Global Strategy Views

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Europe's Deepening Debt Crisis as Global Event Risk: Portfolio Strategy Implications

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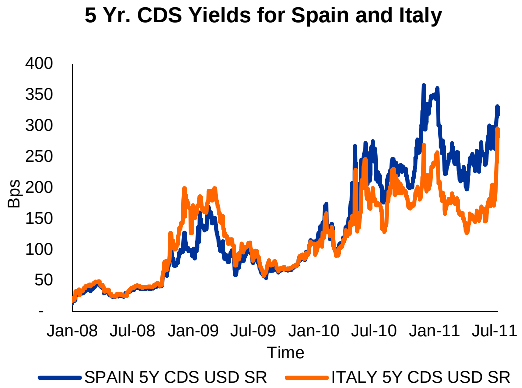
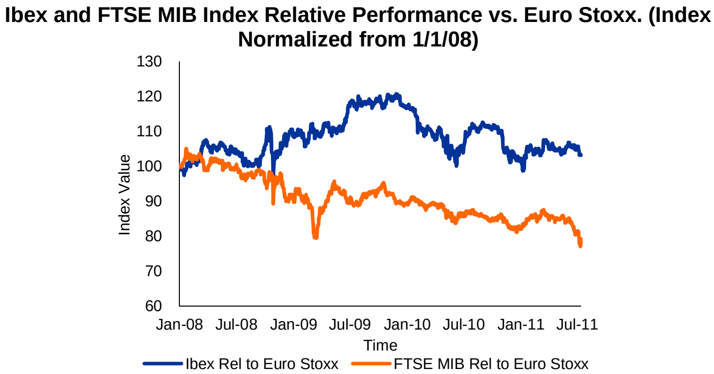
Over the past several weeks, the European periphery's longstanding sovereign credit crisis has turned far more virulent, with an accelerated spike in Italy's sovereign debt yields and the drying up of the periphery's unsecured debt markets – Panel 1 illustrates the sharp asset price deterioration for Italy and Spain since the beginning of the year, even when expressed relative to euro zone peers. In the process, the European periphery's debt crisis has become far more consequential for the global macro and market outlooks than at any time since the beginning of the crisis.

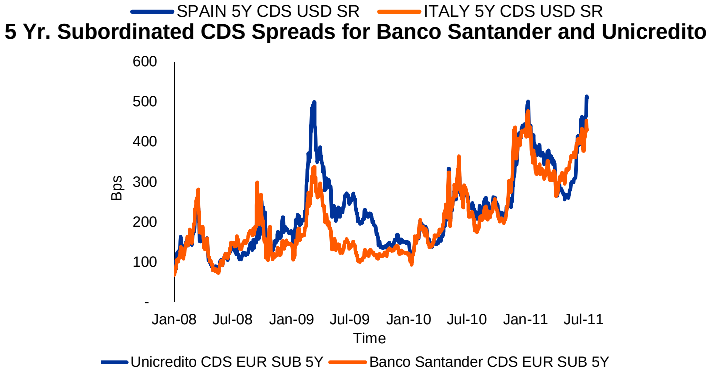
In my view, the deteriorating sovereign debt crisis plaguing Europe's periphery carries the potential of morphing into a financial, market and macro crisis of global proportions, unless the European political establishment, led by Germany, and the European Central Bank adopt unprecedented actions along four principal directions:

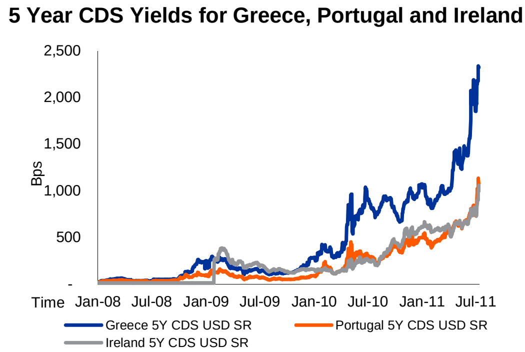
1. The implementation of orderly debt restructurings for Greece, and quite possibly Portugal and Ireland, ahead of the scheduled inception of the European Stability Mechanism in 2013;
2. The development of political commitment to ratify the euro zone's transformation from a common currency area to a fiscal federation;
3. A finer articulation and broader discussion of the guiding principles to govern the European Stability Mechanism, to be launched in 2013, both as regards its design and implementation;
4. The adoption of more aggressive pro-growth oriented structural reforms across the euro zone, for only through the speedy resumption of strong medium-term economic growth dynamics will market concerns over the periphery of Europe's long-term solvency abate.

