

Lazard Insights

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Summary

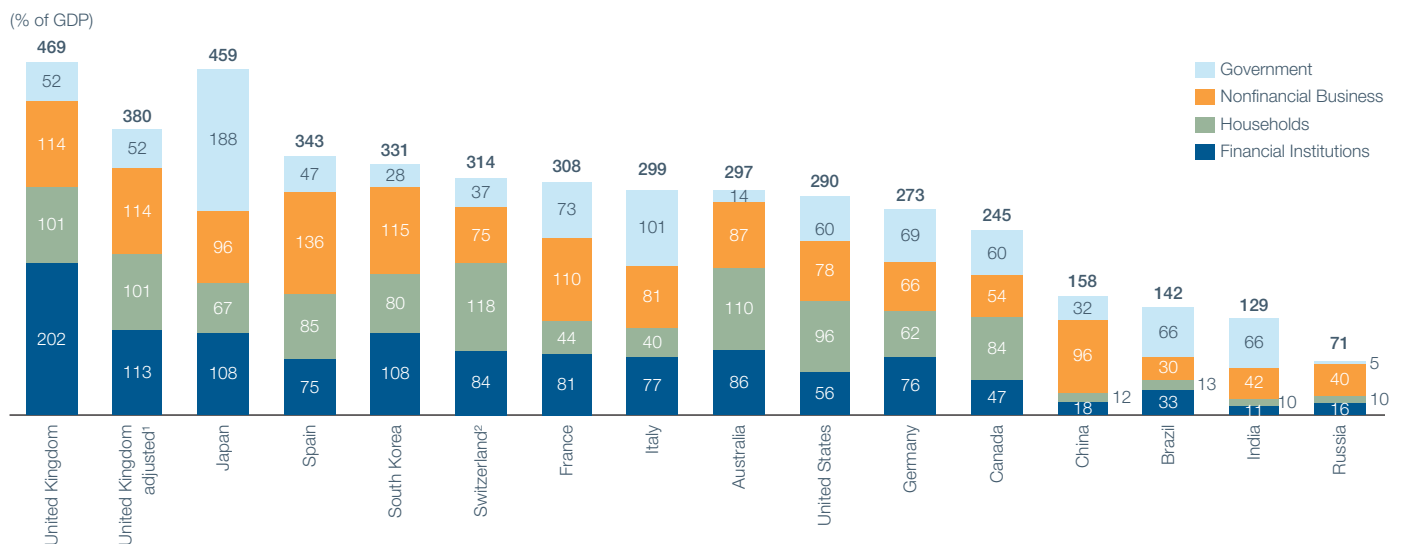
The European Debt Crisis, Quantitative Easing, Basel III: An Outlook for 2011

Featured Speaker: **Ronald Temple, CFA**, Managing Director, Portfolio Manager/Analyst

As we look to 2011 and beyond, three key topics come to mind; the European debt crisis, quantitative easing (QE), and regulatory change. One of the key messages to take away is that all three of these topics are actually quite intertwined. The European debt crisis is a result of either lack of fiscal discipline at the government level—e.g., Greece—or the need to bail out a banking system in the case of Ireland. QE is a direct response to the impact of

deleveraging on collateral prices—i.e., real estate. Regulatory change is intended to address the causes of the financial system problems, but then leads to even more pressure on asset prices due to accelerated deleveraging. Going back full circle, QE is also an attempt to offset some of this pressure. The situation is complex and treacherous, but we believe it creates opportunities for investors who have thought through the range of scenarios.

Exhibit 1 Debt by Country, 2008



As of 31 December 2008

1 The U.K. financial sector was adjusted to reflect its position as a financial hub.

2 Data for Switzerland represents year-end 2007.

Note: The data above reflect adjustments made by McKinsey Global Institute to facilitate comparability across countries

Source: Haver Analytics, McKinsey Global Institute, Morgan Stanley, CIA World Factbook

Numerous Nations Face Heavy Debt Burdens

On the topic of the European debt crisis, we will address a few points. First, we will look at the total amount of debt outstanding across a range of countries. Beyond the total amount of debt, however, it is important to examine who finances the debt and how much debt must be refinanced in a given period to ensure there is enough funding available. As part of the examination of who finances the debt, it is also important to assess how contagion might occur through the banking system.

