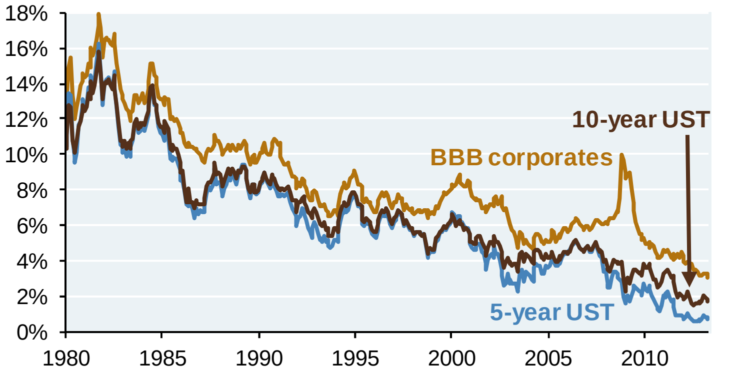
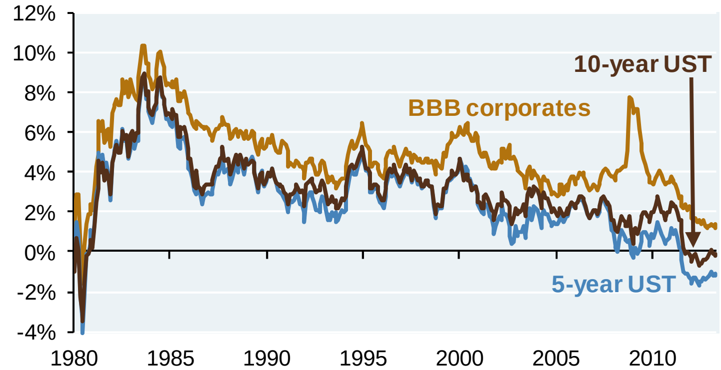
Topics: One alternative to the incredibly, rapidly, shrinking real yield on corporate and government bonds and some comments on Europe and the US

Bond Trading. Almost everyone seems to be struggling with the dilemma of rapidly shrinking fixed income yields. As shown below, 5 and 10 year US Treasury yields are now below zero in real terms (net of inflation), and the real yield on the lowest investment-grade corporate bond category is below 2% for the first time in 30 years. Only Central Bankers seem to enjoy owning all this paper, with everyone else doing so begrudgingly. There are scenarios under which these securities suffer mark-to-market losses from rising rates, but even in the best case in which rates remain stable, their potential returns seem capped (unless nominal yields go below zero, a development which as I understand it the Fed has yet to figure out how to engineer).

Nominal yields
Yield, percent



Real yields
Yield less core inflation, percent



Source: Barclays, BLS, Bloomberg (both charts). UST is YTM; BBB is YTW.

There are not a lot of easy answers for yield replacement. High yield has rallied sharply, and while there is still good value in certain private lending markets (mezzanine debt), they generally entail multi-year commitments to concentrated portfolios lending to private companies. Furthermore, high yield and mezzanine debt occupy a part of the risk spectrum that is higher than investment grade corporate and government bonds. For example, the volatility of high yield bond returns ranges from 9%-11% over the long run. BBB corporate bonds, on the other hand, have return volatilities closer to 6%.

When looking for alternatives to bonds, diversified hedge fund strategies such as “hedge fund of funds” are one option. These investment products generally entail portfolios of 25-40 separate hedge funds, diversified by style. The hedge fund of funds industry has declined in popularity over the last decade, a reflection of the greater comfort level many investors have in owning concentrated hedge fund portfolios, and due to their declining returns. The HFRI Hedge Fund of Funds Index reported annualized returns of 11.6% during the 1990’s, but below half of that during the subsequent decade. However, one thing the hedge fund of funds industry hung onto is a commitment to controlling volatility, which is still 5%-6% at the index level. The prospect of mid-single digit returns with matching volatility is worth looking at given where yields are.

Before thinking about hedge fund of funds as a replacement for some part of an investor’s fixed income portfolio, there are caveats, such as liquidity and taxation. Hedge fund of funds generally entail lock-up provisions of different lengths, while investment grade and government bonds are among the most liquid securities an investor owns. Furthermore, hedge funds often generate substantial amounts of short term capital gains and ordinary income, which for some investors, reduces their net return. However, in most jurisdictions, fixed income securities are taxed at similar rates, and for many of our clients (sovereign wealth funds, state and corporate pension plans, endowments, foundations and certain corporate and high net worth clients), taxation does not enter the picture at all.

