ECONOMIC Commentary AND REVIEW

The Velocity of Money

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Chairman Bernanke and the rest of the Federal Reserve Board (Fed) have been in a very difficult position over the past two years. Coming off of a deep recession, traditional monetary policy measures haven't been able to bring the economy back to pre-crisis growth levels. This has forced the central bank into uncharted territory, requiring them to use non-standard methods in an attempt to stimulate the economy. However, what is becoming clear is that most of these tools have only been able to bring temporary relief and the U.S. economy continues to grow at a sub-optimal pace.

Part of the problem has been the ongoing aftershocks from the financial crisis of 2007/2008. Over the past three years there has also been an unusual amount of natural and man-made disasters that continue to weigh on economies. Finally, the significance of the global deleveraging trend has been much greater than anticipated.

What can the FED Do?

The Federal Reserve has a dual mandate that states:

> "The Board of Governors of the Federal Reserve System and the Federal Open Market Committee shall maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices and moderate long-term interest rates."

The Fed regularly provides projections of what they see as the results of their policies relating to the two components of the mandate. At the June FOMC meeting, the outlook was modified downward to reflect the declining trend of domestic economic activity.

The table below shows a dramatic change in the sentiment and consensus estimates from the Fed since the last meeting in April. Before the June update, the Fed had a much more positive view that growth would pick up and the unemployment rate would continue to gradually come down.

Both GDP and inflation are being marked down for 2012, 2013 and 2014. At the same time, The Fed members are forecasting an increase for the unemployment rate. While it is easily understood that a decrease in GDP and an increase in the unemployment rate isn't a healthy economic condition, many may not realize that deflation (or stagflation) can pose an even greater risk.

Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents, June 2012

	Central Tendency				Range			
Variable	**2012**	**2013**	**2014**	**Longer Run**	**2012**	**2013**	**2014**	**Longer Run**
Change in real GDP	1.9 to 2.4	2.2 to 2.8	3.0 to 3.5	2.3 to 2.5	1.6 to 2.5	2.2 to 3.5	2.8 to 4.0	2.2 to 3.0
April projection	2.4 to 2.9	2.7 to 3.1	3.1 to 3.6	2.3 to 2.6	2.1 to 3.0	2.4 to 3.8	2.9 to 4.3	2.2 to 3.0
Unemplyment rate	8.0 to 8.2	7.5 to 8.0	7.0 to 7.7	5.2 to 6.0	7.8 to 8.4	7.0 to 8.1	6.3 to 7.7	4.9 to 6.3
April projection	7.8 to 8.0	7.3 to 7.7	6.7 to 7.4	5.2 to 6.0	7.8 to 8.2	7.0 to 8.1	6.3 to 7.7	4.9 to 6.0
PCE Inflation	1.2 to 1.7	1.5 to 2.0	1.5 to 2.0	2.0	1.2 to 2.0	1.5 to 2.1	1.5 to 2.2	2.0
April projection	1.9 to 2.0	1.6 to 2.0	1.7 to 2.0	2.0	1.8 to 2.3	1.5 to 2.1	1.5 to 2.2	2.0
Core PCE inflation	1.7 to 2.0	1.6 to 2.0			1.7 to 2.0	1.4 to 2.1	1.5 to 2.2	
April projection	1.8 to 2.0	1.7 to 2.0	1.8 to 2.0		1.7 to 2.0	1.6 to 2.1	1.7 to 2.2	

Advance release of table 1 of the Summary of Economic Projections to be released with the FOMC

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A Water Pistol to a Gunfight

Over the past two years, an easy monetary policy by the Fed has injected trillions of dollars into the economy and provided for historically low interest rates. By any measure that *should* have been more than enough to push up the inflation rate and deliver years of growth potential. If that wasn't enough, Mr. Bernanke has made it abundantly clear that the Fed will remain very accommodative and continue to pump liquidity into the marketplace for as long as it takes. So, the obvious question remains; where are the obstructions and why can't the U.S. economy grow at a faster pace than we are seeing?