The data in Exhibit 1 show the total amount of debt outstanding across a range of countries as of the end of 2008, which is the last complete data set we could identify that provides a baseline for comparison. The important points to note are:

- Debt levels are higher in almost all of the developed economies. Even though some private sectors have improved, such as in the United States, almost all of the improvement has been offset by increased government debt in most cases.
- The segmentation of debt across sectors has become less meaningful over time. What has become particularly clear to us is that financial sector debt can rapidly become sovereign debt in a severe financial crisis. The reason for this is that a country cannot really allow its banks to fail and expect to have a functioning economy afterward.

Ireland is a great example of this situation. Its banks' borrowings exceeded 500% of GDP at the end of the second quarter of 2010.

We will come back to this topic, but the challenge for a government at that point is how to save an industry that is too big to save.

Each Country Faces Different Circumstances

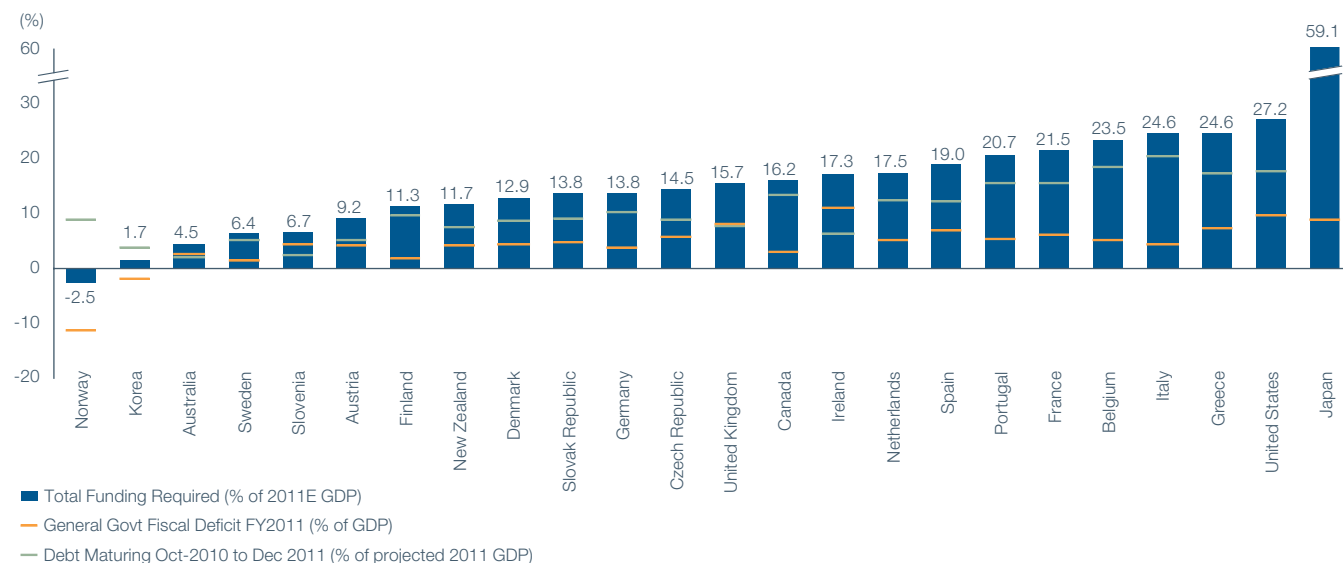
We have highlighted in the past that the stock of debt outstanding is only one part of the story. According to the International Monetary Fund, the ownership profile of debt outstanding is dramatically different across a range of countries. The key point is that countries like Austria, Portugal, and Ireland have over 70% of their government debt financed by nonresidents and, therefore, are more at risk than their peers like Japan or Canada where 90% of debt is funded by domestic residents.¹ Nonresidents predominantly fund the Eurozone, as the currency union was designed in large part to tie the economies together.

Put another way, without the creation of the euro, Greece could not have accumulated up as much debt as it did, nor could Spain, Portugal, or Ireland. They all benefited from the backstop of Germany's credit rating. This may seem reminiscent of AIG selling credit protection until it was insolvent. It appears Germany has not missed the parallel either.

Sovereign Funding Needs in 2011 Are High

The total stock of debt must be considered against the frequency with which the debt has to be refinanced, as seen in Exhibit 2. This chart shows the amount of debt that has to be rolled over, plus the amount of new debt to be issued to finance incremental

Exhibit 2 Sovereign Funding Requirements through 2011



Data as of 30 September 2010

There is no guarantee that the stated estimates or projections will be realized.

