

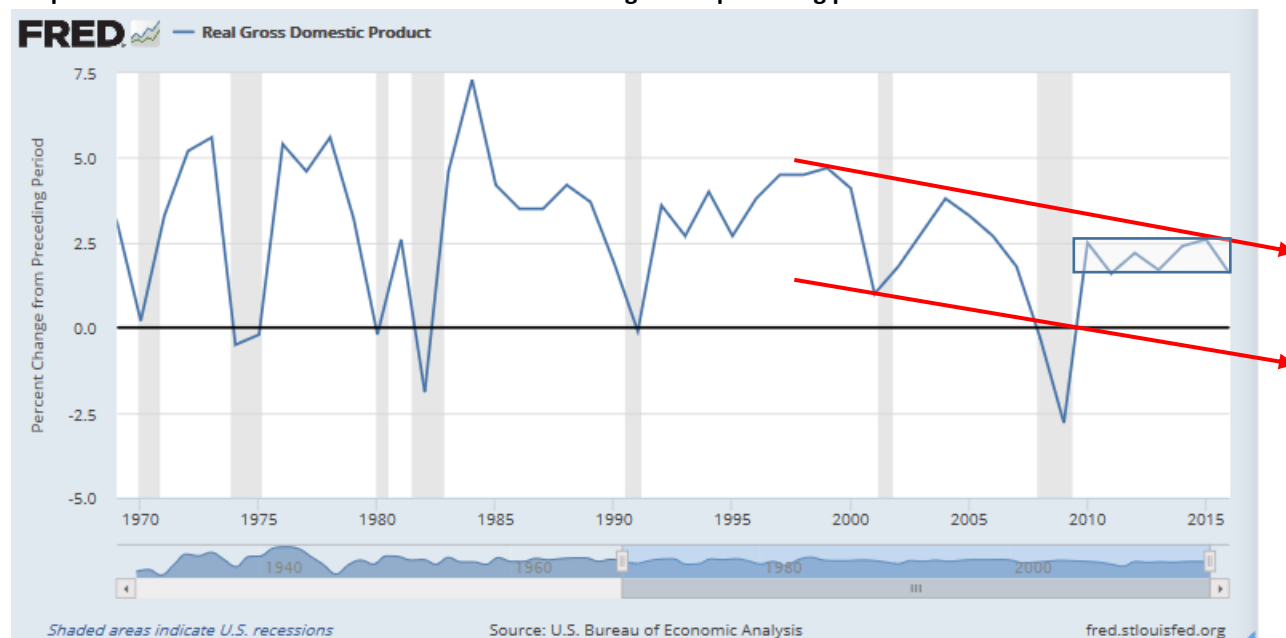
Stagflation on the Horizon

Logic and current trends suggest that declining output growth accompanied by higher prices will begin hitting economies and facing policy makers in the coming years. Markets should begin sniffing out this *stagflationary* macroeconomic setup this year.

Output

We have published data showing global output growth is in decline and have argued this trend will continue. Indeed, a long term graph of US Real GDP growth implies a change in complexion since 1999, from credit-induced boom-bust economic cycles to a secular trajectory of decline (red lines on graph 1).

Graph 1: US Real Gross Domestic Product: Percent change from preceding period is in secular decline



Source: St. Louis Fed; Macro Allocation Inc.

This trend is especially troublesome following the debt-induced wash-out recession in 2008/2009, subsequently offset by zero-bound interest rates and central bank asset purchases. Since then, real GDP growth, characterized by middling output and low consumer inflation, has languished on a low plane, bouncing between 2.5 percent and 1.6 percent (shaded box on graph 1).

