An investment strategy for the information age

There is a growing consensus in the investment community that the next decade will continue to see very high volatility, low growth and possibly inflation in developed economies. Nouriel Roubini views these developments as a "ring of fire"; PIMCO's Bill Gross believes this state of affairs is the "New Normal"; and, the Bank of England Governor, Mervyn King, has opined that "the next decade will not be NICE (Non-Inflationary Consistently Expansionary) but rather is likely to be a SOBER decade (Savings, Orderly Budgets, and Equitable Rebalancing)". This research paper argues that global tactical asset allocation (GTAA) is a strategy that is well tailored to this new paradigm, generating excess returns with low volatility in both bull and bear markets.

By Ajay Singh Jain, Smruti Behera, Alessandro Marolda, Caroline Saunders & Lachlan McKnight; Funds and Advisory, Barclays

August 2012

Introduction

Market crises have been occurring with more frequency and severity since the mid-1990s. Unfortunately, some assets that were uncorrelated in bull markets have become highly correlated in bear markets and traditional asset classes have not provided investors with the diversification benefits expected. This has led many investors to re-question traditional buy and hold strategies. GTAA, which involves investing tactically across a wide range of asset classes on a global basis, is a strategy well suited to this new investment environment. Whereas a static portfolio may not be able to capture changing economic trends, a GTAA strategy is purpose built to dynamically take advantage of rapidly changing investment opportunities.

GTAA attempts to generate returns by taking tactical long or short positions across a diversified range of financial instruments including futures, swaps and exchange-traded funds, which can often be traded at low cost in deep, liquid markets. In some cases, the use of futures and swaps also allows managers to leverage a portfolio's exposure without recourse to borrowing, allowing the manager's investment views to be expressed more efficiently.

This research paper is divided into two parts - firstly, it looks at why GTAA strategies can be an important addition to client portfolios and, secondly, it describes the different styles of GTAA strategies available to investors and how to implement them.

The current economic turbulence requires tactical investment solutions

US Quantitative Easing– no time for a US equity or fixed income fund

As the European crisis continues to unfold, the global economy looks to be in trouble on a number of fronts. Although the US economy has improved slightly over the course of 2012 driven by the Federal Reserve's quantitative easing (QE) program, US unemployment remains persistently high (Figure 1 and 2). The Fed's vastly expanded balance sheet has only led to a 1.8% reduction in US unemployment to 8.2%.

Figure 1: Federal Reserve Balance Sheet

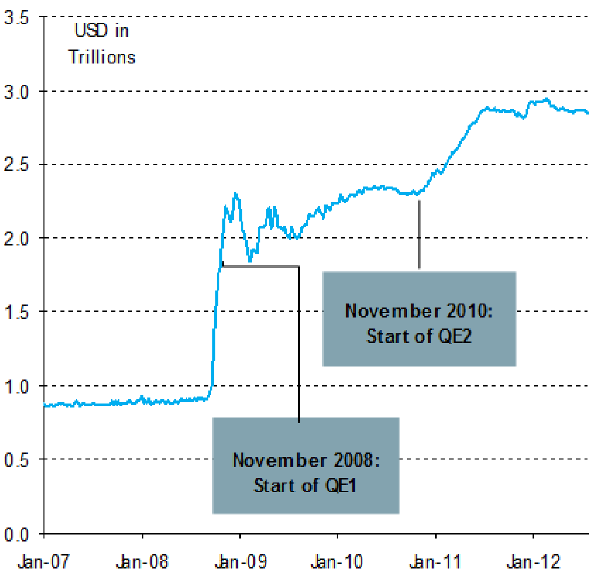
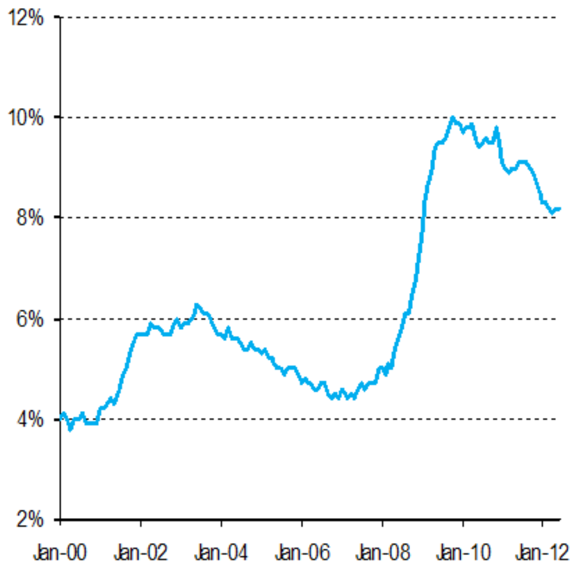


Figure 2: US Unemployment remains high



Source: Bloomberg.