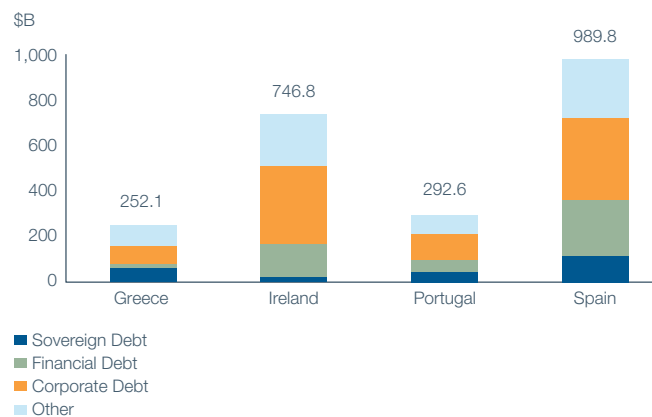
Source: IMF, Global Financial Stability Report: Sovereigns, Funding, and Systemic Liquidity, October 2010

deficit spending from the fourth quarter of 2010 to the end of 2011 as a percentage of GDP.

Notably, Japan is the outlier, but, as noted above, over 90% of Japanese debt is financed domestically. The United States is next in line. While the United States is in a better position than many countries, only about half of U.S. government debt is financed domestically. It is worth noting that 75-80% of total U.S. debt is financed domestically. The government portion happens to be disproportionately funded by non-U.S. investors.

The other countries to the right end of the scale have been in the news for a reason. On top of having high aggregate debt-to-GDP ratios, and high foreign ownership, they each have to roll or finance very large amounts of debt relative to GDP through 2011.

Exhibit 3 European Bank Foreign Exposure by Country



Data as of 30 June 2010

Source: BIS Quarterly Review – December 2010

Globalization and Interdependency Have Increased Contagion Risk

Why is it such a big deal if a country with six million residents, or 11 million in the case of Greece, defaults? The reason the rest of Europe is concerned about Greece, Ireland, Portugal and Spain is because of the amount of debt owed by each country to foreign lenders as seen in Exhibit 3. In spite of its small size, Ireland is very important to global lenders.

Exhibit 4 provides more detailed information about Ireland and Spain. You can see that of Ireland's \$747 billion of debt to non-Irish lenders, \$186 billion is to German counterparts and \$187 billion to U.K. lenders. In the case of Spanish debt, Germany is owed \$216 billion and France is owed \$201 billion.

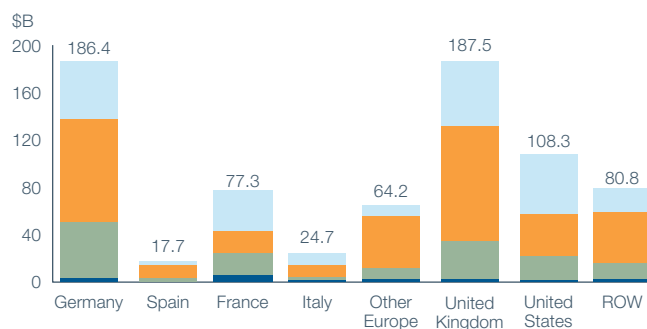
This is an important point. The situation facing Europe and the euro right now is both political and economic. From an economic perspective, the debt burden in Ireland, in particular, is crushing. It is also arguably unsustainable for Portugal and Spain. The economic problem of Portugal, Spain, Ireland, and Greece, however, is also a problem for Germany and France as they are very exposed to losses from these countries.