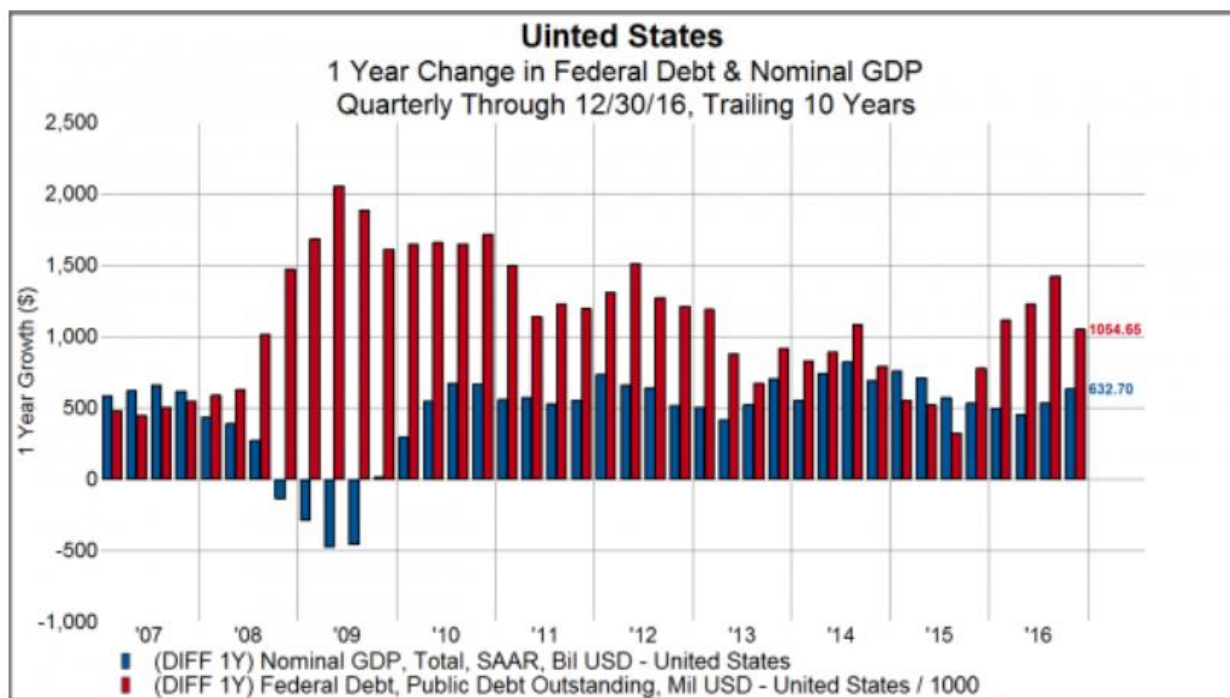
The US Bureau of Economic Analysis will not release its initial GDP estimate for Q1 2017 until April 28, but credible high frequency reports suggest real US output growth is in the process of falling below its low plane. The Atlanta Fed's GDPNow forecasts growth of only 1.3 percent in the first quarter. Among the

factors weighing on the updated outlook are softer projections for household spending and non-household capital expenditures. Even more ominous is that this estimated slow growth included a month (February) in which the average temperature was ten degrees above normal – the hottest in sixty years.

Weak output growth is a far cry from the Fed's official 3.1 percent forecast based on broad econometric models. This more optimistic forecast has more influence over the Federal Open Market Committee, which establishes and executes monetary policy. Accordingly, the Fed has communicated it will hike rates today and hinted it will again two or three more times in 2017.

Declining secular growth stems from the downside of pervasive debt assumption, which retards capex and consumer spending. Unperturbed, policy makers are doubling down. GaveKal Capital published the following two graphs showing how critical Treasury debt issuance has become to US growth. The first shows how debt assumption is increasing far more than GDP (\$1.05 trillion of federal debt vs. \$632 billion of GDP in the latest quarter). Clearly, it takes a lot of government debt assumption to drive output growth.

Graph 2: Diminishing Impact of Federal Debt on Nominal GDP: 2007 - 2016



Source: GaveKal Capital

To prove its point, GaveKal notes a close correlation: “In the first three quarters of 2015, debt growth was held in check by the debt ceiling and fiscal conservatives in Congress. Notice the negative effect on GDP growth in this period as growth slowed each quarter. Then in the fourth quarter of 2015, the debt ceiling was suspended and the flood of federal debt began again. Predictably, growth picked up too.”

GaveKal then extended the same graph back 35 years and expressed the time series annually. We can see from Graph 3 below that output growth regularly outpaced debt assumption when a dollar of debt produced more than a dollar of output; which is to say when the US economy functioned properly. This was real economic growth – growth that was not borrowed and that was expected to be repaid someday.