Panel 1: Broad-Based Asset Price Deflation in Europe's Periphery









Source: Bloomberg

By Carlos Asilis, Ph.D.

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From a short-term perspective, it is clear that (1) and (3) are most important. Also, it can be argued that (2) does not represent a necessary condition for the long-term viability of the euro experiment, though it most certainly would heighten its credibility, and therein lies my reason for including (2) in the above action list.

In the remainder of this report I discuss, in broad terms:

1. The nature and global backdrop behind the European periphery's sovereign debt crisis, in particular some of its most salient differences and similarities vis-a-vis sovereign debt crises of the modern era;

2. An assessment of the potential tied to orderly and disorderly exits for the current European debt crisis;

3. Global portfolio strategy implications stemming from our assessment of the European periphery's debt crisis as a global event risk of potentially historic proportions.

Europe's Debt Crisis: Backdrop and Systemic Implications

The ongoing European debt crisis raises a number of questions for global investors, including:

1. What is the macro backdrop leading to the ongoing sovereign debt crisis facing the periphery of Europe?

2. What conditions, if any, make the European crisis unprecedented in the modern era?

3. Is this a liquidity or solvency crisis?

4. And, for which countries is the crisis likely to be one of solvency?

5. If it is increasingly clear this is a solvency crisis for some countries, why have European leaders been so reticent in accepting such a reality? Are the consequences of inaction not likely to be major and potentially systemic? What explains such policy inaction or coordination failure?

6. How does the ongoing crisis compare to previous sovereign debt crises of the past forty years in Latin America and Asia?

7. How does the ongoing crisis compare to previous sovereign debt crises insofar as potential systemic implications of disorderly outcomes is concerned? Moreover, how does the ongoing crisis compare to the Lehman crisis, under a disorderly outcome to the current crisis?

8. How does the current crisis compare to previous crises insofar as the spectrum of potential orderly exit strategies is concerned?

I address those questions and others immediately below:

- ***The European crisis' macro backdrop and nature qualifies the crisis as unprecedented in modern times*** – questions (1) and (2) above: First, we answer the latter question. The European debt crisis qualifies as an unprecedented event in modern times in that the closest developed country predecessor entering into debt restructuring was Germany during the 1940s. Of course, developed country defaults and debt restructurings were quite common at the beginning of the 1900s and during much of the 1800s, involving even repeated defaults by countries such as France, Spain and Greece.

  The European crisis is also distinct from others impacting the emerging markets over the past several decades, in that the backdrop leading to sovereign debt crises in emerging market countries normally included (a) widespread banking sector crises – in that regard, Ireland's crisis is the closest to the typical emerging market crisis of the past several decades; (b) large currency devaluations, a tautological impossibility in the euro zone's context, owing to its common currency area status; (c) sizable external shocks, especially impacting terms of trade (including interest rate spikes on foreign currency denominated debt, not the case for euro zone countries, and collapse of commodity prices for commodity-exporting countries, for example).

  Given the above, what is the macro backdrop, accounting for the European debt crisis, coming into place in the aftermath of the 2007-2009 financial crisis? The answer includes, of necessity, three interconnected factors:

  – ***Unprecedented economic growth challenges over medium-term:*** First, the onset of the Great Recession following the 2007-2009 global financial crisis has resulted in significant output gaps for a large number of developed economies, including the U.S., U.K. and much of the euro zone. Such output gaps are likely to remain sizable for at least several more years, as economic growth remains below trend owing to several structural factors discussed further below. In turn, below-trend growth translates into depressed public sector revenues that, given political inertia against public sector expenditure cuts, translate into large and sustained budget deficits. Such state of affairs lead market participants to question the ability of highly indebted sovereigns in the euro zone to service their debt over the medium-term.