From a political perspective, Germany has another layer of complexity. As the backstop for the rest of Europe from a credit quality perspective, it appears Germany realizes now that it has two problems. It has signed on to a currency union where it cannot control the spending of its peers and, hence, the value of its currency. From a banking system perspective, if Germany allows Ireland and/or Spain to default, it will still be out the money to recapitalize its own banking system. Hence, it may make more sense for now to try to find a way to:

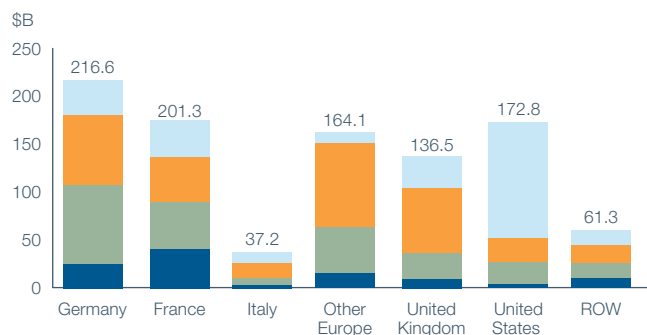
- Force bondholders to accept some losses and impose fiscal discipline on countries where Germany cannot through the Eurozone mechanisms;

Exhibit 4 Exposure by Country

Exposure to Ireland



Exposure to Spain



■ Sovereign Debt
■ Financial Debt
■ Corporate Debt
■ Other

Data as of 30 June 2010

Source: BIS Quarterly Review – December 2010

- Avoid acknowledging that Germany failed to regulate its banking system well enough to avoid this situation; and
- Hopefully salvage the euro as a concept and as a political and economic union.

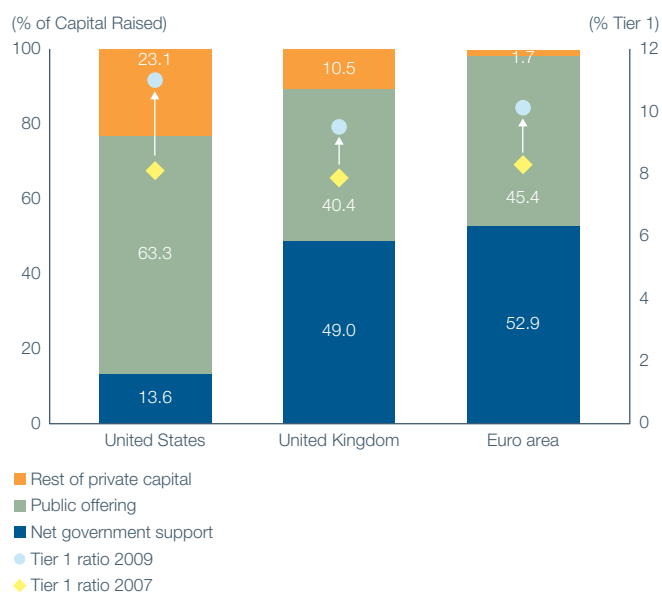
Eurozone Banks Have Recapitalized Largely with Public Funds

Making matters worse, to date Europe has not forced the banks to raise enough capital in the private markets. The IMF has compiled the data showing the composition of capital raised by banks by region (refer to Exhibit 5). In Europe, over 50% of capital has come from the government versus only 13% in the United States. You can see that even with the large amount of government support, (or put another way, government lending to institutions that then buy government debt), the Tier 1 capital ratios are still lower in the Eurozone than in the United Kingdom or the United States.

European Debt Crisis: Implications

In our view, the Eurozone situation is likely to get worse before it gets better. Europe currently has an economic and a political problem. Unfortunately, the European Central Bank (ECB) cannot solve this problem. There is significant pressure on the ECB president, Jean-Claude Trichet, to buy European government bonds to give them breathing room. The problem is that breathing room

Exhibit 5 Capital Raised by Banks and Tier 1 Ratios



Data as of 31 October 2010

Euro area includes those countries that use the Euro.

Source: IMF, Global Financial Stability Report: Sovereigns, Funding, and Systemic Liquidity

is not equal to a new life. It is simply a bridge loan of sorts to give Europe time to resolve its structural issues, but the bridge must go somewhere. Right now, it seems the European Union is anything but united on where the bridge should go.

Our view is that we are seeing a situation eerily similar to that in the United States in the fall of 2008 when Congress voted down TARP (Troubled Asset Relief Program). At that point, markets made it clear to the government that failure to act was not an option. Our fear is that Europe will go to the brink of disaster before it acts in the way required to address its problems.

We should also note that even with a structural solution to the inflexibility of the Eurozone, Europe would still have too much debt. If you look at Greece and Ireland, it is a matter of when, not if, they will restructure their debt. That is a nuance for defaulting. To get to the originally agreed Maastricht debt to GDP limit of 60%, we estimate that Greece would have to write its bonds down by 60%, or pay out 40 cents on the dollar. The current plan is to have smaller deficits each year through 2013. Unfortunately, that simply means Greece will have even more debt in 2013, and it will be even less able to pay it off. Put another way, once Europe has restructured the Eurozone concept, it would then have to address the pain of default.

