarly, normal inflation reset from 3% to 2%. We identified several disinflationary forces more than a decade ago, assumed to be material for at least a business cycle, but also likely transitionary. Adoption of policies that support stronger economic growth with low unemployment will push up average inflation and interest rate expectations.

Central bankers *Fiddling Around* with forward guidance with regard to rate increases and reducing bond holdings only reinforces explicit moral hazard that risks unraveling interest rate manipulation in an untimely crisis. Just as U.S. tightening finally pulled forward (4 x ¼% rate hikes), we expect ECB + BoJ tightening to pull forward too. Thus, changes in foreign bond yields seem have greater impact on Treasury yields lately.

It has never been more important to secure consistent and robust investment strategy advice for the most important portfolio decision, namely global asset allocation. In an age of increased outsourcing (inc., CIOs, CROs, CFOs, HR, legal, IT, or research), investors can compromise their ability to respond to changing economic conditions, risk measures, portfolio analytics, or market outlook, and translate it all into asset allocation decisions. Investors need a disciplined, compatible, and consistent process. Lack of self-sufficient access to independent, objective, and capable investment resources undermine the ability to evaluate strategic decisions, manage market turmoil, increase alignment to investment objectives, consider innovations, and educate, as well as interpret performance attribution and risk analysis. *Global Strategic and Tactical Asset Allocation* expertise need not be full-time, as long as aligned resources are available on call with a consistent discipline as needed due to turmoil or for periodic needs. So, who can you rely on as your *Investment Strategist*?

Imagine What Is Possible as consensus forecast of earnings growth rose to 22% for 2018 and 10% next year. This can support higher secular equity returns. Our 2018 S&P 500 target of 2950 looks more likely now. Fears about trade negotiations should moderate, but constructively reforming global trade can bolster potential growth and reduce a headwind to new highs.

Capital Market Returns

It is interesting to compare capital market returns and economic performance this year, relative to our January forecasts and various threats that impacted investor uncertainty. After a strong start for equities, low equity and currency volatility soared with concerns about geopolitical issues, including trade negotiations and progress toward Britain's withdrawal from the EU (BREXIT), as well as user privacy issues among social media companies. Capital markets responded to concerns about global trade with threats of increasing tariffs and trade barriers, as diplomats seek to negotiate new or revised agreements.

U.S. equity returns (S&P 500: 3.4%) were positive in the second quarter, led by small-cap stocks Russell 200: 7.75%), as international stocks declined (MSCI ACWI x-US: -2.6%). Faster small-cap earnings growth and large-cap outperformance in 2017 reduced the valuation gap versus small-cap, while REITs (+10.4%) reversed their lagging performance. Growth extended its gains relative to Value by 4.6% (15.7% over 12 months) with narrowly concentrated performance of FAANGs (i.e., Facebook, Apple, Amazon, Netflix, and Google). Mega-cap technology dependence exposed the market's susceptibility to social media and their alternative revenue sources[1], particularly for Facebook, Twitter, and Google. Election meddling in *fake accounts*, which also boosted user numbers, proved

[1] Cloud hosting and other subscription services eventually may be significant enough to support Google, Amazon, and others, but realized exposures to fake accounts, click-bait or ad-based dependency remind us of **.com** era businesses.

difficult to identify and extinguish. This disclosure damaged credibility and exposed bias among social media companies, which undermined trust in their brand. If individuals didn't close their accounts, many removed personal information reducing value in user data as usage likely declines. Stock volatility alarmed investor confidence, questioning whether growth and profitability are sustainable. Industrials and financials may need to take the lead to drive equities higher.

Emerging Markets (MSCI EM: -8.0%) struggled, led lower by Turkey (-29.6%), Indonesia (-18.8%), Brazil (-17.3%), and South Africa (-15.5%). High hopes for Emerging Markets (EM) in 2018 were encouraged by expectations of *synchronized global growth*. Dashed hopes will remind readers of our concerns about low EM profit margins and productivity due to rising labor costs, robotics reversing offshoring, and rising commodity prices. Rising interest rates (interest burden), trade conflicts (tariffs), and weaker currencies reinforce inflation. As EM Equity outperformed the S&P 500 by 16.1% in 2017, valuations likely began 2018 stretched. Continental Europe and Japan continue to lag, as their currencies weakened versus the US dollar.

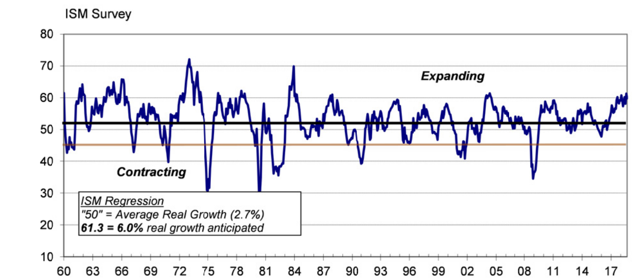
Rising bond yields have undermined bond returns (Bloomberg US Aggregate: -0.2%, YTD: -0.4%), but credit investors appreciated performance of Bloomberg High Yield (1.0%). T-Bills provided a better return of 0.44%, so cash is becoming interesting as rates rise. Higher interest rates raise the hurdle for gold and commodity holdings that have struggled to keep up with inflation over the long term, given holding costs and no income. We are reminded that if input costs can't exceed output prices, then commodity returns with high volatility can't exceed inflation---Gold, as well.