– ***Structural competitiveness concerns:*** By most accounts, including estimates generated by the staff of the international financial agencies, periphery countries (especially Greece, Spain and Italy) ail from a competitiveness problem stemming from the real exchange rate appreciation those economies underwent during the expansion phase that ended in 2007; courtesy of (a) the uneven nature of such expansion, led almost exclusively by the non-traded (mostly housing) sector, and also (b) the fixing rate levels for the euro-peseta, euro-drachma and euro-lira at the time of the launching of the euro. Under the common currency, the only venue through which those countries are able to restore competitiveness is through either nominal wage deflation or the adoption of deep structural reforms. The former is a political non-starter for most of the periphery countries, owing to the socialist paradigm embraced by the political establishment. As for the latter, some countries (especially Ireland and Spain) have undertaken meaningful reforms, but these are not yet of a large enough order of magnitude to allay market concerns over the region’s ability to resume sustainable medium-term growth rates.

– ***Opaqueness over the real stock of public debt obligations:*** The case of Greece, in which two years ago an incoming administration announced to the world massive upward revisions to public deficit and debt levels, represented a wake-up call for the market as regards the opaqueness permeating some of the European periphery countries’ public accounts. Such concerns not only go beyond blatant misrepresentations of governments’ true financial state, but also extend to areas such as the true size of contingent public-sector liabilities tied to the stock of unrecognized, non-performing loans, especially in the housing market. In that regard, through forbearance and other refunding dynamics (some through the repo market and others directly through the European Central Bank), housing markets in the periphery have not been allowed to clear. Such state of affairs is detrimental to efforts at restoring sustainable economic growth in short order, but also calls into question the true level of public debt obligations.

- ***Is the debt crisis, afflicting the European periphery, of a liquidity or solvency nature? And, for which countries is the crisis likely to be one of solvency?*** – questions (3) and (4) above: First, a sovereign debt crisis is of a solvency nature whenever a country’s long-term debt sustainability is called into question. In turn, those instances arise whenever two sets of conditions occur. Either the cost of public debt servicing (primarily interest payments) attains exceedingly high levels, when expressed either in percentage terms of GDP or percentage terms of public revenues, OR the debt-stabilizing primary surplus is of too large an order of magnitude when expressed in terms of the requisite increase in public revenues (mostly taxes); the latter can occur because the implied GDP share of tax collections exceeds tolerable levels, owing to international competitive considerations, tax collection efficiency or allocative efficiency considerations (e.g. pushing tax collections into the ‘wrong side’ of the Laffer curve). For reference, the debt-stabilizing primary balance corresponds to the interest-rate growth-rate differential multiplied by the public debt-GDP ratio.

Given the above semantics and the definition of the basic fiscal arithmetic behind the concept of solvency for a sovereign, a close look at the magnitude of the European periphery countries’ macro variables – of relevance in ascertaining debt solvency – offers the following conclusions:

– The required swing (cyclically and non-cyclically adjusted) in primary budget balances, from deficit to surpluses consistent with debt-GDP ratio stabilization, is especially large for Greece, Ireland, Portugal and Spain – not so for Italy. However, while the magnitude of such required swings in primary budget balances is large, the small differential between the average interest-rate terms paid on existing debt and economic growth rates is so small that it renders a static analysis of solvency favorable for ALL periphery countries.

– Unfortunately, a static analysis using average interest cost levels on existing debt faced by periphery country governments, would offer an incorrect answer to the question of solvency, as interest costs facing several of the periphery countries have ballooned over the past 12 months. Therefore, a proper analysis would employ forward interest rates on sovereign debt paper. Under such analysis – excluding the extreme case of the European Central Bank continuing to purchase indefinitely the overriding majority of new auctioned debt by periphery countries – Ireland, Portugal and Greece would prove insolvent.

– In the point noted immediately above, it is important to make several observations. First, the point draws on the recent widening in the differential between interest rates and economic growth rate over the past twelve months, but does not explain why this has occurred. The answer lies in the three factors denoted in the section above: the market's growing concerns over a protracted period of low growth in the coming years, concerns over structural competitiveness problems plaguing the periphery region, and the opaqueness of public sector debt liabilities. Unfortunately, a convincing turn for the better in these three dynamics appears to be a low probability event, largely because of: (a) the global and balance-sheet nature of the slowdown plaguing the developed world; (b) the lack of political constituency supporting a successful solution to the competitiveness problems affecting European countries; and (c) the lack of historical precedent in reversing the loss of credibility tied to official lies on the fiscal side.