Quantitative Easing Could Achieve Several Goals

With the European debt crisis front and center in our minds, we should not forget the backdrop of deleveraging, which is inherently deflationary.

The stated goals of Quantitative Easing 2, or QE2, as it is known in the United States and QE more generally, are to:

- Avoid deflation and avoid the vicious downward spiral that can result in both consumption and defaults on debt;
- Create a wealth effect to encourage people to spend more and create jobs.

We believe that the unstated goals of QE2, however, would not likely be said in any diplomatic setting. It is important to note that the U.S. Federal Reserve (the Fed) is perhaps the only central bank in the world that can create inflation pressure in other countries. As the issuer of the only reserve currency in the world, the Fed has extraordinary power. To the extent China and other countries that have large trade surpluses with the United States are unwilling to allow their currency to appreciate, the Fed has a unique tool at its disposal.

By buying bonds and creating money, the Fed can effectively force investors out the risk curve and into other asset classes. Essentially, the Fed can print so much money that interest rates

on borrowing such money are zero. People with capital are then compelled to invest somewhere else. Right now, many people have concluded that the best place to invest is emerging markets. For other people, they see the massive issuance of currency as devaluing fiat currency, or paper money, and want to buy hard assets such as gold or other commodities. In either situation, the end result can be similar. By pushing money into economies that are already growing and that are more commodity intensive than the United States, the Fed can actually create inflation in other countries, predominantly emerging markets.

The first part of this process is the increase in commodity prices. In many countries in emerging markets, commodities comprise over 50% of the CPI basket, and in many of these countries, such as India, employees in the formal employment sector automatically get raises tied to CPI. You are already seeing the impact in China where food inflation is topping 10%, which then leads to wage increases. The net result of these steps is that producing products in emerging markets countries becomes more expensive.

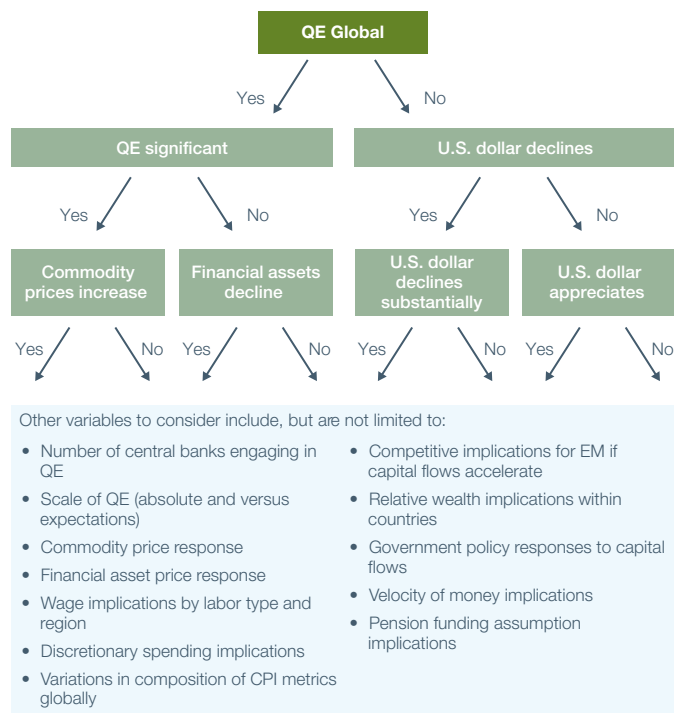
At the same time, unemployment in the United States has not changed. Indeed, 65% to 70% of the cost of goods sold in the United States is labor.² As such, the relative impact of a commodity price increase on U.S. cost of goods is minimal.

It is a blunt, indirect tool, but QE actually narrows the competitive advantage of countries that export to the United States.

Quantitative Easing's Success or Failure is Impossible to Predict

The road to evaluating the likely success or failure of QE is anything but simple. There are a number of factors to consider such as the timing and magnitude of QE. So far, the United States and Japan have announced QE programs, but the Japanese program was very small. If the programs end up being large and the

Exhibit 6 One Possible Approach to Analyzing QE



While the schematic above is illustrated with yes/no branches, the actual analysis is likely to be assessed on a continuum. Shown for illustrative purposes only.