Graph 3: Diminishing Impact of Federal Debt on Nominal GDP: 1980 - 2016



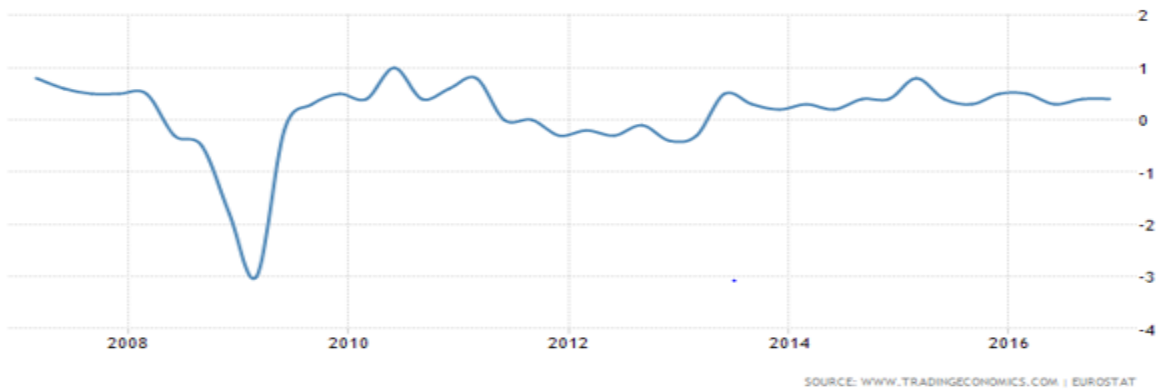
Source: GaveKal Capital

As always, Treasury must service its debt by issuing new debt, and raising the debt ceiling has been a constant source of conflict among US legislators. Last week, Treasury Secretary Mnuchin asked Speaker Ryan to persuade the House to raise the ceiling as soon as possible. If Congress does not raise it above \$20 trillion, experts say Treasury would default on its debt by late summer or early fall 2017.

We are of the view that Congress will once again raise the debt ceiling, but that it will come at a significant cost. One of the major sources of the recent rally in equities and higher Treasury yields has been enthusiasm over Donald Trump's economic initiatives. If raising the debt ceiling is delayed or tied to legislation that triggers future debt retirement, then expectations for future US growth would decline, as would US equities and Treasury yields.

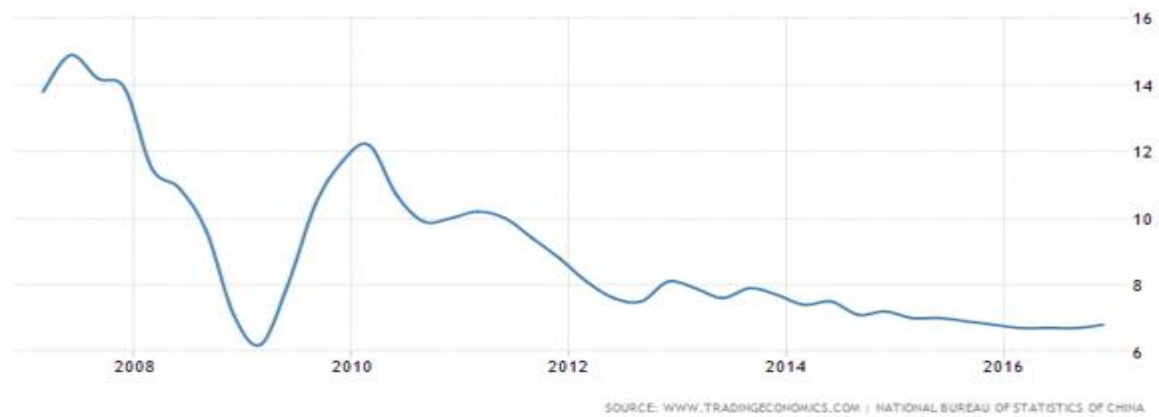
Even if raising the debt ceiling goes smoothly, we think global output will continue to drop. Using debt to promote output growth is playing out across the world. Despite massive debt growth, output is static or declining in Europe...

