MAI VIEW

VOL. XVII, NO. V www.macro-allocation.com FEBRUARY 1, 2017

The Case for Caution

In *Contrarianism in 2017* we cited the following macro dynamics that keep us cautious on equities, bullish on Treasuries and gold, and negative on credit:

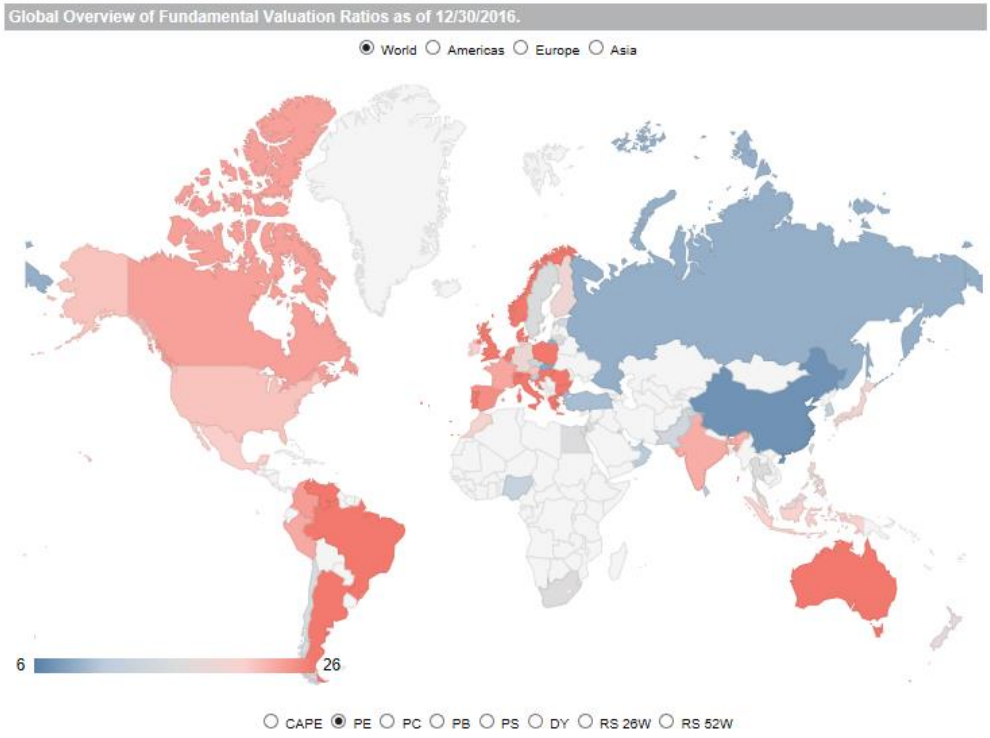
- already steamy global equity market valuations
- already over-leveraged global balance sheets
- already old and aging global demographics
- already nervous US trade partners with alternative options for trade
- already hostile reactions from potentially belligerent foreign trade partners seeking to replace US global market share

Below, we explore each of these dynamics in depth.

Equity Valuations

Given the current macroeconomic and geopolitical setup (discussed below), the highest nominal and risk-adjusted returns in 2017 and into the foreseeable future will be captured through value investing.

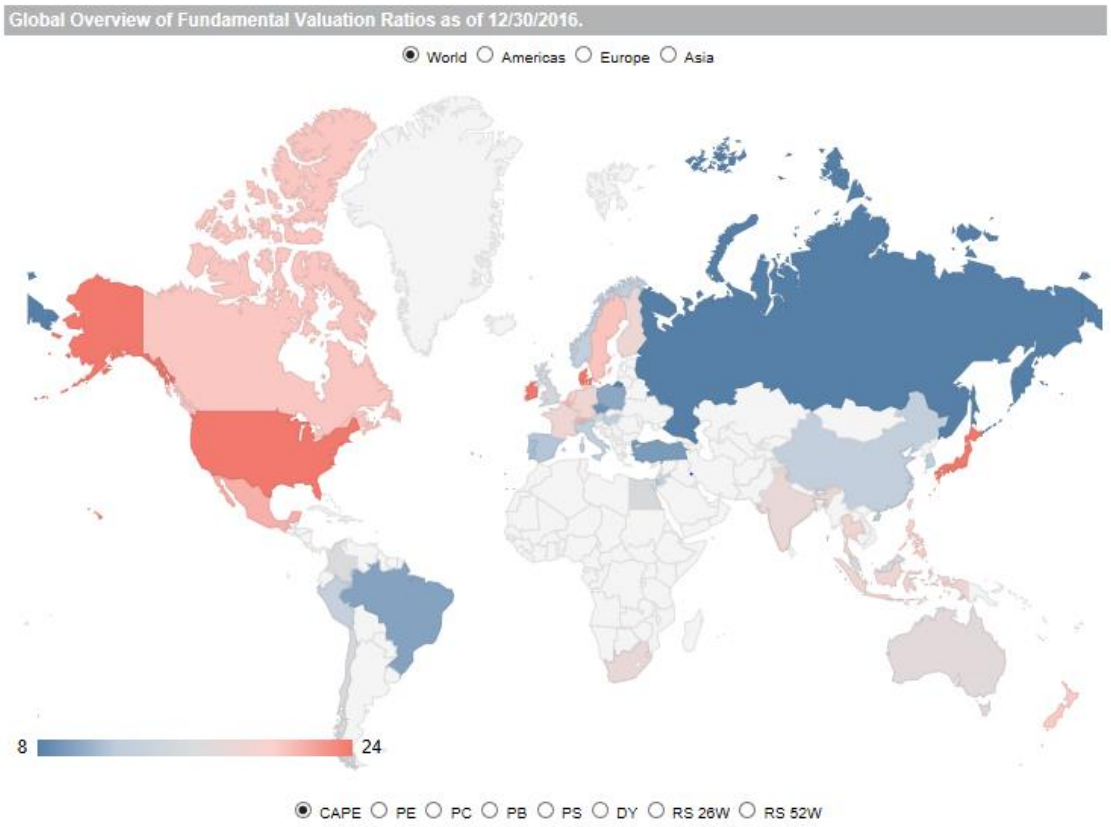
Graph 1: Global Equity Price/Earnings Multiples



Source: StarCapital; http://www.starcapital.de/research/stockmarketvaluation.

The maps above and below, calculated by StarCapital, show the respective ranges of non-cyclically-adjusted and cyclically-adjusted P/E multiples across equity markets at the end of 2016.