ECB joins in, the ramifications are likely to be very different. In addition, the sequence of events matters, as it can change what happens next and the ultimate outcome.

Exhibit 6 illustrates one potential approach to thinking about QE. Our goal is to highlight that there are literally hundreds, if not thousands, of permutations that could be put together to consider QE and its ultimate outcome.

Exhibit 7 Possible Scenarios for QE

Bear Case Scenario	Base Case Scenario	Bull Case Scenario
<ul style="list-style-type: none"> • Commodity prices increase • Developed market discretionary spending power decreases • EM input costs increase forcing central bank tightening • EM growth slows while developed markets stagnate • Commodity prices fall 	<ul style="list-style-type: none"> • Commodity and financial asset prices increase • Central banks globally respond in moderate ways • ECB QE extends the window for the Eurozone to address key issues • Economic growth begins to heal debt overhang across developed markets 	<ul style="list-style-type: none"> • Developed markets avoid deflation • EM inflation remains low, allowing central banks to avoid aggressive tightening • Real estate prices stabilize • The U.S.'s competitive disadvantage narrows over time • Economic growth begins to heal debt overhang across developed markets

Shown for illustrative purposes only.

Quantitative Easing: Implications

We have attempted to summarize down a very simplified set of three scenarios as seen in Exhibit 7. Clearly not all of the variables we would consider are shown, but we have outlined a potential sequence of events and what might happen. The real challenge of analyzing QE is assessing the likely secondary and tertiary implications of each element of QE. It is much like thinking several moves ahead in a game of chess.

Moreover, a common flaw we see in analysis of QE is the unstated assumption or inference that the United States is a closed economy. In fact, much of the prevailing dialogue assumes that the Fed is printing money and inflation is a given. While we view elevated inflation as unlikely anytime soon in the United States, we may well end up with increased inflation, but we believe it will not be because of too much money chasing too few goods in an insular economy. It would instead result from a long, complicated chain of events that occurs in a tangled web of trade and capital flows globally.

To highlight the path-dependent nature of the analysis, we highlight the bear case in Exhibit 7 in which commodity prices rally on the back of even more capital flowing to emerging markets and into hard assets. Imagine a situation in which consumer staples prices in the developed world increase, as gasoline and food prices increase. This could leave consumers with less discretionary spending power. Ironically, in such a situation, employment might actually decline in the United States, and the Fed might have unintentionally engineered a slowdown with more money, a deflationary outcome.

At the same time, emerging-market countries might find that inflation continues to ramp up in their economies. If that is the case, emerging-market central bankers might be forced to act to slow down growth, and the inflation in food prices, in particular, could lead to social unrest. If the emerging-market central bankers tighten too much, we could see a slowdown in emerging markets at the same time developed markets are lethargic.

In this scenario, the ultimate outcome could actually be that commodity prices fall and inflation becomes deflation. This clearly is exactly the opposite of what the Fed hopes achieve. We do not see this as the most likely scenario but highlight it as a possible negative outcome.

Our base and bull cases are laid out next to the bear case, and you can see that it is a bit of a “Goldilocks” scenario, in which deflation is avoided, inflation does not increase too much in emerging markets, and growth picks up sufficiently for the economies to grow their way into the debt burdens already in place.

This is not specific to QE, but we should note here that the base case is benign in part because of the confluence of events in Washington, D.C., alongside QE. Specifically, if we look back 12 months ago, there was even more uncertainty facing investors. We did not know who would control Congress, what tax rates would be in 2011, or what would happen with financial regulatory reform or healthcare reform. At this point, most of these questions have been answered. Combined with the Fed’s aggressive QE, financial markets have rallied substantially, boosting confidence and we believe making the base case more likely than not.

Global Regulatory Changes – Basel III: Capital Requirements

Switching to our third topic, with a European debt crisis in the backdrop and QE attempting to offset the pressure of deleveraging, we also have new capital rules and regulations globally designed to avoid repeating this crisis in the future.

Briefly, Basel III can be described as:

- Increasing the amount of capital held by banks;
- Improving the quality of the capital banks hold; and
- Solidifying the liquidity profile of the banks by reducing the mismatches between assets and liabilities.