The next issue: what is meant by a hedge fund of funds index in the first place. Self-reporting is a notorious problem, introducing survivorship bias into the returns. In addition, unlike the S&P 500 which can be replicated through exchange traded funds or certain actively managed funds, hedge fund indices like the HFRI are not investible, and are instead a hazy reflection of the returns that the industry generated at the time. For purposes of this analysis, I took a look at something slightly different: all managers in the HFRI Hedge Fund of Funds Index that have been around for 10 years or more, in effect the ones that managed through the financial crisis and survived. There is undoubtedly survivorship bias here, since I am ignoring the ones that tried and failed. However, these managers made it through the worst combined credit and equity markets in 70 years. As a result, (a) the subset includes managers that have been through the fire and presumably can deal with whatever crisis comes next, and (b) their returns and volatilities are heavily impacted by the prior crisis. Unless the events of 2008-2009 turn out to be recurring episodes, our data set probably overstates the volatility experience of being invested with these surviving managers.

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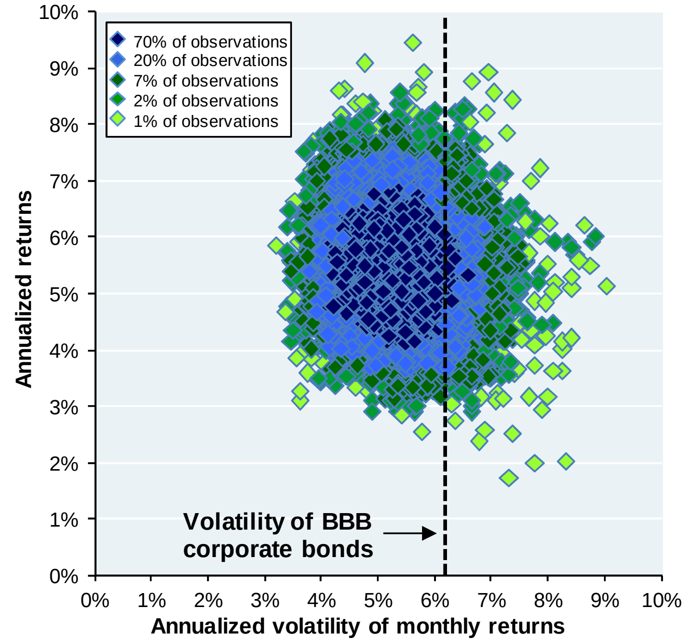
Since no one can buy the HFRI Fund of Funds Index itself, I wanted to examine the likely outcomes for investors in actual managers, to see how idiosyncratic manager selection impacted returns and risks. The chart shows the results of **randomly generated combinations of five hedge fund of funds managers** that have been around for ten years or more. The Y-axis shows the annualized returns of the five-manager portfolios, and the X-axis shows the volatility of annualized returns. The darkness of each portfolio data point reflects the likelihood of its occurrence, with the darkest region containing 70% of the results, and the next closest ring containing another 20%. In other words, the **fund of funds portfolio volatility for 90% of the outcomes ranged from 4% to 7%, with the rest being outliers. The epicenter of the cloud is to the left of the return volatility of BBB corporate bonds, which is why the comparison to bonds is interesting to look at in the first place.**

Randomly generated portfolios of 5 hedge fund of funds
Using HFRI data, Jan 2000 - Feb 2013



Source: HFRI, JPMAM. Universe: all HRFI fund of funds with at least 10 years of data since Jan 2000.

During many business cycles, a 5% return with 5% volatility is not that interesting to investors building diversified portfolios. However, given the extreme conditions in high-grade and sovereign credit markets, hedge fund of funds may merit a closer look. Note that we are not discussing the merits of individual hedge funds, or concentrated portfolios with a handful of hedge funds, both of which typically have higher volatilities, and as such do not appear to me to be in any way a portfolio substitute for bonds. One final point: the risk/return characteristics of hedge fund of funds do not accomplish the objectives of corporate plans who own long-duration assets for the express purpose of hedging long-duration defined benefit liabilities.

Europe

European equity and debt markets are stable while economic data continues to be weak. I was in Italy recently where the government plans to issue debt to repay 100 billion Euros of arrears to the private sector. It brings to mind a one-time exercise by the *Ministero dell'Economia e delle Finanze* a few years ago about how wealthy Italy is as a country. The report asserted that the Italian government owns tangible assets worth as much as 70% of its debt, with the largest categories being natural resources and infrastructure (transport, energy, telecommunications and education). Admittedly, the concept of "government debt net of owned assets" is an underexplored one. However, if you consider that Italy is preparing to borrow more money to repay arrears when its debt is already over 100% of GDP, it explains why few people look at asset-adjusted debt levels: **such assets are harder to monetize in practice than on paper**.