Instead of taking advantage of the flood of liquidity to spend on investments and employment, US companies have chosen to hoard cash (Figure 3) due to worries about economic conditions and the possibilities of recession, realising they can be more efficient in finding ways to squeeze their workforce, outsource or invest in technology. They will not, however, be able to retain this quantity of cash on balance sheet for a large period of time. Eventually, they will have to return cash to shareholders via dividends and share buybacks, or begin to undertake more M&A activity. The US equity market is part-way through its reporting season at the time of writing and, so far, profit results have been better than feared. However, the best results are normally released in the first two weeks of the reporting season, so there are concerns that the results over the next few weeks may not be so good. Some commentators, including Barclays Research, believe we may have entered a cycle of negative earnings growth[1].

Figure 3: Cash on US non-bank balance sheets

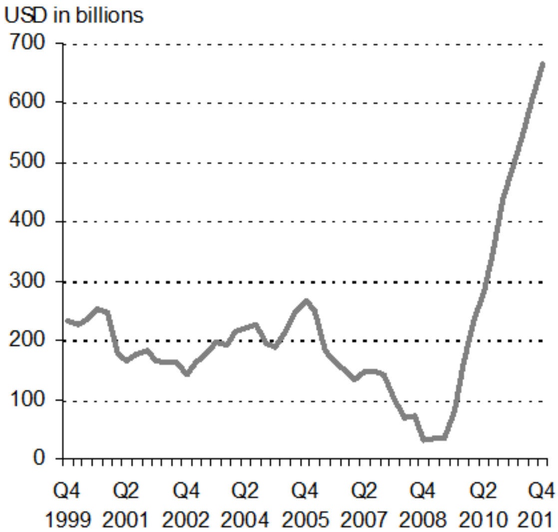
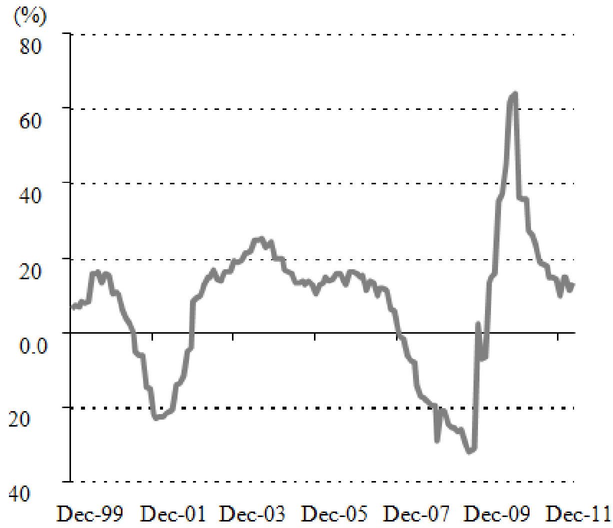


Figure 4: S&P 500 earnings growth (y-o-y)



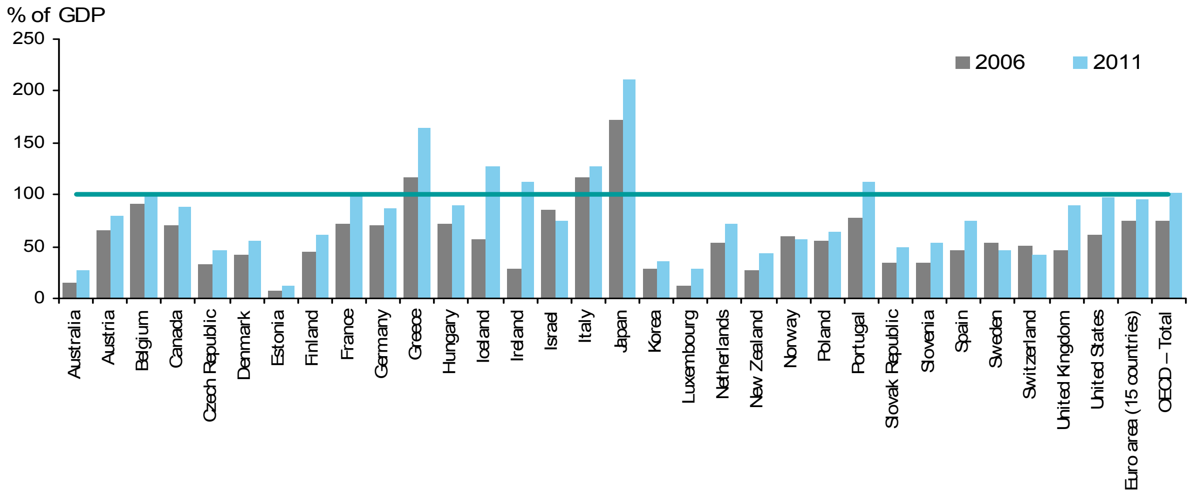
Source: Economic Research Division, Federal Reserve Bank of St. Louis, and Barclays

The outlook for US equity and fixed income investments is thus very uncertain. Investors looking at moving into either sector need to take a cautious approach and be in a position to move quickly in and out of positions. It is in these circumstances that GTAA strategies come into their own. By investing globally and across asset classes, GTAA strategies can operate effectively in volatile markets.