Global Economic and Market Outlook

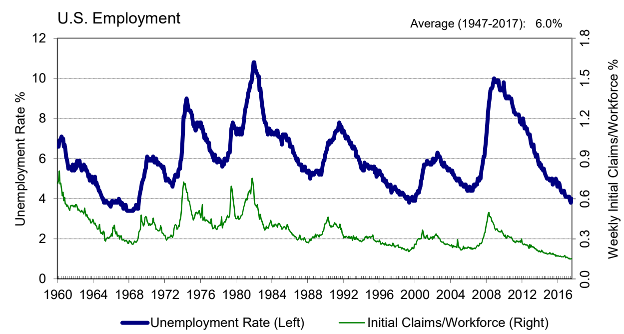
Recessions emerge slowly over several quarters to develop, but there is no evidence of recession in the foreseeable future given retail sales, housing, industrial production, or business sales. Interest rates aren't rising fast enough to derail the U.S. economy

Economic Forecasts	**2014**	**2015**	**2016**	**2017**	**2018e**	**2019e**	**2020e**
GDP Growth (Y/Y Real)	2.7	2.0	**1.9**	**2.6**	**3.2**	**3.5**	**3.6**
S&P500 Earnings (Y/Y)	8.3	-1.1	**0.5**	**11.8**	**19.7**	**9.5**	**9.2**
CPI Inflation (Y/Y)	0.7	0.7	**2.3**	**2.5**	**2.7**	**3.0**	**3.0**
Unemployment	5.6	5.0	**4.7**	**4.1**	**3.8**	**3.7**	**4.0**
Fiscal Deficit	-2.7	-2.5	**-3.1**	**-3.5**	**-4.0**	**-4.5**	**-4.0**
Fed Funds Target*	0.25	0.50	**0.75**	**1.50**	**2.50**	**3.50**	**3.50**
10y Treasury Notes	2.17	2.27	**2.45**	**2.41**	**3.50**	**4.50**	**5.00**
S&P 500 Target	2059.	2044.	**2239.**	**2674.**	**2950.**	**3100.**	**3250.**

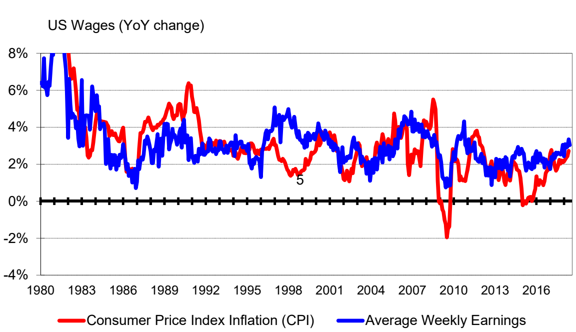
A key economic indicator is the ISM Purchasing Managers Survey, which has a long and unrevised history. The June index was 60.2, led by new orders (63.5) and production (62.3). A level of 50 in this diffusion survey represents a balanced number surveyed observe better or worse activity versus last month, and suggests the economy is tracking toward potential growth. A value of 42 or less tends to coincide with an economy contracting or headed for recession. A non-manufacturing survey (56.5) tracks services.



Unemployment, new jobs and job vacancies also are key economic indicators. Lower U.S. unemployment of 3.8-4.0% is inconsistent with fears about peaking growth, coinciding with rising business and consumer sentiment. The unemployment will probably encounter resistance below 4.0%, but the low in initial claims normalized for the workforce below is remarkable.



There are various reasons for rising inflation from tight housing to wage (inc. higher minimum wages) and commodity price increases. Producer prices increased 4.1% through May, which is above the Fed's 2% inflation target. PPI rose faster during the first half of 2018 than any time since 2011. CPI inflation also rose 2.7%. No wonder the Fed guided expectations for rate hikes toward four increases (4 x ¼%) in 2018.

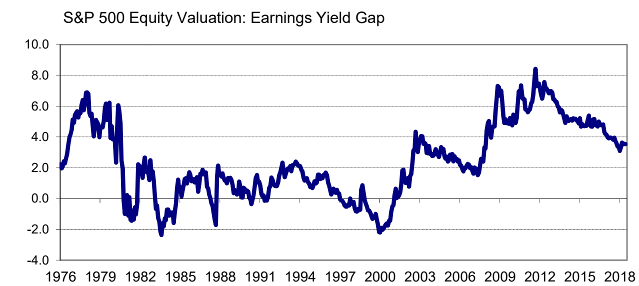


Our earnings estimates below are compared to consensus. They may have appeared aggressive, but now 16% earnings growth (now 19.7%) looks cautious relative to consensus of 22%, up from 19%. It is interesting to compare the 2015-16 earnings recession to current forecasts through 2020. This is noteworthy.

Earnings	2020e	2019e	2018e	2017	2016	2015	2014
IBES Consensus	193.55	177.16	161.20	132.00	118.10	117.46	118.78
IBES Growth	9.3%	9.9%	22.1%	11.8%	0.5%	-1.1%	8.3%
Strategic Frontier	189.00	173.00	158.00	132.00	118.10		
Growth	9.2%	9.5%	19.7%	11.8%	0.5%		
S&P 500 @18x	3402	3114	2844	2376	2126		

Source: Thomson I/B/E/S and Strategic Frontier Management

Imagine What Is Possible as high U.S. profit margins plus accelerating revenue drives stronger earnings growth. Foreign earnings repatriation should boost buybacks and investment, which extend potential earnings growth. Considering the chart below, U.S. equities are not yet extended, in our opinion, even as interest rates begin to rise. While valuations for the S&P 500 are a bit higher than in Europe or Japan, U.S. earnings growth is much higher. Strong earnings growth has limited the modest S&P 500 P/E increase from 19.1x to 21.0x (reported P/E: 24.0x), but is still well below extremes of 1929, 1987 or 2000. We believe the U.S. equity valuation doesn't appear stretched, and can support a forecasted S&P500 return of 12%. Valuations ratchet higher with share buybacks, buyouts, and declining IPOs (160 for $36B in 2017) reduce shares outstanding. Cost and increased scrutiny of public listing has become more challenging.

