FIVE-YEAR OUTLOOK: 2012 EDITION

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SUMMARY

Every year, our capital market assumptions team gathers to develop longer-term forecasts for economic activity and financial market returns. These forecasts are designed to be "forward looking, historically aware;" meaning we combine historical analysis with forward-looking views to arrive at our base case expectations. The exercise is also meant to serve as a guide to the opportunities and risks our investment teams see over the five-year investment horizon – and what specific thematic developments our teams are watching as they pertain to appropriate asset allocation.

The political environment has quickly become the most important factor we are watching, as the various economic regions seek individual solutions to global problems, including the need for deleveraging and rebalancing. Expected growth trajectories are not in politicians' favor, although growth trajectories may be helped by monetary policy (if central banks can keep control of interest rates) and technological advances (if they can be put to use). The world is now more dependent on the "G2" (United States and China) than ever as the G2's contribution to global growth nears 45%. We believe asset class returns will continue to be driven by the search for alternative yield, while asset class construction will need to evolve to acknowledge both this search for alternative yields and our view that companies need to be separated from countries.

In summary, to carry last year's analogy forward, the "aspirin" being provided by central banks in the form of accommodative monetary policy is helping to reduce the pain of the debt hangover, but it is only treating the symptoms. Structural changes are necessary before the medication can be stopped, and we see that as a slow-moving process. Detail on how we expect these trends to affect the various asset classes can be found in Exhibit 1.

EXHIBIT 1: EQUITIES BORROWING RETURNS FROM FIXED INCOME

Five-Year Asset Class Outlooks	
Fixed Income	We believe fixed income asset classes will suffer from low interest rates throughout the forecast horizon, leading to lowered returns from last year's forecast. Credit indexes, such as corporate debt and high yield fixed income, will benefit from spread compression as investors increasingly seek out fixed income securities providing real yield.
Equities	An extension of the accommodative global monetary policy will likely counter the elongation of the slow-growth environment – supporting equity valuations and prompting an upward revision to our global equity return expectation. High dividend yields relative to Treasury rates also increase the attractiveness of broader equities.
Real Assets	We are forecasting low inflation by historical standards. However, our expectations for accommodative monetary policies increase the risk of higher inflation, which will support real assets and inflation-protected debt. China's shift toward the consumer will alter traditional relationships within the asset class. We now classify gold as an alternative currency, better reflecting its role in asset allocation.
Alternatives	Empirical evidence shows a statistically significant premium attached to private equity, making it an attractive asset class for investors able to assume illiquidity. Our hedge fund forecast is built by analyzing the broad asset class's historical exposures to various risk factors; careful analysis is required to identify true alpha-generating funds.

Source: Northern Trust Capital Market Assumptions Working Group

FIVE-YEAR THEMES

The themes listed below are designed to encapsulate our forward-looking views and assist in our assessment of how the next five years may differ from the historical experience with regard to economic factors and asset class returns. Further detail can be found on pages 3 through 6.

Local Politics for Global Problems

The political environment will likely continue to be the primary driver of financial markets (with traditional fundamentals a secondary matter). Solutions to global problems (e.g., deleveraging) will be shaped by region-specific economic constraints and constituency beliefs. Difficulties in forming global political consensus on key global issues (e.g., rebalancing) raise the risk of continued economic stagnation, while the "go-your-own-way" politics may cause regional economic growth dispersion.

Fiscal and Demographic Obstacles: In the Foothills, Looking at the Mountains

The deleveraging process across most of the developed world will be drawn out but persistent over the forecast horizon (and beyond) – effectively putting a ceiling on growth. Aging developed economy populations are more of a psychological – and longer-term – headwind than a practical headwind. However, overall demographics are not conducive to "growing our way" out of fiscal problems.

Beyond Monetary Policy: Sneaky and Sticky Inflation

Monetary policy has effectively become a non-variable over the foreseeable future as rates in most developed markets are expected to remain on hold throughout most of the forecast horizon. Such accommodative monetary policy will result in global inflation that is both sneaky (reducing purchasing power, and debt-loads) and sticky (higher than expected in slow-growth environments).

The Search for Alternative Sources of Yield

Persistent low interest rates will force investors to reposition their portfolios to meet their income needs. The debt of multi-national companies will increasingly substitute for traditional sovereign fixed income. Risk assets also may benefit, as investors need riskier portfolios to generate necessary returns.

Technology Has Come, Will They Build It?

Various technologies – affecting everything from energy supply to data storage/retrieval to communications – have the potential to enhance productivity and offset slowing (in some cases, declining) workforce growth. But implementation of these technologies may be hindered by an uncertain growth outlook, regulations, and lack of political wherewithal and ability to provide funding.

G2 Dependence (and Interdependence)

The global economy will be increasingly dependent on American and Chinese demand while Europe restructures itself and Japan continues down its slow-growth path. As such, the economic policies of the two economic giants will be heavily scrutinized – as will their relationship as the "state-capitalist" China closes the economic gap on the "free enterprise" United States.

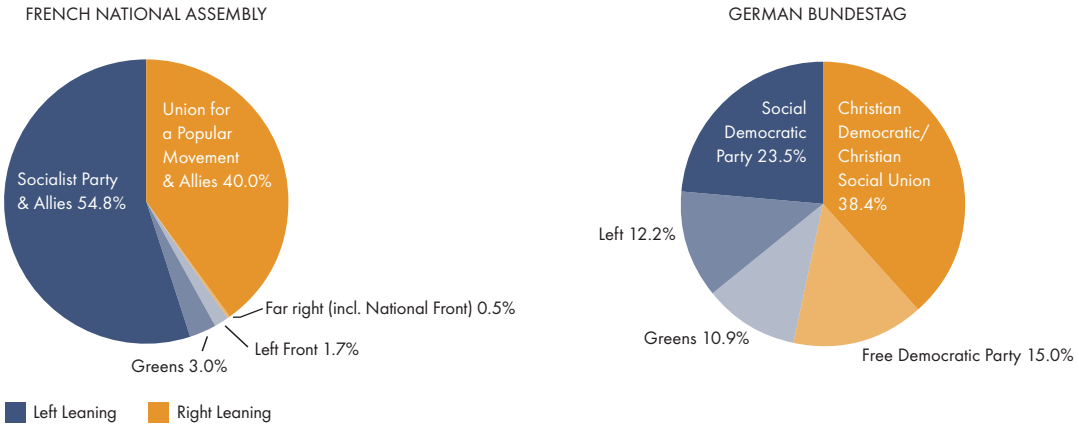
The Separation of Company From Country

Companies with diverse geographical revenue streams are well suited to withstand economic weakness in their country of domicile; furthermore, true multi-national companies have the ability to capitalize on the revenue, cost and tax factors contributing to overall earnings. Increasingly, the potential exists for bifurcation between those equity indexes that provide broad exposure to global economic growth and those that provide more targeted exposure to growth of individual economic regions.

We purposely listed our political outlook first in our 2012 five-year themes because we expect politics to be a key driver of financial markets – as they have been ever since the extreme risk-off environment of 2008 and early 2009 and the subsequent risk-on rally of 2009 ran their course. "All politics is local," former U.S. Congressman Tip O'Neill once famously said; we are seeing a variant of that as it relates to the problems facing the global economy. The most salient example of this is the current divide between France and Germany – with, at the risk of making generalizations, the French now backing a more pro-growth solution to the deleveraging issue and the Germans backing continued austerity measures. Exhibit 2 shows the current divide between the left-leaning French National Assembly and the right-leaning German Bundestag. While the French elections just took place, the next German federal elections are scheduled for autumn of 2013. The German federal elections, and policy decisions out of Germany in general, will be very important for the future of the euro – a key example of the prominence politics will play in the global market outlook.