EU GDP GROWTH RATE



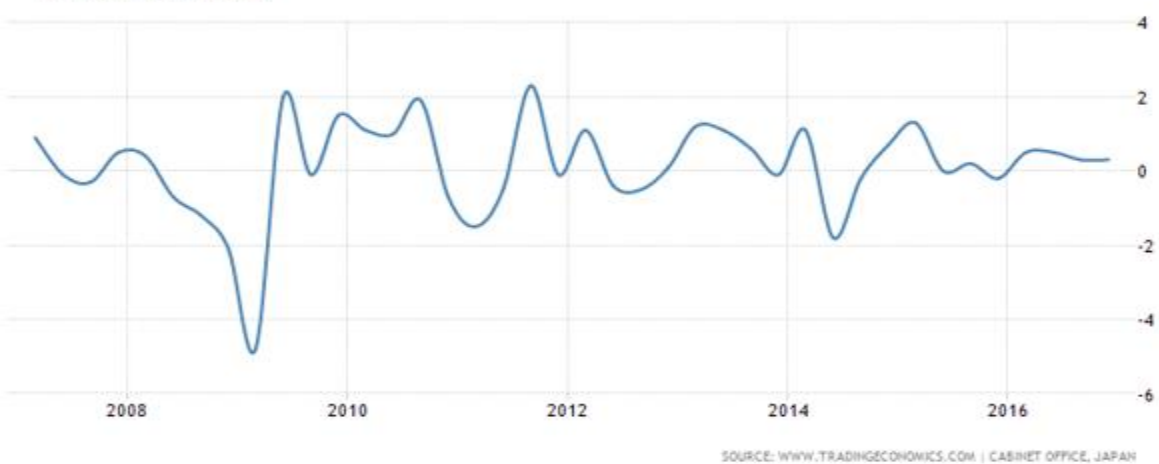
...China...

CHINA GDP ANNUAL GROWTH RATE

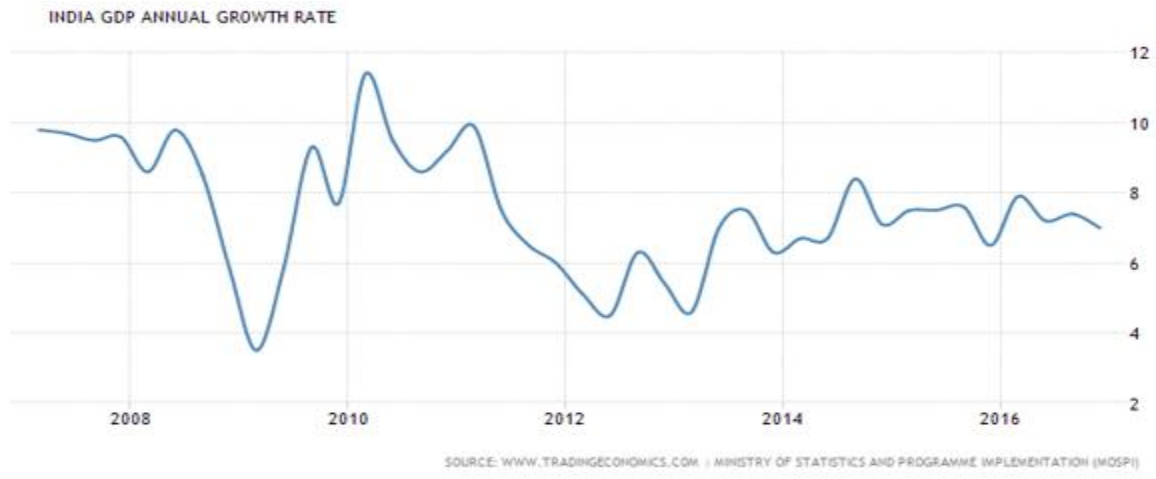


...Japan...

JAPAN GDP GROWTH RATE



...and even India:



Where is the global driver of output growth? Which geography or segment of society has a balance sheet large enough and un-levered enough to support a return to a debt-fueled boom-bust economic cycle?