Global Debt – the "Great Deleveraging" – fixed income as a sector is dangerous

Figure 5 debunks the theory that debt crisis – the foundations of which are rooted in loose monetary policy around the globe over the last 15 years which has rolled from mortgages in the US to a currency crisis in Europe – is peaking. It shows gross government debt as a percentage of GDP and highlights that numerous countries, mainly in Europe but including Japan and the US, have debt rates of 100% or more of GDP. This is clearly not sustainable and will require various degrees of de-leveraging over the coming years.

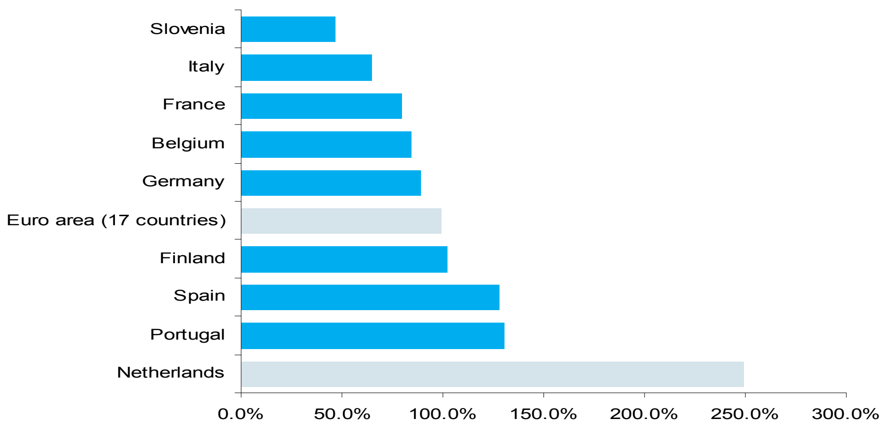
Figure 5: Gross Government Debt as a percentage of GDP



Source: OECD Annual Projections

The problem is not just with government debt. Household debt presents its own set of problems. Interestingly, the most debt-burdened households in the Eurozone are not in Portugal, Ireland, Greece or even Spain. As shown in Figure 6, the title of "most indebtedness" goes to households in the Netherlands. Despite reasonable government debt, Holland has the most debt-burdened populace in the Eurozone. In the boom years, Dutch banks routinely wrote mortgages that exceeded 125% of the value of a home, which was fine until property values began to fall.

Figure 6: Gross debt-to-income ratio of European households



Source: Eurostat, 2011 data

While the world is still in the process of dealing with Europe's finances, a third debt debacle has started rumbling in Asia.

China has a debt crisis of its own in the making. The standard worry about China was "too much debt-fuelled borrowing too fast", raising the risk of a hard landing. Throw into that mix a large, off-balance sheet world of debt - China's shadow banking system (Figure 7) which has grown to represent about 25% of all new financing in China (around US$2.2 trillion)[2] - and there is a potential debt crisis in the making. The shadow banking system is made up partly of bank loans, trust companies that sell wealth management products to the public while doing some lending on the side, along with similar loans using banks as intermediaries. This lending helps finance infrastructure, industrial and commercial projects and real estate - but it is highly vulnerable to loads gone bad as loans tend to be for higher risk projects at higher interest rates. The risks in the shadow banking system are high at the moment, as housing prices decline and economic growth moderates, and there are some signs the risks are spreading to the formal banking system with at least three property trust products failing to meet their repayment schedule[3] and having to be bailed out.

In the short-term, a vicious cycle of falling asset prices, deteriorating balance sheets and forced sell-offs in China is unlikely to be seen, but if there is a hard landing of the economy and a deep correction of housing prices, the financial risks are bound to turn systemic.

Figure 7: China's shadow banking system

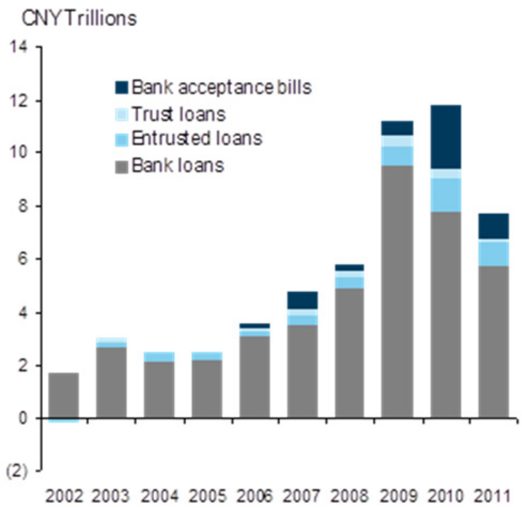
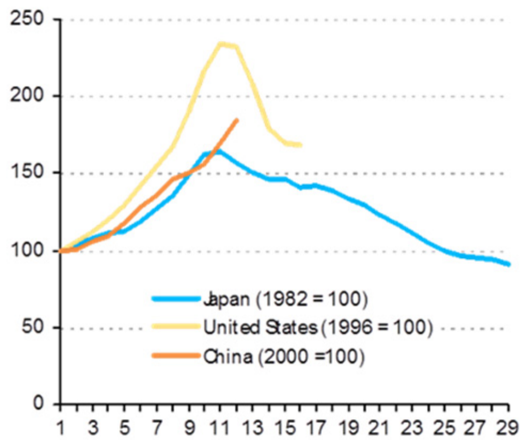