Graph 2: Global Cyclically-Adjusted Price/Earnings Multiples



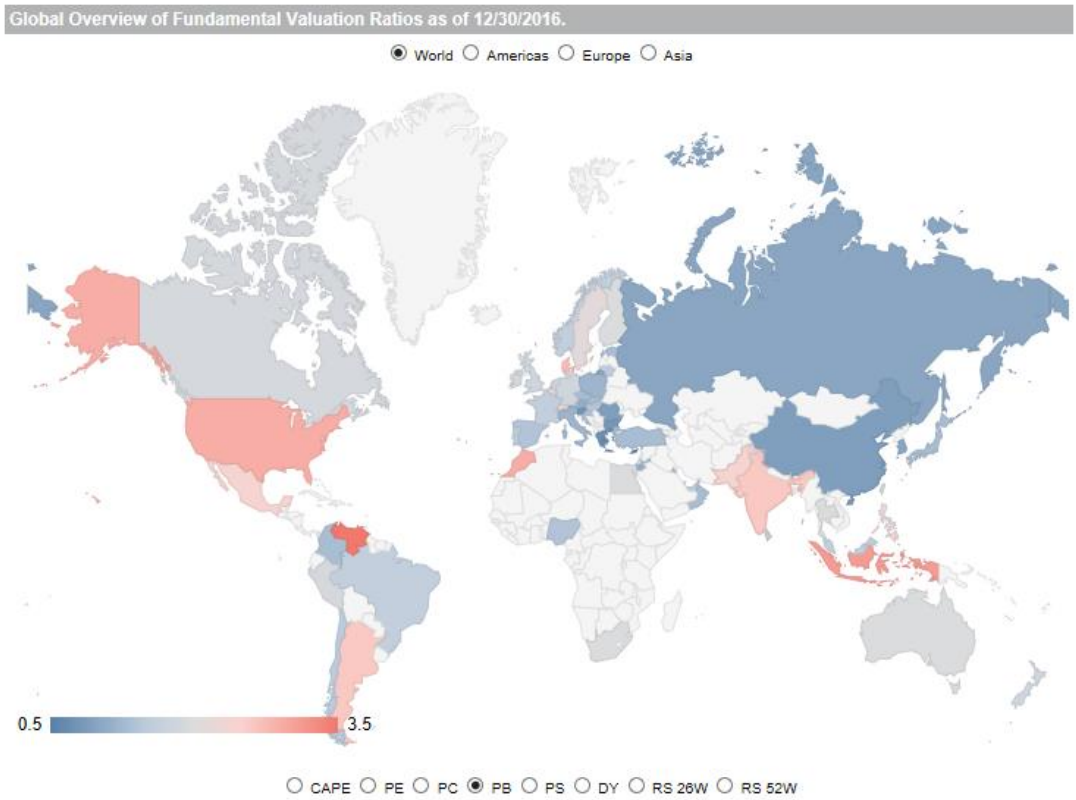
Source: StarCapital; http://www.starcapital.de/research/stockmarketvaluation.

Generally, the largest and most mature equity markets have the most extended P/Es (Graph 1). When those P/Es are cyclically adjusted (Graph 2), fewer equity markets appear to have steamy valuations. (CAPE valuations shown in Graph 2 are P/Es adjusted for the moving average of ten years of inflation-adjusted earnings.) Nominal P/Es strip out past economic trends, such as output growth and inflation, while Cyclically-Adjusted Price Earnings assumes future economic growth will look much like the past.

When CAPEs are significantly higher than P/Es it implies to us that businesses need faster economic growth than is available now to support equity prices. Notably, this is the case in the US and Japan. The performance of equity markets in economies where past output growth and inflation have been higher than they are today, such as Brazil and Australia, tend to look more reasonable when cyclically-adjusted. China appears relatively cheap in nominal terms and less-cheap in CAPE terms. *Comparing these metrics is important because it highlights the need to have a strong macro and geopolitical opinion prior to allocating capital*.

What if the future does not look like the past, specifically what if global GDP is lower and global inflation is higher? In such a scenario, we think the soundness of balance sheets – not revenues and earnings – would determine the relative performance of equity markets and the winners within them. The map below shows Price-to-Book ratios of global equity markets.

Graph 3: Global Price/Book Ratios



Source: StarCapital; http://www.starcapital.de/research/stockmarketvaluation.

Using this metric, markets such as Russia, China and Brazil seem to be priced most reasonably. All things equal, the implication is that equity markets in some large emerging economies (and Japan) are priced best for a slowing global economy, all things equal.

Of course, all things are not equal. Geopolitics and FX exchange rates will play a significant role in equity performance given changes in global output and inflation. Since output and inflation are the primary drivers of geopolitics and exchange rates, developing a macroeconomic view of the world prior to allocating to world equity markets is critical.

It is also interesting to review valuation metrics across industries on a worldwide basis. We developed the table below from valuation data gathered by StarCapital:

Table 1: Global Equity Valuation Ratios by Industry

Global Valuation Ratios by Industry (12/31/2016)								
Price / Earnings			**Price to Cash Flow**			**Price / Book**		
Sector	Weight	P/E	Sector	Weight	P/C	Sector	Weight	P/B
Mining	1.2%	-	Telecom (fixed)	2.2%	5.5	Real Est Services	1.6%	1.0
Alt Energy	0.1%	-	Electricity	2.3%	5.6	Life Ins	1.7%	1.1
Real Est Services	1.6%	11.2	Telecom (mobile)	2.3%	5.6	Indus Metal	1.0%	1.1
Auto	2.8%	12.1	Auto	2.8%	5.7	Banks	10.9%	1.1
Banks	10.9%	13.8	Life Insurance	1.7%	6.4	Electricity	2.3%	1.3
Life Ins	1.7%	14.2	Utilities	1.3%	7.0	Non-Life Ins	2.9%	1.3
Electricity	2.3%	14.9	Forest & Paper	0.2%	7.1	Auto	2.8%	1.4
Forest & Paper	0.2%	15.1	Indus Metal	1.0%	7.7	Oil & Gas Prod	5.9%	1.4
Non-Life Ins	2.9%	16.2	Oil & Gas Prod	5.9%	8.2	Forest & Paper	0.2%	1.6
Fin Services	3.9%	16.7	Leisure Goods	1.0%	8.4	Mining	1.2%	1.6
Telecom (fixed)	2.2%	17.5	Mining	1.2%	8.9	Utilities	1.3%	1.7
Travel & Leisure	2.7%	17.6	Travel & Leisure	2.7%	9.1	Alt Energy	0.1%	1.7
Tech HW & Equip	4.5%	18.3	Banks	10.9%	9.6	REITs	2.5%	1.7
Chemicals	2.6%	18.8	Chemicals	2.6%	10.1	Financial Services	3.9%	1.8
Household Goods	1.4%	18.8	Food Retail	1.4%	10.2	Telecom (mobile)	2.3%	1.9
General Industry	2.4%	19.0	Non-Life Ins	2.9%	10.4	General Indus	2.4%	1.9
REITS	2.5%	20.4	**WORLD**	**100%**	**10.4**	Construction	1.8%	1.9
WORLD	**100%**	**20.8**	Indus Transport	1.8%	10.4	Oil Service	1.4%	1.9
Construction	1.8%	20.9	Alt Energy	0.1%	10.5	Leisure Goods	1.0%	2.0
Telecom (mobile)	2.3%	21.4	Tech HW & Equip	4.5%	10.7	**WORLD**	**100%**	**2.0**
Tobacco	1.3%	21.5	Media	2.0%	10.9	Eltro & Elect Equip	1.3%	2.2
Food Retail	1.4%	21.6	Gen Industry	2.4%	11.3	Telecom (fixed)	2.2%	2.3
Media	2.0%	21.6	Construction	1.8%	11.4	Chemicals	2.6%	2.4
Eltro & Elec Equip	1.3%	21.7	Oil Service	1.4%	11.8	Indus Transports	1.8%	2.5
Pharma & Bio	6.1%	22.4	Support Service	2.1%	11.9	Indus Engineering	2.1%	2.5
Food Prod	2.6%	23.2	Eltro & Elec Equip	1.3%	12.2	Food Producers	2.6%	2.6
Healthcare	2.7%	23.7	Indus Engineering	2.1%	12.4	Food Retail	1.4%	2.8
Leisure Goods	1.0%	23.9	Healthcare	2.7%	13.1	Support Services	2.1%	2.8
Indus Transport	1.8%	23.9	Financial Services	3.9%	13.8	Household Goods	1.4%	2.8
Aero & Def	1.3%	23.9	General Retail	4.2%	14.0	Travel & Leisure	2.7%	2.9

Empty cells represent negative or unavailable values. Sectors are based on the StarCapital equity universe. The valuation ratios are market-capitalization-weighted. "Weight" provides the actual country weight. Price-Earnings-Ratios and Price-Sales-Ratios are based on trailing 12 month values. Price-Book-Ratio is based on the most recent company financal statements. We exclusively examine companies for which data is supplied by at least two independent providers. Outliers are assessed qualitatively and removed where necessary. The selection is based on the Datastream Global Equity Universe. This information does not constitute investment advice or recommendations. No responsibility is taken for the correctness.