Are we to believe that changes in US fiscal, regulatory, immigration and trade policies would have the power to persuade businesses and consumers around the world to reverse course - to not care about the exchange value of their currencies - so that they produce and consume for the benefit of American output and labor? Even if President Trump succeeds at raising US GDP to 3 percent, which would be no easy feat, how sustainable would that be and would it even matter for US multinationals that must grow abroad?

Investors should take note of what should logically be one of the highest-frequency leading indicators for the onset of a recession - retail spending. S&P retail sector stocks, as expressed in the XRT ETF, have declined 13 percent over the last six months in spite of a very strong stock market, and for good reason. Table 1 shows that in the last two quarters profit margins in the retail sector have crashed:

Table 1: Leading Indicator of Recession: Retail Sector Profit Margins are crashing

Retail Sector Profitability Ratios	1 Q 2017	4 Q 2016	3 Q 2016	2 Q 2016	1 Q 2016
	2017	2016	2016	2016	2016
Gross Margin	12.9 %	17.63 %	22.15 %	26.06 %	25.93 %
Gross Margin Annual (TTM)	13.34 %	17.5 %	22.64 %	25.96 %	25.2 %
Gross Margin Ranking	# 1	# 13	# 13	# 11	# 10
EBITDA Margin	2.81 %	7.16 %	5.56 %	7.04 %	6.94 %
EBITDA Margin Annual (TTM)	3.99 %	5.86 %	6.28 %	6.74 %	6.11 %
EBITDA Margin Ranking	# 1	# 13	# 13	# 12	# 12
Operating Margin	2.84 %	4.1 %	3.82 %	4.84 %	4.86 %
Operating Margin Annual (TTM)	3.09 %	4.09 %	4.65 %	4.7 %	4.64 %
Operating Margin Ranking	# 1	# 13	# 12	# 12	# 11
Pre-Tax Margin	2.72 %	3.66 %	3.34 %	4.32 %	4.15 %
Pre-Tax Margin Annual (TTM)	3.03 %	3.57 %	3.73 %	4.09 %	4.01 %
Pre-Tax Margin Ranking	# 1	# 11	# 12	# 11	# 8
Net Margin	1.75 %	2.66 %	2.15 %	2.75 %	2.71 %
Net Margin Annual (TTM)	1.99 %	2.36 %	2.38 %	2.61 %	2.56 %
Net Margin Ranking	# 1	# 12	# 12	# 11	# 8

Source: CSI Markets; http://csimarket.com/Industry/industry_Profitability_Ratios.php?s=1300.

Watching US market ebullience in the face of a tiring, highly-indebted US economy that lacks an obvious new outlet for credit growth is like watching a slow motion car crash. We expect continued disappointing consumption, corporate profits and real growth rates to continue in 2017, in the US and around the world, and expect it to be followed by declining global trade and economic malaise.

Inflation

We expect rising inflation to accompany falling output, and to understand why we offer a wonky but practical discussion of inflation.

Classic economics suggests demand and inflation should track each other higher and lower. Such a correlation, however, is not as tight in real life as it is conceptually. Super-economic factors associated with the exogenous management of global trade and credit greatly affect *supply* in ways often unintended by policy makers. From time to time *supply shortages* arise independent of the economics of production and demand. This creates significant economic dis-equilibria, leading to substantial inflation.

The last time this occurred was in the 1970s. OPEC oil exporters, bothered by the unknown future purchasing power of the new fiat dollars they were being forced to receive in exchange for their crude, limited its supply and drove up its price. Since energy was needed for manufacturing and transporting goods and services, the general price level rose across economies, even as demand and the need for labor fell. So, policy-induced supply disruptions led to slowing output and rising prices - stagflation.