Notwithstanding the outside shocks that have been blamed, there are several reasons to potentially explain why the U.S economy is stuck in a rut. Political gridlock is an obvious problem, a cloudy fiscal outlook is another and corporate / consumer deleveraging are also potential roadblocks for a healthy expansion. But when we look at it closely, what it really boils down to is the psychology of lending/spending and the **Velocity of Money**.

It is a fact that central banks can provide/withdraw liquidity and lower/raise interest rates. These are common practices designed to maintain price stability. By lowering rates at the short-end of the curve, central banks push/incentivize banks to loan money. When there is a steep yield curve, banks have greater earnings potential since they loan cheap money out at a higher rate (at the long-end of the curve). The loans eventually make their way into the economy, increasing consumption. At least that's the theory. In a sense, through monetary policy, central banks can regulate the money flow within an economy.

However, they cannot force banks to lend, nor can they force consumers to spend. As an example, let's look at the big U.S. financial institutions. Over the past couple of years, many banks have done an excellent job at repairing the gaping holes in their balance sheets. They were able to do this by raising their underwriting standards, writing down bad loans and utilizing inexpensive money as the yield curve was skewed in their favor. Now they have gone in the opposite direction and have made the requirements so strict that only the best risk can get approved and the yield curve is also working against them.

According to the St. Louis Fed, Money Velocity is a ratio of nominal GDP to a measure of the money supply (M1 or M2). It can be thought of as the rate of turnover in the money supply--that is, the number of times one dollar is used to purchase final goods and services included in GDP.

Stuck in Neutral

Despite the fact that banks have access to virtually unlimited funds from the Fed at rates close to 0%, for some reason it is not making its way into the economy – that is the root of the problem as it relates to economic growth. Even with all the tools in their arsenal, the Fed is unable to create enough of an impact to increase the velocity of money.

This is a major concern for the Fed and they are faced with a serious dilemma. While low cost funds should provide an incentive for banks to lend, the risk/reward scenario is unfavorable. Even though money is historically "cheap" for lenders, the spread between what they pay and the amount they lend it for is declining. In other words, their profit margins are being squeezed. Lenders are also facing the challenges that the economic outlook is cloudy, and institutions have to continue to deleverage in order to satisfy the requirements of the Basel Accord (U.S. banks must comply with Basel II and potentially Basel III).

(See Description of The Basel Accord on the Next Page)

From the Financial Services Authority (FSA):

The Basel Accord was implemented in the European Union via the Capital Requirements Directive (CRD), which was designed to ensure the financial soundness of credit institutions (banks and building societies) and certain investment firms. The CRD came into force on 1 January 2007, with firms applying the advanced approaches from 1 January 2008.

The CRD framework was revised by the introduction of Basel II, initially published in June 2004. The Basel II framework introduced the concept of three 'pillars'. Pillar I sets out the minimum capital requirements firms will be required to meet for credit, market and operational risk. Under Pillar 2, firms and supervisors have to take a view on whether a firm should hold additional capital against risks not covered in Pillar I and must take action accordingly. Pillar 3 aims to improve market discipline by requiring firms to publish certain details of their risks, capital and risk management.

The original Basel Accord was agreed in 1988 by the Basel Committee on Banking Supervision. The 1988 Accord, now referred to as Basel I, helped to strengthen the soundness and stability of the international banking system as a result of the higher capital ratios that it required.

The crisis in financial markets over 2008 and 2009 prompted a strengthening of the Basel rules to address the deficiencies exposed in the previous set of rules.