Figure 8: Property Prices- Japan/US/China



Source: Barclays, ECIC

Debt levels in each of these economic hubs are clearly having an effect, and will continue to have an effect, on a number of asset classes, particularly fixed income. Traditional asset managers focus on a particular asset class, usually within a specific geographic area. Such a strategy (for instance, long fixed income in Europe) is going to be very risky over the coming years. GTAA strategies can give investors access to fixed income markets as diverse as those of China, the US and Europe without the systemic risk inherent in investing in a traditional sector-specific fund.

Divergence of Economies- A global approach is key

In the years leading up to the credit crisis, major developing and developed countries around the world enjoyed a period of uninterrupted growth. Since the start of the crisis, however, economies have started to diverge. As shown in Figure 9 and 10, the US and Europe are dealing with high debt burdens and low growth. Big emerging economies like Brazil, China and India, on the other hand, are faced with high inflation and GDP growth. Deflation is still a threat in Japan, whereas Germany, Australia and Canada have become big exporters to emerging markets hungry for finished luxury goods and natural resources, resulting in strong currencies. These multiple imbalances, globalisation and interdependence offer excellent investment opportunities for a GTAA manager able to tactically allocate globally and take advantage of shorting. A purely Australian-centric or sector-centric approach to investment, in particular, ignores a significant set of opportunities offered by rest of the world.

Figure 9: 2011 inflation

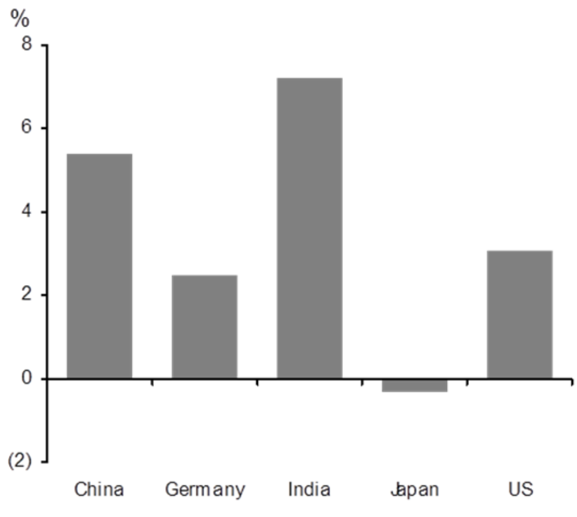


Figure 10: 2011 General government gross debt (% of GDP)

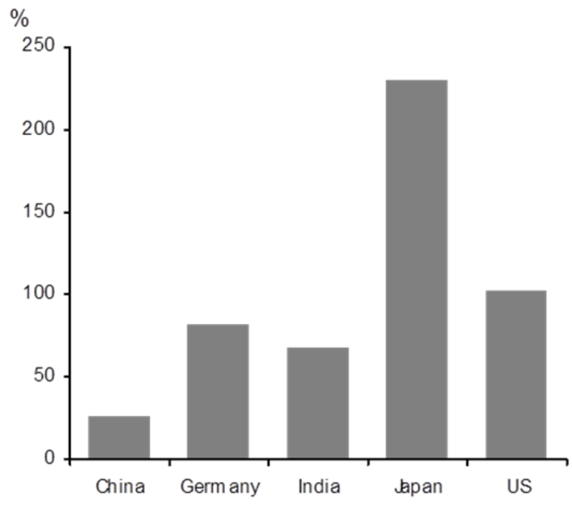


Figure 11: 2011 current account balance

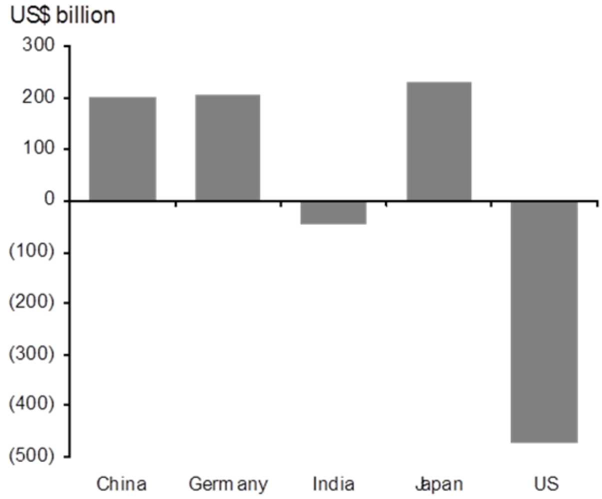
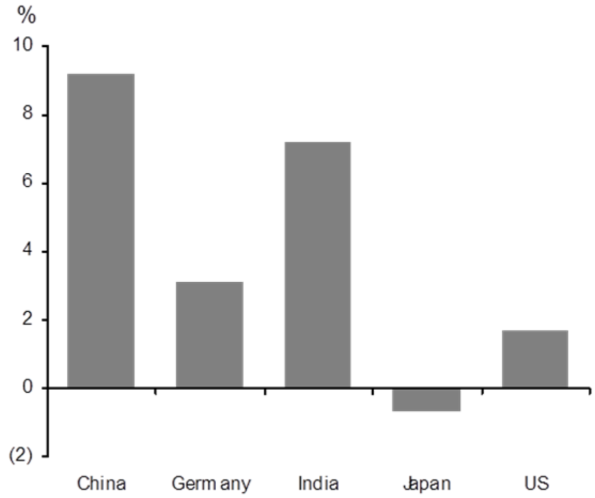