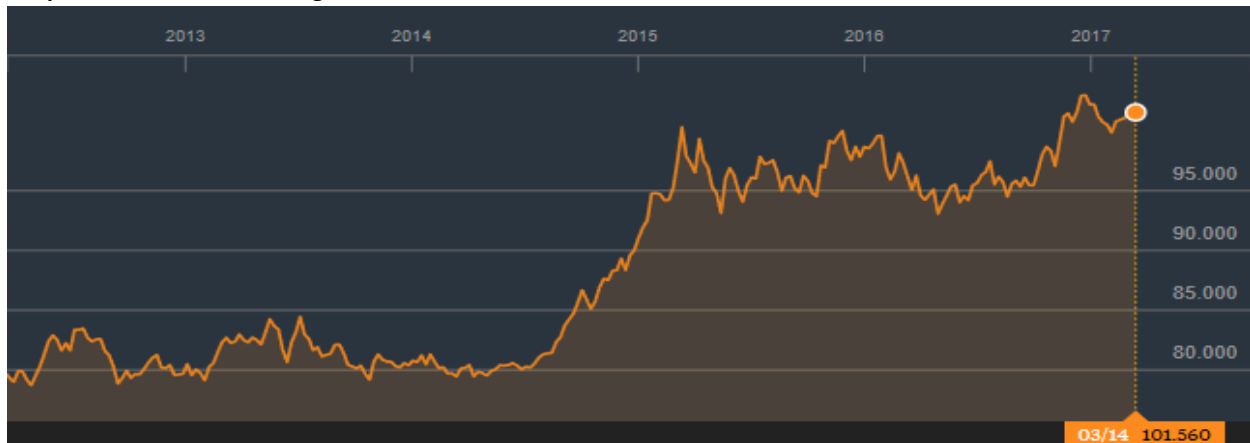
Since then a global monetary regime that prices oil and most other trade goods in fiat dollars has been in force. US policy makers have maintained a generally stable dollar and, as importantly, strong dollar-denominated assets, which have provided global suppliers with an attractive destination for their wealth.

A stable dollar and generally rising US financial assets have created a fairly stable level of perceived wealth creation across the world. Were the dollar's exchange rate or capital markets to fall, then US dollar and asset holders (foreign and domestic) would have great incentive to liquidate their holdings. Thus, the perception of the US as the global hegemon is the key to stability in the global economy.

What would cause capital flight out of the US? The obvious answer is the general perception that the dollar and the US economy will weaken more than those of other major economies.

This does not seem to be the case today, at least in relative terms. Following the financial crisis, the Fed acted aggressively to de-leverage the US banking system and was then first to taper and stop quantitative easing. US dollars and capital markets attracted global wealth. More recently, the Fed was also the first among major central banks to begin raising benchmark interest rates, which has further boosted the exchange value of the dollar vis-à-vis other major currencies. The recent enthusiasm over President Trump's economic initiatives has provided a further boost to US corporate equity. All seems copacetic presently for dollar and US asset holders around the world.