- ***If it is increasingly clear this is a solvency crisis for some countries, why have European leaders been so reticent in accepting such state of affairs? Are the consequences of inaction not likely to be major and potentially systemic? What explains such policy inaction or coordination failure? How does the ongoing crisis compare to previous sovereign debt crises in Latin America and Asia?*** – questions (5) and (6). As regards the first question, that of the European leadership's reticence to contemplate a sovereign debt restructuring event, the answer entails the following:

– ***Sovereign default was not contemplated by the creators of the euro system*** – one could label this a 'design flaw.' The creation of the euro system, including the launching of the euro common currency area, did not admit sovereign default events. In fact, not until the market pressures impacting Greece reached untenable levels in 2010, leading to the extension of a massive assistance package by the E.U. and IMF, did the E.U. command the creation of a European Stability Mechanism to become effective in 2013. In the process, all E.U. member states are expected to create special resolution regimes for banks, allowing for the orderly restructuring of banks that will likely be adversely impacted by sovereign debt reschedulings.

– ***Lack of political sponsorship by the European leadership.*** Once market concerns over the weaker credits within the European periphery took hold, the European leadership's approach to the crisis took the form of putting together financial assistance programs that have largely allowed French and German creditor banks to Greece, Ireland and Portugal to reduce exposure levels to those countries. In the process, the European Central Bank has taken on vast (in excess of 100 billion euros) Greek debt and credit collateralized by Greek debt paper. Thus, it is fair to state that, up until now, the approach towards the affected periphery countries has been one of minimizing the exposure of creditor banks from the core countries; as opposed to admitting the prospect for significant debt restructurings. It is clear that any debt restructuring initiative lacks political sponsorship within the countries capable of footing the bill, notably Germany. Arguably, the correct approach would have been to introduce such protocols at the time of the euro system's inception, and not to wait for a crisis to take such action. It is akin to an individual expecting to secure insurance coverage after the occurrence of a fatality.

– As the crisis has deepened, the rhetoric coming out of the ECB and the E.U. governments has begun to differ, leading to heightened confusion in the marketplace and a spike in realized financial volatility. Specifically, over the past few days several E.U. leaders have voiced their disposition to accept orderly debt restructuring scenarios for Greece over the near term. This position stands in contrast to that of ECB officials, who continue to favor a no-restructuring scenario until the creation of the European Stability Mechanism in 2013. Moreover, a particularly sticking point to the debate between the ECB and E.U. governments (especially Germany's), stems from the German government's inclination to require a significant private sector participation in any restructuring event. Such a stance, if sustained, would lead to severe market disruptions, as ratings agencies have voiced their determination that such an event would qualify as selective default. In turn, under a downgrade of Greek debt to selective default status, the ECB has expressed its inability to buy or accept Greek debt as collateral, as it would violate the ECB's charter; thereby taking out the only major buyer of Greek debt at present.

– Insofar as ***the major differences between the European debt crisis and that of emerging***

market countries, these include: (a) a European debt maturity profile that is vastly longer dated than that of emerging market countries that entered into default; (b) European debt is predominantly denominated in local currency (euro), as opposed to emerging market countries' debt, a substantial fraction of which was denominated in foreign currency – primarily the U.S. dollar; (c) European debt is held predominantly by locals, though this varies by country, with Greece, Ireland and Spain being cases in which foreign participation is substantial; (d) European debt is predominantly a non-indexed, fixed rate; (e) European interest rate to economic growth rate differentials have been a lot lower than for most emerging market countries that have encountered repayment difficulties in the past – though such differentials have widened to worrisome levels over the past several weeks and months, as discussed above. Such differences are all positive for the European periphery countries and help explain why the European debt crisis has lingered, without a final resolution, for over a year.

On the flip side, major differences adverse to the European periphery versus their emerging market peers of yesteryear, which faced repayment difficulties, include: (a) the global economic backdrop facing the developed world is vastly softer than at any time over the past forty years; (b) terms of trade are moving sharply against some of the periphery countries, including the spike in commodity prices and the strengthening of the euro versus the U.S. dollar, not to mention the accelerated rise in interest costs facing the periphery countries; (c) highly challenged demographics, as compared to emerging market countries whose populations are a lot younger; (d) an outsized public sector, beset by large and sticky public sector entitlements – not the case for emerging market countries; (e) ongoing household financial deleveraging in the periphery countries following the bursting of local housing price bubbles, whereas financial leverage levels in most emerging market countries have never reached the extended levels found currently in Europe's periphery.