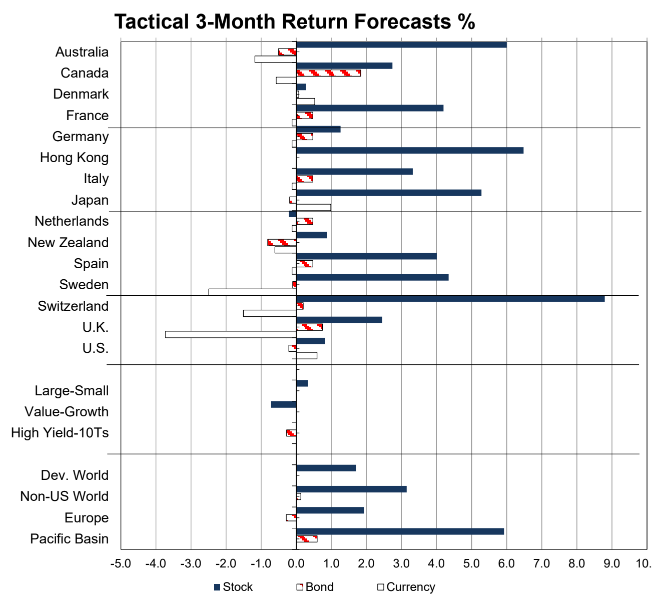


We expressed concern about use of GDP-relative equity valuations and other misaligned statistics. With regard to GDP, the government sector produces no productivity with (hopefully) slower growth than the private sector. Growth in GDP may be correlated, but grows slower than listed company earnings. Rising market capitalization will outpace GDP growth, before adding IPOs. Graphs appear cyclically compelling, but Shiller's CAPE and Market Capitalization/GDP are poor substitutes to other recognized data series that are more aligned and appropriate to evaluate equity indices. These ratios flagged 2000, but overlooked corrections in 1981 and 1987. Better aligned indicators (P/E, P/CF, etc.) render inferior ratios irrelevant.

Non-U.S. equity valuations are a bit more attractive. Japan and most European countries have lower P/E ratios than the S&P 500. However, investors must take account of weaker earnings growth by half and lower profit margins by a third. We think Europe and Japan risk becoming a value trap without meaningful fiscal and regulatory reform to improve competitiveness. Simply devaluing your currency or depressing interest rates (capital cost, interest burden) is unstainable. That is not to say the U.S. fiscal deficit isn't worrisome, but it is relatively more sustainable.

Profit margins in Emerging Markets are rebounding after being depressed for several years, but if inflation takes hold, their margins may struggle again. This is problematic if revenue growth also slows as they lose their labor cost advantage to automation and higher transportation costs. Robots also probably work more efficiently in North America then in China, Korea, or South America, with shorter supply lines to market.

China is easing monetary policy as we expect their growth will slows from 6% to 5%. We have highlighted China's low and declining profit margins over the last decade. China's labor cost advantage diminished with rising utilization of adaptive robotics and sensors (one of our future themes), which can reverse decades of offshoring. Shipping distance (cost) becomes more relevant as labor intensity diminishes. China was enabled to manipulate its currency and subsidized losses in order to lower selling prices, including for state-owned enterprises. China's trade practices have run afoul of WTO rules even after it joined in 2001.



Our global tactical equity models[2] balance constructive valuations vs. a rising U.S. dollar, higher inflation, and generally modest growth. In aggregate, our non-U.S. return forecast has the upper hand. U.S. equity forecasts have declined with rising interest rates and

[2] Tactical forecasts are for 3-month returns, although the time horizon tends to span 18-24 months given turnover.

equity index price. The struggle in underweighting the U.S. now is whether expected 20% earnings growth comes through, which then bolsters US valuation.

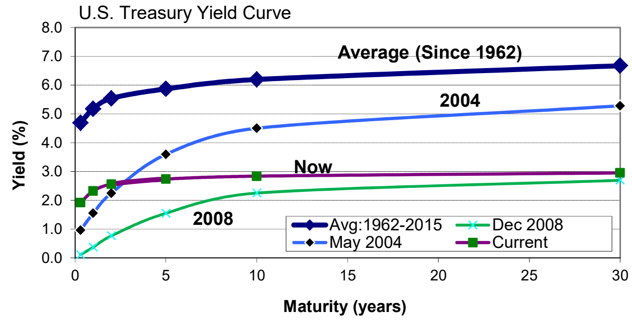
Pacific regional equity forecasts are led by Hong Kong, Australia, and Japan. Similarly, European markets are led by Sweden, Spain, Italy and France. Australia, New Zealand, and the U.S. have negative bond return forecasts, but Canada and European (including U.K.) bonds look more attractive. Finally with regard to currency, only the Yen, Danish Krone, and U.S. dollar appear attractive. Among risk factors, we favor large-cap growth, but high yield credit is a marginal concern.

Globalization, multilateral institutions (UN, IMF, World Bank, etc.), and the *liberal international order* seek credit for decades of prosperity and peace, but we shouldn't forget America's advantage of Constitutional founding principles, including democratic freedom, free-market capitalism, individual liberty, private property rights, rule of law, and equal opportunity. Order is naturally defined by rules and regularity of a status quo that can limit innovation and progress. We suggest concern about ugly *protectionism* might be better described as awakening *Pragmatic Realism* seeking effective negotiating leverage to reset trade and foreign relations. Despite repeated historical failures, rising popularity of Socialist principles[3] is once again threatening America's rising prosperity and improving living standard.