Graph 4: DXY Index: a strong US dollar

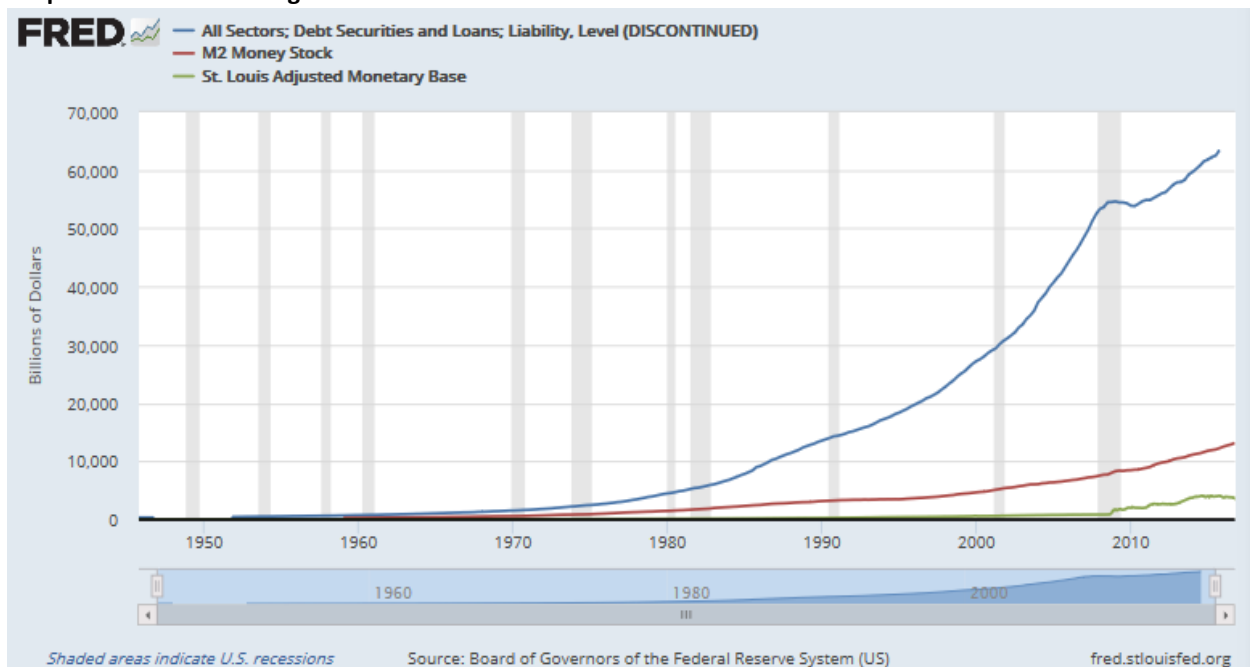


Source: Bloomberg, LP.

Imminent Problem: A Scarcity of Dollars

Not so fast. Relative strength in the dollar stems from positive interest rate differentials and the natural demand for dollars to service, rollover and repay dollar denominated debt. Total US credit market debt totaled over \$60 trillion (before the Fed stopped publishing it last quarter), which is five times M2 and fifteen times base money - the amount of deliverable dollars available to repay it. (The \$60 trillion figure does not include off balance sheet obligations like Social Security, which would boost the multiple further.)

Graph 5: US dollar Leverage



Source: St. Louis Fed.

There is also a scarcity of dollars held in foreign hands relative to the scale of the global economy. This will lead to a decline in dollar reserves held abroad. Recall that global trade volume is mostly based in dollars. A decline of dollars held in reserve limits global trade, pushing global output down. This, in turn, speeds incentives to raise the status of other major currencies to compete with the dollar.

To date, US bond issuers have had an easy time servicing their obligations because the dollar has been strong and they have produced sufficient revenues in dollars. *The more pressing problem may arise from non-US issuers of dollar credit, which has doubled over the last ten years to \$10 trillion. This credit also has to be serviced, rolled over and repaid in dollars. We anticipate increasing pressure among non-US dollar creditors to obtain dollars as the Fed hikes US interest rates, strengthening the dollar further.*

The most pressure will be felt by emerging market sovereigns, banks and other companies that have issued about \$3.2 trillion in dollar bonds. While further dollar strength would increase exporters' profit margins, it would also reduce gross trade volume. Top line output of EM economies would suffer and they would likely raise consumer prices to maintain nominal growth rates. Inflation.

A discussion of the US dollar and dollar assets (including US real estate) without a discussion of dollar denominated liabilities is like trying to clap with one hand. Depending on how one counts, 25 to 95 percent of US dollars have liabilities attached to them. To service or repay these liabilities, more dollars have to be created. Simply liquidating assets to service or repay them will not work because for every liquidation there must be a buyer and the buyer must have dollars (that do not exist) to settle the trade.

Interest rates attached to liabilities ensure that the gross amount of liabilities will grow at a compounding rate, and higher interest rates ensures liabilities will grow faster. This, in turn, puts further pressure on assets to generate returns in excess of the negative return from liabilities. Eventually, this pressures policy makers to make sure asset prices rise more than the compounding rate of liability growth.

Ultimately, helping to maintain the appearance of rational asset valuations and decent commercial fundamentals becomes secondary to policy making institutions principally charged with protecting the dollar-centric global monetary system. We are currently far along on this spectrum.

We argue the US economy, US assets, the Fed and US fiscal policy makers are displaying obvious signs of late-stage fatigue associated with protecting the current global regime at all costs. As in the 1970s, the triggers for goods and service inflation within a slowing global economy will be currency related and a dearth of supply flowing through the trade channel, but rather than oil, this time the world will lack an adequate supply of increasingly scarce dollars needed for debt service.