EXHIBIT 2: LOCAL POLITICS FOR GLOBAL PROBLEMS

Political Composition of Select Country Legislative Branches



Source: Northern Trust

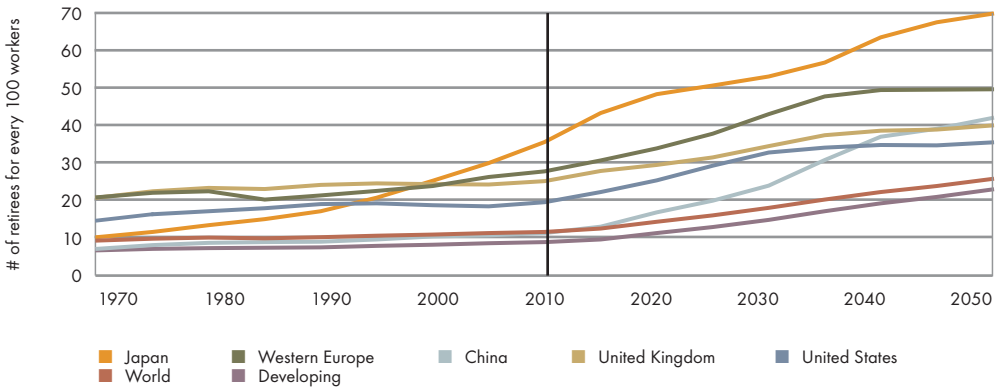
Beyond the ongoing euro debt crisis, the "local" policy responses to the issues facing the global economy (primarily deleveraging and rebalancing) have two key implications. The first is a lack of a unified front by major economies, introducing the risk of continued uncertainty and prolonged stagnant economic growth over the five-year forecast horizon. The second is the possibility of unique growth profiles for individual economic regions based on the success or failure of the region-specific policies – governments with a well-defined political structure (China being a good example; Europe a poor one) may have a better chance at success.

More than just ideology (i.e., taxing the wealthy vs. cutting government spending), regional governments are subject to their respective demographic and fiscal positions. On both issues we characterize most major economies as "being in the foothills, but looking at the mountains." What we mean is that these demographic and fiscal issues, so far, have affected economic production more from a psychological standpoint. If governments conceive comprehensive plans to deal with the challenges, the practical implications could be lessened.

With respect to the demographic issues, Exhibit 3, on page 4, shows the old-age dependency ratios (measured by the number of retirees for every 100 workers) for various economic regions, with forecasts through 2050. We see a gradual shift upward in global levels of retirees, accelerating around 2020. These projections assume a retirement age of 65, so the numbers could become less onerous should pension reforms raise the retirement age. Looking at a cross section, clearly developing nations are in better shape than advanced economies with some exceptions, such as a rapidly aging China, which surpasses the United States around 2035.

EXHIBIT 3: IN THE FOOTHILLS, LOOKING AT MOUNTAINS

Old-Age Dependency Ratio Projections



Source: Northern Trust, United Nations Population Division.

With respect to the fiscal issues, a report by McKinsey Global Institute[1] published in January 2012 noted that, of the 10 largest economies, only three (United States, South Korea and Australia) have reduced their total debt as a percentage of gross domestic product (GDP) since the start of the 2008 to 2009 financial crisis. Furthermore, Reinhart, Reinhart and Rogoff[2] have observed that "debt overhangs," characterized by growth 1% less than "lower debt periods," last 23 years on average. These findings lead us to believe the global deleveraging process will be gradual, but long and persistent.

The continuation of low interest rates and central bank involvement in the sovereign debt markets throughout most of the five-year forecast time horizon should ease the debt burden of most developed economies. The combination of low interest rates and higher-than-expected inflation levels, given the slow growth environment we are forecasting, will lower the costs of financing the debt load and reduce the real debt burden respectively. Reinhart and Sbrancia[3] refer to this as financial repression and note that inflation rates tend to increase during debt reduction episodes (as an example, median inflation in the United States during periods of debt reduction is 2.6%, but only 1.7% across all samples); we refer to it as "sneaky and sticky inflation" and are focused on what it does to spending power and real income and returns generated by financial securities.

As an example, the current real yield curve in the United States is in negative territory almost through the 20-year maturity. Furthermore, the real interest rate for two-year maturities five years out is negative, while the real interest rate for two-year maturities 10 years out is just barely positive. These are market-derived rates based on the current and forward inflation-linked yield curves, and can be found in Exhibit 4, on page 5. As such, investors whose incomes depend on their financial assets may need to reposition their portfolios to higher yielding assets such as multinational corporate debt.

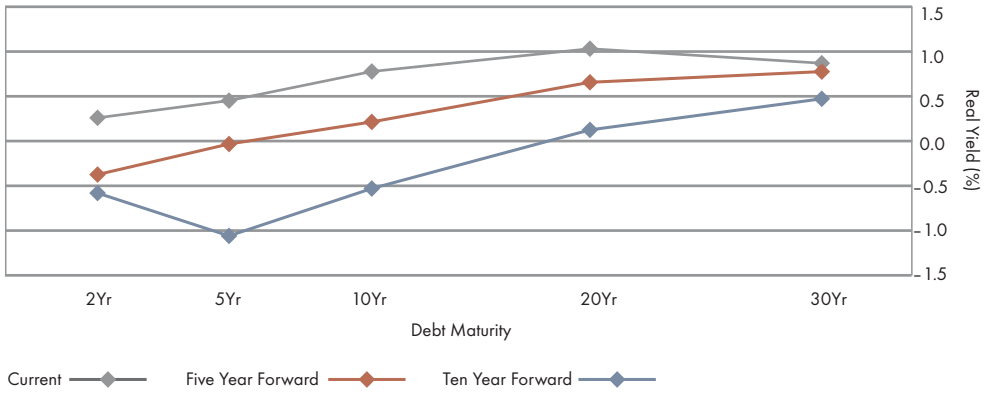
1. McKinsey Global Institute, "Debt and deleveraging: Uneven progress on the path to growth," January 2012.

2. Carmen Reinhart et al, "Debt Overhangs: Past and Present," April 15, 2012.

3. Carmen Reinhart et al, "The Liquidation of Government Debt," March 2011.

EXHIBIT 4: SNEAKY AND STICKY INFLATION

United States Treasury Real Yield Curve

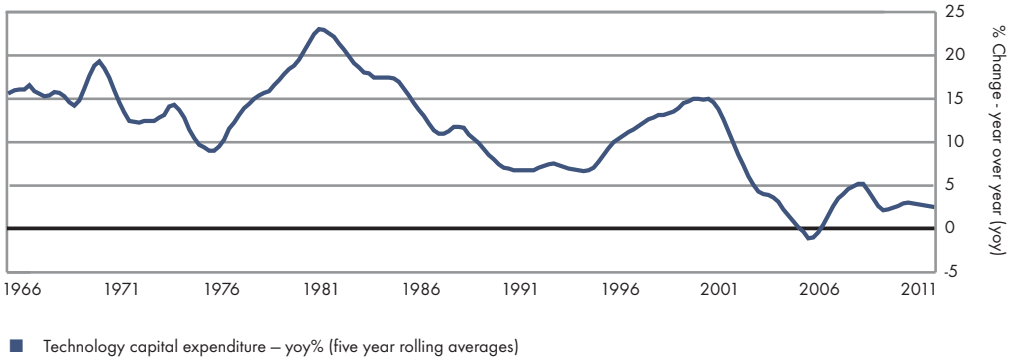


Source: Bloomberg. Data as of 6/30/2012.

One reason we are not totally giving up on growth as part of the solution for dealing with the debt burden is the renaissance in technology over the past decade. Beyond advancements in manufacturing techniques (such as 3-D printing) are the ongoing explosion in shale gas exploration and evolution of information technology coming out of Silicon Valley. However, just because the technology is there, does that mean it will be built, used and ultimately affect growth? Despite the numerous technology enhancements over the past decade, tech capital expenditures have been trending well below the long-term historical averages (see Exhibit 5) – partly because of the overbuild in the early 2000s, but also because of economic uncertainty.

EXHIBIT 5: TECHNOLOGY HAS COME, WILL THEY BUILD IT?

