rogerscasey

Position Paper

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WHAT NOW?

Last year, we concluded our paper, "*How Shall Our Clients Invest in 2009?*" with the following:

> *In summary, we reiterate the following key points:*
> - *First and foremost, ensure ample liquidity for your spending needs for the next 12- 24 months;*
> - *Systematically and patiently rebalance to public equities, both U.S. and non-U.S. equities;*
> - *Be mindful of coming corporate defaults and downgrades;*
> - *Opportunities for outsized returns abound in fixed income markets;*
> - *Distressed funds that invest in non-performing loans offer compelling value for those who have the ability and willingness to allocate capital in this market environment.*
>
> *Finally, there are three major topics that we did not discuss in this paper: country re-rating, commodities, and opportunistic investments around the globe. The current financial crisis has already claimed several victims in terms of re-rating: Iceland, Ukraine, and to a lesser degree Russia, to name a few. Growing central bank balance sheets, gigantic stimulus packages financed with debt, sharply lower tax receipts due to contracting GDPs, and increased risk of seigniorage do not bode well for many of the developed economies such as the U.S., the eurozone, the U.K., and Japan. Re-ratings of major economies can have vast consequences for all investors. Therefore, we will address the country re-rating issue in a separate paper. Although lesser in importance when compared to the topic of country re-rating, the role of commodities and global opportunistic investments in our clients' programs deserve our attention. Again, we hope to address these two issues in follow-up papers.*

In spite of the rising equity and fixed income markets following the March low during 2009, we believe that our advice to maintain ample liquidity was sound in a market environment punctuated by volatility and uncertainty; clients who patiently rebalanced to public equities during 2009 participated in the market rebound; clients who maintained their fixed income exposure recouped most of their losses from 2008; finally, we are convinced that those clients who opportunistically allocated capital to non-performing loans will generate high internal rates of return on their investments in years to come. We hope that our clients will forgive us for being cautious in the high yield segment of the fixed income markets. As a result of our heightened concern over looming corporate defaults and credit downgrades, we advised against investing in, or rebalancing to, high yield during 2009. With a 55% gain, high yield was one of the best performing asset classes during 2009. We are reminded by the market that forecasting is indeed a humbling exercise.

With 2008 and 2009 behind us, bruised and battle-tested, many of us approach the new decade with some trepidation. Given that the memories of 2008 and 2009 are still fresh in investors' minds, we can imagine many would not fully embrace risky assets. However, if there is one thing that has remained constant throughout the most recent bear market, it is that emotions lead us down the path of investment failure; conversely, investment decisions grounded

on proper due diligence and analysis, based on gathering of appropriate and relevant data and views about the future as opposed to recent history are more likely to lead us down the path of investment success. With that in mind, for the remainder of the paper, we share with our clients our latest thoughts and themes at the highest level and how those views should guide our clients' investment decisions during the coming months.

'Country re-rating' is a topic that we did not address in 2009. We used the wrong terminology last year and omitted a follow-up topic of utmost importance; we should have said country re-ranking instead of country re-rating and we should have included company re-rating as a follow up topic. We did not touch on the risk of 'seigniorage' – this is the inflation-deflation debate that is ongoing within the Federal Reserve Board and within the walls of Rogerscasey. Closely related to the inflation-deflation debate, is the topic of real assets; that is, what strategic role, if any, should real assets play in our clients' portfolios for the upcoming years?

For the benefit of the reader, we have segmented the remainder of the paper into the following three topical sections:

- Inflation - Deflation
- Country Re-Ranking
- Company Re-Rating

Inflation-Deflation: Since the inflation-deflation debate appears to be in the forefront of everyone's mind today, we will tackle this herculean issue first and its implications for our clients.

The 2008-2009 global financial crisis forced the policy makers around the globe to flood the markets with liquidity. Just consider the U.S. Federal Reserve Board's balance sheet shown in Figure 1:

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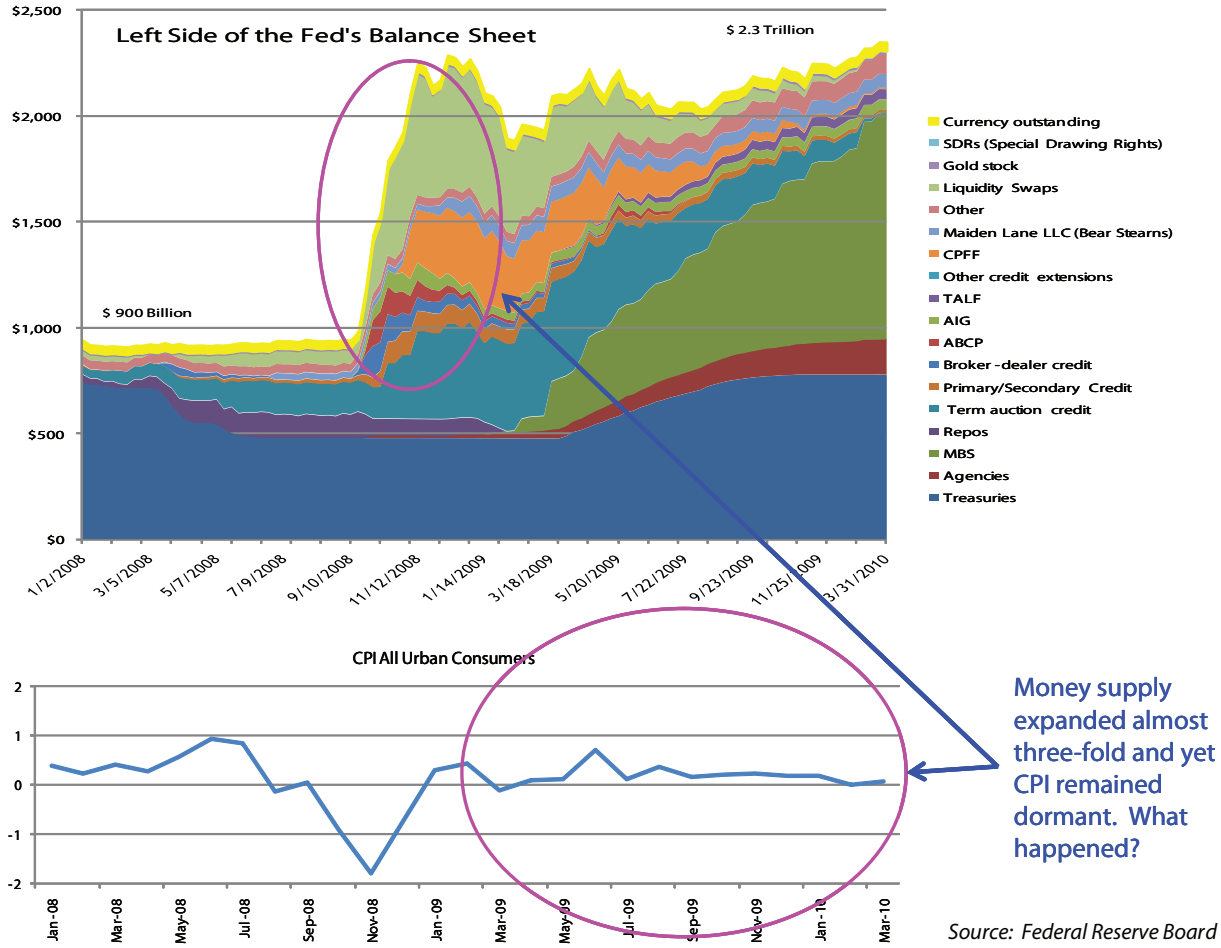
Figure 1: Asset Composition of the Fed's Balance Sheet and CPI All Urban Consumers



Source: Federal Reserve Board

The Fed's balance sheet expanded from roughly $900 billion at the beginning of 2008 to ~$2.3 trillion at the end of December 2009. Put differently, liquidity in the marketplace more than doubled. However, the CPI for the same time period has remained absolutely benign. According to Wikipedia:

> *In economics, inflation is a rise in the general level of prices of goods and services in an economy over a period of time. When the price level rises, each unit of currency buys fewer goods and services; consequently, annual inflation is also an erosion in the purchasing power of money – a loss of real value in the internal medium of exchange and unit of account in the economy. A chief measure of price inflation is the inflation rate, the annualized percentage change in a general price index (normally the Consumer Price Index) over time.*

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If the Fed increased the money stock in the marketplace by 250% between 2008 and 2009, then how is it possible that the inflation has been downright nil for the past two years and continues to remain benign? To answer that question, we turn to the 'transactions equation' popularized by Irving Fisher:

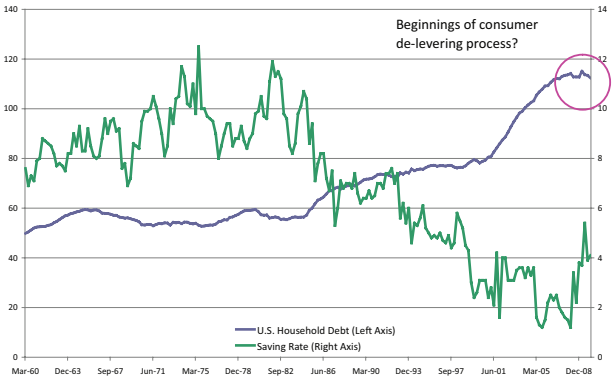
$$M * V = P * T$$

> *The right-hand side of the equation corresponds to the transfer of goods, services, and securities; the left-hand side, to the matching transfer of money…The right hand side of the equation...is the aggregate of such payments during some interval, with **P** a suitably chosen average of the prices, and **T** a suitably chosen aggregate of the quantities during that interval, so that **PT** is the total nominal value of the payments during the interval…Money is treated as a stock…For all transactions during an interval, we can, in principle, classify the existing stock of dollars of money according as each dollar "turned over." The weighted average of these numbers of turnover, weighted by the number of dollars that turned over that number of times, is the conceptual equivalent of **V**. The dimensions of **M** are dollars; of **V**, number of turnovers per unit time.* [1]

If we hold variables **V** and **T** constant, and the money increased by more than two-fold between 2008 and 2009, then **P**, the average of prices, should have increased by the same magnitude as **M**; however, we did not experience general price inflation during the 2008 through 2009 time period. In fact, deflation, not inflation, was of greater concern to the policy makers during this time period. We believe that during the time period from 2008 through 2009, **V**, the money turnover, plummeted and overwhelmed the effects of the increase in money supply, which in turn, resulted in low inflation. The implications of the foregoing are obvious: as long as the money turnover remains muted, the U.S. economy will not suffer from high inflation.