- *The Basel III proposals sought to strengthen the regulatory regime applying to credit institutions in the following areas.*
- *Enhancing the quality and quantity of capital.*
- *Strengthening capital requirements for counterparty credit risk (and in CRD III for market risk) resulting in higher Pillar I requirements for both.*
- *Introducing a leverage ratio as a backstop to risk-based capital.*
- *Introducing two new capital buffers: one on capital conservation and one as a countercyclical capital buffer.*
- *Implementing an enhanced liquidity regime through the Net Stable Funding Ratio and Liquidity Coverage Ratio.*

The Basel III proposals are a long-term package of changes that are due to commence on 1 January 2013 and, based on the Commission's timetable, the transition period is expected to run until 2021.

Borrower Credibility

Over the past five years, loan delinquencies have increased and the sharp rise during 2007-2009 was a wakeup call to banks. While delinquency rates are still elevated, they have been improving since 2010 - albeit at a slow pace. So slow in fact that rates remain near the 2009/2010 highs across most categories and it could be argued that home equity lines (HELOCs) and auto loans are still trending higher.

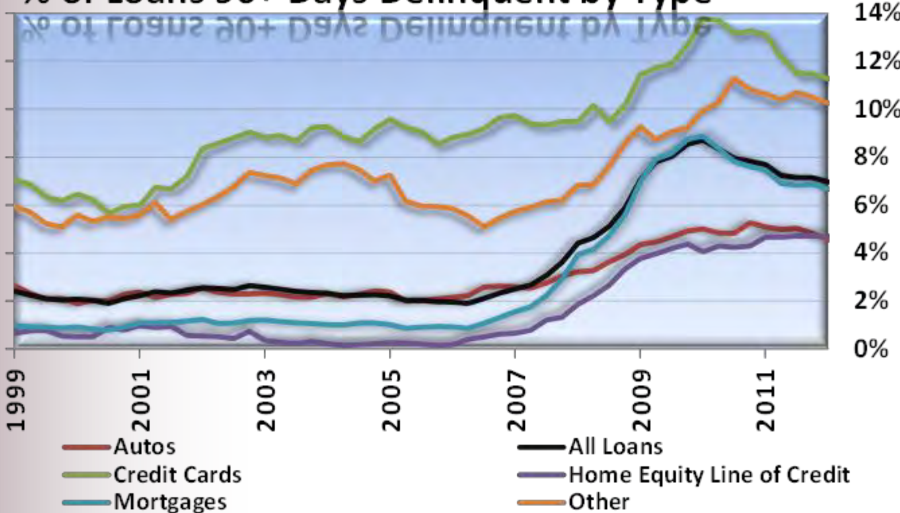
The point here is that many consumers in the U.S. don't have the ability to pay their bills (i.e. mortgage, car loan, credit cards, etc…), and therefore their spending remains constrained. What's more is that there is also a general absence of excess purchasing power due to anemic wage growth. When put together, these two observations are key reasons as to why the velocity of money is unable to rise.

It also explains why the Fed has been actively pursuing programs that keep interest rates artificially low and continue to inject liquidity into the system. It is their notion that by forcing cheap money into the pockets of consumers, it will push them to invest in risk assets and make it more attractive to spend rather than save.

However, at the current levels, it is very difficult for financial institutions to justify the risk of lending with limited reward.

Spreads are Declining

Banks profitability is often the greatest when the yield curve is steep. That is sensible as a steep curve allows them to access funds at low rates and subsequently lend it out at higher rates. The wider the spread between the rate they can borrow and the rate they can lend will dictate profitability.



Normally, the Fed moves short-term rates down during periods of economic contraction. This has the dual purpose of widening spreads (increasing profitability) and incentivizing banks to lend (thereby pushing money into the system). When the economy is overheating, the Fed can raise rates on the short-end and essentially withdraw money from the system. Spreads will narrow and banks will be less likely to lend.