Sources: StarCapital, http://www.starcapital.de/research/sectorvaluation; Macro Allocation Inc.

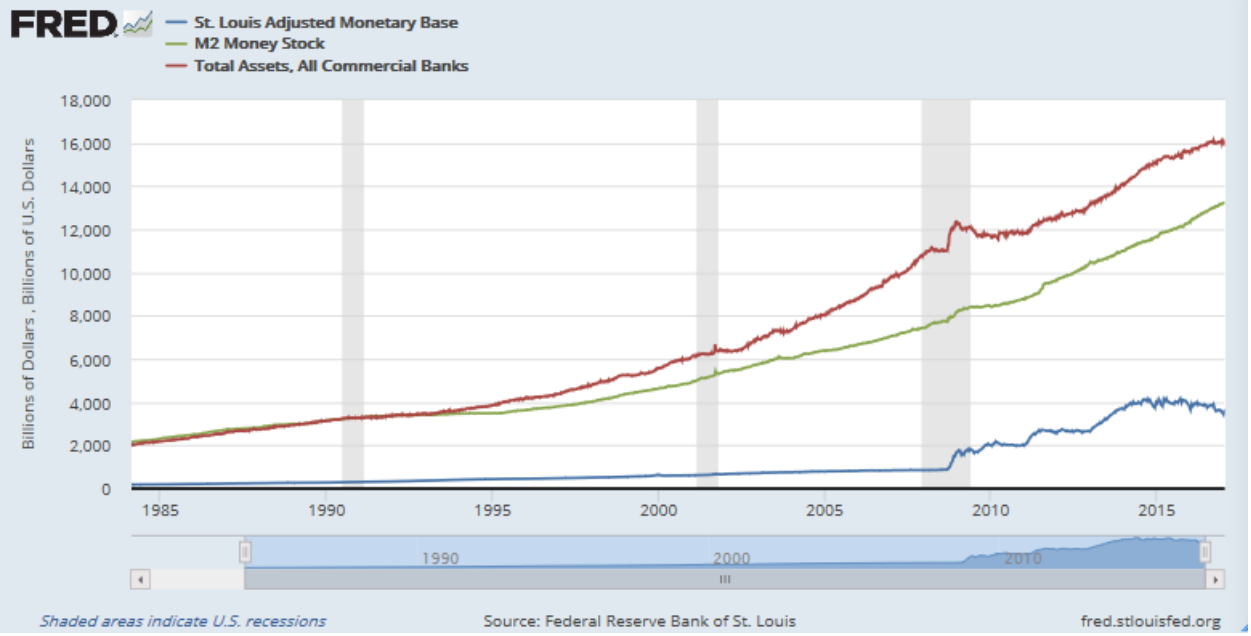
A snapshot of valuations tells us little about the prospects for and industry, and different valuation metrics are more relevant than others depending on the industry. However, the good work provided by StarCapital not only shows that equities are fully valued on a worldwide basis, but also sets a baseline to

compare specific geographies and businesses to global valuations. This should come in handy when macro and geopolitical events do not go according to consensus expectations.

Global Leverage

Monetary leverage is technically *the quantity of bank assets in relation to the quantity of base money.*[1] Central banks are only obligated to create enough base money (through QE) to reserve bank assets. Since bank assets are technically created through the bank loan process, the majority of bank assets, which include deposits (i.e., money), is effectively credit extended by central banks.

Graph 4: "Formal Leverage" of US dollars



Graph 4 shows the history of US dollar leverage. (Were the graph to go back to 1970, there would be virtually no leverage, as bank assets were effectively backed by gold.) As we can see, the Fed's bank reserve creation beginning with QE in 2009 began to de-leverage the US banking, which stands at about a 4:1 ratio presently. We can assume that the onset of another recession would be treated by the Fed in the same way – a reversion to QE that further de-leverages the banking system. The limit of Fed QE that creates bank reserves is another $12 trillion. Reliable monetary leverage data across the world is difficult to come by, but we believe US dollars are among the least levered of all major currencies.

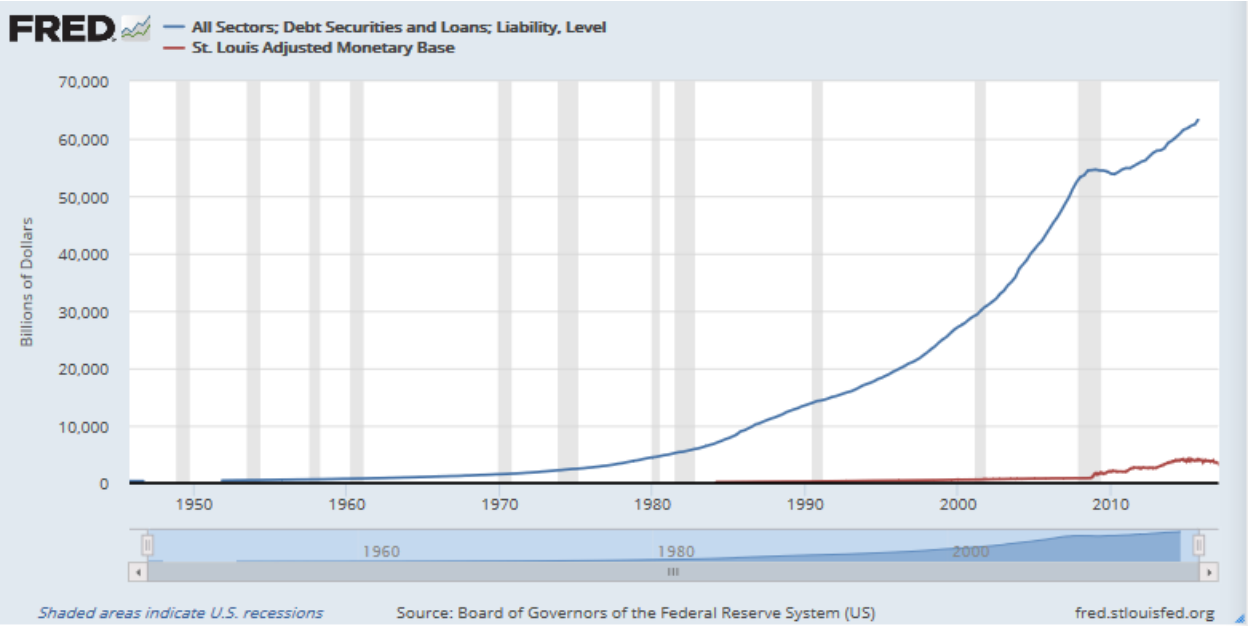
It is critical to understand that central bank responses to economic adversity – adversity that threatens the value of collateral supporting bank asset values - are devoted to saving its primary constituency, the banking system. There is no formal obligation to support the value of non-bank credit.