Technology Capital Expenditures



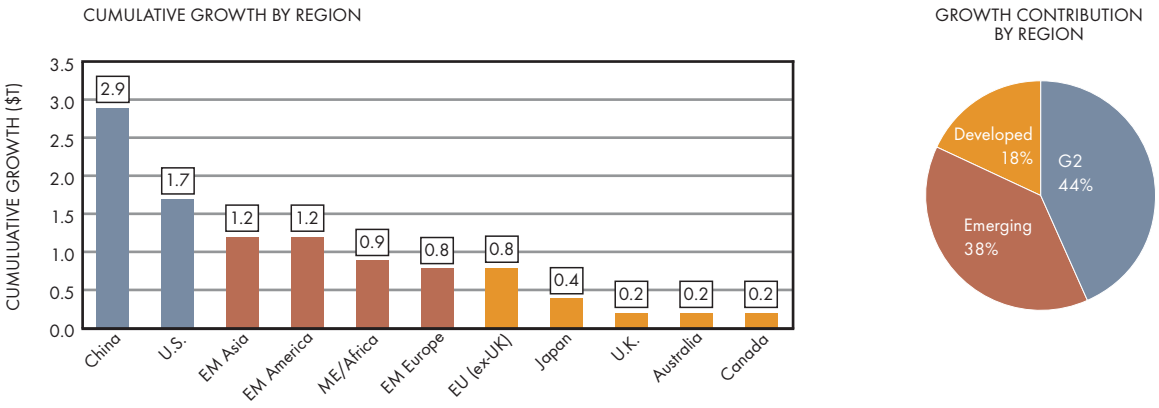
Source: Northern Trust, ISI Group.

Other technological enhancements, such as those in gas exploration, may be impeded by environmental concerns and the inability of cash-strapped governments to support the necessary infrastructure build. We believe governments will focus more on financial regulation over the next five years (the LIBOR investigation being the most recent example of this focus) but that the required infrastructure build-out could be a challenge that ultimately requires increased private funding.

Ultimately, the decision to embrace new technologies will be based on the confidence that global demand will support the capital expenditure. And on this front, the global economy has become increasingly dependent on the G2 economies of the United States and China. According to our forecasts, 44% of global growth will come from China and the United States, while developed markets (ex-U.S.) are only expected to contribute 18% (see Exhibit 6). As such, we spend a great deal of time analyzing the policies of these two economic giants.

EXHIBIT 6: G2 DEPENDENCE

Five-Year Real Gross Domestic Product Composition of Growth

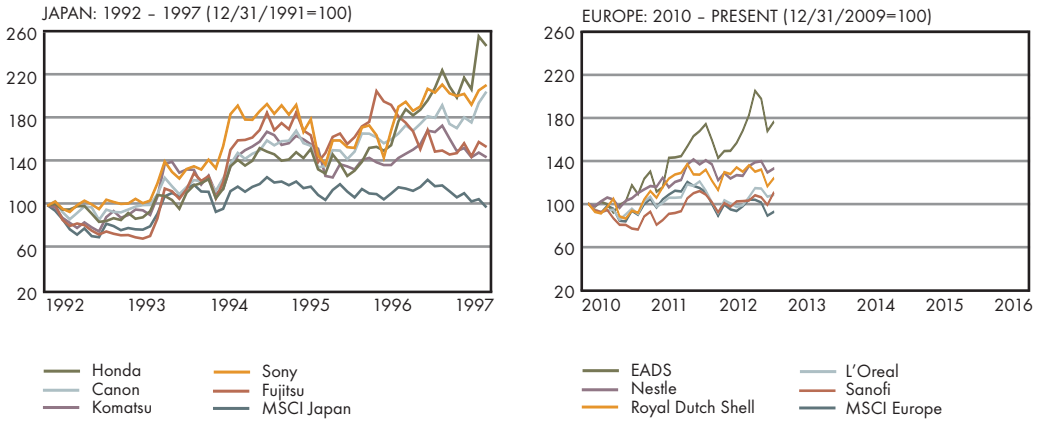


Source: Northern Trust, International Monetary Fund (IMF).

While regional economic performance may vary based on individual political, fiscal and demographic conditions, it will be important to separate the company from its country of domicile, especially in the case of multi-nationals. In Exhibit 7 (left panel) we show the five-year stock performance of five prominent Japanese multi-nationals versus the broader Japanese stock market during the Japanese economic downturn that began in 1992. We find that, while the MSCI Japan index tread water, the Japanese multi-nationals provided cumulative returns ranging between 40% and 150% (8% to 20% annualized). A similar story is forming in Europe. We believe index construction will become increasingly nuanced in acknowledging the separation of company from country.

EXHIBIT 7: THE SEPARATION OF COMPANY FROM COUNTRY

Index & Individual Company Stock Performance of Select Countries



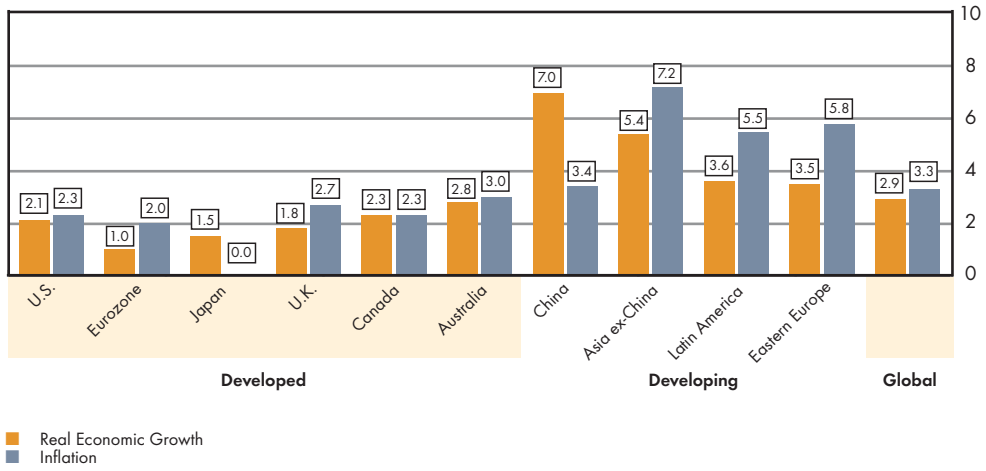
Source: Northern Trust, Bloomberg. Europe data is through 6/30/2012.

FIVE-YEAR ECONOMIC OUTLOOK

We reduced our global growth expectations to 2.9% (real terms) from last year's 3.3% level, while we inched up our global inflation forecast to 3.3% from last year's 3.0%. The downward revision to growth was primarily due to a further reduction in any expectations for a normalized growth cycle because the deleveraging process looks to be more drawn out than even our subdued expectations. However, inflation (per our themes) was slightly increased despite lowered growth. Our expectations are modestly more conservative than those of the IMF (released April 2012), whose expectations for real global growth are 3.3% and inflation of 3.0% over the five-year period. Our regional economic forecasts can be found in Exhibit 8.

EXHIBIT 8: GROWTH DELEVERED; INFLATION STICKY

Five Year GDP & Inflation Forecasts – %



Source: Northern Trust.

As noted in our themes, the United States and China warrant particular focus over the next five years and beyond, given their contributions to global growth. Especially interesting will be the interactions between the two as China continues down the path to economic reform using its own flavor of (state) capitalism. The previous economic leadership transition, from Great Britain to the United States in the early 20th century, was done between two countries with a common language and similar customs; the coming transition carries the risk of going less smoothly.

Each country has domestic issues to deal with as well. China is working to transition to a consumer-oriented economy and has outlined seven strategic industries in its most recent five-year plan (approved in March 2011) to assist in this process, including clean energy initiatives and higher value-add areas of the economy, such as bio-tech. The United States must balance the need for long-term fiscal reform with the near-term tools at its disposal (afforded to it by its reserve currency status) to maintain healthy demand levels; housing is no longer a direct drag on economic activity but is still drawing monetary policy attention given its impact on bank balance sheets and overall lending.

Japan is expected to continue its demographic-induced slow-growth profile while Europe appears to be following in Japan's footsteps. Although Europe is not expected to be a large positive contributor to global economic growth, the failure of fiscal union and political consolidation to take place at the necessary pace could clearly have a negative global impact.

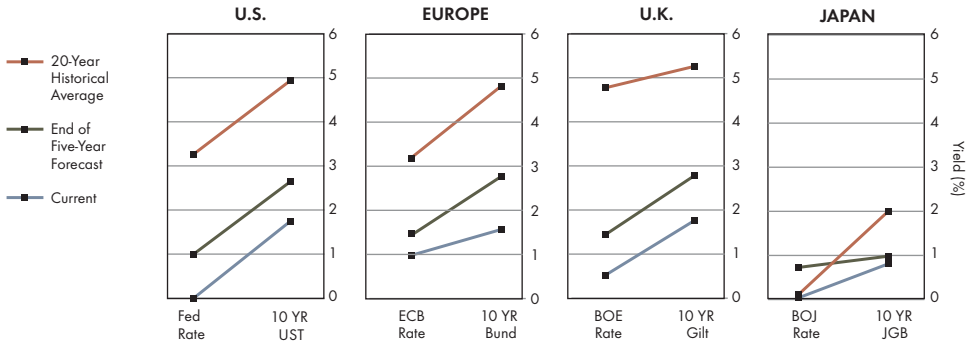
We have brought down our developing market growth forecasts modestly, reflecting their continued dependence on global demand as they also transition to increased domestic consumption.