As an evaluator of investment strategies, I often hear equity portfolio managers make the following comment: "It's a no brainer, given all the stimulus money sloshing around; inflation is bound to rise." Too often our focus is solely on the quantity of the money stock in the economy as opposed to the money stock and the money turnover. We believe many equity investors underestimate the importance of money turnover in their assessment of future inflation. These same investors, who express their concern about the future prospects of higher inflation, share their firm belief in the multi-year deleveraging by the U.S. consumers.

Figure 2: U.S. Household Debt as a Percentage of Disposable Income



Source: Colchester Global Investors

1 Friedman, Milton. "A Theoretical Framework for Monetary Analysis." The Journal of Political Economy 78.2 (March – April, 1970): 193-238.

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If the U.S. consumers represent roughly two-thirds of the U.S. economy, unemployment remains high for the foreseeable future, and they collectively deleverage their individual balance sheets, then I cannot envision how the aggregate money turnover can substantially accelerate in the next year or two. In my humble opinion, as long as the U.S. consumers' focus is on saving and paying down debt ahead of spending, inflation is bound to remain subdued for the foreseeable future.

So what? What are the practical implications of the foregoing academic exercise for our clients?

Our clients know that Cynthia Steer, who leads our Beta Research Group, never lacks an opinion, especially when it relates to investments. (She has an opinion pretty much on everything.) Therefore, it is really surprising to hear her say that she has no strong views on the level of inflation for the next two years. She actually said: "I don't know." Our Beta Research Group's position and advice with respect to inflation-deflation has been consistent with Cynthia's "I don't know view." Lest I get skewered by Cynthia and the Beta Research Group, let me expand on their "I don't know" view. We have approached the inflation-deflation issue from the perspective of the impact on different asset classes. Further, we have segmented the inflation into two broad components: strategic or expected (longer-term) and shock or unexpected (shorter-term and episodic in nature). Our long-term assumption for the annual rate of inflation is 3%. This is not dissimilar to the market consensus view or our past views on inflation. What is different, however, is our view of the volatility around the long-term average and unexpected inflation. Because the long-term average can and will incorporate both inflationary and deflationary environments, we believe that our client portfolios must have exposures to different asset classes that provide a hedge to unexpected inflation and protection against anticipated inflation. Let me clarify.

Cash and Treasury Securities: Cash, as proxied by Treasury bills, represents a good hedge against deflation and expected and unexpected inflation. (Cash has the added benefit of being an excellent hedge against illiquidity risk.) Treasury Inflation Protection securities, or TIPs, represent a good hedge against expected and unexpected inflation. Consistent with the Fama and Schwert study, *Asset Returns and Inflation*,[2] we anticipated the effectiveness of the expected inflation hedging properties of the U.S. Treasury bonds to decrease with increasing maturities; that is, we expect the two-year Treasury bonds to be a better inflation hedge than the five or 10-year Treasury bonds because the shorter the maturity, the greater the investor's ability to reinvest it at an interest rate that incorporates the most recent estimate of future inflation. That notwithstanding, we expect the nominal Treasury bonds to be poor hedges against unexpected inflation. The latter statement makes intuitive sense, since at the time of bond issuance, the market will incorporate its best estimate of expected inflation, but not the unexpected inflation. To the extent that the ex-post (realized) inflation exceeds the ex-ante (expected) inflation, the holders of nominal bonds will suffer losses. (One can view the difference between the ex-post and the ex-ante inflation rates as the unexpected inflation that the market did not incorporate at the time of bond issuance.)

2 Fama, Eugene and G. William Schwert. "Asset Returns and Inflation." Journal of Financial Economics 5 (1977): 115 – 146.

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Equities: Some have asserted, based on the historical long-term average real return for equities of 6.5%, that equities should provide a good protection against expected inflation. That may be the case for a long investment horizon (10 or more years), however, we believe equities represent a poor hedge against unexpected inflation over the shorter time periods for the following reason: if the assets' prices represent unbiased estimates of future cash flows discounted by nominal discount rates, then an unexpected increase in inflation will imply higher discount rates for equity securities and the higher discount rates, in turn, will lead to lower asset prices and, by tautology, lower returns. Therefore, in shorter time periods and in environments punctuated by high or unexpected inflation, we expect equities both public and private, to represent poor hedges against inflation.