[1] Total bank assets are bank liabilities (deposits) plus bank capital (owners' equity). Base money is comprised of bank reserves plus physical currency in circulation.

Economic leverage includes bank assets plus credit extended outright by bondholders and other, less formal creditors. The great majority of economic leverage is not technically the obligation of central banks because it is credit extended and debt held outside the banking system. This includes sovereign and provincial debt, household consumer, mortgage and school loan debt, and corporate debt.

US dollar leverage, when calculated by formal debt obligations versus base money, stands at over 15:1. (Even if we were to use formal debt obligations over deposits, leverage would still be about 5:1.) This leverage level gets closer to capturing the practical burden of outstanding debt. The burden comes in the form of debt service and eventual repayment.

Graph 5: Formal Debt Obligations vs. Formal Money (Base Money)



To be clear, there is no need to repay debt as long as central banks have unlimited balance sheets; they can legally purchase all outstanding debt denominated in the currency they issue. In fact, throughout this long leveraging phase of the current super-leveraging cycle, aggregate debt has never been reduced, and indeed is growing at a parabolic pace as the cycle ages. To make matters even more threatening, there are obligations that are not captured in Graph 5 - off-balance sheet obligations such as unfunded entitlement obligations that analysts suggest place total dollar-denominated debt at well over $100 trillion (current dollars). This would bring the total US economic leverage ratio to over 25:1.

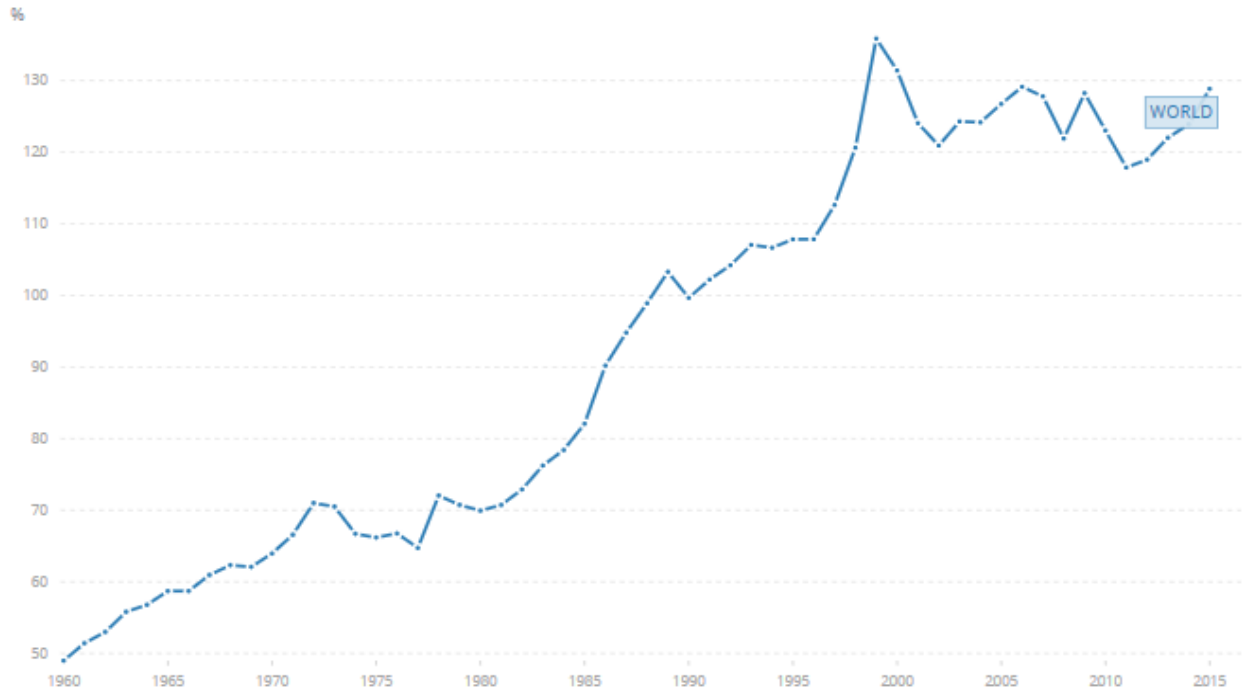
Finally, as it relates to defining the level of systemic leverage, debt is almost always issued at interest, meaning that for every dollar of debt issued it takes more money to repay it, depending upon its duration and the interest rate attached to it. The magnitude of all this dollar-denominated debt is not out of context with debt denominated in other currencies. As the graphs clearly illustrate, there is nowhere near enough money – formal or otherwise – to cover leverage levels across bank and non-bank balance sheets.

The bottom line is that credit – which is ultimately a claim on base money (not assets that collateralize debt) – is the mother of all bubbles, perhaps the biggest worldwide bubble ever. This is truly not hyperbole. The 17th century tulip craze in Holland, for example, in which 12 acres of land was exchanged for one Semper Augustus bulb, ultimately led to a crash in the price of assets and a debasement of guilders. Other currencies, however, were not nearly as affected. Today, all currencies are leveraged and ultimately tied only to the US dollar, the hegemonic global currency. As with all bubbles, the current currency bubble can only be remedied by either debt deflation, currency inflation, or both.

So then what should investors expect? Does there have to be an event that triggers a decline in confidence of global currencies or the dollar? We do not think so. At some point, money needed to service and repay debt should crowd out money available to pay for needs and wants. Where is that point?

There is no way to know for sure, however, the graph below shows worldwide credit in relation to private sector output through 2015. The continually rising ratio broke downward in 2000 when it exceeded 130% and again in 2006 and 2009 when it approached 130%. We assume the ratio is above that level now, especially since private sectors in the US, China, Europe and other economies continue to add debt amid slowing output growth rates. The idea that debt-funded government spending will support overall output growth is the latest hope among the growth-at-all-costs crowd. As it relates to this discussion, such a pursuit would be pointless if it does not extinguish private sector debt.

Graph 6: Global Credit to Private Sector GDP



Source: World Bank; http://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS

Finally, the graph below shows "what's different this time". In 1971, banks were able to begin expanding their balance sheets in relation to their economies once the global monetary system went off a fixed-rate of exchange to gold and political economists setting central bank credit policies were able to keep a perpetually accommodative lending environment.