FIVE-YEAR OUTLOOK FOR FIXED INCOME

The past year witnessed interest rates hitting multi-century lows in many developed nations, including the United States, where the 10-year U.S. Treasury fell to levels (around 1.5%) not seen in the country's 236-year history. We expect rates of the major financial centers in the developed world to remain well below longer-term averages, as shown in Exhibit 9. The U.S. Federal Reserve has explicitly noted its expectation of keeping its key interest rate at current levels (essentially 0%) through at least late 2014. This is a view we have agreed with since it was first announced, and it is increasingly being accepted by a skeptical market. Beyond that, we believe there is a possibility rates may be adjusted slightly upward to a 1% level at the end of the five-year horizon – a move we expect to be characterized as a "normalization" as opposed to the start of a concerted inflation-fighting campaign. We believe the European Central Bank and Bank of England (BoE) will approach monetary policy with a similar accommodative stance, while the Bank of Japan will continue with the zero interest-rate policy it has had in place for more than a decade. Furthermore, we expect rates to be contained out the yield curve given the influence central banks will continue to exert in the low growth environment. This will translate into a continuation of low-to-negative real interest rates when combined with modest inflation levels.

EXHIBIT 9: RUNNING OUT OF WAYS TO SAY "LOWER FOR LONGER"

Fixed Income Yield Curves – Historical, Forecast and Current



Source: Northern Trust, Bloomberg.

The low starting point for interest rates leaves little income protection against the principal depreciation of longer-dated fixed income issuance. (As interest rates go up, the principal of securities tied to lower coupon payments falls in value to make up the difference.) While we do not anticipate dramatic increases in rates, our projected increases are sizable enough to cause total return forecasts on sovereign debt indexes to be extremely low (or even negative). We should note that an investor holding such securities to maturity will not lose money absent a default; the potential for negative returns only exists if the securities are sold before maturity.

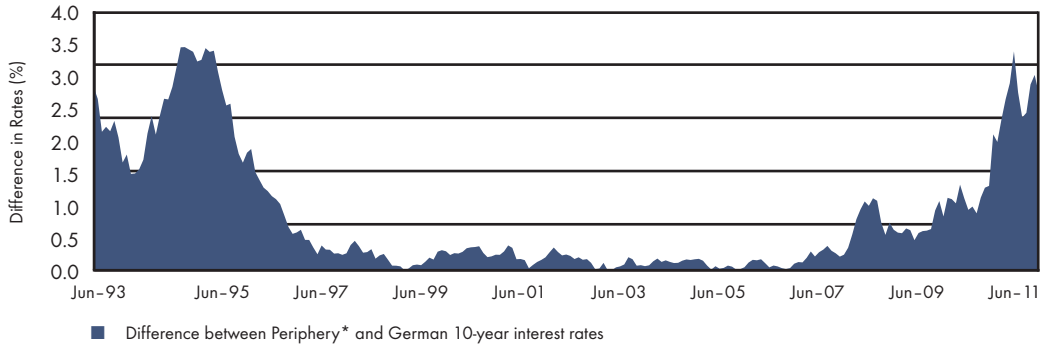
While last year we classified the various European sovereign debt into Core, Semi-core and Periphery, the past year has proven that approach too optimistic and we now are using two categories: Germany and Periphery, which – given the index's investment grade requirement – is composed primarily of the debt of France, Italy and Spain (approximately 80%).

The two key questions to answer when analyzing the prospects for European sovereign debt are whether the euro will break up and whether the European Union will create a eurobond – or some other form of fiscal consolidation. We believe the euro will remain mostly intact, with the probable exception of Greece, and that the creation of a eurobond is essential to the euro's survival. And while we do not believe a eurobond will be in operation by the end of the five-year time frame, we believe the eurozone will be on that path.

Because of our belief in "more Europe," we expect a reconvergence of interest rates between Germany and the Periphery; we expect an average spread of 1.25%, versus the current 2.75%, by the end of the five-year period. However, it will be a winding path over the next five years, with the possibility that some countries temporarily leave the index due to the loss of investment grade status.

EXHIBIT 10: THE LONG AND WINDING ROAD TO RECONVERGENCE

Periphery Interest Rate Spread to German Bunds



**Periphery is represented by the weighted average of France, Spain and Italy 10-year interest rates.*

Source: Northern Trust, Bloomberg. Data through 6/30/2012.

We expect credit spreads to generally tighten over the five-year period given the search for yield, healthy balance sheets and ample central-bank-provided liquidity. Within Europe, we expect more companies to access the public markets as bank lending is curtailed by the stressed positions of European banks – possibly creating opportunities for investors looking for income. We expect high yield to benefit from many of the same trends and offer superior risk-adjusted pre-tax returns.

Emerging market debt continues to draw attention, given its income potential. In performing a 10-year regression analysis on the asset class we find that high yield credit premiums and currency factors together explain 71% of local emerging market debt returns, with currency alone explaining 62% of returns. Those investors not tied to a particular currency (or actively looking for currency diversification) may benefit from the inclusion of local emerging market debt in their portfolios, as we forecast continued improvement in the credit profile of developing economies.

The five-year forecast for U.S. municipal bonds is driven by outlooks for Treasury rates, issuer credit quality and the path of austerity initiatives at the federal and local levels. We believe pressures on state and local budgets will persist over the five-year period; revenues may improve from current low levels but will not keep up with rising healthcare and pension costs. The "era of austerity" means the process of legislating has become a zero-sum game where new spending must be offset by cuts to existing programs. This "forced frugality" had led to a reduction in municipal debt issuance, which has provided a strong technical offset to the municipal market's waning credit fundamentals. We expect this to continue. These considerations result in a slight reduction to our return forecast.

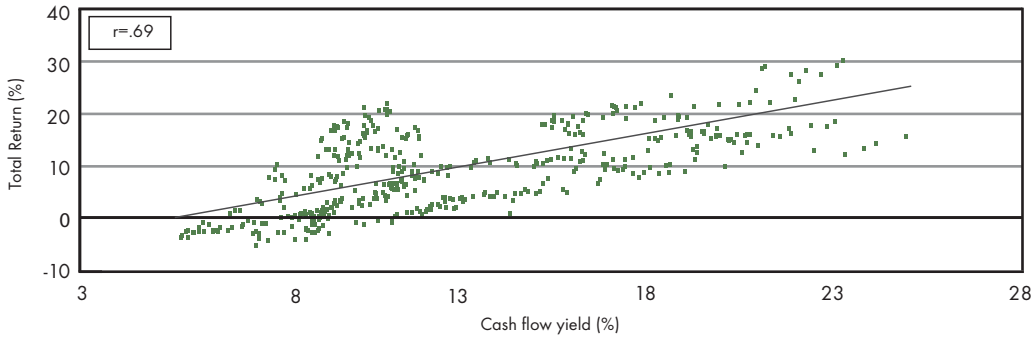
FIVE-YEAR OUTLOOK FOR EQUITIES

Our global economic outlook, if realized, provides a reasonable backdrop for equity returns. The cap on growth imposed by the persistent and drawn out deleveraging process introduces risks and the potential for continued higher volatility – but it also is expected to keep global central banks' monetary policy stances accommodative throughout the forecast horizon. Without the expectation of central bankers removing the punchbowl, equity valuations could increase over the five-year time horizon from the current below-average levels.

As part of our analysis, we looked to see what current valuation levels could tell us about future total returns. Valuations, in general, are a good starting point for making longer-term forecasts because they are known with certainty (as opposed to making assumptions that may turn out to be incorrect about future events) and they provide statistically significant insight into the next five-year returns. For instance, we used cash flow yields as an input to a regression model to forecast five-year total returns of the MSCI World Index. The model produced an r-squared of 0.47 (or a correlation of 0.69), meaning that the cash flow yields explained 47% of next five-year returns; the other 53% can most likely be contributed to "news" – events not appropriately discounted. These results were highly significant (well beyond the 99% level), meaning we can be more than 99% confident that cash flow valuations had at least some impact on next five-year returns. The scatter plot of our cash flow yields vs. five-year total returns, going back to 1970, can be found in Exhibit 11. Using current cash flow yields of 12.5%, we would expect a 9.6% five-year annualized return for global equities.