The Political Solution: Dollar Inflation

Milton Friedman famously noted "inflation is always and everywhere a monetary phenomenon". In the post-Bretton Woods monetary system, the pricing and supply of money and credit are not determined by

production, but rather by monetary and currency exchange policies. Central banks and treasury ministries manufacture inflation through policy administration.

This is easy to see in extremis. During the financial crisis central banks were able to manipulate the general price level higher to counteract the onset of deflation. We learned from the 2008/2009 experience, however, that central banks cannot determine where new money and credit mostly flow – to production or to assets. Central banks can directly manipulate only bank balance sheets, and banks, in turn, tend to lend more to issuers and buyers of assets *when the organic need for production is not increasing*.

The organic need for more production in the US (and everywhere else) is falling, as evidenced by declining global output growth. The only lever US policy makers will soon have left to pull, if they want to maintain the USD-centric global system, will be coordinated currency dilution (i.e., devaluation).

Oil is still very important to manufacturing and transportation, but oil exporting countries no longer have the same influence over global pricing, thanks to Russia's ability to compete in global trade and the more recent fracking revolution in the US. *The exogenous influence that would produce global economic disequilibrium and bring about stagflation today would be money itself, specifically US dollars.*

To produce consumer inflation coincident with declining or contracting output, there must be an exogenous influence over prices outside the reach of central banks. We believe that influence is actually – and ironically – contracting production. The less production in an economy, the less influential that economy's factors of production are in the global economy, and the less influence its central bank has over the global supply of goods and services.

The Fed has already recognized, and communicated to the public in its statements over the last two years, that its monetary policies also consider the strength of the dollar, trade and the global economy. We think it will have to soon recognize declining *global* output growth and the impact a strong dollar has on it. *Our guess is that the Fed would like to hike rates as much and quickly as possible over the next two years so that it can then reduce them – to weaken the dollar – as global output sinks deeper.*

In the end, the Fed will not be able to protect unilateral US dollar hegemony. Officials at the Fed and other major central banks, working bilaterally and with the BIS, IMF and WTO, would have to try to bring the purchasing power value of all currencies down together in relation to the real value of global production. Doing so successfully would be a monumental bureaucratic undertaking. We imagine it will be messy from social, political, economic and, especially, financial perspectives.

The Fed will have to turn on the spigots and create dollars for US and foreign creditors and, if they are lucky, debtors too. Stagflation will appear. The markets should begin getting a whiff of this soon.

Paul Brodsky
Macro Allocation Inc.

Property Notice & Disclaimer

This document was produced and is owned by Macro Allocation Inc. Copying, reproducing, modifying, distributing, displaying, or transmitting any of the contents in this document for any purposes without the express written consent of Macro Allocation Inc is strictly prohibited. Requests for copying, reproducing, modifying, distributing, displaying, or transmitting any of the contents in this document should be sent to pbrodsky@macro-allocation.com.

Unauthorized use of this document may give rise to a claim for civil damages and/or be a criminal offense. Your use of this document and any dispute arising out of such use is subject to the laws of the state of Florida, United States.

The information contained in this document is for general information purposes only. It is provided by Macro Allocation Inc to Subscriber/Members, and, while we endeavor to ensure the information is up-to-date and correct, we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to this document or the information, products, services, or related graphics contained in this document for any purpose. Nothing in this document should be taken to constitute professional advice or a formal recommendation, and we exclude all representations and warranties relating to the content and use of this document. Any reliance you place on such information is therefore strictly at your own risk.

In no event will Macro Allocation Inc, its affiliates, and employees be liable for any loss or damage including, without limitation, indirect or consequential loss or damage, or any loss or damage whatsoever arising from loss of data or profits arising out of, or in connection with, the use of this document.

Through this document you may infer that other sources of information mentioned in it could provide suitable analysis related to issues on which you may act and suffer damages. Any mention or reference herein does not necessarily imply a recommendation or endorse the views expressed or implied by it.

Macro Allocation Inc reserves the right to revise and amend this disclaimer notice from time to time and any revised version will be deemed to be applicable from the first date of publication of this document.