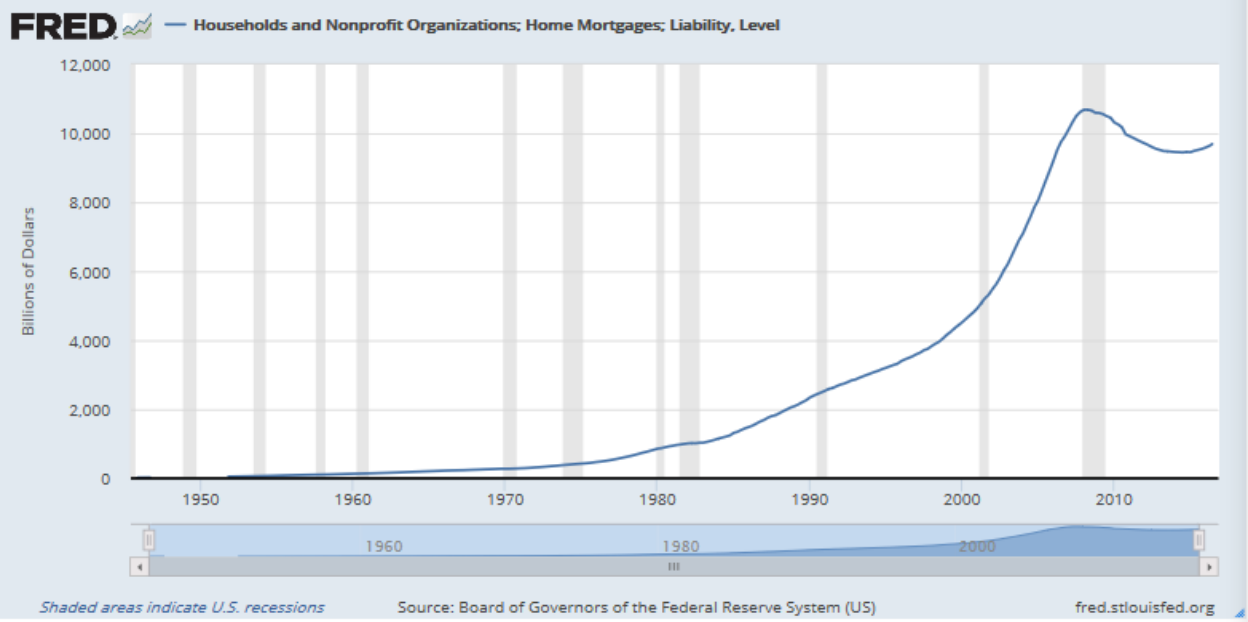
The bottom line is that in the current global monetary regime money is a political concept without boundaries. (What could possibly go wrong…?)

Aging Demographics

In 1981, when the global economy was just about to embark on the leveraging phase of the super-leverage cycle, the average baby boomer in the US was 27 years-old. Today, the average baby boomer is 60. The same demographic shift holds true, more or less, across the largest advanced and advancing economies. In 1981, household debt levels were also much lower, and so household balance sheet were leverage-able. Interest rates off which bank loans and mortgages are priced were around 15%. Total mortgage debt was less than $1 trillion in the US.

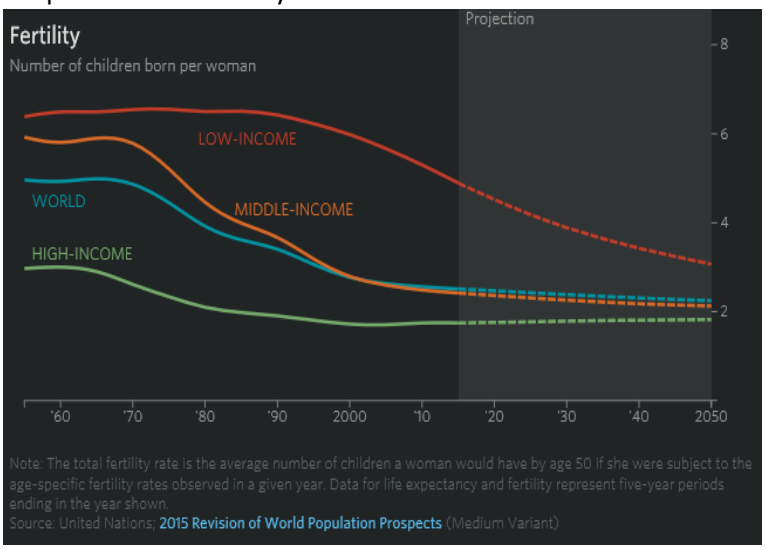
As interest rates began to decline in 1982, young, aspirational baby boomers began to borrow to buy homes (which also allowed them to invest in risk assets). The technology-led growth in the mortgage backed securities market and the secular decline in interest rates further allowed them to continually refinance their debt and upsize their homes. Home mortgages in the US peaked at about $10.7 trillion in 2008, and has since declined by about a $1 trillion over the last eight years (see Graph 8 below).

Graph 8: Home Mortgage Liability Levels in US



The demand for risk assets at current prices, including homes and equity, is declining rapidly among the largest holders of them. This trend should accelerate in the coming years as baby boomers across all large economies get older, re-imagine their aspirations, and reduce consumption. The critical point is that while it is possible that past and current consumption of older populations will be replaced by their children, it is not possible for parents to pass down their assets at current values. Why? Because those assets are encumbered with debt that must be either extinguished or assigned (and taxed) upon death. There will be a growing supply of risk assets relative to new borrowings that would fund purchases of them.

Graph 9: Global Fertility Rate

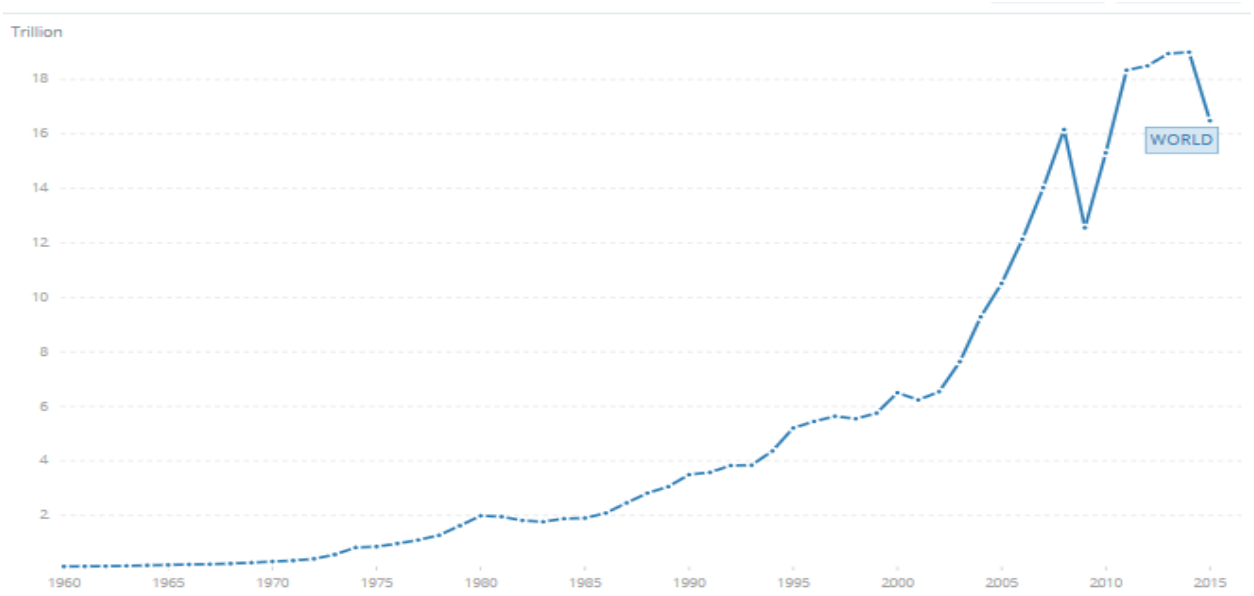


Finally, it is well-known that 2.1 children per woman is the neutral fertility rate at which the global population neither grows nor contracts. As Graph 9 shows, world fertility rates are right at this level and fertility rates of women in high income economies are currently below it. So, it seems unlikely that consumer demand for goods and services can be sustained at current prices. Asset values that depend on demand and output growth derived from population growth should become stressed.