- ***How does the ongoing crisis compare to previous sovereign debt crises insofar as potential systemic implications of disorderly outcomes is concerned? Specifically, how does the ongoing crisis compare to the Lehman crisis, under a disorderly outcome to the crisis? How does the current crisis compare to previous debt crisis insofar as the spectrum of potential orderly exit strategies is concerned?*** questions (7) and (8). In my view, the structural characteristics of the current European debt crisis are such so as to render the direct potential systemic implications of a disorderly outcome less worrisome than that of the Lehman Brothers implosion. Such assessment reflects the following considerations:

  – ***The prospect of sovereign default scenarios in the periphery of Europe is far more heavily discounted by the markets than that of Lehman Brothers in 2008, which, by all accounts, was a shock to most in the global marketplace.*** For example, current 5-year CDS levels for Ireland, Portugal and Greece imply default probabilities in excess of 60 percent, assuming 40 percent recovery ratios.

  – ***Arguably, the Lehman Brothers implosion's especially toxic effects on the global financial system stemmed from Lehman's massive off-balance sheet exposures and, more importantly, its linkages to equally highly-levered global financial institutions.*** Happily, most European sovereign debt exposures are well accounted for, with little off-balance sheet risks. Moreover, the size of Europe's sovereign CDS market (around 600 billion euros) is minute relative to that coming under pressure at the time of Lehman's demise. In addition, the overriding majority of the European sovereign debt stock takes the form of bonds, with documentation that is up to date, and little of which is held by retail investors. Quite simply, the order of magnitude of debt exposure through off-balance sheet instruments, and structured products facing the world financial system under a post-sovereign default scenario in Europe, is many times smaller than at the time of the Lehman Brothers implosion. Of course, the above is not meant to imply that the sum total of direct and indirect effects stemming from a European sovereign default event would not carry measurable knock-on effects on the global economy and markets – quite the contrary. However, at this time, it would be a stretch to take on the view that the global economic and financial implications from such events would compare to those that followed the aftermath of Lehman's implosion.

  – The (1) smaller order of dimensionality of global financial exposures tied to a potential European sovereign default, when compared to that prevailing at the time of the Lehman Brothers' implosion, together with (2) the observation that most of the outstanding stock of sovereign debt, issued by European periphery country governments, has been issued under domestic jurisdiction (a far more beneficial backdrop than under both the Lehman implosion and the default occurrences for a large number of emerging market countries), imply that rescheduling protocols can be completed within five to six months, in the legal opinion of experts in the field of sovereign defaults.

Assessment of Potential Tied to Orderly and Disorderly Exits for European Debt Crisis

An assessment of the relative potential tied to orderly and disorderly debt restructuring scenarios for the European periphery countries, offers a much higher probability weighting to the orderly restructuring case. By orderly restructuring, one means not only voluntary, but also imposed, restructuring scenarios through which the affected European sovereigns' country debt rating would be downgraded to default or selective default status. Such scenarios would be considered 'orderly' in that the process would be clear and structured. Moreover, under such scenarios it would be exceedingly probable for the restructuring countries to be shut out from the private capital markets for a limited period of time, measured in quarters or very few years , at most.

I believe orderly debt restructuring scenarios carry far heavier probability weightings in the European case, owing to the following considerations:

1. As noted in the above sections, ***the overriding majority of affected countries' public-debt stock takes the form of bonds issued domestically and in the local currency, the euro***. Thus, the quantum and nature of the debt exposures for the affected countries is well known by both the market and debtor country governments. Moreover, under English law and that of most other jurisdictions, the affected sovereigns enjoy the undisputed right to change the terms, even when it may qualify as an act of default. These facts are critically important, as they effectively rule out the traumatic confiscation episodes that several Latin American countries went through in the context of their past debt restructuring periods, most notably that of Peru and the vulture fund, Elliot Associates. In that instance, as for most developing country debt cases of the past, the debt was issued under New York law.