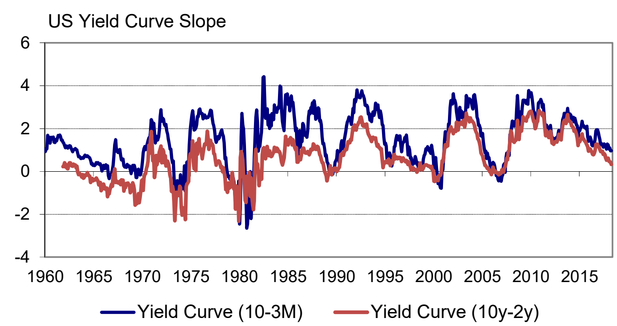
Global Interest Rates Are Rising

Likelihood of an extended correction in global bonds is increasing portfolio risk, given steady quarterly hikes to normalize U.S. interest rates. There is no expectation of wavering from a steady path of hiking rates at least 4 x ¼% = 1%/year, or every other meeting since Dec. 2016, as long as no recession emerges. Tightening monetary policy, including reducing bond holdings, should continue until interest rates reach 3.5%, likely in 2020. Treasury bills remain below the Taylor Rule equilibrium of 2.7%. Safe havens and rate sensitive exposures, such as high dividend yield, low volatility, and gold should underperform for two years. Cryptocurrencies are not compelling, as discussed.

The yield curve has a long way to go to normalize. Given 3m Treasury Bills should exceed 2.5% inflation 1% and 10-year Treasury yields average 1.5% above T-Bill rates, we expect the Treasury yield to exceed 5% by end of 2020. Treasury bonds seem overvalued according to our tactical models and real-rate intuition.



The yield curve flattened to the narrowest 2-10y spread since 2007, well below 2.65% observed in Dec. 2013. An inverted yield curve typically is symptomatic of slow growth and declining inflation, yet earnings and economic growth have accelerated as inflation rose. A flattening yield curve may proceed recession, but an inverted yield curve doesn't cause recession. It usually results from hiking rates too high, which imply expectations for declining short-term rates to bolster slowing growth. A flattening yield curve is unjustified with 4% unemployment, 2½% inflation, and 3-4% GDP.



We believe yield curve flattening was caused by technical supply vs. demand issues, rather than increased risk of an economic recession. So, the yield curve is more likely to steepen with further interest rate hikes. Treasury bond yields should rise with monetary policy normalization, so why aren't Treasury yields higher and what causes the yield curve to steepen?

Our first observation is behavioral. We believe forward guidance and maintaining low interest rates limited the rise in Treasury yields due to conditioned changes in investor behavior. Investors seemed to be lulled into belief that bond yields won't rise much, reinforcing the message: "Don't fight the Fed". Manipulating market interest rates for an extended period promoted explicit moral hazard for borrowers and lenders (banks and investors). This also caused global bond markets to become overvalued as inflation normalizes, in our opinion. Whether or not it reflects financial repression, isn't it a conflict of interest for the government to borrow at lower yields after manipulating rates?

The second observation hinges on global substitution. Very low government bond yields in Europe and Japan

[3] Greater government control of production and regulation of distribution, universal health care, basic income, outcome equality, redistribution of wealth, and collective profit sharing that contrast with individual liberty and free-market capitalism

drive foreign demand for higher yielding Treasuries. Australian and British bonds also experienced flatter yield curves for an extended period. A stronger U.S. dollar and low currency volatility limited value-at-risk (VaR), thus foreign investors were compensated not to hedge and observed little risk doing so. Either higher currency volatility or a weaker U.S. dollar would will likely boost Treasury yields given VaR (risk management) linkages and expose central banks to losses on foreign holdings. This thesis became apparent when Japan's BoJ stumbled in conveying a policy change that rattled JGB investors. The impact on Treasury yields suggests a linkage of cross-border substitution depressed yield. An exception is China, which maintains its currency quasi-peg to the US dollar. The US$-linkage and trade account surplus supports sustainable demand for US Treasuries from China. Being a significant holder limits their ability to sell without incurring losses.

A third observation is that credit ratings don't seem to reflect deteriorating credit risk of increasing interest burdens with rising rates. Rating agencies too often fall behind in downgrades. Negative or near 0% bond yields in Japan and Europe are only possible if investors accept the credit risk. The U.S. is rated AA+ with government bond yield of 2.86%, Australia is AAA with a bond yield of 2.65%, but Japan is rated A+ with JGB yield of 0%, despite debt/GDP of 250% and a fiscal deficit of 4.4%. Slovakia, Slovenia, and Israel are also rated A+ by Moody's, for comparison. If Japan or European debt was downgraded, yields might spike, as observed during the European Debt Crisis. Treasury demand should decline as local bond yields rise.

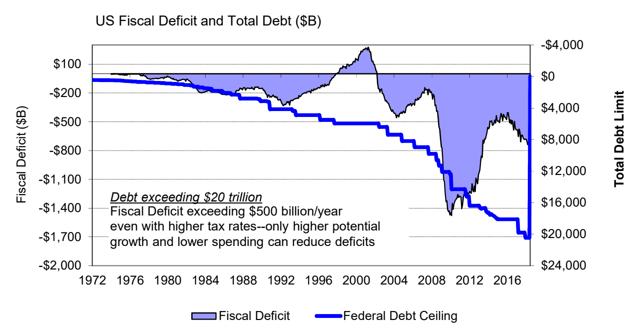
Finally, a fourth observation is the potential for adverse reaction to realized bond losses or asset allocation rotation due to a wealth effect. Federal Reserve holdings are not required to be marked-to-market, but if Treasury yields were to spike by 1%, then Congress might ask the Fed to increase transparency about the market value of their portfolio. Such increased visibility might embolden bond vigilantes, such as global macro hedge funds, to challenge the Fed to defend against a potential rout. Deteriorating investor sentiment might reinforce any trend in rising yields. Moreover, keep an eye on *That Sneaky Second Derivative* (convexity).