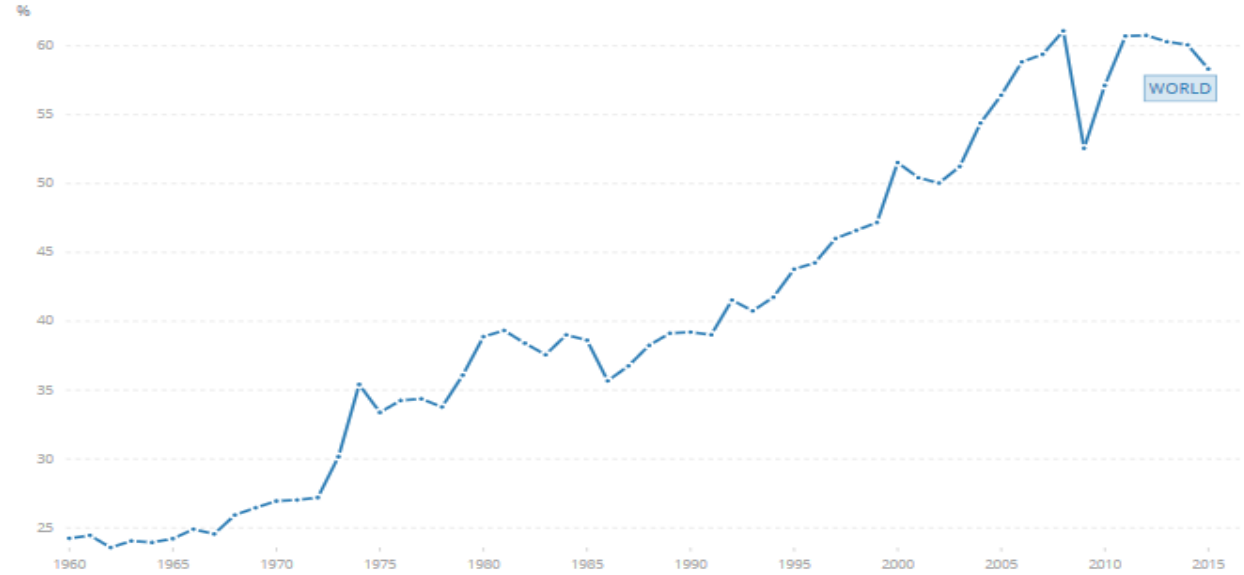
Trade

World trade rose significantly following the opening of China and the Russian bloc. Trade began to moderate as infrastructure and costs of production in emerging economies began to mature. Trade is once again more economic, more a function of debt-driven supply feeding debt-driven demand.

Graph 10: World Trade (in USD)



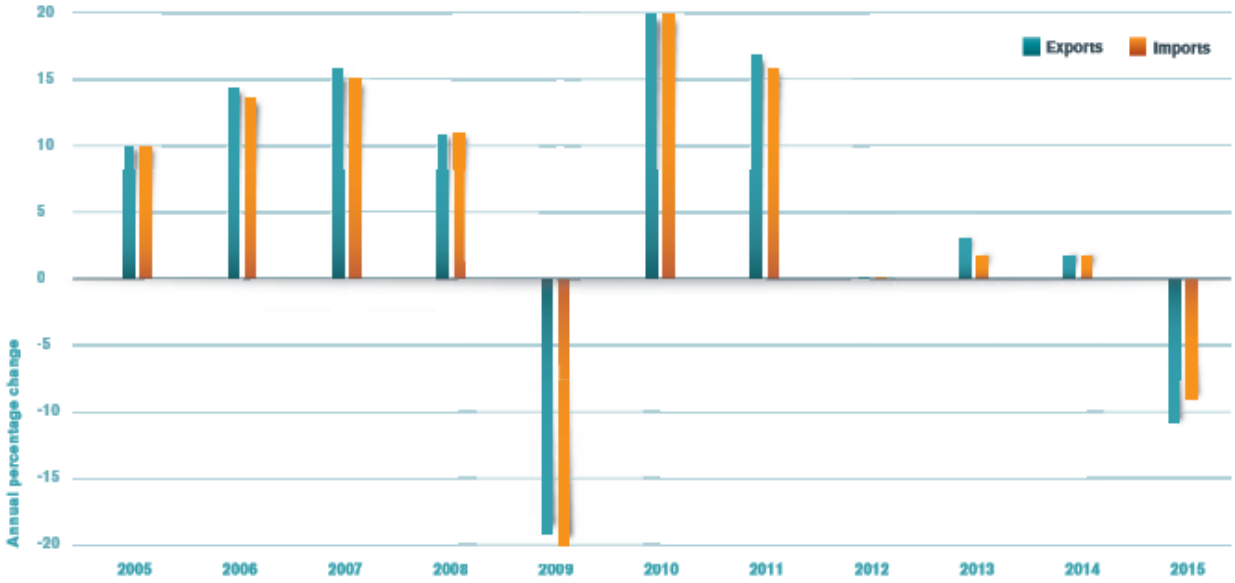
Graph 11: World Trade as a % of Global GDP



Source: World Bank

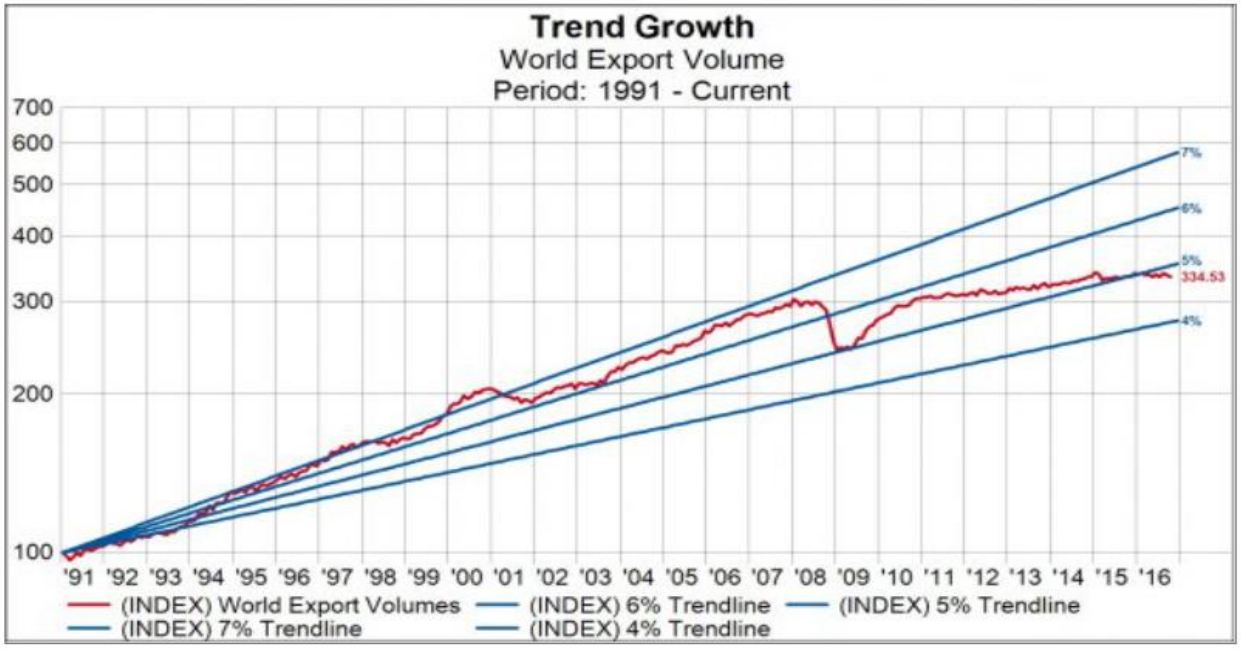
Meanwhile, consumers in importing economies ran up debts and became less able to provide sufficient demand for exporters. The net effect has been declining trade volumes, which used to grow at double the rate of GDP growth. Now, global trade struggles to grow at all.