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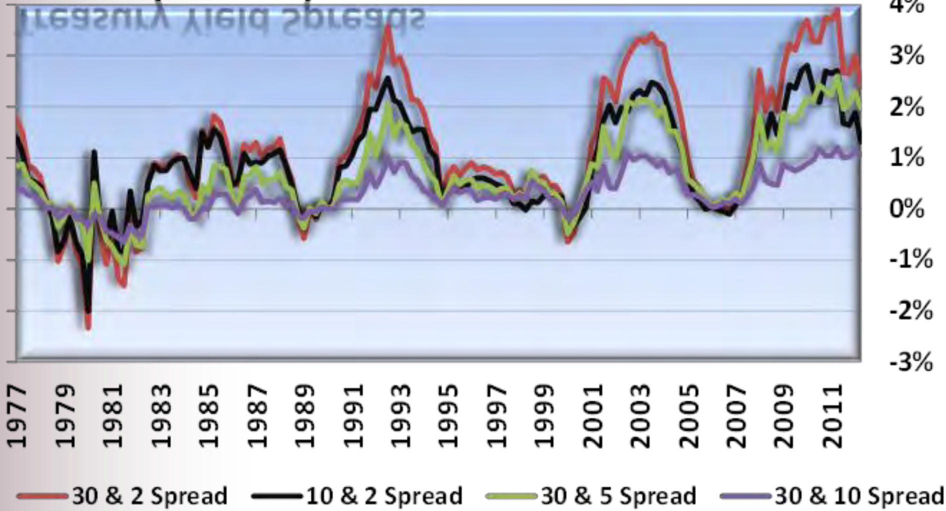
From a historical perspective, spreads today are fairly wide. However, over the past year they have seen a very substantial narrowing as the Fed has lost the ability to reduce the short-end of the curve below zero.



The only rates that they can look to bring down are at the belly and long-end of the curve. This is precisely what Operation Twist is designed to accomplish. By rotating maturing bonds into longer-term positions, the Fed is synthetically manipulating yields lower in order to help long-term lending rates.

Unfortunately, the scheme is not working.

As previously discussed, the Fed is in unprecedented territory forced to use non-standard tools in order to keep both long- and short-term interest rates artificially low. Financial institutions are keen on this and not too interested in taking on the added risk of lending when rates are at, or close to, all-time historic lows.

The Economic Landscape

The world financial circumstance continues to be problematic with the latest developments in Greece, Spain and the rest of Europe shedding new light on and renewed fears of a default, bailout or break up of the Euro. Greece is no longer the center of attention as Spanish yields continued to rise. The 7% yield mark on the Spanish 10-year bond is widely considered the critical mass for Spain's debt sustainability. As yields continue to rise and widen from the other European counterparts, the more it may make sense to complete a Eurobond program.

Yields rise and fall with supply / demand, and currently, supply is very high and demand is extremely low for countries with increased risk of default.

Country	10-Year Bond Yield (YTD Trend)	Current Yield			Current Yield
Italy		5.94%	Belgium		2.78%
Greece		25.27%	Germany		1.32%
France		2.39%	Hungary		7.91%
Spain		6.77%	UK		1.58%
Portugal		10.21%	Ireland		6.12%

• High • Low 7/10/2012 Source: Bloomberg/Horowitz & Company

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Demand is so low that several investment banks and funds have begun closing some of their short term European Money Market Funds to new money. This will pose a major problem for these sovereign nations if it becomes a trend as this is how countries facilitate short-term debt obligations. A similar situation like this happened in 2008 when liquidity dried up for corporations and financial institutions, and we know how that story played out.

The inherent problem in Europe boils down to two components: A unified currency where one nation cannot gain a competitive advantage over the other and a non-unified banking institution where rules are not enforced. In case you haven't been watching or paying too much attention to the oncoming train wreck, let's break down each of the cases.

Unified Currency

The purpose of currency is to provide a means of payment for goods and services rendered. As a currency strengthens in one country, the cheaper the goods and services are that they can purchase from another country. Conversely, as a currency weakens in one country, the cheaper their goods and services become making the country's products more attractive. While this is an extremely simplistic explanation, this does not apply to the European Union and the Euro currency.