Real Assets: Gold and commodities, whose prices are denominated in nominal quantity of money, represent good hedges against high and unexpected inflation. Intuitively, this makes sense since their quantity and their real value is independent of nominal supply or quantity of money. Over a long investment horizon, however, gold and commodities are unlikely to provide a meaningful return above and beyond the long-term inflation rate. Private real estate and infrastructure, on the other hand, will provide long-term protection against expected inflation but prove to be a poor hedge against unexpected inflation.

Previously, we stated that: "As long as the money turnover remains muted, the U.S. economy will not suffer from high inflation." Given that view, we do not expect inflation to rear its ugly head again during the 2010 through 2011 time frame. Why then, is Rogerscasey's Beta team running around developing capital markets assumptions for real assets and advising our clients to consider TIPs and real assets for investment during the 2010 through 2011 time period? Our concern about inflation is not for the next 18 months but, rather, for the intermediate period – years 2012 to 2015. Investments in TIPs and real assets should be viewed as insurance policies against future inflation, both expected and unexpected; and these insurance policies should be purchased before the actual event occurs as opposed to buying them as the event unfolds.

With that backdrop, we recommend that our clients take the following steps to determine whether their portfolios are hedged, and to what degree, against unexpected inflation and protected against long-term expected inflation:

- Aggregate all assets that provide hedges against unexpected inflation: cash, gold, commodities, Treasury bills, TIPs, and bank loans.
- Aggregate all real assets that provide long-term protection against expected inflation: private real estate, infrastructure, farmlands, and timber.
- Determine whether the current level of hedge against unexpected inflation and protection against long-term expected inflation is appropriate and consistent with the plan objectives.

If all our clients were monolithic in their investment objectives and constraints, then we could provide a point estimate of the plan assets that our clients should consider allocating to inflation hedge and inflation protection assets; unfortunately, that not being the case, the appropriate allocation range will vary from client to client. As a general guideline though, a 20% allocation to inflation hedge and inflation protection assets is probably a good starting point.

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- As a way of addressing the liquidity risk, last year, we recommended that our clients target a 5% allocation to cash with a rebalancing range of 0% - 20%. This is an easy hanging fruit; we again recommend that our clients bring and maintain the cash allocation to a minimum of 5% to address the liquidity risk and partially hedge against unexpected inflation.
- To the extent that some of our clients do not have an explicit allocation to inflation-linked bonds (ILBs), we recommend that they seriously consider adding ILBs to their investment programs. In 2009, the target allocation to ILBs was 3%, with a rebalancing range of 3% - 10%. For those with a 3% allocation, they may consider increasing it to the midpoint of the rebalancing range.
- As a result of our recommendation to consider bank loans, many of our clients already have exposure, either directly or indirectly, to bank loans in their broad allocation to the high yield asset class. Bank loans, due to the floating nature of the interest payments received from borrowers, represent a better hedge (i.e., versus high yield securities) against unexpected inflation in the shorter time periods. However, given the run-up during 2009, we recommend against increasing allocation to bank loans at this time.
- Different from financial assets, commodities do not generate any current income; in fact, they generate negative income due to the carry cost. Therefore, at least historically, commodities have been viewed primarily as an inflation hedge, not as a return enhancing or income generating asset. To test the veracity of the foregoing statement, we compared the rolling three-month CPI against the S&P Goldman Sachs Commodity Index (S&P GSCI) rolling three-month returns from 31 March 1970 to 31 March 2010. In Tables 1A, 1B, and 1C we show the regression statistics for the entire period, the past 10 years, and the last five years.

Table 1A: Regression Statistics - All Periods (3/31/1970 - 3/31/2010)

REGRESSION STATISTICS	
Multiple R	0.36808
R Square	0.13548
Adjusted R Square	0.13005
Standard Error	10.26431
Observations	161

ANOVA	*df*	*SS*	*MS*	*F*	*Significance F*
Regression	1	2625.23310	2625.23310	24.91772	0.00000
Residual	159	16751.61488	105.35607		
Total	160	19376.84798			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-3.48301	1.29021	-2.69956	0.00769	-6.03118	-0.93485
CPI	4.56779	0.91506	4.99177	0.00000	2.76054	6.37504

CORRELATION	*GSCI*	*CPI*
GSCI	1	
CPI	0.36808	1

Table 1B: Regression Statistics - Past 10 Years (3/31/2000 - 3/31/2010)

REGRESSION STATISTICS	
Multiple R	0.66521
R Square	0.44250
Adjusted R Square	0.42820
Standard Error	10.57240
Observations	41

ANOVA	*df*	*SS*	*MS*	*F*	*Significance F*
Regression	1	3460.00995	3460.00995	30.95495	0.00000
Residual	39	4359.25132	111.77567		
Total	40	7819.26128			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-5.25427	2.05921	-2.55159	0.01476	-9.41942	-1.08912
CPI	10.97591	1.97277	5.56372	0.00000	6.98562	14.96621