EXHIBIT 11: WHAT DOES HISTORY TELL US?

Cash Flow Yield vs. Next Five-Year Total Returns (Annualized)



Source: Northern Trust, Sanford Bernstein.

While it is a useful tool, solely relying on our regression model would neglect the "forward looking" portion of the capital market assumption group's "historically aware, forward looking" mandate. Specifically, the relationship between cash flow yields and total returns seen in Exhibit 11 is based on the historical experience going back to 1970, a period marked by declining inflation and expanding balance sheets (at the government, household *and* corporate levels). As such, we also employed a bottom-up method to forecasting regional equity returns. As key inputs we used expected revenues, margins, valuation adjustment and dividend yields, while keeping in mind the mean-reversion effect implied by our regression model and incorporating it through the valuation adjustment input.

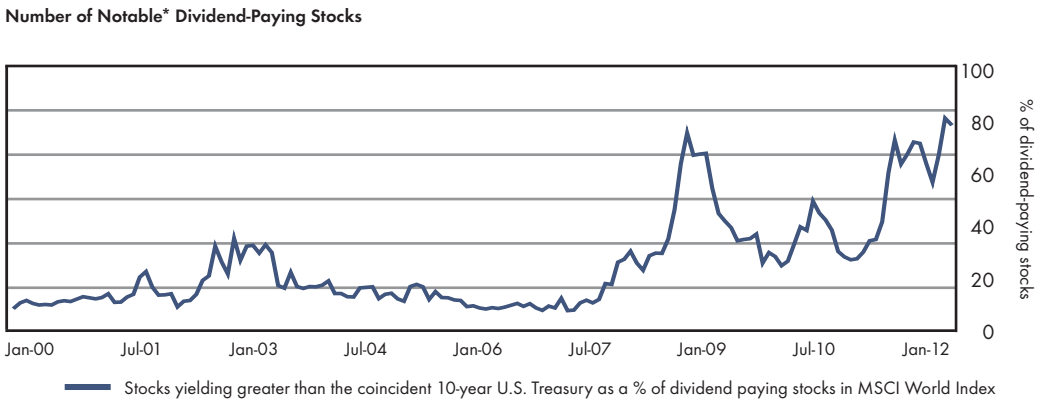
We expected revenue growth of the various regions to broadly track global nominal GDP, with adjustments for the composition of revenues for each region. We then considered margin expansion and contraction. In most regions we assumed some margin contraction given the belief that most corporations currently are squeezing the most they can out of workers and will need to eventually increase staff levels when/if the economic environment stabilizes. This should offset labor's current low bargaining power (although many

economies have high unemployment rates, the risk is that structural unemployment is elevated due to skill mismatches). The upside risk case is that increased technology capital expenditures may provide for continued productivity gains and help maintain already high margin levels. We expect varying levels of valuation expansion, with the United States and emerging markets benefitting more than Europe, which risks being in a state of structural decline given required austerity measures and the need for a revamped political system. We expect companies to maintain dividend yields except in Europe, which we reduced to reflect the risk of dividend cuts.

To summarize, our expectations for U.S. and emerging market equity total returns have risen slightly from last year's forecast, with valuation expansion more than offsetting a slightly lower growth outlook. We maintained our European equity total returns expectations at last year's level as the benefit from lower valuations is offset by a less optimistic growth outlook. We expect Japan to continue to generate low returns, in line with economic expectations. Finally, we increased Canada and Pacific Rim forecasts slightly, but have growing concern about the two commodity-leveraged economies as China shifts its consumption pattern.

Falling interest rates have had a material impact on the attractiveness of dividend paying stocks, and the opportunity set has not been bigger in more than a decade. As Exhibit 12 shows, currently 80% of dividend-paying stocks in the MSCI World Index are yielding more than the U.S. Treasury (as of June 30, 2012). This is higher than in the aftermath of the Lehman Brothers collapse and is much higher than the pre-crisis average of around 15%. Such a large sample size allows for a high degree of customization and diversification for investors who want to replace some of their sovereign debt holdings with high quality dividend paying stocks. And this demand may support broad equity returns in general should our expectation of an extremely low interest rate environment continue.

EXHIBIT 12: EXPANDED OPPORTUNITY SET



**"Notable" defined as yielding more than the 10-year U.S. Treasury at that date.*

Source: Northern Trust, Bloomberg.

FIVE-YEAR OUTLOOK FOR REAL ASSETS

The primary purpose of real assets in a diversified portfolio is to protect against inflation, which, per our themes and economic outlook, may become a moderate threat over the five-year time horizon. Increasingly, we choose to gain exposure to real assets through equity-oriented asset classes. We have long included global real estate investment trusts (REITs) as part of our asset class mix and are adding global listed infrastructure to the available choices this year.

Additionally, we advocate the use of the equity-oriented global upstream natural resources as a commodity exposure substitute for the traditional futures-based commodity asset class. Futures-based commodities are missing two key elements of their traditional return profile: collateral reinvestment (short-term rates are near zero) and roll yield (several futures curves have gone into a state of "contango" meaning the futures curve is upward sloping, resulting in a cost in going from one spot price to the next as futures contracts expire). Furthermore, equity-oriented natural resource exposure provides other benefits, including higher returns (through the capture of the equity premium over time), preferential tax treatment in some jurisdictions (for instance, in the United States long-term holdings qualify for long-term capital gains tax whereas futures-based gains are subject to an annual 60/40 mix between long-term and short-term capital gains) and fewer regulatory concerns (futures-based exposures risk being subjected to new regulations as speculation in the futures markets is confronted). We believe these benefits offset the costs, which are higher correlations to the broader equity complex and somewhat lower correlation to inflation (although it has been shown that the equity-oriented commodities exposure has provided exposure to inflation when it is needed, such as in the 1970s). Exhibit 13 shows the key characteristics of the Morningstar Global Upstream Natural Resources (GUNR) Index, as well as the other equity-oriented indexes used as proxies for real asset exposure.

EXHIBIT 13: GOING PUBLIC

REAL ASSET EXPOSURE THROUGH PUBLICLY LISTED EQUITIES

Global Asset Class	Proxy Index	Market Cap ($T)	Return Forecast (%)	Dividend Yield (%)	Corr. to Equities	Standard Dev. (%)	Regional Segmentation (%)		
							Americas	EMEA	APAC
Listed Real Estate	EPRA/NAREIT Global RE	0.9	8.6	4.0	0.85	21.2	49	16	35
Listed Infrastructure	S&P Global Infrastructure	0.8	9.1	5.0	0.90	16.4	38	42	20
Equity-Based Nat. Resources	Morningstar GUNR	3.5	8.1	1.8	0.85	22.6	62	27	11
Broad Equities	MSCI AC World	33.1	8.6	3.4	–	17.4	54	26	20

Note: S&P Global Infrastructure and Morningstar Global Upstream Natural Resource indexes have been historically constructed by the respective index providers to provide data for periods before the indexes were first published

Source: Northern Trust, FactSet, Standard & Poors, Morningstar, MSCI.

We expect the demand picture out of China to continue to drive natural resource returns during the next five years. Whereas the past decade has seen significant demand for industrial metals used in China's infrastructure build out, demand during the next five years may be lower as China focuses its stimulus efforts on its strategic industries, which are judged to be less infrastructure-intensive. On the other hand, select livestock and agriculture products may see greater price increases as demand from China's shift (along with the broader developing world's) to consumerism outpaces productivity gains (genetically modified seeds, etc.); also, weather patterns will remain a wild card for agriculture supply. We expect energy prices to remain fairly constant over the five-year time horizon given the slow growth environment and new technologies for extracting gas. In general, we expect natural resource returns to slightly trail broader equities.