Prior to the Euro, Spain had Pesetas, Greece had Drachmas and Germany had Deutschemarks. If the Euro was eliminated, you would see the German Deutschemark strengthen quite considerably against the Peseta and the Drachma to the point where German goods would be more expensive and less favorable when compared to Spanish or Greek goods. We all experience this type of choice every time we go to the grocery store. If one good becomes too expensive, we substitute it for another good. If a superior good like beef or seafood increases dramatically in price, we may substitute it for chicken or pork. In a perfect economic world, beef supply would then increase as consumers are demanding more chicken which would shrink the price spread between chicken and beef.

Europe's problems can no longer simply be solved through supply and demand and has become a very difficult problem to tackle. Spain and Greece can no longer bail themselves out through a weaker currency. In fact, Germany and other stronger nations in the European Union benefit greatly as the Euro currency remains relatively weak compared to what theoretically the Deutschemark would be worth allowing Germany to continue to strengthen economically. *It is a classic example of how the rich get richer and the poor get poorer*.

Non-Unified Banking System

A non-unified banking system does not allow the union to appropriately distribute funds where they are needed and provide liquidity to banks to make good on any loans outstanding. This is a major problem as we are now in a situation where liquidity is extremely tight in countries that need it (Spain / Greece). While they do share the existence of a unified currency, they do not share the ease of transferring wealth to strong countries vs. weak countries to appropriately balance supply and demand.

If a central bank was created and all the countries were on the hook for each other's debt, then the strong would be willing to assist the weak for the betterment of the entire union. This however gives little incentive for weak nations to gain competiveness as they are wholly backed by the stronger nations. This is precisely why rules need to be stipulated and enforced so that if one nation does not abide, then they are banished from the union and thus forced to go at it alone.

European Solutions As We See It

There are 3 distinct solutions as we see it:

1. Weaker nations (Greece and/or Spain) leave the European Union thus devaluing their currency overnight and once again making their goods and services competitively priced balancing supply & demand.

2. Germany leaves the European Union thus instantaneously increasing the value of their currency and allowing the rest of the European Union to become more competitively priced in their goods and services.

3. A European Union backed bond is created thus making all countries in the European Union responsible for the finances of the entire Union. There are obviously some major ramifications for stronger nations with this idea, but rules need to be created and enforced if weaker nations are unable to follow them.

For now, it appears Europe is content with the fact that they can continue to provide short term Band-Aids to an increasingly problematic issue.