Why should the yield curve finally steepen? Identified concerns above influence a few key drivers below. Accelerating inflation is the most important driver, yet we expect secular disinflationary forces to limit its upside. The next most obvious driver is expanding issuance overwhelming falling demand for Treasuries. Consider that unwinding QE holdings with a fiscal deficit requires refunding maturing bonds, plus issuing new debt. If demand is declining, it will be difficult to place increasing issuance at auction. It would behove the government to extend its average debt maturity now by issuing more 10-year and 30-year bonds versus T-Bills and other shorter maturities. Investors will naturally tend to reduce their bond holdings as they recognize recurring losses on their bond holdings.

Interest Rates	2015	2016	2017	2018e	2019e	2020e	Longer Run
FOMC Avg.	0.25-0.5%	0.5-0.75%	1.38%	2.19%	2.92%	3.33%	2.87%
#Forecasts	17	17	16	15	15	15	14
SFM[1]	0.50%	0.75%	1.50%	2.50%	3.50%	3.50%	3.50%
SFM Hikes	0.25%	0.25%	0.75%	1.00%	1.00%	-	-

1. Top-end of indicated Fed Funds range
Source: U.S. Federal Reserve

Central bank policy will be more difficult to predict with the Fed's Board of Governors under new management, and Chairman Powell takes the helm. Treasury bond yields should to rise toward 5% by the end of 2020 as interest rates rise by 1%/year and bond holdings decline by at least $50 billion/month. A fiscal deficit of 3% or more compounding higher interest rates as debt approaches 100% of GDP risks a lower credit rating. Low interest rates limited debt service, but interest burdens increase with higher interest rates. The hardest job for legislators is reducing spending.

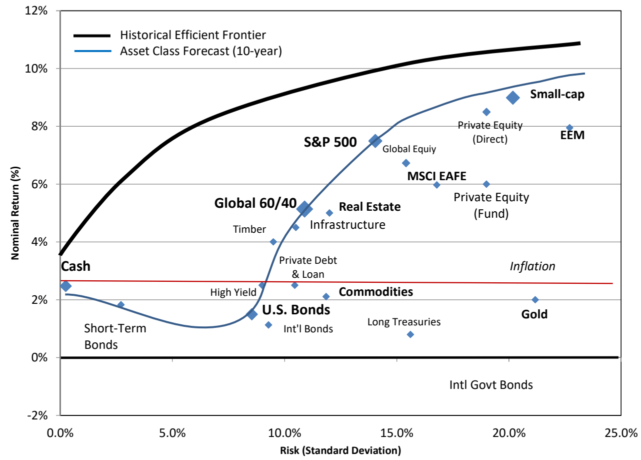


Many advisors champion creative income strategies, but convenience can be costly to wealth accumulation with a suboptimal asset allocation and higher tax rates on income. A new mindset is emerging with better portfolio and risk management tools. Advisors instead might guide clients into *income harvesting programs* realizing capital gains, rather than relying on bond and dividend income. Clients compromised asset allocation then may be optimized with a more appropriate risk tolerance. This more tax efficient strategy can tailor cash flows to meet periodic and varying income needs with portfolio rebalancing.

Global Investment Outlook for Strategic Allocation

Our long-term forecasts represent annualized expected returns over the next decade for market indices, but do not include costs or potential variation due to active management and tracking error. The heavy black line below traces historical asset class returns over the last 50 years and the lighter blue line highlight our current forecasts. This is reflected in the odd shape to our efficient frontier for the next decade. If not for increased

U.S. potential growth, equity returns would be 2-3% lower. We assume currency effects will negligible, but higher bond and currency volatility is expected. A stronger US dollar would haircut non-US returns.



Our greatest concerns implied above are overvalued global bonds and high cost of private funds, rather than concerns about equity valuations. Use of historical returns can lead to unrealistic return assumptions, as well as distorted volatility and correlation after interest rates declined for 35 years. The inflection point in interest rates should reduce expected bond returns, and change the correlation between asset classes. Small-cap stocks should enjoy small size and liquidity risk premiums yielding excess return, but the return difference between the S&P 500 (large) and Russell 2000[4] (small) was negligible over the last 5-10 years.

	10-year Returns[1]		1900-2017[2]	1973-2007 (44 yrs)		Expected 10-Year			
Annualized	Return	Risk	LT Return	Return	Risk	E[Return]	Risk	2017	2016
U.S. Stocks	8.5%	15.1%	9.4%	10.7%	14.0%	7.5%	14.0%	21.8%	12.0%
World (ex-US)	2.4%	18.5%	n.a.	6.0%	16.8%	6.0%	16.8%	25.6%	1.5%
Emerg. Mkt Eqty	2.0%	22.8%	n.a.	11.4%	22.7%	8.0%	22.7%	37.8%	11.6%
U.S. 10Y Tres	4.5%	7.5%	4.9%	6.3%	7.1%	1.1%	8.5%	11.5%	0.9%
US BC Agg Bond	4.0%	3.2%	n.a.	n.a.	3.7%	1.4%	4.5%	0.0%	38.8%
Cash	0.3%	0.0%	4.1%	3.1%	0.2%	2.5%	0.2%	0.9%	0.3%
Inflation	1.6%	1.1%	2.9%	4.0%	0.9%	2.5%	0.9%	2.0%	2.1%
Commodities	-1.2%	15.8%	2.6%	2.6%	11.9%	2.1%	11.9%	1.6%	-16.8%
Risk Premium									
Stock-Bond	4.0%		4.5%	4.4%		**6.4%**		10.4%	11.1%
Bond-Cash	4.2%		0.8%	3.2%		**-1.3%**		11.5%	-37.9%