Italy: central government, local government,social security plus public

Estimated value, millions of Euros

Assets	
Liquid funds	**254,752**
Receivables	**202,753**
Advances and other receivables	**76,345**
Equity investments, listed & unlisted	**183,174**
Intangible fixed assets	**83,930**
Tangible fixed assets	**970,473**
of which:	
Land	41,497
Natural resources	169,420
Residential buildings	71,104
Non-residential buildings	94,079
Infrastructure *	465,407
* transport, energy, telecom and education	
Total public sector assets	**1,771,427**
Liabilities	
Bonds,payables and other liabilities	1,381,394

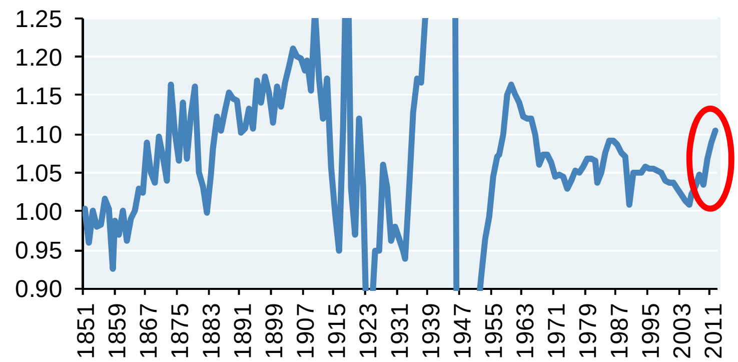
Source: "Italy's Stability Programme" by Ministero dell'Economia e delle Finanze, November 2004

I was also in Paris, undoubtedly the most beautiful city in the world. However, like the storefront boutiques selling bright orange jump suits for men with matching orange sneakers (who would buy such a thing?), something was not quite right. Our French clients are concerned about economic malaise, one sign of which is a collapse in French private equity activity from $36 billion in 2006 to $430 million in Q1 2013 (even the Czech Republic saw more activity[1]). Other downbeat data include its current account deficit (the only one still expanding in Europe), rising unemployment, etc. One of our clients was optimistic in a masochistic kind of way. His belief is that like Japan towards the end of 2012, conditions are so intolerable that the government will be forced to make changes to restore growth. Any signs of a volte-face by Hollande? He announced a

[1] "*Private equity slump hinders France in growth struggle*", Reuters, April 29, 2013

modest reversal by offering capital gains tax reductions based on how long a company is owned, with maximum reductions for 8-year ownership periods (the capital gains tax rate is now over 60%). France is also following some of the recommendations in the 2012 Gallois report which focused on French competitiveness, including labor flexibility negotiations with some of France's largest unions (MEDEF). Our French sources disagree on the likely impact of these reforms. **Ultimately, the proof will be in the data; as things stand now, German per capita GDP is outpacing France at the fastest pace since post-war German reconstruction during the early 1950's**.

Germany vs. France real per capita GDP, 1850-2012
Germany divided by France, ratio



Source: *"Statistics on World Population, GDP, and Per Capita GDP"*, University of Groningen; Conference Board.

Globally-focused vs. Domestically-focused European Stoxx 600 companies, Index, Jan 2000 = 100

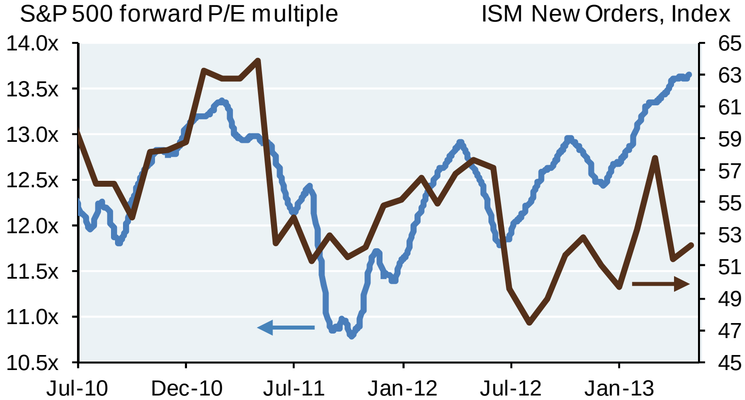
Source: Bloomberg, Capital IQ, Datastream, company data, Deutsche Bank. As of April 2013

Two comments on investments in Europe. While European equities have lagged substantially vs US counterparts since 2009, there are opportunities in European companies focused on exports rather than domestic demand. As shown above, globally focused European companies generated a lot more earnings, and outperformed domestically focused European companies by almost 70 percent since 2008. Second point: in most circumstances involving slow growth and deleveraging banks, there are opportunities for investors that recapitalize struggling businesses and commercial property. Europe is no exception, and given the degree to which banks have curtailed lending to the private sector, many over-leveraged owners may have to solicit debt and equity financing at favorable terms for investors.