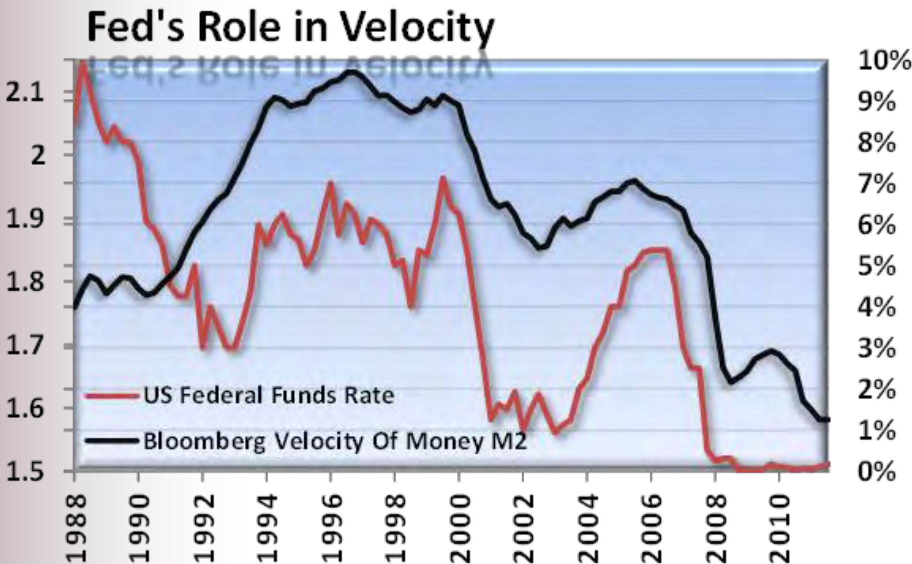
Velocity of Money

The various issues that were previously discussed make it very difficult for banks, corporations and consumers to get comfortable with spending and/or taking on an increased debt load. Everyone has continued to deleverage as they tighten their belts and learn from the mistakes they made in the 2000's. Unfortunately, in an extremely low interest rate environment in order to increase the velocity of money companies need to be willing to take on risk and banks need to be willing to lend—and that is just not happening. We are moving into a stagnating economic condition and the Federal Reserve is doing everything it can to stimulate the economy. However, as we have found, none of the tools the Federal Reserve can use will work exclusively on its own.

The below chart represents this problem. In a perfect world, the velocity of money should increase as the Fed makes cheap money more readily available. We witnessed this working in the late 1980's and early 1990's. As the FED decreased interest rates (red line), the velocity of money increased (black line). However, as you can see now, the Federal Funds rate (red line) is at or just above 0% yet the velocity of money is at a 25 year low. What this means is that we need more than just readily available money in order to jump start the economy.

The solution to this problem is actually quite simple, but takes quite a bit of cooperation amongst the people and the government. However, with a two party system, it is has been quite difficult to get anything done in the government except re-electing new members to spend more of our tax dollars and pass the buck without getting anything done.

Basically, what really needs to get done is simply setting expectations appropriately. As it currently stands, businesses are uncertain of the future of America as there are too many issues outstanding. Employment from the private sector will not increase until there is some confidence and resolution for health care costs, taxes, the country's fiscal budget and limiting entitlements while giving incentives for businesses to grow. While entitling the population and expanding unemployment benefits creates a stop gap for those out of work, it also lessens the desire to continue to be competitive when



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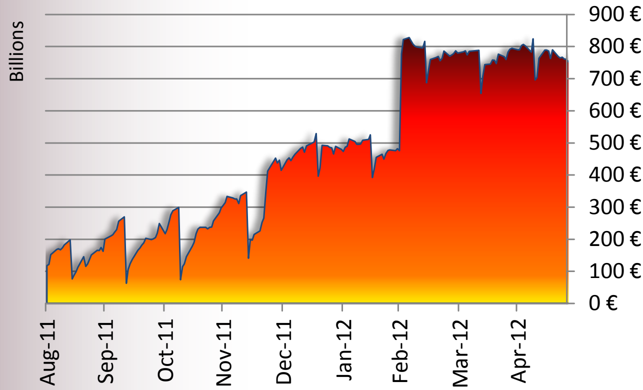
continually extended. Corporations are willing to deal with the current tax code, but for some time now it has been quite unclear whether or not taxes will be raised or if the code will be revised. Healthcare has been on the forefront since President Obama's first day in office, and it continues to be a murky topic. Our fiscal budget continues to be extended while our deficit balloons out of control.

The bottom line is that our government needs to get their housekeeping in order before they can expect the country as a whole to grow economically.