CORRELATION	*GSCI*	*CPI*
GSCI	1	
CPI	0.66521	1

Table 1C: Regression Statistics - Past 5 Years (3/31/2005 - 3/31/2010)

REGRESSION STATISTICS	
Multiple R	0.78138
R Square	0.61055
Adjusted R Square	0.59006
Standard Error	11.18298
Observations	21

ANOVA	*df*	*SS*	*MS*	*F*	*Significance F*
Regression	1	3725.14309	3725.14309	29.78706	0.00003
Residual	19	2376.12313	125.05911		
Total	20	6101.26622			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-7.28548	2.80504	-2.59728	0.01769	-13.15649	-1.41447
CPI	12.29349	2.25248	5.45775	0.00003	7.57899	17.00799

CORRELATION	*GSCI*	*CPI*
GSCI	1 pt	
CPI	0.78138	1

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What we find most noteworthy from the regression analysis is the correlation between CPI and GSCI: the correlation between the two increased from 0.37 for the entire evaluation period to 0.67 for the last 10 years and to 0.78 for the last five years. An in-depth analysis of the reason behind the increase in correlation between the two is outside the scope of this paper; notwithstanding, it appears that the recent acute interest (i.e., by the institutional investors) in commodities as a hedge against inflation played a role in pushing the correlation between CPI and GSCI higher for the shorter time periods. (By the way, we observe similar increases in correlation between CPI and DJ UBS Commodity Index.) Before moving on, it is worth highlighting one other statistic: the coefficient of determination, or R^2, for the regression line also exhibited a monotonic increase from 0.14 (all periods) to 0.44 (last 10 years) to 0.61 (last five years). The latter observation reinforces both the growing and tighter relationship between CPI and commodities as proxied by the GSCI.

Currently, the demand in the marketplace appears to be high for commodities-driven investment strategies; however, I am afraid that this heightened demand will prove to be ephemeral as opposed to strategic or long-lasting. From an objective point of view, the regression analysis provides a reasonable basis for recommending commodities-driven investment strategies to our clients as a hedge against unexpected inflation; however, in our opinion, commodities are most appropriate for inclusion in our client portfolios over the short and intermediate-term as a hedge against unexpected or high inflation as opposed to long-term strategic allocation. Commodities provide the best hedge in a high inflationary environment, generally above 5% on an annualized basis. Given that our strategic long-term inflation forecast stands at 3% today, I must confess, I am less than enthusiastic about the allocation to commodities from a long-term strategic asset allocation perspective.

Some asset managers have argued for natural resource equities as a way gaining exposure to commodities. Their argument may sound something like this: low-cost producers can add value through commodity price cycles; therefore, it is a better to way to invest in commodities. While that may be true, natural resource equity strategies sport higher correlation to the equity markets and, hence, defeat the primary reason for investing in commodities – mainly to hedge unexpected or high inflation. In addition, natural resource equity strategies invest in a sector of the U.S. or global economy, meaning, they represent undiversified equity portfolios. Historically, we have shied away from recommending sector or country specific funds or strategies; therefore, it is a difficult proposition for us to recommend natural resource oriented equity strategies as a primary hedge against unexpected or high inflation.

- Private real estate and infrastructure represent real assets that provide long-term protection against expected inflation. We believe that our clients must maintain a strategic allocation to these assets. Currently, for a typical defined benefit plan, we recommend a target allocation of 6%, with a rebalancing range of 3% - 12%. Clients seeking higher long-term inflation protection should consider increasing the allocation to these real assets.

Country Re-Ranking: We all read about country re-ranking on a daily basis. Thanks to Greece, Ireland, and Spain, we are now all experts on sovereign risk and the severe consequences of poor fiscal discipline.

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I first experienced the results of poor fiscal discipline in Ecuador. Sucre – the Ecuadorian currency in circulation when my family first immigrated to Ecuador from South Korea back in 1979 – traded at around 25 to the dollar. By March of 2000, the exchange rate had moved to 25,000 sucres to the dollar – a 99.9% permanent loss of capital! My parents exchanged all their sucres for dollars at around the 45 mark – a loss of 44%. (I distinctly remember my father carrying a briefcase full of sucres. The briefcase was a lot lighter when he walked out from 'Casa de Cambio.') A material loss but not bad when compared to the 99.9% loss. I was 14 then. My poor parents experienced a second financial crisis in 1997, when they moved back to South Korea from Ecuador. By then, my parents had learned the lesson and held a good chunk of their cash in U.S. dollars and thereby avoided most of the currency losses. Sounds like someone else's story, right?

Especially for those in the U.S., but also for those in the Western Hemisphere, these financial shocks seem foreign – meaning, they occur in foreign lands but not in their own backyards. Casual market observers in the U.S. erroneously believe that Greece, Ireland, and Spain have suffered the wrath of the financial markets due to the amount of outstanding government debt. In Figures 3, 4, and 5, we set forth three graphs: first, gross government debt as a percentage of GDP for different economies; second, net government debt as a percentage of GDP; and third, 2009 fiscal deficit for the same countries.