Graph 12: Growth of World Merchandise Trade



Source: World Trade Organization.

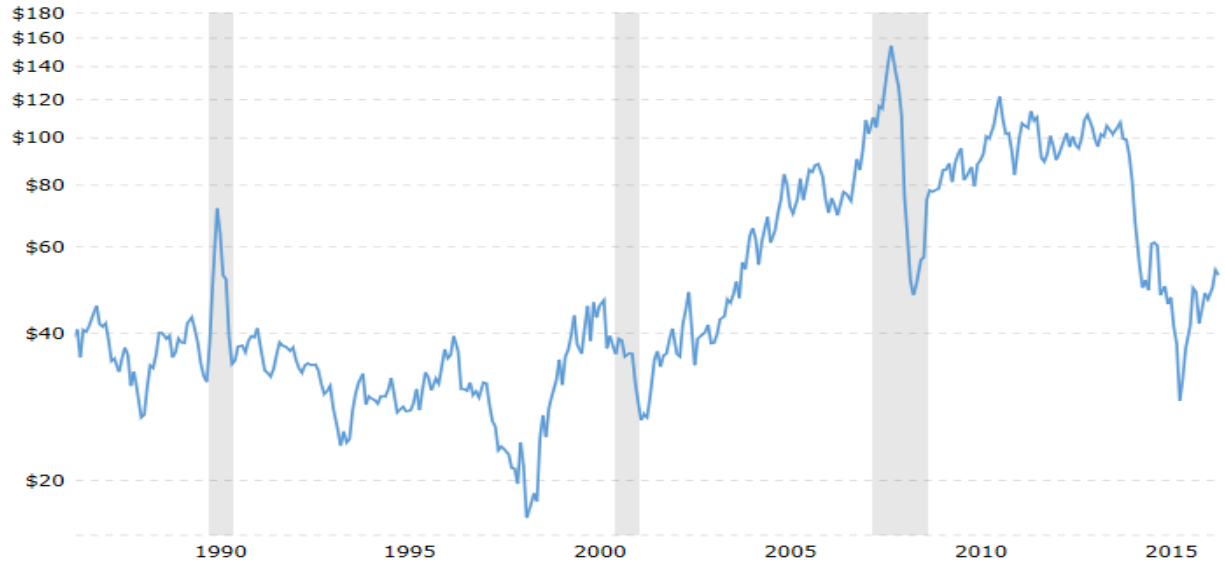
Graph 13: Declining Trend of World Trade Trend Growth (in USD)



Source: CPB World Trade Monitor; GaveKal Capital; http://blog.gavekalcapital.com/?p=12619.

Trade data released for November 2016 popped higher unexpectedly. (Graph 13 above only runs through October 2016.) This suggests that the reversal of the significant decline in the price of oil from mid-2014 through 2015 might now be pushing trade volume higher. If so, increasing trade volume from more oil exports should not be considered beneficial, as higher oil prices provides a further economic headwind.

Graph 14: Crude Oil in USD



Source: macrotrends; http://www.macrotrends.net/1369/crude-oil-price-history-chart.

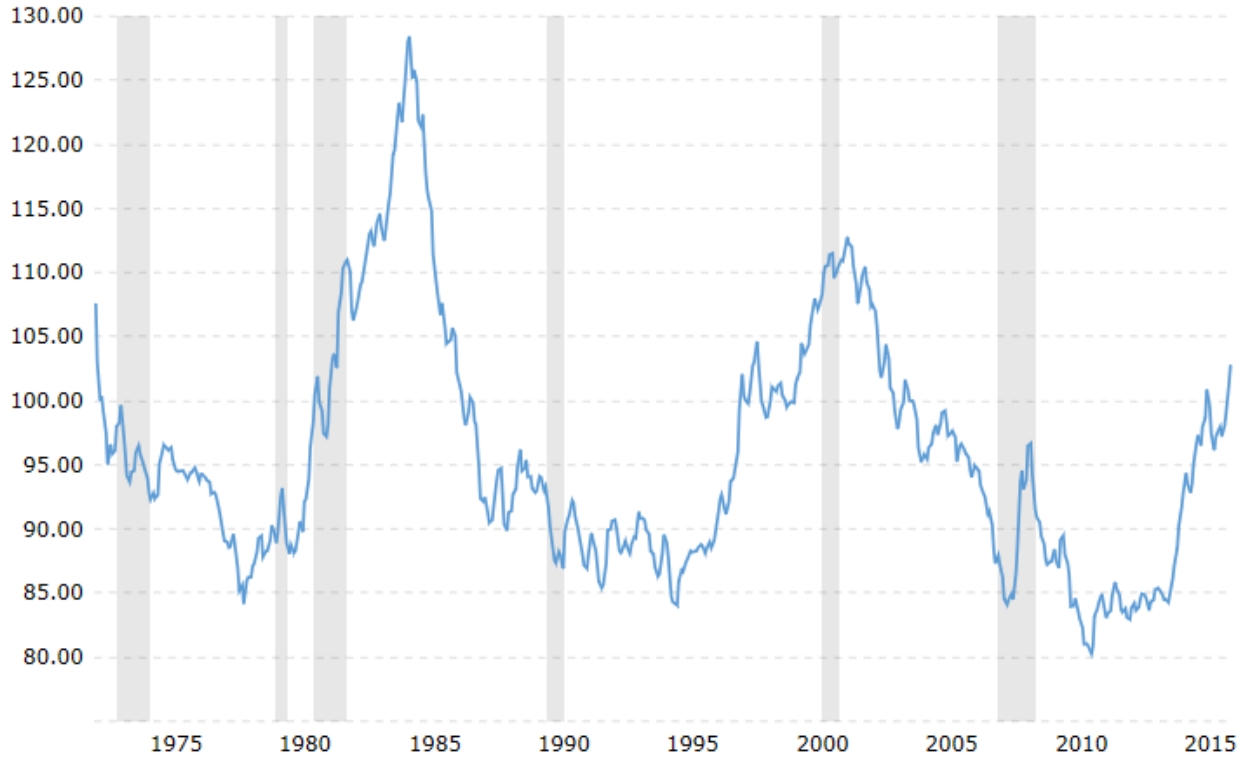
As trade channels matured, exporters managed the exchange value of their currencies lower to make their goods and services cheaper to consumers in importing economies. This made the dollar appear stronger.

Graph 15: US dollar Index

Source: macrotrends; http://www.macrotrends.net/1329/us-dollar-index-historical-chart.

A very long term graph of the dollar (below) puts everything in perspective and implies much, in our view. *The story it tells is a global economy struggling to grow organically and a monetary exchange system struggling to survive.*

Graph 16: US dollar Index since January 1973



Source: macrotrends; http://www.macrotrends.net/1329/us-dollar-index-historical-chart.

The graph begins in 1973 when the current flexible exchange rate monetary system officially began. The new regime centered on the US dollar as the global hegemonic currency rather than the dollar's convertibility to gold at a fixed exchange rate, which had been the Bretton Woods model since 1945. The dollar's exchange rate vis-à-vis other global currencies fell from 1973 through 1978, most likely due to the need to increase the supply of dollars to satisfy global trade. The dollar then began a long march higher, not peaking until 1985. This dollar strength fed on itself, and was likely due in large part to high interest rates and increasing demand for US Treasuries, which had risen meaningfully in 1980, and US equities, which had begun what would become a thirty year bull market.