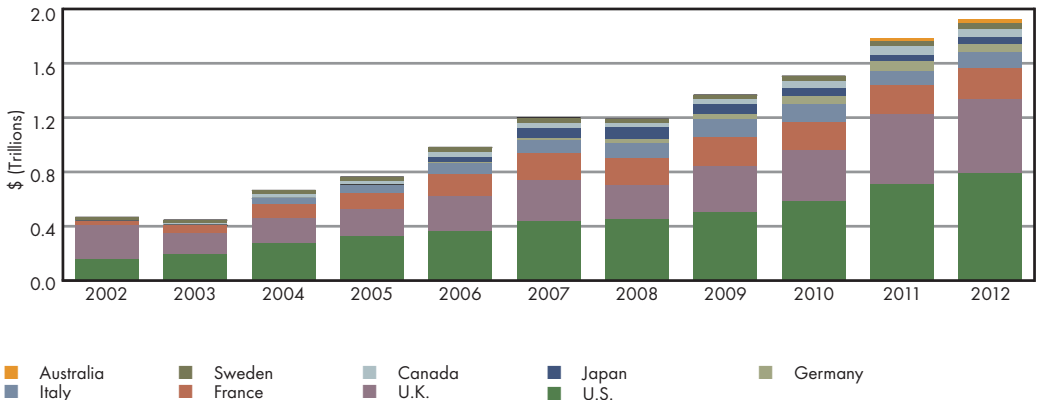
We expect global REITs to largely track global equities over the five-year horizon. We believe investors will be attracted to the asset class's strong cash flows (dividend yield of 4%) and supply levels that have remained low for most property types. However, global REITs face acute headwinds, including the deleveraging consumer in developed markets, frugal companies reducing office space and a residential growth story that may have largely run its course as housing affordability indexes reach all-time highs.

Global listed infrastructure fills the gap in our real assets lineup between natural resources, which provides exposure to those companies that pull raw goods out of the ground, and global REITs, which facilitates the sale or use of those raw goods in their finished format. The inability of cash-strapped governments in developed countries to fund badly needed infrastructure upgrades creates an opportunity for private companies. Listed infrastructure is also likely to benefit from heightened volatility in the broader markets because the asset class's monopolistic nature provides persistent cash flows and high dividend yields. Furthermore, valuations suggest that the interest level from investors has just scratched the surface. Even holding valuation levels steady, an expected 5% cash flow growth estimate and a 4% dividend yield would provide a 9% total return.

The market for inflation-linked securities has expanded dramatically over the past decade – both in size and constituency. As seen in Exhibit 14, the global inflation-linked index has gone from $400 billion, dominated by U.S. and U.K. issuance, in 2002 to nearly $2 trillion, spanning nine different sovereigns. Additionally, an increasing number of developing economies are issuing inflation-linked debt; incorporating this supply adds nearly $500 billion to the total inflation-linked debt universe. This proliferation in inflation-protected debt means increased liquidity, and growing opportunities for investors to gain diversified protection from global inflation.

EXHIBIT 14: INFLATED INFLATION-LINKED SECURITY ISSUANCE

Market Value of Inflation-Linked Bonds



Source: Northern Trust, Barclays Live. 2012 data is through 6/30.

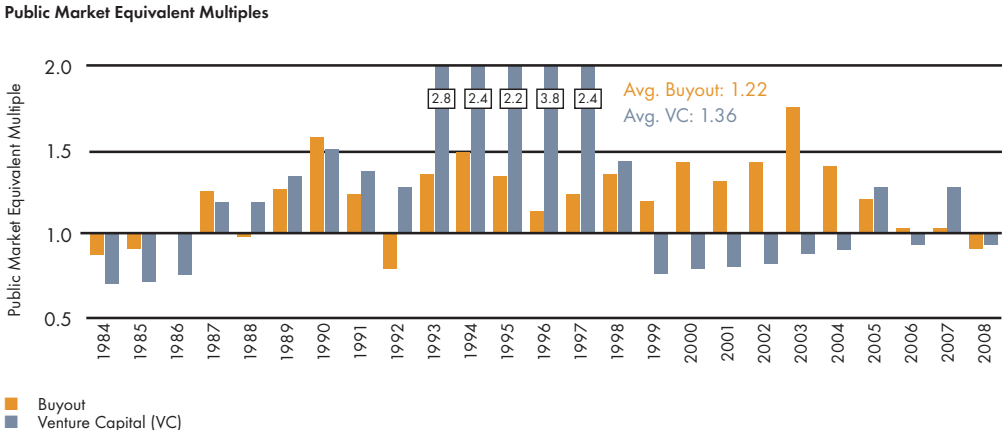
In general, we expect inflation-linked debt to slightly outpace its nominal yielding brethren because we expect inflation to be modestly higher than what is reflected in breakeven spreads. However, low interest rates across most of the developed world keep return expectations muted.

FIVE-YEAR OUTLOOK FOR ALTERNATIVES

Northern Trust defines alternative investments as those asset classes that enhance risk-adjusted portfolio returns but introduce nontraditional risks to the portfolio. For instance, private equity investments have historically enhanced portfolio returns in exchange for introducing an element of illiquidity to the portfolio. Hedge funds have historically provided portfolio diversification to investors looking to smooth out overall portfolio returns through less-volatile and less-correlated return streams (vs. other risk assets). However, they come with greater transparency risk and, in some cases, liquidity risk. Hedge funds also carry the extra burden of generating enough alpha (returns not driven by individual risk factors) to justify their higher fees.

Analyzing private equity returns is made complicated by incomplete return disclosure, uneven cash flows and varying assumptions on asset valuations. This makes private equity returns difficult to compare to public markets and, thus, difficult to determine the precise level of liquidity/control premium provided by private equity over given periods. A recent study by Harris, Jenkinson and Kaplan[4] uses a measure called public market equivalent (PME) multiple to compare private equity returns to the S&P 500 return of that same year. These PME multiples, found in Exhibit 15, indicate outperformance when above 1.00. Over the course of the study, the average PME multiples for average buyout and venture capital were 1.22 and 1.36, respectively. As such, the study provides empirical backing for the asset class and also a means to determine the asset class's expected weighted-average premium over public equities, which is calculated to be approximately 2.50% for the broad private equity asset class (assuming weights of 75% buyout/25% venture capital).

EXHIBIT 15: ILLIQUIDITY/CONTROL PREMIUM



Note: Venture Capital PMEs from 1993 to 1997 are truncated and listed for each year.

Source: Robert Harris et al, "Private Equity Performance: What Do We Know?", September 9, 2011.

Prior to the market turmoil of the last few years, buyout performance was strong, primarily because the markets had ample liquidity (e.g., available debt capital, equity financings, corporate cash, etc.), which allowed buyout firms to exit their investments at high valuations, or recapitalize their companies and extract attractive dividends. As liquidity dried up, so did the attractive exit points – and returns suffered. What the liquidity environment will look like in 10 to12 years, when current capital commitments will be returned to investors, is difficult to forecast. However, the low levels of current capital commitments may mean more attractive entry points – potentially leading to higher returns. This theoretical construct is supported by empirical data, which

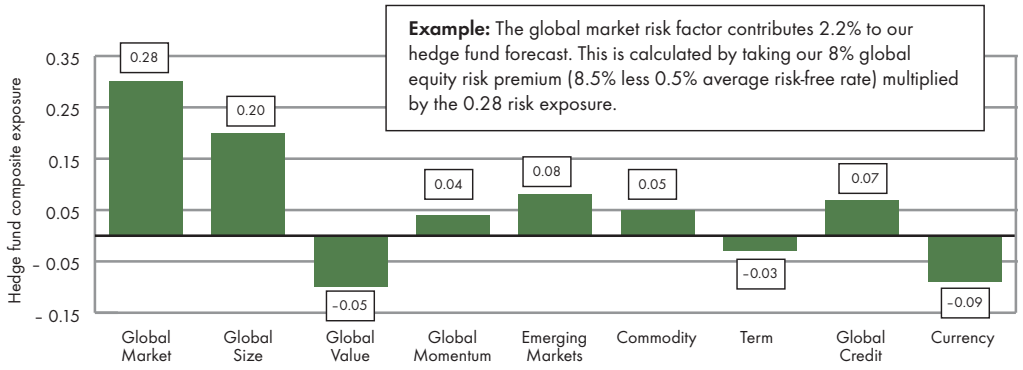
4. *Robert Harris et al, "Private Equity Performance: What Do We Know?", September 9, 2011.*

shows a negative correlation between the level of capital commitments and subsequent returns. Venture capital funds also have struggled over the past few years, and for most of the prior decade, but the recent reopening of the initial public offering (IPO) market (despite the Facebook debacle) and low levels of capital entering the segment over the past few years may provide for better returns.