Figure 3: Gross Government Debt as a Percentage of GDP

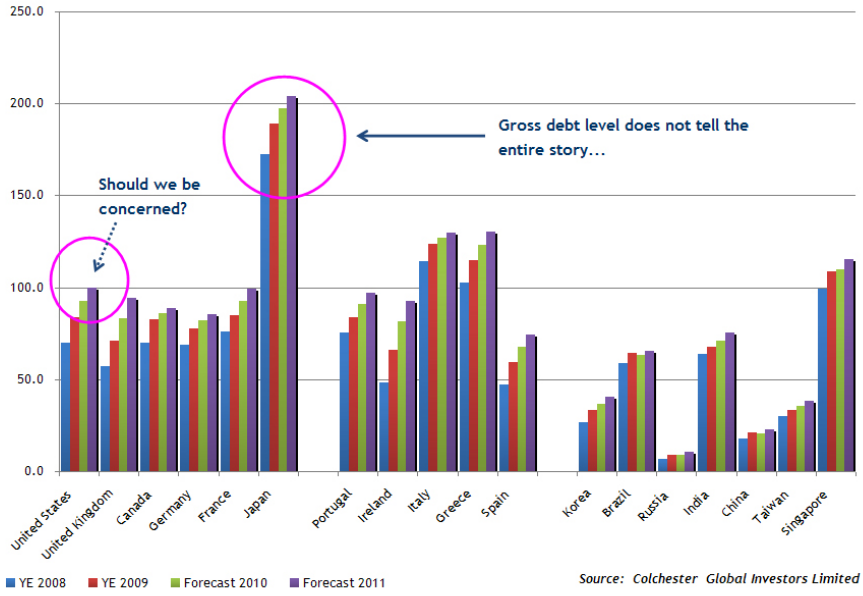


Figure 4: Net Government Debt as a Percentage of GDP

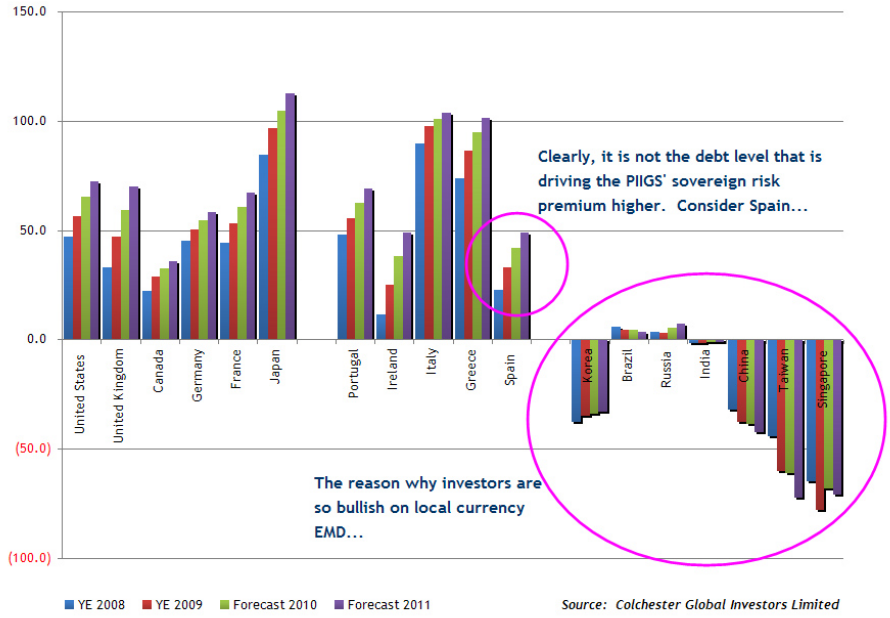
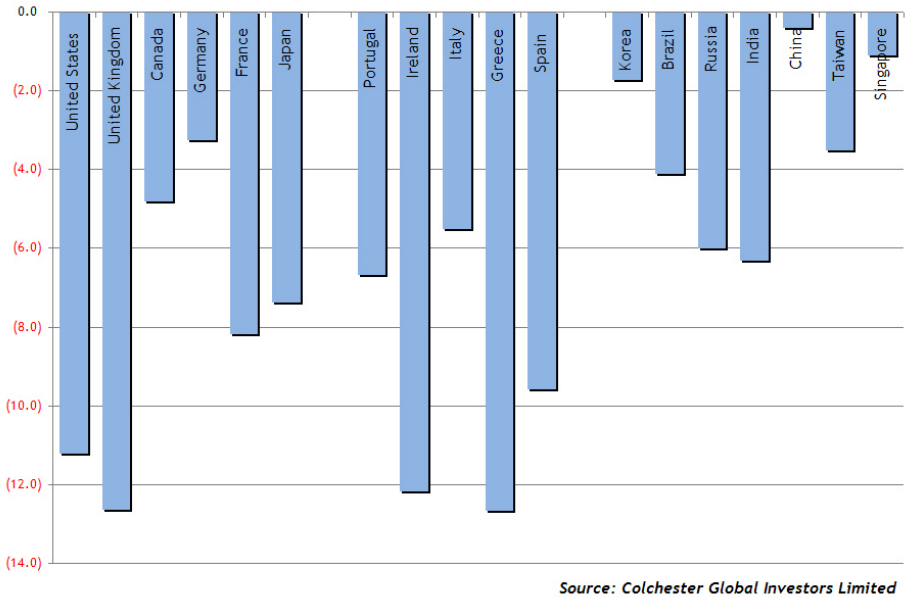