(1) Trailing 10-year Data as of December 31, 2017
(2) Data from *Credit Suisse Global Investment Returns 2018 Yearbook*
(3) **Stocks:** S&P 500, **Bonds:** Barclay's Aggregate Bond, **Cash:** 3m T-Bill, **Commodity:** CRB
(4) Bond volatility based on 1973-Present vs. 1987 given 30 year decline in yields skewed risk lower
(5) Gold had a real return of 0.7% (3.6% nominal) since 1900. Risk of $\sigma = 23\%$ since 1973

Source: Strategic Frontier Management

Equity volatility declines in a bull market, so why wouldn't the same bias be true for bonds? Nearly a decade of central bank manipulation of market rates and forward guidance can bias expectations. Bond illiquidity, in part due to assertive regulation after the Financial Crisis, may be the most underappreciated risk that could rattle fixed income markets. Certain equities exposures will have greater factor exposure to interest rate sensitivity. We should anticipate higher bond and currency volatility as interest rates rise.

[4] If one considers the less utilized S&P 600 Index instead, it beats the S&P 500 by 1.5% annually over the last decade.

We remain strong believers in *Modern Portfolio Theory* (MPT), albeit not so modern after 50 years of noble service. Global multi-asset portfolio diversification and robust risk management are still considered prudent practice, and investors should be reminded every few years of the persistent benefits of international diversification. Many were disappointed diversification didn't limit their losses during the Financial Crisis. Seemingly diverse country or sector allocations experienced high correlation during the turmoil—usually this is a consequence of overlapping risk factor exposures, which VaR ignores in risk management.

Portfolio diversification is not a free lunch. It won't increase total return, but tends to reduce average portfolio risk without reducing return. A lesson of the Financial Crisis was not that diversification failed investors, but it enabled them to rebound more quickly if they maintained their discipline. When correlations increase during volatile periods, diversification may become less effective, but MPT suggests investors are no worse off during these periods, while still better off in the long-run on a risk-adjusted basis. Increasing risk tolerance can increase return, usually with higher equity exposure. Well-diversified investors will find it easier to endure difficult or volatile markets.

Another concern is how will new risk allocation schemes fare as risk measures become more uncertain? Liability Driven Investing (LDI), maximum diversification, and Risk Parity allocation rely primarily dependent on volatility and correlation, which are evolving and unstable with the inflection point in rates. They also increase bond allocations and use leverage more frequently. Simulations suggest such strategies were treacherous during rising interest rate periods. Orange County's bankruptcy of 1994 was caused by a toxic mix of Treasury leverage with rising interest rates. Optimal portfolio allocation is dependent on balancing portfolio risk and expected return---it worked well for decades, but poor data analysis, misaligned objectives, flawed assumptions, or software "gremlins" can discredit portfolio construction. Even the best decision-making algorithm can't overcome poor data analysis.

Cyclicality of sectors is understood, as are differences in equity style, company size, and other risk factors. Introduction of risk factor characteristics such as: quality, momentum, and profitability are still being formalized. We can also consider risk factors that convey economic characteristics that might be better understood, such as sensitivity to interest rates oil prices, inflation, economic growth, credit, yield curve, volatility, market beta, currency, or foreign revenues. If I expect interest rates to rise more or inflation would be less than consensus, portfolio analysis can identify which factors are more or less consistent with an economic view. Risk management should be flexible to analyze portfolios from multiple frames of reference.

Diversification won't mitigate losses during a severe market downturn, but tactical flexibility to adjust asset allocation can add value over the investment cycle. Asset allocation remains the most significant decision that determines long-term wealth—too much bonds or uncorrelated absolute return assets require relying on high value added from bottom-up security selection or tactical rotation. We believe capital markets are relatively efficient, but not totally or uniformly efficient. We believe there are exploitable opportunities to add value, particularly for those with a longer time horizon.

Long horizon private risk capital is needed to finance entrepreneurial innovation, commercialization, project development, and restructuring. Investors should be compensated for risk premiums of illiquidity, small size, and unlisted exposure. The challenge is that these risk premiums have declined with high investor demand for constrained capacity that undermined valuations. High fund costs are uncompensated by any risk premium, and the illiquidity risk premium of private markets has been diminishing for the last decade as demand for limited capacity stretch valuations. Management and carry costs of private funds appear to exceed any remaining illiquidity premium.

Asset owners have increased alternative investment exposure with high specific risk (security selection), as well as small size and illiquidity risk premium exposure, but suffer from high management costs. Private equity and venture capital funds chronically underperform small-cap equity indices net of costs, although doing best after corrections due to stale mark-to-market valuations. Most private assets are valued annually or quarterly, at best.

Active net returns are uncorrelated with market indices, thus active overlays can be a novel *alternative investment.* Portfolio diversification that private market alternatives promised is also available in active returns of equities, bonds, and Global TAA (Tactical Asset Allocation) overlays. Active management offers greater liquidity, more risk transparency, better performance attribution, and potential net value added at lower cost than private or liquid alternative funds.