United States: investors are being patient as economic escape velocity remains elusive

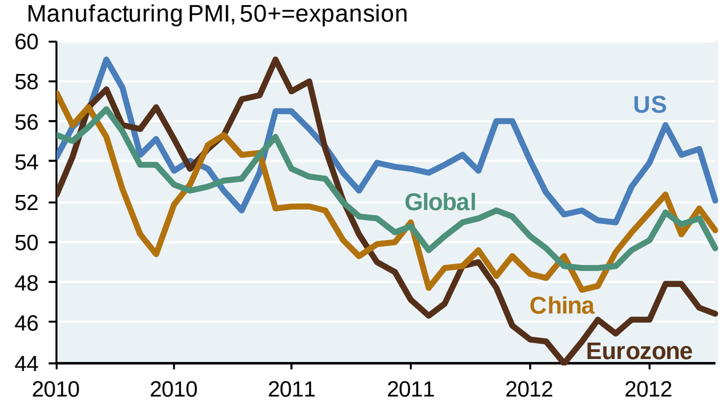
The first chart shows how S&P price-earnings multiples have risen even as leading indicators such as manufacturing orders have slowed down. Equity markets are looking through weaker data for a number of reasons: the US still shows better momentum than other regions; the impact of tax hikes and spending cuts should fade later in the year; 70% of companies outperformed earnings expectations in Q1, around average since the earnings recovery began (revenues were not as favorable, and had the biggest miss vs estimates since 2009); and weakness in Q1 GDP growth was mostly due to inventory effects and slower government spending (defense). As shown on the next page, overall US private sector demand is holding up OK. I find some of these explanations plausible, although the US growth rebound later in the year is likely to begin with a "2" rather than a "3".

Equity market looking past recent weakness
S&P 500 forward P/E multiple ISM New Orders, Index



Source: Bloomberg, Institute for Supply Management.

Preliminary estimates of global growth slowed in April
Manufacturing PMI, 50+=expansion



Source: Markit, JPMAM. Preliminary data for April.

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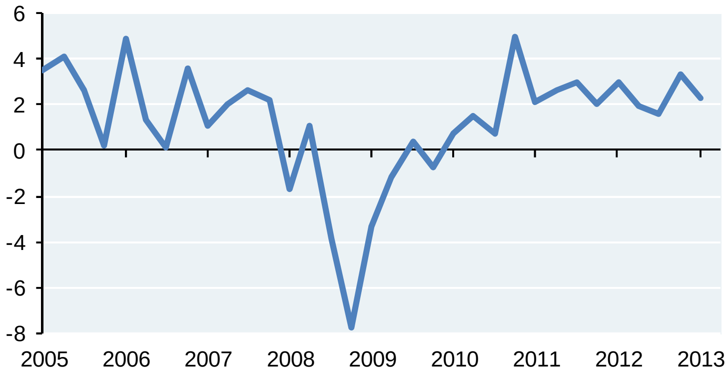
The planetary nebula of central bank balance sheet expansion (last chart), which we expect to hit $10 trillion later this year, is still the most important factor underpinning an uneven global recovery. It makes sense to have some patience right now. Global equities are up 8%-9% year to date, which is a pretty good return for a time when the profits expansion is slowing, global growth is closer to 3% than 5%, Chinese growth continues to cool down despite rapid increases in the use of credit, and when it is practically impossible to disentangle how much central banks are affecting asset prices. I read a research report that showed that returns on consumer staples stocks are now correlated 75% with the returns on Treasury bonds, by far the highest level since 1929. Usually, the correlation is close to zero. On top of that, the number of bond funds that own stocks is at the highest level in 18 years. Note to Fed: uh, congratulations?

A proxy for the US private sector

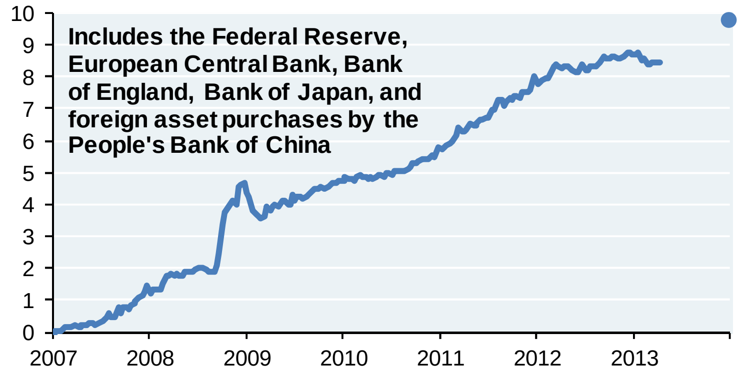
Contribution of private final sales* to real GDP growth, ppts.



Source: BEA. *Private final sales excludes government and inventories.

Earth Nebula

Change in central bank balance sheets since Jan. 2007, Trillions $



Source: Fed, BoJ, BoE, ECB, PBoC. JPMAM estimates.

Michael Cembalest
J.P. Morgan Asset Management

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