Figure 12: 2011 GDP growth



Source: International Monetary Fund, World Economic Outlook Database.

In summary, the global economic picture is uncertain. The big change over the past few years has been the increased divergence of global economic cycles, and the great deleveraging process which runs the risk of expanding into Asia. In this environment, GTAA strategies are well placed to take directional positions on the equity markets, interest rates and currencies on a global level and are likely to thrive in this complex environment.

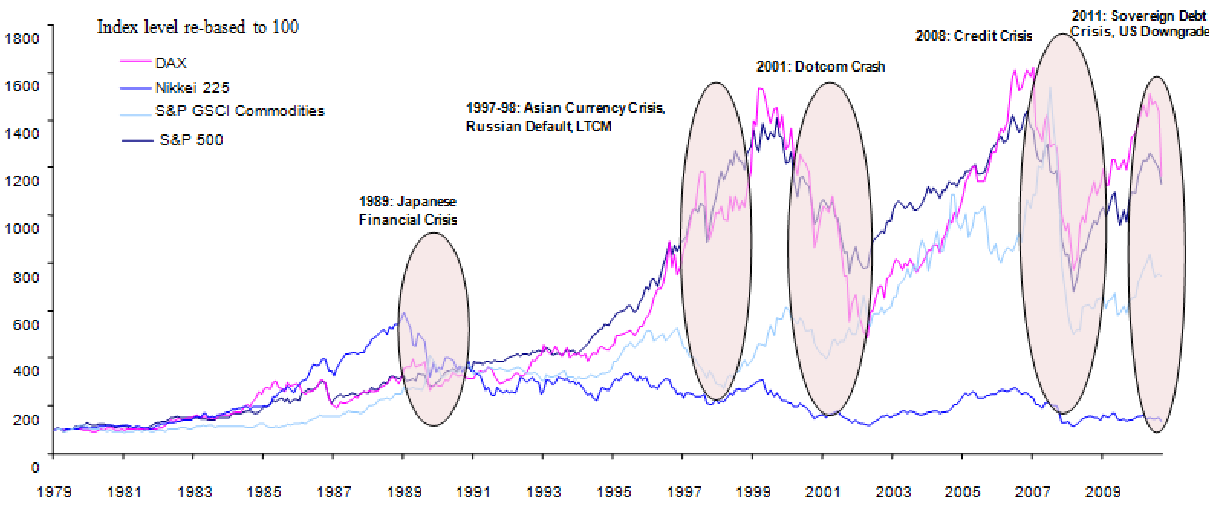
Increased frequency of financial crisis – trading in and out of positions regularly is crucial

The past 15 years has seen an increase in the frequency and severity of financial crises, as illustrated by Figure 13. This has been driven by closer linkages between financial markets, the changing fortunes of different economies and an explosive growth in trading activity.

Financial markets, traditionally driven by institutional investors, have been increasingly impacted by retail investors. Research has found that electronic trading has rapidly opened up the foreign exchange market to retail investors[4]. In 2010, retail investors accounted for 8% to 10% of spot FX turnover globally (US$125-150 billion per day). As recently as 2007, this number was too small to be tracked by surveys.

Increased information, diverging economies, and greater participation in financial markets by retail investors have all played a part in increasing the risk and severity of financial crises by increasing the number of market participants and consequently reducing the effectiveness of long-term strategic asset allocation.

Figure 13: Market crises are occurring with increasing frequency and severity



Source: Bloomberg, September 2011. Past performance is no indication of future performance.

Each financial crisis during the last 25 years has been accompanied by very sharp market declines. These are extremely hazardous even for long-term strategic investors. If a portfolio worth $100 million falls by 75% to $25 million, it needs to subsequently generate 300% returns to make up those losses. A downside risk of this magnitude needs to be managed very carefully.

In order to effectively manage investments in this era of increased negative events, investors cannot necessarily manage risk solely through traditional asset diversification. In 2012 alone, we have witnessed a severe breakdown in the traditional, inverse correlations between sovereign bonds and equities in Greece, Spain, Portugal, Italy and Ireland. It is critical that investors consider macro, fundamental and behavioural factors before making investment decisions and be prepared to change asset allocations frequently. With no indications of a change to this pattern, investors should therefore be looking at investing in strategies which work well in this environment. GTAA is one such strategy.