The implications of Basel III are material both to banks and to the corporate customers who rely on them. The increases in capital that are required under Basel III can be broken out into:

- Tier 1 capital requirements: 4.0% to 8.5% in 2019
- Common Equity ratio: 2.0% to 7.0% by 2019³

The minimum Tier 1 common equity, in particular, will more than triple by 2019. The way this capital ratio is calculated is that the assets of the bank are given risk weightings to reflect that some assets are safer than others. This risk-weighted asset figure is then compared to Tier 1 common equity. Not only is the required ratio increasing from 2% to 7%, the risk-weighting of assets is also increasing.

On December 15, the Basel Committee on Banking Supervision released its findings regarding the potential implications of Basel III. It found that the largest international banks would need to raise just under \$800 billion of incremental Tier 1 common equity to meet the new guidelines if they were being imposed right now. This of course overstates the challenge, as banks can retain capital they generate between now and 2019, and they can exit businesses that are intensive users of capital. That said, we get a sense of the magnitude of this topic when looking at the impact on capital ratios from the changes. Under current rules the banks that need the \$800 billion have Tier 1 common equity ratios of 11.1%. Under the new rules, the same book of business would have a ratio of only 5.7%.

Global Regulatory Changes – Basel III: Liquidity and Funding and Dodd/Frank

In terms of liquidity, we believe it is best to think of banks as being in the maturity transformation business. They take overnight deposits and make them into multi-year loans. Basel III attempts to reduce how mismatched these funding sources and uses can be to ensure that banks have enough liquidity during a stress situation. From an implications perspective, the best example to highlight is that of J.P. Morgan, which indicated it would have to quadruple the cost of a 3-year line of credit to an A-rated corporate. Instead of having a credit line, a corporate may choose to have more cash on the balance sheet. There will be capital structure implications from Basel III beyond the financial system. In addition, regulations set forth by Dodd/Frank will also impact companies operating in the United States.

Regulation: Implications

The key implications are clear for banks. The cost of capital increases while availability of credit is reduced. They are likely to have lower returns on equity in the future and are likely to grow less rapidly than in the past. They will also have to raise substantial capital over the next few years to meet the new hurdles.

Outlook

Tying this all together, we offer our perspective for the year ahead and perhaps even longer. These are not intended to be trading recommendations by any means but are our attempt at helping to consider how we might want to prepare for or react to events that might occur.

Clearly, the world is complicated and fraught with risk. If one thing should be clear, the combination of a European debt crisis and Quantitative Easing is hard to consider good for fixed income instruments in the long-term. Yes, QE might create demand for bonds now, but it also lays the groundwork for bonds to be a losing proposition over the longer-term.

We see fixed income as less attractive than equities looking forward, as the risk-reward is asymmetric for bonds. Moreover, when you hear the leaders of two of the biggest fixed income managers in the world saying equities are currently more attractive, it is probably worth listening.

Within the equities universe, we mentioned that the uncertainty facing the United States has decreased materially over the last year as it relates to elections, regulations, and taxes. The United States is actually poised in our view to outperform other markets globally in 2011.

Emerging markets face some uncertainty emanating from the QE moves of the United States and the risk of imported inflation and the countermeasures central bankers might have to take. That said, we are long-term bulls on emerging markets and think any pullbacks should be considered as an opportunity to add to exposure and take advantage of better balance sheets and better growth prospects in many countries.

Europe is a question of waiting for resolution. If the ECB provides a bridge, the markets may well rally sharply. The key, however, is resolving the underlying debt problem and the structural problems facing the Eurozone. If these questions can be addressed, perhaps there is hope for the euro as a reserve currency. For now, it appears Europe will get worse before it gets better.

Going forward, we believe 2011 may be a year in which risk-on, risk-off might not be as much of the story as security selection. The key characteristics we are looking for are:

- Balance sheet strength
- Robust organic cash flow
- Operational flexibility

We believe these characteristics and our forward-looking fundamental research combined with global flexibility provides opportunities for investors over the long term.

Notes

- 1 International Monetary Fund, Fiscal Monitor, "Fiscal Exit: From Strategy to Implementation," November 2010.
- 2 Labor stats – Source: Bureau of Economic Analysis
- 3 Tier 1 stats – Basel Committee on Banking Supervision

Important Information

Published on 20 January 2011.

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