While hedge funds are designed to provide uncorrelated returns through alpha generation (returns independent of broader market movements), historical data shows that the average hedge fund return, proxied by the Hedge Fund Research composite index (the composite) show significant exposure to global risk factors, such as global market, term and credit premiums. As such, the starting point for our hedge fund return forecast is a nine-factor model using a 10-year rolling window of returns and incorporating the above factors, along with "long/short" factors, such as size, value and momentum, and other risk factors, such as emerging markets, commodities and currency. Importantly, these factors are independent (noncorrelated), exhibit statistically significant return premiums and have statistically significant effects on the composite. Taken together, these risk factors explain 94% of hedge fund returns, as measured by the adjusted r-squared. To develop our forecast we take the exposures (beta coefficients) of the composite on each of the risk factors (shown in Exhibit 16) and multiply them by our five-year expected risk premiums. For risk factors we do not forecast (size, value and momentum), we used the historical experience. To this, we added the average alpha over the 10-year period (~1.1%) and arrived at our 5.5% forecast for the broad asset class. Forecasts for the individual strategies were derived using a similar process.

EXHIBIT 16: BUILDING BLOCKS OF A HEDGE FUND FORECAST

Hedge Fund Composite Exposures in a Nine-Factor Model



Source: Northern Trust, Hedge Fund Research, Bloomberg.

A NOTE ON GOLD

Long viewed as a unique asset class, we now explicitly classify gold as an alternative currency. Forecasting gold is a difficult task; no ostensible valuation metrics pertain to the precious metal and its return outlook is largely dependent on the credibility of global central banks – the overseers of fiat currencies – and the level of investor fear. We have forecast a 6% return, a modest return in relation to recent history but slightly more than commodities (to which gold is still somewhat correlated), given concerns over central bank profligacy. However, we believe the true value of gold in portfolio construction is the protection it provides as the only currency that cannot be printed.

APPENDIX 1: FIXED INCOME RETURN FORECASTS

CMA 5-Year Fixed Income Forecasts - All Returns in %				2012	Previous CMA		Historical Returns (Ann.)		
		Asset Class	Proxy	Return Expectation	2011	2010	Five Year	Ten Year	Fifteen Year
Developed Markets	United States	Cash	BarCap 3-Month U.S. Treasury	0.5	1.5	1.5	1.0	1.9	2.9
		Sovereign	BarCap U.S. Treasury	1.2	2.5	2.4	6.9	5.5	6.2
		Inf. Linked	BarCap U.S. TIPS	1.4	2.7	2.0	8.4	7.2	7.3
		Credit	BarCap U.S. Credit	3.3	3.8	3.4	7.6	6.5	6.7
		Securitized	BarCap U.S. MBS	2.3	3.8	3.4	6.7	5.4	6.1
		Inv. Grade	BarCap U.S. Aggregate	2.0	3.3	3.2	6.8	5.6	6.3
		Long Gov't	BarCap Long U.S. Treasury	2.4			12.1	8.9	8.9
		Long Credit	BarCap Long U.S. Credit	4.8			10.0	8.6	8.1
		High Yield	BarCap U.S. High Yield	6.1	5.6	6.6	8.4	10.2	7.0
		Municipal	BarCap Municipal Bond Index	2.9	3.5	3.2	6.0	5.3	5.6
		HY Muni	BarCap Municipal Bond: High Yield	4.5	4.5	4.6	3.7	N/A	N/A
	United Kingdom	Cash	3-Month Gilts	1.0	2.3		N/A	N/A	N/A
		Sovereign	BarCap Sterling Gilts	2.5	2.8		9.3	6.6	N/A
		Inf. Linked	BarCap Global Inflation Linked: UK	2.7	2.8		9.6	7.6	N/A
		Credit	BarCap Sterling Corporate	5.0	4.2		5.4	5.3	N/A
		Inv. Grade	BarCap Sterling Aggregate	3.1	2.6		7.7	6.1	N/A
	Europe	Cash	3-Month German Bunds	1.3	2.4		N/A	N/A	N/A
		Sovereign	BarCap Euro Treasury	2.7	3.7		5.1	4.7	N/A
		Inf. Linked	BarCap Euro Inf. Linked: Eurozone	3.1	3.3		3.3	N/A	N/A
		Credit	BarCap Euro Corporate	3.3	3.3		4.7	4.8	N/A
		Inv. Grade	BarCap Euro Aggregate	2.9	3.6		5.1	4.8	N/A
		High Yield	BarCap Pan-European High Yield	9.0	5.9		8.0	10.9	N/A
	Japan	Cash	3-Month JGB	0.3	0.3		N/A	N/A	N/A
		Inf. Linked	BarCap Inflation Linked JGB	0.5	0.8		2.8	N/A	N/A
		Inv. Grade	BarCap Japanese Aggregate	0.7	0.5		2.6	1.6	N/A
	Aus.	Cash	3-Month Australia Gov't Bond	4.0			N/A	N/A	N/A
		Inv. Grade	BarCap Australian Composite	3.3			8.6	6.9	6.9
	Canada	Cash	91-Day Canada T-Bill	1.5	3.0		1.7	2.4	3.0
		Sovereign	DEX All Government	2.0	3.3		6.8	6.4	6.4
		Inf. Linked	DEX Real Return Bond Index	2.3	3.3		9.8	9.4	N/A
		Credit	DEX Corporate	3.0	3.8		7.5	6.9	6.8
		Inv. Grade	DEX Universe	2.5	3.5		7.0	6.5	6.6
		High Yield	Merrill Lynch Canadian High Yield	6.1	5.6		12.3	10.0	N/A
Aggregate ex-US			BarCap Global Agg Ex-USD	2.1	2.1	2.0	6.6	7.1	5.5
Global Aggregate			BarCap Global Aggregate	2.0	2.1	2.0	6.7	6.5	5.9
Global High Yield			BarCap Global High Yield	6.5			8.4	11.2	8.1
Emerg. Mkt. Debt			BarCap EM Local Currency	6.1	6.9		7.9	N/A	N/A

APPENDIX 1(CONT.): RISK ASSET FIVE-YEAR RETURN FORECASTS

CMA 5-Year Equity Forecasts - All Returns in %			2012		Previous CMA		Historical Returns (Ann.)		
	Region	Proxy	Total Return	Income Return	2011	2010	Five Year	Ten Year	Fifteen Year
Developed Markets	United States	MSCI United States	8.5	2.5	7.5	7.5	0.4	5.5	4.7
	Europe	MSCI Europe ex U.K.	7.0	3.5	7.0		-8.7	1.6	3.2
	Japan	MSCI Japan	5.0	2.5	4.0		-14.2	-1.5	-3.4
	United Kingdom	MSCI United Kingdom	8.0	3.5	7.5		0.3	5.5	4.7
	Canada	MSCI Canada	8.0	3.0	7.5		-1.0	7.5	7.0
	Pacific Rim	MSCI Pacific ex Japan	8.5	4.0	8.0		-2.1	7.8	N/A
	Developed ex-U.S.	MSCI World ex U.S.	7.1	3.3	7.0	7.2	-6.6	2.9	N/A
	Developed Markets	MSCI World	7.8	2.9	7.3	7.4	-2.4	5.7	4.1
Em. Mkts.	Asia	MSCI EM Asia	11.5	2.0	11.5		1.8	11.6	N/A
	Latin America	MSCI EM Latin America	11.0	2.5	10.0		3.2	19.1	N/A
	Europe	MSCI EM Europe	9.5	2.5	8.5		-3.4	12.7	N/A
	Emerging Markets	MSCI Emerging Markets	11.1	2.2	10.7	10.5	1.5	13.0	8.6
	Global Equity	MSCI All Country World Index	8.4	2.8	7.8	7.9	-2.8	4.8	3.8