The information deluge– managers need to synthesise data

Increase in Related Indicators

Twenty years ago, forecasting the direction of an asset class – for instance, US Treasuries – was relatively simple. The number of indicators an asset manager had to examine was limited. An example of these indicators is set out in Figure 14. Today, however, globalisation, technological advances and the growth of derivatives have led to significantly more factors affecting asset classes. Figure 15 shows how these additional factors and the interplay between each of them has made the forecasting of traditionally simple assets very complex.

Figure 14: Twenty Years Ago

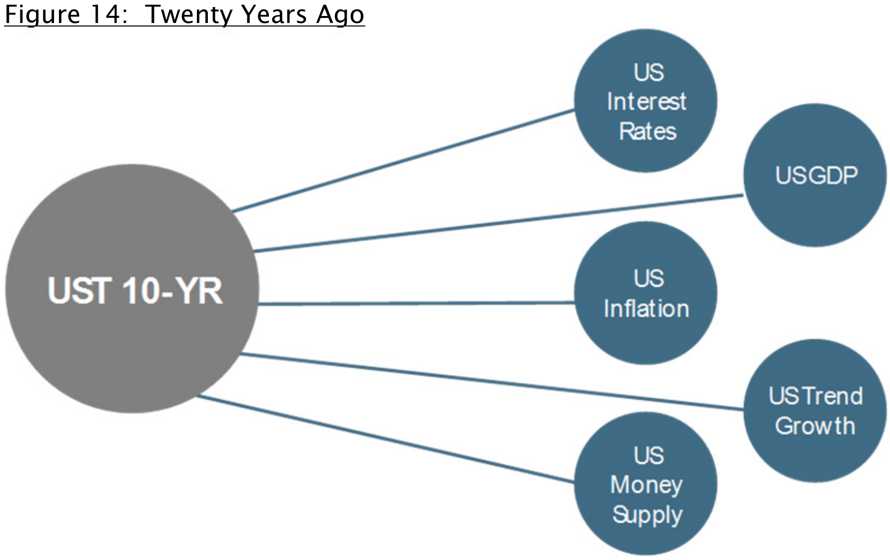
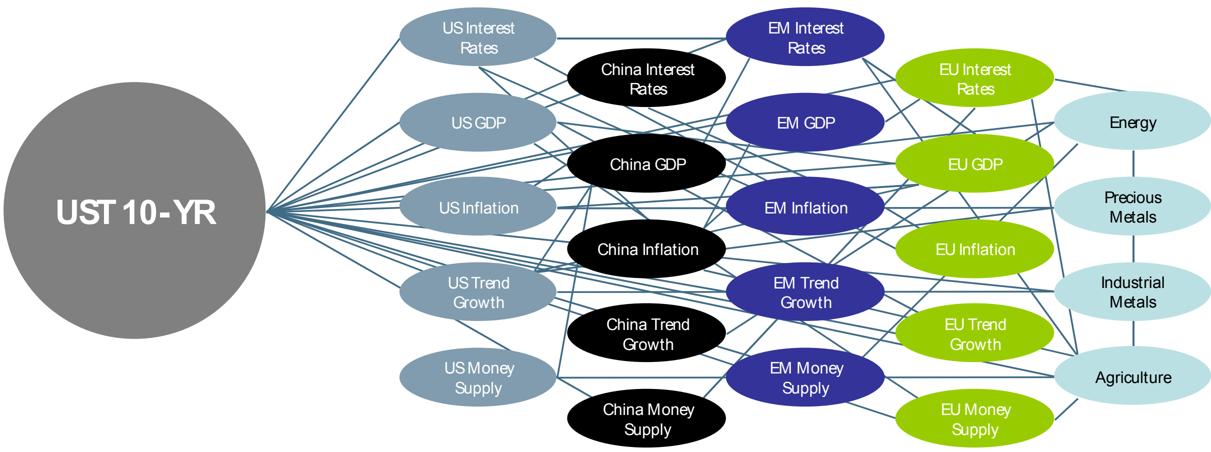


Figure 15: Today



Asset managers must not only employ a rigorous process to forecast asset prices but they must now forecast across asset classes even if their focus is sector or security specific. This is because, as shown above, an asset such as US Treasuries is affected by the prices of hitherto unrelated factors such as Chinese interest rates. A traditional fixed income fund manager may not have the requisite skills to forecast other asset classes or make cross-market comparisons. This is why GTAA managers have grown in popularity over the past few years.