The early 1980s experience showed that managing economies and trade in a flexible exchange rate system could work. US policy makers would maintain the exchange value of the dollar in a reasonably narrow range vs. the currencies of its trade partners, and in return it would be able to greatly influence global pricing of goods and services and offer its enormous consumer base for world consumption. The US economy, meanwhile, would benefit from importing capital to its financial markets.

The dollar declined from 1985 to 1995, but not so much as to threaten the viability of the regime. During this period, the US ran up significant budget deficits, which reduced the dollar's relative attractiveness. This deficit spending coincided with lower income taxes and domestic incentives to invest. Significant capital was formed in the US and around the free world. US and NATO armaments were expanded and stockpiled. The flexible exchange rate monetary system had been used to outspend and open formerly closed and belligerent cold war economies that were not part of the regime, like China and Russia.

The dollar then strengthened from 1995 through early 2002, peaking near its long-term mid-range. No doubt dollar strength was influenced greatly by the substantial increase in equity prices that attracted global capital. The dollar again began to decline as the US and its allies went to war.

The war on terror remains a very difficult thing to analyze, perhaps because it is ostensibly not driven by economics. Anything contrary to the narrative centering on religious zealotry is considered a conspiracy theory. We accept that, but will argue the source of radical Islamic terror is economic just the same. There are two simple reasons for our skepticism.

First, economically content societies do not tend to produce broad religious fundamentalism that includes a culture of suicide. Second, an outright revolt from OPEC in the 1970s helped define the current finance-based monetary system. The system gave crude exporters the ability to exchange their natural resources for value in the form of a stable dollar and dollar- sterling- and then euro-denominated financial assets. Islamic societies abiding by Sharia law without natural resources to exchange were left out in the cold. The finance/leverage/inflation-based post-Bretton Woods monetary system impoverished them.

The dollar declined from 2002 to 2011 as America extended its deficit spending and the euro, sterling and gold provided reasonable alternative stores of value. It again found strength in 2011, and continues strong today. Why is the dollar's exchange value vis-à-vis other currencies gaining now? We think it is more a function of other economies' and currencies' relative weakness. Simply, the prospects are dimmer for maintaining further balance sheet leveraging and economic growth in Europe, China, Japan, the UK and other major economies than they are in America. As Graph 16 shows, the US dollar index is experiencing lower highs and lower lows. This suggests a system in decline.

We have argued the current monetary regime is in its evanescence, and that the Fed is trying to raise rates to attract global wealth to dollars and dollar-denominated assets as global leverage, demand and output growth declines. If we are right, then we should not expect other economies to sit by idly.

Global Reaction

The final macro dynamic we discuss is the geopolitical challenge to US dominance over the post-Bretton Woods monetary system, NATO, and global trade. This is comprised of a complex range of issues that we cannot (and are not qualified to) fully explore; however we will touch on a few major issues that may be interesting to investors.

We begin with Donald Trump. His victory implies a near-majority of Americans recognized the domestic economy was not serving them. They were angry and sentimental and to them it was a desperate act.

Donald Duck would have defeated Hillary Clinton if he squawked about overturning globalization, which she helped create. It was inevitable that the effects of globalization would lead to revolt within the empire. Mr. Trump's ultimate message was to scorch the power structure – Washington and media – and to replace it with something that better served, respected and reflected Americans. He is unlikely to satisfy his backers sufficiently for reasons discussed above.

Mr. Trump can have an economic impact on the margin. Better trade deals enforced by a stronger military and tougher immigration laws passed on the back of insensitive rhetoric have one thing in common: they evoke the promise of less economic efficiency, which in turn promises to benefit low wage American workers. It is unlikely to work. The World Wide Web, cheap labor, super-ag businesses, cheap energy and real time logistics are here to stay and available to all across the world…unless the political dimension erects barriers.

The natural tendency of economies is price deflation, and so it has become the tacit mission of politicians in advanced, highly leveraged economies to somehow create inflation that supports domestic debt service. This has to be executed through their central banks, which is tricky in Europe. Reviving comparatively high cost labor in advanced economies is even trickier. Protectionist trade policies, flipping off the Internet or starting a war with a major global trader could work in varying degrees, but only temporarily. Pesky economic incentives always win in the end, unless the war brings new resources, which seems highly unlikely in today's world where resources are shared at the right price.

We believe foreign policy under Trump will be mostly practical and reactive.

Europe is where we see the greatest chance for political upset. The growing sense of aimlessness among indebted and increasingly superfluous labor does not seem to be an American phenomenon. It may explain Brexit and the rising popularity of truly far right politicians in Western Europe like Geert Wilders in Holland and Marine Le Pen in France. A win by one or both would further threaten the euro.

Should an irritated Recep Tayyit Erdoğan open Turkey's borders and resume the diaspora of hundreds of thousands of Middle East emigrants (more unnecessary labor), Western Europe could take a right turn. Such an unlikely scenario a few months ago is becoming more likely, as Le Pen's opposition is becoming embroiled in scandal and Great Britain is not releasing funds promised to Erdoğan.

A semi-reasonable scenario that gives Turkey so much power to alter Western European politics is a decent segue to Russia. Former Soviet bloc Eastern European countries may be annexed by Russia in the coming years. Encroaching on a NATO member without a military response, as Russia did in Ukraine, opens the door for an expansion of Russia's borders. The Trump administration is signaling that deal making takes precedence over hard lines in the sand. We look for Putin and Trump to reach an understanding,

potentially giving a pass to Russia to expand its western front in return for help in Syria and other parts of the Middle East.

We see Russia's geopolitical role in the world as *modified cold war realpolitik*, which is to say not much different from America's under Donald Trump. We expect a gradual thaw between Russia and the West made possible by a less hysterical reaction function among western policy makers and media.

Geopolitically, we do not see China playing a major disruptive role. It should continue to expand its influence in areas where there is no international push-back, like mineral rich Africa. The one exception will be the South China Sea, where it will continue to build outposts. It should also continue to let North Korea build and show-off its nuclear arsenal, keeping that card in the hole to be brought out only when it has a big "ask" (e.g., "let us control all shipping lanes in the South China Sea and we will annex and de-militarize North Korea"). A dealmaker in the White House with a penchant for greatness would give way.

China has shown great dexterity over the last twenty years adapting politically to the post-Bretton Woods global monetary system. After all, it is a socialized system perpetuated and overseen by the state. Its cornerstone is fiat money, which is money proclaimed to have value by governments and in which taxes may be exclusively paid. China has benefitted greatly by embracing the idea of boundless credit, running up debts to expand its infrastructure and fund current output growth.

The Peoples Bank of China stands ready – like the Fed and the ECB – to expand its opaque balance sheet to purchase public and private sector debt without recrimination or audit. We do not think China will be labeled a "currency manipulator" in a Trump administration. It is a hollow threat from the West, especially in times when the yuan would otherwise cheapen in FX markets. Branding China a manipulator would open up a Pandora's Box that would not serve the geopolitical interests of established monetary boards. Beyond tough talk, we expect the Trump administration to accept the slow broadening of the band China uses to fix exchange rates.

Paul Brodsky
Macro Allocation Inc.
www.macro-allocation.com

Property Notice & Disclaimer