2. ***Affected periphery country governments lack any incentive to pursue disorderly debt restructuring scenarios,*** as the systemic disruption effects on the euro zone would be far more severe, especially stemming from reputational effects. It is reasonable to assume that unilateral disorderly restructurings, engineered in the absence of consultations with core E.U. governments, are likely to result in the exit of the affected countries from the euro common currency area, as well as the E.U. In this scenario, it is reasonable to assume that the ensuing economic contraction to affect the debtor country would be far deeper than under the alternative. Moreover, the country would be shut out from the private capital markets for a longer horizon compared to the alternative (orderly restructuring). Of course, one may argue that disorderly debt restructuring scenarios may not only come about through the unilateral action of affected governments, but could also be imposed by the market. From my perspective, such prospects are rather unlikely, owing to the extended average maturity of the public-sector debt for affected countries (e.g. 7 years for Greece, 6.8 years for Spain, 6.9 years for Italy and 7 years for Ireland, according to IMF data).

Global Portfolio Strategy Implications Under European Debt Crisis 'Event Risk'

Before delving into the identification of how best to structure a global portfolio – at the asset class and geographic region level, with the most compelling risk-adjusted profile at a time of mounting event-risk – it is important to reflect on the economic policy response that would follow a default occurrence in Europe, especially under a multi-country default event scenario.

From the policy track record set by the world's reserve currency central banks (e.g. UK, USA, Japan and the ECB) since the onset of the global financial crisis of 2007-2009, it is clear that an orderly or disorderly debt restructuring in the periphery of Europe would be met by massive injections of liquidity and liquidity facilities, in the immediate aftermath of such crisis.

Second, as noted in the above sections, the real economy implications stemming from sovereign defaults in Europe are likely to be of smaller orders of magnitude than those that followed the Lehman Brothers' demise. Nevertheless, the intermediate-term economic growth outlook facing much of Europe (and indirectly the U.S.), through a strengthened U.S. dollar versus the euro, could remain challenged over a period of time. In fact, it is reasonable to believe that the European periphery's debt crisis carries a larger potential for exerting contagion onto the U.S. market than previous EM debt crises. For example, U.S. money market funds de facto have been running carry trades over the past two years, or so, by holding disproportionately large holdings issued by European corporates. Under an event risk scenario in Europe, it is reasonable to assume that there would be a flight out of the euro into the U.S. dollar, as such class of short U.S.-dollar carry trades get unwound. The resulting euro-currency weakening versus the U.S. dollar would heighten deflation concerns around the world through the adverse price implications on commodities, among other channels. This would negatively impact the EM markets as well, on an absolute basis.

From these considerations, and others noted below, I draw the following general investment strategy conclusions, at the asset class level:

- ***Cash and short-term fixed income:*** real interest rates in the U.S., U.K. and Europe are likely to remain exceedingly low, and quite possibly negative, over the coming years – a phenomenon referred to as 'financial repression' in the economic development literature of the 1980s. This implies that, on a strategic basis, cash as an asset class should be underweight within developed countries' portfolios. Overweight cash balances should be held only as a short-term tactical investment tool by such institutions whose mandates afford them such latitude.
  - Moreover, at a global level, cash and short-term fixed income exposure should be held primarily through emerging market country exposures. The reason is simple: real interest rates for some of the larger emerging market economies is both positive and much higher than for developed country peers; the macro basis for implementing a financial repression – focused monetary policy approach is non-existent in emerging market countries; the world economy's need to rebalance the fabric of economic growth away from low growth – deleveraging continental economies in Europe and the U.S. onto the faster growing emerging market countries of Latin America and Asia necessitates a process of secular for emerging-market currency strengthening in the years to come. Such prospect represents an additional consideration in holding most of the cash and short-term fixed income exposure within the emerging market space.
- ***Fixed income:*** The considerations laid out in the cash and short-term fixed income section above carry over directly to emerging markets' fixed income. Over the near term, I would favor EM sovereign over EM corporate debt instruments, owing to the relative valuations and forward relative supply-demand balances emanating from each space. I would also include the following national markets among those to overweight: Norway, New Zealand, Sweden, Canada and Australia, in descending order of preference. All of these countries share the following traits: solid macro balance sheets (including the fiscal sector), favorable exposure to secular trending terms-of-trade dynamics in the agriculture and commodities space, and strong corporate and government governance standards.
- ***Equities:*** At an asset class level, emerging market equities look poised to further extend their multi-year return outperformance of developed country peers, on the back of emerging market countries' stronger earnings growth outlook, stronger balance sheets, and current above-historical-average valuation discounts versus developed-market peers. On the latter, the acceleration of inflation momentum out of several large economies (including China, Brazil and India) has prevented those markets from undergoing valuation multiple expansions over the past six to nine months. As inflation momentum in these countries tops out over the coming months, central banks are likely to end their long-running rate hike cycles; thereby paving the way for valuation multiple expansion potential even if earnings surprise modestly to the downside. Outside emerging markets, the U.S., U.K., Japan and selected German industrial multinationals are compelling on a long-term basis; owing to the visibility of earnings, attractive dividend yields versus government bond yields, and significant exposure to fast-growing emerging-market economies. Finally, at the sector level, investor interest in high growth, low cyclicality sectors like biotech and other groups within the healthcare space, is likely to remain high over the coming years.
- ***Commodities:*** As an asset class, exposure to the commodities group is to be emphasized over the medium- and long-term, owing to the: (a) significant price pullbacks of the past several months that offer more attractive entry points; (b) the high clarity stemming from secular forces, underpinning sustained demand growth for commodities, especially in the agriculture and energy space; and (c) the persistence of negative real-interest rates in the developed world. Precious metal prices, while devoid of intrinsic value, are likely to remain supported; if I am right in my thesis calling for a prolonged period of negative real-interest rates in the developed world. Moreover, the lingering nature of the sovereign debt crisis afflicting developed countries provides precious metals an additional allure, as store of value, in a world of continued concerns over the store-of-value traits in fiat currencies, including those with world-reserve currency status. Finally, attention should always be given to the relative valuations between owning commodities outright, particularly through ETFs, or via equities. At present, we would favor holding commodity exposure primarily through equity instruments.
- ***Private Equity:*** With the exception of EM and EM-focused global private equity funds, in whose direction much of the excess cash is likely to gravitate in the coming years, as multinational companies

acquire both private and listed companies in emerging market countries; I would be inclined to underweight this group over the coming years, owing to the value of preserving liquidity in one's overall portfolio at a time of lasting financial sector concerns in the developed world. In addition, the prospect of continued deleveraging dynamics in the developed world and the strong probability of sizable banking sector recapitalizations, are unlikely to support private equity returns over the coming years. Finally, in broad terms, relative valuations between listed and private equities favor the former, in my view.

Carlos Asilis is currently the CIO at Glovista Investments. In the past, he has served as Global Strategist on the proprietary trading desks at Banco Santander (Madrid) and on the emerging markets fixed income proprietary trading desk of CSFB (New York), and he was Global Macro Trading Strategist at VegaPlus (New York). Carlos has also served as Chief US and Chief Emerging Markets Equity Strategist at JPMorgan Chase (New York) and Chief Emerging Markets FX Strategist at Merrill Lynch (New York). Prior to his tenure in the financial industry, Carlos served in the early 1990s at the International Monetary Fund (Washington DC) as the principal research economist. Prior to his tenure at the Fund, Carlos taught pure and applied economics at Georgetown, the University of Chicago and the Stockholm School of Economics. He holds Ph.D. and M.A. degrees in Economics from the University of Chicago and a BSE (honors) degree in Finance and Economics from the Wharton School. He sits on several external global investment committees, including that of ICICI Bank (Mumbai, India).

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Market Perform	The analyst expects the stock to perform in line with the market average.	39%	34%
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2. Ratings reflect the analyst's assessment of the stock price performance in the medium term compared with the market average. Recommendations will be valid until the analyst changes the rating, which may happen as a result of news or simply due to a change in the stock price (there is not a defined time horizon). Companies are grouped, according to their similarities, into sectors. The sectors are: (i) Banking & Financial Services, (ii) Consumer Goods & Retail + Food & Beverage, (iii) Healthcare + Education, (iv) Steel & Mining + Pulp & Paper, (v) Oil, Gas & Petrochemicals + Agribusiness, (vi) Real Estate, (vii) Telecommunications, Media and Technology, (viii) Transportation, Industrials and Logistics, (ix) Utilities, and (x) Equity Strategy.

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