



COMPASS

PERSPECTIVES ON MARKETS:
YESTERDAY, TODAY & TOMORROW

SPECIAL EDITION

>> How did we get here?

>> Is there life after debt?

>> Will the euro survive?

>> Is Asia the answer or another question?

>> So what should I do?

October 2011

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October 1, 2011

Markets are volatile. Again.

The unique confluence of slowing economies across the globe, historically low interest rates and potential sovereign defaults across Europe have triggered a dramatic market downturn. While the specific economic and political circumstances driving this latest crisis are new, many clients have an uneasy feeling of *déjà vu* as we brace for another period of protracted uncertainty; that's because we seem to have had more than our fair share of booms and busts lately. During my 20 years in Wealth Management, we have witnessed several major market slumps including the 1987 crash, the 1990s Asian contagion and Russian debt default, the Internet bubble, the asset-backed credit implosion of 2008, and now the European debt crisis.

It has become painfully clear to all of us that cyclical volatility is a defining characteristic of contemporary financial markets. The good news is that we can draw upon our experiences of the past to better position our clients to achieve their personal investment goals in the future.

To this end, we called upon the intellectual resources of our research group — our chief investment officer, as well as our heads of investment strategy, behavioral finance and quantitative analytics — to reflect upon the past two decades of market volatility with an eye toward the future. This special edition of *Compass*, “Perspectives on Markets: Yesterday, Today and Tomorrow,” is the result.

We begin with the question “How did we get here?” Head of Americas Investment Strategy Hans Olsen, CFA, examines the financial crises of the past in order to understand the common factors behind them and cautions us about where the next bubble might be forming.

Our Head of EMEA Investment Strategy Kevin Gardiner then explores the economic burdens that remain after the 2008 crisis in “Is there life after debt?” Luckily for us, he sees a path whereby governments and consumers can manage their way through debt-laden balance sheets. Next, our Chief Investment Officer Aaron Gurwitz addresses the question: “Will the euro survive?” To estimate likely outcomes, he takes a detailed look at the euro zone’s economic challenges as well as the motivations and constraints of its core decision makers (governments, electorates and institutions). He shows us the way forward but cautions the road ahead will not be easy.

With an understanding of how debt and the euro zone may weigh on global GDP growth, we turn our attention to the eastern hemisphere in “Is Asia the answer or another question?” Head of Asia Research, Economics & Investment Strategy Benjamin Yeo, CFA, analyzes whether the region can continue its breakneck rate of economic growth over the coming years and tests if these prospects are reflected in stock market valuations across Asia.

Just as we began with the question of “How did we get here?” so we end by answering the question “What should we do now?” Our Head of Behavioral and Quantitative Finance Greg Davies looks at the implications of the preceding analyses for action. He explains how an investor can successfully balance confidence in the mid- to long-term investment view with the shocks of day-to-day volatility.

I hope you will find the perspectives offered in these five articles to be both educational and thought-provoking.

If we succeed in our efforts to educate and illuminate, you may have a better idea of what you would like to do next. But I wouldn't be surprised (or disappointed) if this issue of *Compass* leads to a new round of more nuanced questions. In either case, your private banker or investment representative is here to help you plan and implement next steps that are just right for you.

Mitch Cox
Head of Global Research & Investments

Tactical asset allocation:

Not yet time to shift exposures

The condition of the global economy has been deteriorating and the prices of risk assets — stocks, high-yield bonds, commodities, emerging market currencies — have declined. The task of an investment strategist at a time like this is one of, to coin a phrase, *comparative pessimistics*. As always, we're seeking answers to two questions. First, do current prices of risk assets reflect too much, too little or the right degree of pessimism about the economic outlook? Second, which risk assets reflect the greatest degree of pessimism?

What's the Right Degree of Pessimism?

It's hard to argue that the markets are too optimistic. Compare the (lagging 12-month) dividend yield on S&P 500 equities with the yield on 10-year U.S. Treasury bonds, see Figure 1. It only makes sense for the dividend yield on stocks, which has tended to increase over time, to be higher than the rate on fixed-coupon bonds if you expect dividends to decrease in the future.

But this seems unlikely given how much cash corporations currently hold and how little of that cash they are putting to use.

Nor does it seem sensible to target risk well above normal levels. The markets' bad mood may very well be justified. The anticipated reacceleration of the U.S. economy in the second half of 2011 has yet to materialize. Europe appears set on dealing with its sovereign debt problems in a way that is likely to severely suppress growth rates. Germany, recently by far the strongest economy in the developed world, is showing signs of slowing. Further, in China the global slowdown and the government's anti-inflationary policies have reduced growth. Finally, anxiety in financial markets can become self-fulfilling if large losses make consumers and businesses even more wary of spending money.

On balance, while we are not optimistic, markets are too pessimistic. Therefore, we recommend targeting risk a bit above strategic norms.

Shifting Relative Values

Through most of this year, developed market equities looked cheap on a risk return basis relative to other risk assets. The sharp market sell off that began in early August has not only affected absolute levels but has also shifted the relative values of these asset classes. In particular, high-yield bond yields have risen substantially and valuations on emerging market equities have dropped from somewhat above to somewhat below recent averages. We believe that developed market equities remain *absolutely* attractive; more so, alas, than they were at the beginning of the summer. But North American, European and Asia-Pacific equities are no longer clearly *the* best place to take risk.