Figure 5: 2009 Fiscal Deficit s a Percentage of GDP



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In recent months, concerns over Spain's ability to repay its debt have been rising; however, at least based on the three financial measures shown above, Spain seems to be in a better position than the U.S. or the U.K. On a net basis, Spain's government debt is forecasted to grow to roughly 50% of GDP by 2011 and U.S.'s government debt to 70% of GDP. Clearly, markets are focused not just on outstanding debt levels, but, more importantly, on each country's ability to service and repay its debt obligations. We highlight the fiscal picture for the major Western economies, the PIIGS countries, and Asian & BRIC economies to stress a point – that neither the U.S. nor other Western economies are immune to the financial shock that emanates from poor fiscal discipline. This time around, it may not be someone else's story.

For the past several years, we have been advocating going global, both in equities and fixed income; but what does global investing mean in the throes of heightened risk sensitivity around sovereign debt? For one, it means that U.S. treasuries may not be as zero risk as once believed. Clients may be well advised to diversify away from U.S. treasuries. In addition, government-only bond portfolios should include sovereign risk from both developed and developing countries around the world. As Figures 4 and 5 show, Asian and BRIC economies exhibit a much stronger fiscal strength than their mature counterparts in the Western Hemisphere and Japan. Clients conducting international fixed income searches may want to change the mandate from international to global.

Finally, our clients are advised to pay closer attention to the currency effect. Heightened concerns over sovereign risk necessarily imply uncertainty and increased volatility around related currencies – mainly, currencies from developed economies. Clients with significant assets in developed economies, at a minimum, are advised to consider hedging the currency effect that can overwhelm the underlying asset returns. For those who take a passive view on currencies, the latter represents an uncompensated risk that may be hedged. For those, who take an active view on currencies, uncertainty and volatility around currencies represent another investment opportunity to be exploited.

Company Re-Rating: We believe the financial markets will be much more discriminating between corporate credits. Further, large multi-nationals will have an edge when it comes to funding cost and access to capital. Generally speaking, for the past 18 months, both high and low quality companies have been able to amend and extend their debt; prospectively, however, the markets will winnow the wheat from the chaff. In this environment, we recommend high quality credit and high quality equity for the following reasons. The larger high quality companies will command an edge – with respect to liquidity and cost of funding – over smaller, weaker companies. From a valuation perspective, the former offers a much more attractive risk-return trade-off. Consider the following equity characteristics for large, mid, and small capitalization stocks.

Table 2: U.S. Large Cap Equity Characteristics

	S&P 500	Russell 1000 Index	Russell 1000 Growth Index	Russell 1000 Value Index
Weighted Averages				
Price/Earnings ratio	16.91	17.83	18.87	16.77
5 Yr. EPS Growth Rate (%)	9.89	10.14	15.37	4.95
Current Yield (%)	2.01	1.96	1.63	2.28
Market to Book	2.50	2.51	3.71	1.86
Debt to Equity	0.89	0.77	0.36	1.18
Beta	0.97	0.98	0.87	1.10
Wtd. Avg. Mkt. Cap ($MM)	83,818	75,617	78,839	72,427
Risk Exposures				
Volatility	(0.14)	(0.07)	(0.23)	0.08
Momentum	(0.08)	(0.04)	0.01	(0.09)
Size	0.38	0.18	0.22	0.13
Size Non-linearity	0.11	0.08	0.09	0.07
Trading Activity	0.06	0.06	(0.12)	0.24
Growth	(0.04)	(0.02)	0.18	(0.23)
Earnings Yield	0.11	0.07	0.03	0.10
Value	(0.02)	(0.01)	(0.40)	0.38
Earnings Variation	(0.08)	(0.04)	(0.26)	0.19
Leverage	(0.13)	(0.06)	(0.29)	0.18
Currency Sensitivity	0.04	0.03	0.08	(0.03)
Yield	0.08	0.03	(0.14)	0.20
Nonestu	0.00	0.01	0.01	0.01