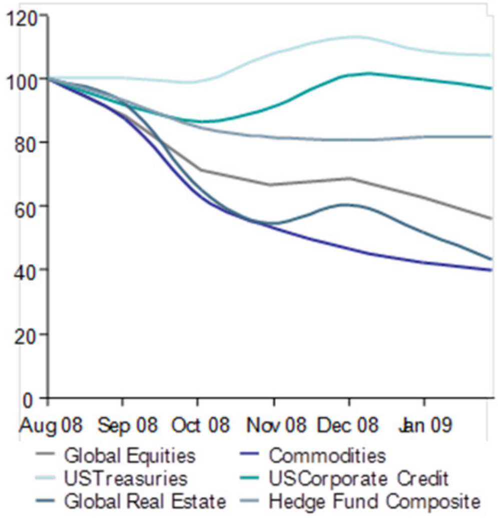
Changing Correlations

The information age has significantly improved investors' access to market-related data but not necessarily their ability to filter this data. According to Econsultancy's 2010 Internet Statistics Compendium, broadband penetration in OECD countries grew from 0% in 1997 to 24% by 2008. This, combined with financial blogs, data aggregators and 24-hour financial news channels, has forced investors to grapple with an overwhelming amount of information delivered at ever-increasing speeds.

The result has been a spike in both momentum and rapidly changing correlations amongst asset classes. For example, during the 2000-2002 market crash, the correlation between equities and commodities was close to zero. During the 2008 crash, traditional asset allocation effectively failed, as equities, commodities, real estate and corporate credit were highly correlated and all fell together. As shown in Figure 16 (overpage), only US treasuries made gains. Many GTAA managers generated significant excess returns and successfully skirted most of the market volatility in 2008. According to the Mercer database, the average return for GTAA funds was 4.8% from 31 August 2008 to 28 February 2009 while the HFRX global hedge fund index sank 18.59%. This divergence in returns was driven by active investment processes by GTAA managers.

Figure 16: GFC asset class returns (29 August 2008 – 27 February 2009)

Global Equities (MSCI World Index)	-43.34%
Commodities (S&P GSCI)	-60.43%
US Treasuries (Barcap US Govt 10-year Index)	7.49%
US Corporate Credit (iBoxx $ Liquid Grade TR Index)	-5.56%
Global Real Estate (Dow Jones Global Select Real Estate Securities TR Index)	-55.35%
Hedge Funds (HFRX Global Hedge Funds Index)	-18.59%

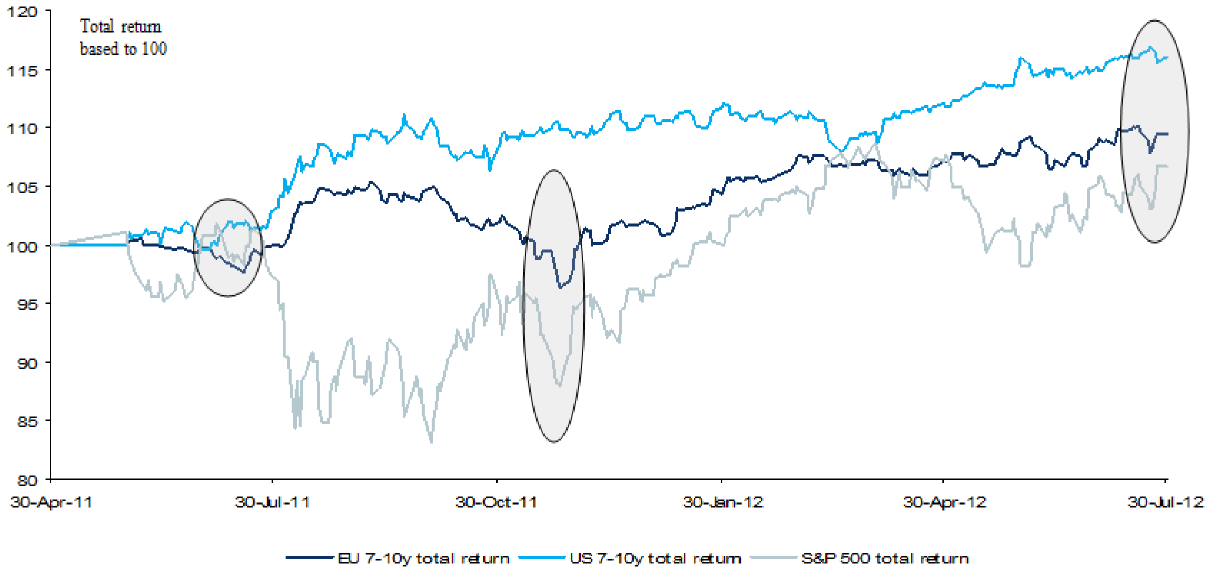


Source: Bloomberg. Past performance is no indication of future performance.

Interestingly, since May 2011, even fixed income has become increasingly correlated to risk assets. This is largely due to the ongoing European credit crisis. Figure 17 (overpage) tracks the Euro Bonds Index against the S&P 500 Index and US 10-Year Treasuries. It is clear that the Euro Bonds Index is increasingly taking on the characteristics of a risk asset and therefore a traditional European bond fund is not the safe-haven it might have been considered five years ago.

GTAA, which allows managers to move swiftly between asset classes of all stripes, is a natural fit for this market environment and is one of the few strategies that has proven itself able to cope with sudden market sell-offs. GTAA investors should also be able to benefit from the imbalances among high- and low-growth markets, different currency impacts, and credit markets that now value sovereign debt like corporate bonds.

Figure 17: The European credit crisis has created risky sovereign debt



Source: Bloomberg. Past performance is no indication of future performance.