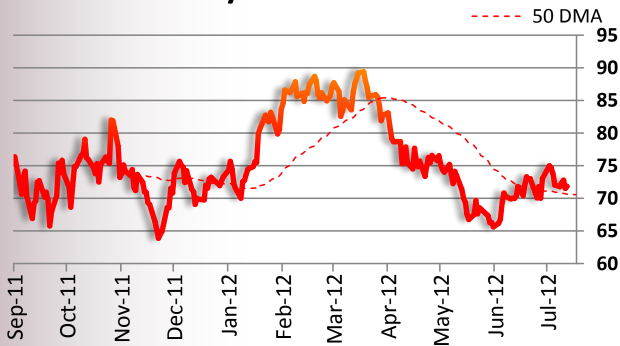
ECB Overnight Facility



Country	Annual GDP ($B)		GDP YoY%	Surplus/Def % GDP	CPI YoY%	Jobless Rate
United States	$	15,094	2.00%	-8.10%	1.70%	8.20%
Canada	$	1,736	2.00%	-2.44%	1.20%	7.20%
Brazil	$	2,477	0.75%	-2.44%	4.92%	5.80%
Mexico	$	1,155	4.60%	-0.92%	4.34%	4.83%
EuroZone	$	13,076	0.00%	-4.10%	2.40%	11.10%
Germany	$	3,571	1.20%	-1.00%	1.70%	6.80%
United Kingdom	$	2,432	-0.20%	-8.30%	2.80%	8.20%
France	$	2,773	0.30%	-5.20%	1.90%	10.00%
Italy	$	2,195	-1.40%	-3.90%	3.30%	9.82%
Japan	$	5,867	2.80%	-10.14%	0.20%	4.40%
China	$	7,298	7.60%	-1.96%	2.20%	4.10%
India	$	1,848	5.30%	-7.24%	10.16%	3.20%
South Korea	$	1,116	2.80%	2.78%	2.20%	3.20%
Australia	$	1,372	4.30%	0.42%	1.60%	5.20%
Taiwan	$	355	0.39%	0.14%	1.77%	4.12%

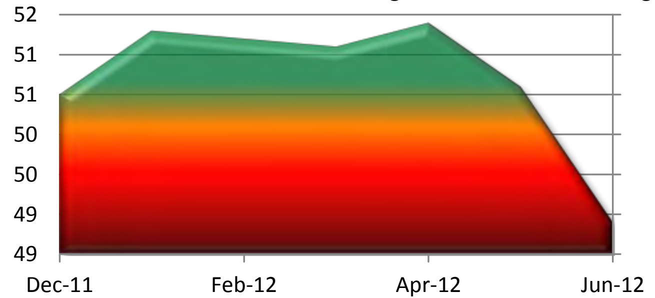
Source: Horowitz & Company/Bloomberg

Bloomberg European Bank/Financial Index

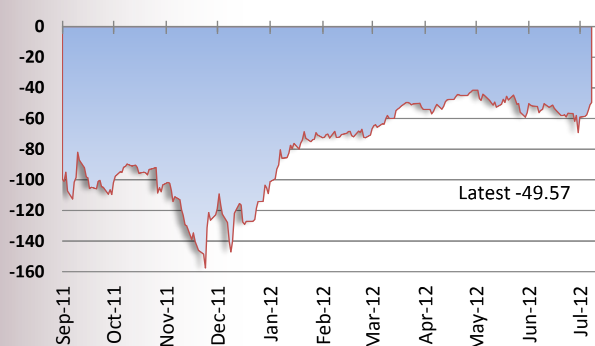


Global PMI Trend

JP Morgan Global Manufacturing

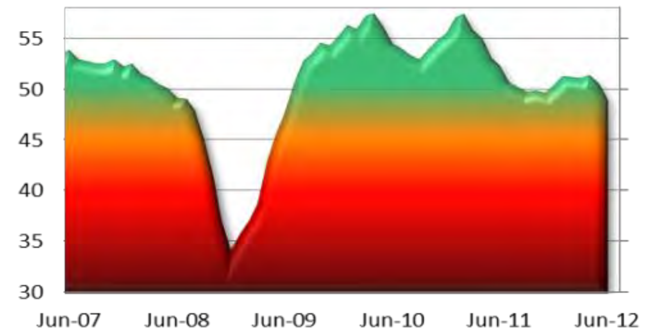


Euro-USD 3M Basis Swap



Global PMI Trend

JP Morgan Global Manufacturing



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