Source: Rogerscasey, Barra

Table 3: U.S. Mid Cap Equity Characteristics

	S&P Midcap 400 Index	Russell Midcap Index	Russell Midcap Growth Index	Russell Midcap Value Index
Weighted Averages				
Price/Earnings ratio	20.78	19.08	20.73	17.54
5 Yr. EPS Growth Rate (%)	11.02	9.30	14.38	4.61
Current Yield (%)	1.45	1.62	1.08	2.12
Market to Book	2.30	2.44	3.57	1.86
Debt to Equity	0.62	0.92	(0.11)	1.87
Beta	1.10	1.11	1.04	1.19
Wtd. Avg. Mkt. Cap ($MM)	3,299	7,070	7,311	6,847
Risk Exposures				
Volatility	0.33	0.33	0.23	0.43
Momentum	0.18	0.20	0.24	0.16
Size	(1.64)	(1.12)	(1.09)	(1.15)
Size Non-linearity	(0.31)	(0.08)	(0.06)	(0.09)
Trading Activity	0.10	0.31	0.22	0.38
Growth	(0.03)	(0.05)	0.22	(0.30)
Earnings Yield	(0.22)	(0.20)	(0.18)	(0.22)
Value	0.13	0.06	(0.36)	0.45
Earnings Variation	0.12	0.15	(0.07)	0.34
Leverage	0.31	0.39	0.26	0.50
Currency Sensitivity	(0.17)	(0.09)	(0.04)	(0.13)
Yield	(0.23)	(0.15)	(0.42)	0.10
Nonestu	0.01	0.03	0.03	0.04

Source: Rogerscasey, Barra

Table 4: U.S. Small Cap Equity Characteristics

	S&P SmallCap 600 Index	Russell 2000 Index	Russell 2000 Growth Index	Russell 2000 Value Index
Weighted Averages				
Price/Earnings ratio	21.54	20.23	23.43	17.74
5 Yr. EPS Growth Rate (%)	7.94	6.27	9.29	3.59
Current Yield (%)	1.11	1.13	0.55	1.64
Market to Book	2.07	2.19	3.11	1.68
Debt to Equity	0.35	0.29	0.55	0.06
Beta	1.14	1.19	1.11	1.27
Wtd. Avg. Mkt. Cap ($MM)	1,159	1,168	1,234	1,110
Risk Exposures				
Volatility	0.74	1.01	0.98	1.05
Momentum	0.24	0.42	0.52	0.33
Size	(2.45)	(2.51)	(2.48)	(2.54)
Size Non-linearity	(1.25)	(1.42)	(1.36)	(1.46)
Trading Activity	(0.44)	(0.46)	(0.51)	(0.41)
Growth	0.02	0.12	0.48	(0.21)
Earnings Yield	(0.34)	(0.56)	(0.64)	(0.50)
Value	0.28	0.21	(0.31)	0.68
Earnings Variation	0.14	0.48	0.36	0.59
Leverage	0.42	0.67	0.54	0.79
Currency Sensitivity	(0.47)	(0.37)	(0.37)	(0.37)
Yield	(0.41)	(0.40)	(0.69)	(0.14)
Nonestu	0.17	0.27	0.24	0.29

Source: Rogerscasey, Barra

Strictly from a naïve price-to-earnings ratio perspective, one can observe a direct increase in the price-to-earnings multiple from large capitalization stocks (16.9) to mid capitalization stocks (20.8) to small capitalization stocks (21.5). The debt-to-equity ratio – a measure of financial leverage – for large, mid, and small capitalization stocks is quite interesting. We observe a direct decrease in leverage exposure from large to mid to small. This, we believe, is consistent with our assertion that "large multi-national companies will have an edge when it comes to funding cost and access to liquidity." Finally, consider the exposures to the volatility risk factor. According to the Barra risk attribution of the S&P 500 Index, S&P 400 Index, and S&P 600 Index against the Barra estimation universe portfolio, small capitalization stocks exhibited the largest exposure (0.7 standard deviations) to the volatility risk factor, followed by mid capitalization stocks (0.3 standard deviations) and large capitalization stocks (-0.1 standard deviations).

WHAT NOW?

I wish the foregoing observation was unique to Rogerscasey; it is not. In fact, it represents the market consensus view. There is another market consensus view that we have not discussed: U.S. equities are much more appealing than their non-U.S. developed equity counterparts. Needless to say, as far as equities are concerned, we favor U.S. large cap high quality strategies.

In summary, we reiterate the following key points:

- We expect higher volatility around the long-term average inflation rate of 3%. Be mindful of an inflation hedge against unexpected inflation over the shorter time frame and inflation protection over the longer time frame.
- U.S. and other major developed economies are not immune from the heightened sovereign risk. Diversify away from U.S. treasuries. Diversification in the global fixed income context should be along the lines of developed and developing economies. Be mindful of currencies. Unhedged non-U.S. equity and fixed income strategies will exhibit higher volatility due to higher currency volatility.
- Seek quality in both corporate credit and equities.

WHAT NOW?

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ABOUT ROGERSCASEY

Innovators in investment research since 1968, Rogerscasey is among the nation's leading global providers of comprehensive investment solutions for a broad spectrum of corporate and public retirement plans, endowments, foundation, financial intermediaries, healthcare systems, and large high net worth individuals. Rogerscasey has over 100 employees, including 37 consulting professionals and 25 research professionals, operating in six offices across the United States, Canada, and Europe.

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