Increased liquidity in global markets

Traditionally, a benefit of strategic asset allocation was the reduced transaction costs inherent in holding investments for long periods of time. To all intents and purposes, this benefit no longer exists. Global markets across all assets are more liquid than ever[5]. Given the increased investor demand for liquidity after the credit crisis, this trend can be expected to continue. The large increase in liquidity has lead to a reduction in bid-offer spreads, smaller commission rates and a reduced market impact when assets are traded. This allows GTAA strategies to rapidly react to market conditions and extract value net of transaction costs.

Availability of Diverse Sub-Asset Classes

The explosive growth in the number and value of exchange traded funds has provided investors with the opportunity to take nuanced investment views using liquid and exchange-traded instruments. For example, investors can now exploit the relative mispricing between gold futures and gold-related equities. GTAA strategies, given the diverse investment universe, are well placed to take advantage of this trend and enhance returns for investors by investing more deeply within and between traditional and newer asset classes (ie. volatility).

GTAA styles and their implementation in client portfolios

There are three major GTAA strategy styles – risk parity, factor-based and directional.

Risk parity

Risk parity funds seek to balance the allocation of risk across asset classes when building diversified portfolios. This means that lower-risk asset classes (such as global fixed income and inflation-linked government bonds) will generally have higher capital allocations than higher-risk asset classes (such as equities). These strategies often employ high leverage and are susceptible to sudden changes in correlation. Some of the biggest risk parity funds generated negative returns in 2008 and going forward, may suffer (for example, if the US credit rating is further downgraded by rating agencies) because risk parity funds largely rely on fixed income products, including US Treasuries, for the low volatility segment of their allocations.

Factor-based

While blamed for the August 2007 quantitative crash[6], factor-based strategies have made a comeback in recent times. These strategies tend to be market neutral and involve exposure to various risk factors such as currency carry, merger arbitrage and commodities roll yield. Though able to generate returns in the long run, they can be susceptible to overcrowding, shorting bans and deleveraging. Additionally, during times of market crisis, risk aversion dominates and factor-based strategies can therefore cease to perform.

Directional

Directional strategies involve taking high-conviction directional positions in markets based on forward-looking views. These strategies are able to generate returns without taking on excessive leverage. Directional funds often employ a well-defined risk management process and require sophisticated market skill. Currently, there are few available. It is the authors' opinion that a directional strategy is the most effective of the three GTAA styles in generating good risk-adjusted returns.

Implementation

Investors can incorporate GTAA into their investment portfolios either by investing in a GTAA fund or using a GTAA overlay service however the later is usually only available to large institutional investors.

If investing using a sector specialist approach, most advisers would recommend an allocation to GTAA of 5% to 10% spread between two or three funds, as GTAA strategies tend to be volatile and leveraged. Alternatively, there is an increased use of GTAA-style funds (called Diversified Growth Funds) in the UK for the entire portfolio allocation, spread between several managers. Some research houses in Australia have begun researching this approach, and one dealer group has implemented this approach for lower balance clients.

Conclusion

Going forward, the economic and market backdrop combined with the challenges flowing from the rise of the information age will continue to present a challenging investment environment. The great deleveraging is far from over, and debt will continue to cause market dislocations. Debt is an issue across geographies for both households and governments. Market crises have been occurring more frequently and asset classes are becoming more and more correlated in times of crisis. It's unlikely this will change in the foreseeable future.

The exponential growth of information and the explosion of inter-related factors on any one investment mean investors need to assess, analyse and adjust their asset allocation on a more frequent and tactical basis. They also need an investment framework that enables the interpretation of complex data combinations, including the impact of retail investors on the market. This interpretation needs to be more short-term in nature.

Finally, the availability of highly liquid securities, a broader range of sub-asset classes, and lower trading costs have opened up new opportunities for investors.

Given these developments, an overly rigid approach to investment thinking can mean lost opportunities. GTAA, with its broad approach, agile investment process and focus on managing downside risk, is well positioned to form part of a sector specialist portfolio or replace traditional asset allocation approaches to portfolio construction.

References

1. Barclays Equity Research, *Equity Market Outlook*, 21 June 2012

2. David Ciu, Bank of America China Strategist, as reported by Boesler, Matthew, *Business Insider* July 17 2012, http://www.businessinsider.com/complete-guide-to-chinas-shadow-banking-system-2012-7.

3. David Ciu, Bank of America China Strategist, as reported by Boesler, Matthew, *Business Insider* July 17 2012, http://www.businessinsider.com/complete-guide-to-chinas-shadow-banking-system-2012-7.

4. King, Michael R and Rime, Dagfinn. "The $4 trillion question: what explains FX growth since the 2007 survey?", *BIS Quarterly Review*, December 2010

5. Rothman, Matthew. "Turbulent Times in Quant Land." U.S. Equity Quantitative Strategies, Lehman Brothers Research, 2007

6. Jones, Charles M. "A Century of Stock Market Liquidity and Trading Costs", Graduate School of Business, Columbia University, 2002