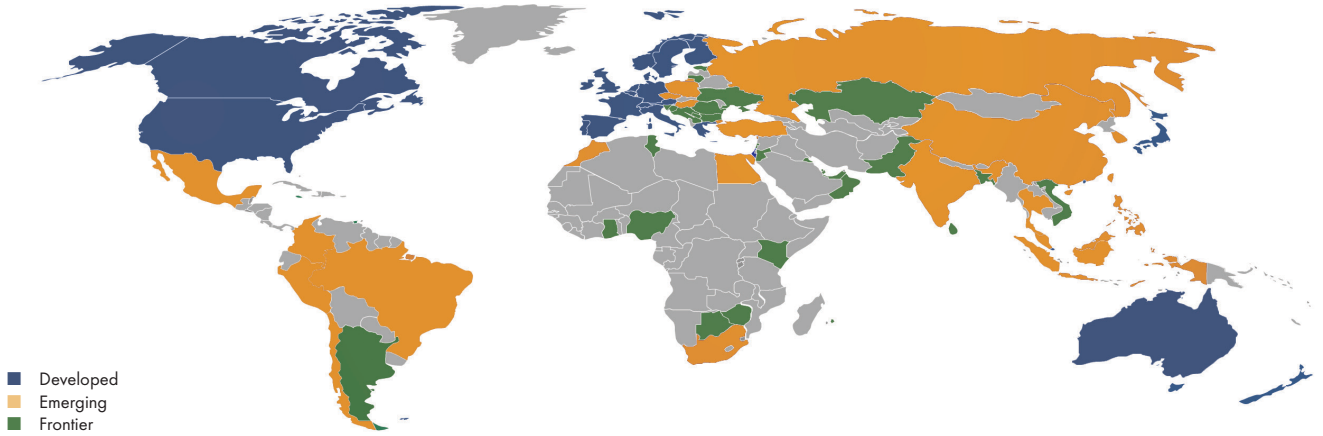
CMA 5-Year Real Asset Forecasts - All Returns in %			2012		Previous CMA		Historical Returns (Ann.)		
	Asset Class	Proxy	Total Return	Income Return	2011	2010	Five Year	Ten Year	Fifteen Year
NR	Futures-Based	DJ-UBS Commodities	5.0	0.5	5.3	5.0	-3.7	5.0	3.6
	Equity-Based	Morningstar GUNR	7.9	1.8			2.0	14.1	N/A
Cash Flow Assets	U.S. Listed Real Estate	NAREIT Real Estate	7.9	3.5	8.7	8.0	1.8	10.1	9.3
	U.S. Private Real Estate*	NCREIF	7.6	6.5	8.2	10.5	2.2	8.1	9.3
	Global Listed Real Estate	EPRA/NAREIT Global RE	8.4	4.0	9.4	9.4	-2.9	N/A	N/A
	Global Listed Infrastructure	S&P Global Infrastructure	8.9	5.0			-1.8	11.1	N/A
	Global Inflation-Linked	BarCap Global Inflation-Linked	1.3	2.3			6.2	7.7	N/A

CMA 5-Year Alternative Forecasts - All Returns in %			2012		Previous CMA		Historical Returns (Ann.)		
	Asset Class	Proxy	Total Return	Income Return	2011	2010	Five Year	Ten Year	Fifteen Year
PE	Buyouts	N/A	10.8	N/A	10.5	9.5	6.2	11.7	11.3
	Venture Capital	N/A	11.8	N/A	12.0	11.5	5.5	3.3	11.7
	Fund of Funds	Venture Econ. Pooled Avg.	11.0	N/A	11.0	10.0	6.7	9.8	12.5
Hedge Funds	Equity Hedge	HFRI Equity Hedge Index	5.1	N/A	7.6	7.4	-0.7	4.9	8.3
	Event Driven	HFRI Event Driven Index	7.3	N/A	10.0	10.0	1.3	7.3	8.2
	Relative Value	HFRI Relative Value Index	5.0	N/A	7.9	7.3	4.2	6.4	7.6
	Macro	HFRI Macro Index	5.3	N/A	8.5	7.8	3.4	6.5	7.4
	Composite	HFRI Fund Weighted Composite	5.5	N/A	8.4	8.1	1.1	6.0	7.1

CMA 5-Year Alt. Currency Forecasts - All Returns in %			2012		Previous CMA		Historical Returns (Ann.)		
	Asset Class	Proxy	Total Return	Income Return	2011	2010	Five Year	Ten Year	Fifteen Year
Gold	Gold Priced in Dollars	Gold Spot Price	6.0	N/A	6.0		19.7	17.4	11.0
	Gold Priced in Sterling	Gold Spot Price					25.4	17.0	11.3
	Gold Priced in Euros	Gold Spot Price					21.0	14.4	N/A
	Gold Priced in Yen	Gold Spot Price					9.4	12.6	8.3

**U.S. Private Real Estate forecast assumes no use of leverage.*

APPENDIX 2: GLOBAL EQUITY OPPORTUNITY SET



Global Equity, Economic Output & Population Composition

	Country	% Global Equity	% Global GDP	% Pop.	Country	% Global Equity	% Global GDP	% Pop.
Developed Markets	United States	47.4	21.7	4.5	Italy	0.8	2.9	0.9
	United Kingdom	8.3	3.4	0.9	Singapore	0.7	0.4	0.1
	Japan	7.8	8.3	1.8	Denmark	0.4	0.4	0.1
	Canada	4.2	2.5	0.5	Belgium	0.4	0.7	0.2
	France	3.3	3.8	0.9	Norway	0.3	0.7	0.1
	Australia	3.1	2.2	0.3	Finland	0.3	0.4	0.1
	Switzerland	3.0	0.9	0.1	Israel	0.2	0.3	0.1
	Germany	2.9	4.8	1.2	Ireland	0.1	0.3	0.1
	Sweden	1.1	0.8	0.1	Austria	0.1	0.6	0.1
	Hong Kong	1.1	0.4	0.1	Portugal	0.1	0.3	0.2
	Spain	1.0	1.9	0.7	New Zealand	0.0	0.3	0.1
	Netherlands	0.9	1.1	0.2	Greece	0.0	0.4	0.2
Emerging Markets	China	2.2	11.1	19.5	Chile	0.3	0.4	0.3
	Korea	1.9	1.6	0.7	Turkey	0.2	1.1	1.1
	Brazil	1.6	3.4	2.8	Poland	0.2	0.7	0.5
	Taiwan	1.4	0.7	0.3	Colombia	0.2	0.5	0.7
	South Africa	1.0	0.6	0.7	Philippines	0.1	0.3	1.4
	India	0.8	2.5	17.6	Peru	0.1	0.3	0.4
	Russia	0.7	2.8	2.0	Czech Rep.	0.0	0.3	0.2
	Mexico	0.6	1.7	1.7	Egypt	0.0	0.4	1.2
	Malaysia	0.4	0.4	0.4	Hungary	0.0	0.2	0.1
	Indonesia	0.3	1.3	3.5	Morocco	0.0	0.1	0.5
	Thailand	0.3	0.5	0.9				
Totals	**Developed**	**87.2**	**59.4**	**13.5**	**Frontier Markets**	**0.3**	**4.6**	**13.0**
	Emerging	**12.5**	**30.9**	**56.6**	**All Investible**	**100.0**	**94.9**	**83.1**

Source: Northern Trust, MSCI, IMF. Equity weights as of 6/30/2012; GDP and population weights as of 2011.

APPENDIX 3: REVIEW OF THE CAPITAL MARKETS PROCESS

Northern Trust's Capital Market Assumptions Working Group (CMA) is composed of senior investment professionals from across the organization, including:

- Northern Trust's chief investment officer;
- Northern Trust's chief investment strategist;
- Fixed income and equity managing and research directors; and
- Chief investment officers for the various business units and regions

Each June, CMA gathers to review the portfolio construction inputs for Goals Powered Solutions (GPS), other liability-driven models and the more traditional risk-based model portfolios (used by such products as the Global Tactical Asset Allocation fund and Northern Focused Portfolios). This includes an assessment of appropriate asset classes for inclusion in the various models, discussion of new product development and the development of long-term risk/return expectations necessary for use in strategic portfolio optimization.

To develop these long-term risk/return assumptions, CMA first analyzes the historical relationships of asset classes to financial metrics (such as valuation levels) and economic data (such as growth and inflation) – and also between asset classes themselves. This historical analysis is subjected to our forward-looking views and risk case scenarios, producing a set of capital market assumptions consistent with our "forward looking, historically aware" mandate.

The assumptions contained in this report are projections and are subject to change as market and economic conditions evolve. Return forecasts are geometric averages; arithmetic average returns will be slightly higher.

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Michael DeJuan, Portfolio Construction
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