Successful manager selection may be more difficult than developing active strategies given qualitative unknowns. Evaluating illiquid private market funds with lock-ups must be more difficult than choosing between public market strategies that enjoy greater liquidity, real-time pricing, and lower transaction costs. Active strategies tend to outperform when return distribution is broad, unlike the narrow concentration in mega-cap technology stocks. Yet, such leadership concentration is unusual when small-cap equity outperforms the S&P 500, as in 2018. Incorporating active management is a strategic policy decision, so predicting when active management does well is highly strategy style specific.

Conventional wisdom advises investors to avoid active management in more efficient asset classes, which tend to be more liquid, cheaper to trade, and less costly to manage, but also are their largest allocations. Consider avoiding active management of large-cap stocks in the table below[5]. Even if small-cap and international equities yielded twice the potential value added, the total active return is still less than half as much forgoing actively managed large-cap equity. If an alternative fund's net return was limited to just -1% versus global equities, a return deficit remains to make up, which no amount of diversification can recoup. Investors shouldn't overlook actively managed large-cap stocks and core fixed income if they pursue active return with alternatives or other asset classes.

	Public Equity Portfolio			Alternative
	Large-cap	**Small-cap**	**Non-US**	**Private Equity**
Portfolio Allocation	65%	15%	10%	20%
Value Added	1%	2%	2%	-1%
------------------------	------------	------------	------------	------------
Total Value Added	0.65%	0.30%	0.20%	-0.20%

Passive investing produces adequate performance, if pursued at very low cost with tight constraints, and is regularly rebalanced. Fidelity has introduced the first zero-cost ETFs, which begs the question how do they earn a profit? Securities lending, captive trading, revenue share, or limited access (accounts subject to administrative overhead fees) cover the economics. Index funds and ETF tend to lag their benchmarks, even if by a few basis points similar to expense ratios. Declining product margins increase pressure on operational and client acquisition costs, as well as need to find efficiencies and other sources of revenue.

Foreign Policy and Trade

A potential tipping point in global trade is emerging offering the opportunity for freer and fairer trade. *Imagine What Is Possible* if we successfully negotiate trade agreements with the Korea, European Union,, UK, Japan, and China, then reset NAFTA? Most of these are within reach. Game theory suggests non-cooperative governments seeking negotiating leverage may embrace *mutual assured economic destruction* to improve potential growth. This was thought to be the third rail of liberal foreign policy, but such an audacious move holds the best hope for sustainable global trade reform. The U.S. has greater leverage with the widest trade deficit, high services dependency, and less export-reliance in GDP. However, currency devaluation translates faster into competitive advantage than tariffs on imported goods. The trade-weighted U.S. dollar has appreciated 15% over five years, increasing competitive advantage more than a 10% tariff. So, it is not surprising the U.S. finally took radical trade initiative to boost potential growth.

[5] Please review our disclaimer at the end of this commentary.

Unfair trade practices and currency manipulation has driven the U.S. trade deficit over $800 billion per year, but reducing our trade deficit can boost potential growth. Unfortunately, the World Trade Organization[6] has been ineffective for decades as tariffs, trade barriers, quotas, and regulations rose on U.S. imports. Generally, trade agreements would be unnecessary if the WTO was effective. President Trump suggested at the recent G-7 meeting that all countries should simply eliminate their tariffs and trade barriers. Tariffs seek to protect national interests and encourage negotiation. Beyond measures to level trade inequalities, we expect the U.S. will focus on bilateral agreements, which are less compromised, more practical, and more realistically achievable, as well as more sustainable. So there is urgency to complete bilateral trade agreements with Japan, China, Korea, U.K., European Union, and complete NAFTA renegotiation.

Export controls on defense-oriented technologies protected U.S. interests for decades, but sensitive innovation has been increasingly developed in the private sector. The Committee on Foreign Investment (CFIUS) provides an effective mechanism to protect U.S. interests, yet maintain fair market access. The Department of Commerce (BIS) believes updating these policies, controls, and regulations address needs that no trade agreement can manage, including the Export Administration Regulations (1979). Chinese acquisitions and partnerships secured transfer of proprietary innovation, but is likely to be increasingly regulated. The US and UK are considering new national security policies to restrict transfer of sensitive innovation and intellectual property to China or other countries through partnerships and acquisitions—appreciate the significance taking this ruinous strategy off the table in trade negotiations. Intellectual property advantages are national assets and critical to protect.

There is uncertainty about whether tariff threats will be a successful negotiating tactic, but contemplated tariffs are not far reaching. We expect the U.S. to negotiate from a position of strength given a wide trade deficit, reliance on services, competitive advantages and stronger economy. The $400 billion of targeted sales represent just 2% of our $20 trillion economy to avoid WTO scrutiny, but maximize political impact. If demand fell by 10% on these items, GDP impact should be just -0.2%. Pursuing an “all at once” approach is not surprising, but sustained tariffs would increase inflation.

The U.S. economic and market fallout from escalating trade warfare has been limited, so far. Trade anxieties fueled higher global equity volatility and Emerging Market (-8.0%) equity decline during the quarter, but the U.S. was unaffected relative to other countries. Earnings and economic conditions show no deviation from trend---nothing remotely resembling the dreadful effects of protectionism like the Smoot-Hawley Tariff that clipped growth by 8% in 1930. Emerging Market equities and currencies took the brunt of any impact, which suggests their patience might wear thin sooner.

[6] The WTO is a multilateral organization that regulates global trade spanning 164 counties and 23 observers to promote fair and free trade, seeking international economic cooperation.

Infrastructure Considerations

Infrastructure can be an interesting investment with various sources of cash flow. Projects provide visible public benefits on a tangible asset. Like real estate, asset owners have been successful partnering directly on deals to take advantage of their scale, financing flexibility, and longer time horizon. While demand for investment opportunities increased, the number and size of deals is limited. Given limited opportunities and rich valuations of privatizations, it may be timely for governments divest holdings, including ports, airports, buildings, roads, railways, land, and essential services. Power utilities, telecommunication networks, pipelines and transmission lines are typically privately owned.

Privatizations were popular in the 1990s, particularly among developing economies, but have stalled with governments’ reluctance to relinquish control. Government faces many challenges managing its asset holdings. Yet, governments argue against disposal, except under dire circumstances such as the European Sovereign Debt Crisis. *Imagine What is Possible* if privatizations could reduce debt or provide funding needed to develop infrastructure projects, without further burdening taxpayers. Increased privatization might satisfy growing investor demand.

The U.S. Government is owns assets “necessary and proper” to carry out enumerated powers, but not vast swaths of land and property. Yet, the U.S. Government owns half of the Western United States and 28% of all land, including 85% of Nevada, 64% of Utah and Idaho, and 60% of Alaska (State of Alaska retains 28%). This has precluded commercial utilization and extracting natural resources, thereby reducing the tax base of state and local governments. East of the Mississippi, the U.S. Government owns less than 10% of land, which is more consistent with other countries. National Parks are magnificent assets, but comprise just 13% of 609 million acres of U.S. Government holdings, not including state property holdings.

The Supreme Court ruled that presidents have virtually limitless discretion in designating national monuments, which can’t be undone by executive order. Presidents used the *Antiquities Act* to acquire vast parcels of land. President Obama set a record for land and water rights seized by a single Administration, including over 553 million acres or 865,000 square miles. That’s 30 percent more acreage than Alaska and three times the size of Texas.

The U.S. Government also has a vast portfolio of real estate, including buildings occupied for government services. While citizens watch our nation's debt soar over $20 trillion, conversation has never focused on the balance sheet. There are land and real estate assets that are not critical to national security and could be sold or leased back to unlock national wealth. It would serve the greater good to pay down debt or fund needed infrastructure development. Maybe it is time to put the asset side of our balance sheet to better use.

McKinsey Global Institute confirms that U.S. federal, state and local infrastructure spending of 3.2% of GDP has exceeded Japan and the European Union since 2000. Meanwhile, the U.S. Government acquired land and property at an astonishing rate. The *U.S. Land and Conservation Fund* budgets $900 million/year for acquisition, but struggles to maintain existing land, buildings, parks, monuments, and forests.

We can't spend ourselves into enhanced productivity any more than we can tax an indebted society into prosperity. Privatizing vast land and real estate holdings could lower government operating costs, while providing capital to support infrastructure development and pay down debt. Should heavily indebted governments borrow to fund infrastructure projects or let eager investors finance investment opportunities?

Concluding Thoughts

Imagine What Is Possible as economic and earnings growth strengthen. We expect equities will continue to outperform bonds by a wide margin. Rising inflation and stronger growth are inconsistent with flattening global yield curves---how might this be caused by technical issue rather than fundamental? Global bonds remain overvalued as more central banks begin tightening policy and inflation gathers momentum. Stubborn fiscal deficits persist, so interest burdens are rising with higher interest rates. Credit ratings don't seem to matter much. We find this troubling, but explain why credit spreads are tight and indebted nations may believe fiscal deficits are not a concern.

Our global equity forecasts (12-18 month horizon) have moderated as stock markets and interest rates rose, but global equity valuations are not stretched. We forecast the S&P 500 rising to 2950 by year-end for an implied return of 12.3% including dividends. Our Global TAA forecasts have now tilted to favor non-U.S. equities with a modest bias toward large-cap after favoring small-cap equities (strong US$ and relative valuation). Relative earnings strength in industrials and financials is needed for a value tilt. Global bonds are overvalued, and four forces were identified that could steepen the Treasury curve. Investor demand for yield and central banks manipulating interest rates with forward guidance kept bond yields too low for an extended period. Fixed income illiquidity could become problematic as rates rise and investor demand retreats, so now is not the time to increase bond exposure by adopting a strategic policy including risk parity or LDI.

Global TAA opportunities should increase over the next 3-5 years as return correlation declines between countries, sectors, and risk factors with divergent asynchronous economic cycles. We also expect greater interest in risk factor investing and breadth of ETF offerings, even as profitability collapses.. Less coordinated monetary policy will increase uncertainty and relevance of exposures to inflation and interest rate changes as asset class and currency volatility increases. Country and currency return divergences arise with differing economic and monetary sensitivity. Industrial composition, regulation, taxes, resources, labor costs, and unique competitive advantages affect changes in profit margins and revenue growth.

Some speculate another *Perfect Storm* is gathering strength as interest rates rise and bond liquidity declines, due to restrictive banking regulation and extended rate manipulation. Credit spreads remain narrow, but rising bond yields could widen credit spreads, even without an increase in default rates. Such turmoil will likely be aided by declining yield preference and abetted by bond vigilantes, tugging along credit agencies. We expect bond yields to rise at least as much as policy rates with increasing issuance, which could induce a 0.5% yield risk premium.

We published our long-term expected returns, which continue to highlight our expectations for a difficult period of negative real bond returns, given the unusual shape of our efficient frontier (return vs. risk graph). Culminating *global interest rate suppression,* which some refer to as *financial repression,* should expose consequences of explicit moral hazard practiced by central banks for an extended period. Already reduced bond market liquidity can exacerbate potential debt financing problems for borrowers and extend losses for investors or market makers.