We have not adjusted our tactical asset allocations just yet in response to these relative value changes; the opportunity to do so, if there is one, is unlikely to disappear quickly. But we may do so soon. For the present, we continue to recommend that investors maintain above-normal exposure to developed market equities, a normal allocation to emerging market stocks and a somewhat less than usual allocation to high-yield bonds, see Figure 2.

Figure 1: S&P 500 dividend yields over 10-year treasury yields



Source: Bloomberg

Figure 2: Tactical asset allocations

Tactical weights and overweight (+) or underweight (-) versus baseline

Asset class	Conservative		Moderately Conservative		Moderate		Moderately Aggressive		Aggressive	
	Tactical Weight	+/-	Tactical Weight	+/-	Tactical Weight	+/-	Tactical Weight	+/-	Tactical Weight	+/-
Cash & short-maturity bonds ¹	53.0%	6.0%	26.0%	7.0%	17.0%	7.0%	12.0%	6.0%	10.0%	6.0%
Developed government bonds	9.0%	-1.0%	11.0%	-2.0%	7.0%	-4.0%	3.0%	-5.0%	1.0%	-5.0%
Investment grade credit	2.0%	-4.0%	1.0%	-6.0%	1.0%	-5.0%	1.0%	-3.0%	0.0%	-3.0%
High yield & emerging market bonds	0.0%	-3.0%	2.0%	-3.0%	2.0%	-4.0%	2.0%	-5.0%	1.0%	-6.0%
Developed market equity	18.0%	3.0%	32.0%	5.0%	43.0%	7.0%	51.0%	8.0%	57.0%	9.0%
Emerging market equity	3.0%	0.0%	6.0%	0.0%	8.0%	0.0%	10.0%	0.0%	12.0%	0.0%
Commodities	3.0%	0.0%	5.0%	0.0%	6.0%	0.0%	6.0%	0.0%	6.0%	0.0%
Real estate	4.0%	-1.0%	4.0%	-1.0%	3.0%	-1.0%	3.0%	-1.0%	2.0%	-1.0%
Alternative trading strategies	8.0%	0.0%	13.0%	0.0%	13.0%	0.0%	12.0%	0.0%	11.0%	0.0%

¹ Cash allocation consists of cash and cash alternatives

The recommendations made for your actual portfolio will differ from any asset allocation or strategies outlined in this document. The model portfolios are not available to investors since they represent investment ideas, which are general in nature and do not include fees. Your asset allocation will be customized to your preferences and risk tolerance and you will be charged fees. You should ensure that your portfolio is updated or redefined when your investment objectives or personal circumstances change.

How did we get here?

Learning from past financial crises: overvalued ideas and cheap money

By Hans F. Olsen, Head of Americas Investment Strategy

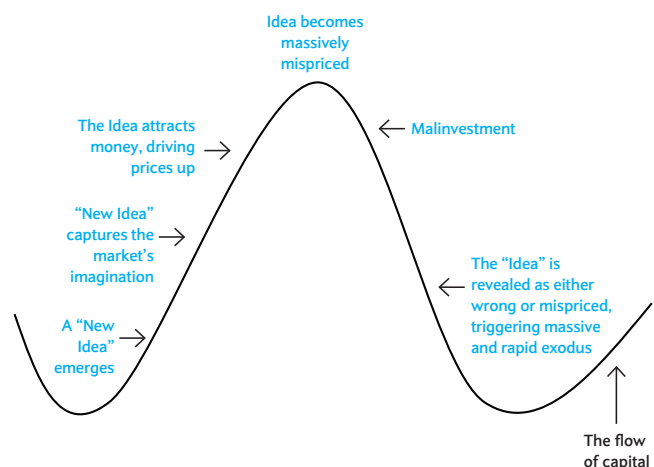
- Looking at the financial crises of the past 15 years, a clear pattern emerges: A “New Idea,” promising economic or financial transformation, and low — even negative — real interest rates lead to a mispricing of money and massive overvaluation of the idea.
- With that pattern as a guide, it appears the next bubble could be forming in the sovereign debt of developed economies.

We have endured a series of financial crises during the past 15 years, starting with the Asian Contagion in 1997. Triggered by the devaluation of the Thai baht, it went on to infect Malaysia, South Korea and Indonesia, eventually making its way to Russia, Latin America and, finally, the New York City suburb of Greenwich, Connecticut, where the hedge fund Long Term Capital Management collapsed. Fast-forward a couple of years to the bubble that inflated around the Internet and all things “dot.com”; the duration of this bubble was slightly longer than that of the many companies that went bust when the bubble burst. Finally, over the last several years we have been dealing with the ripple effects of the financial crisis that engulfed both the banking system and the housing market.

The crises have two things in common. The first is a “New Idea,” which typically promises transformative economies, i.e., the ability to produce more with the same amount of input or less. The second is a mispricing of money, which sometimes manifests itself in the equity markets but often appears in the debt markets. The arc whereby the idea travels through capital markets is fairly consistent: The idea is novel and seizes investors’ imagination; money flows to the idea and prices increase; as money crowds into the idea it becomes inflated. Finally, when the idea

fails to deliver on its promise, it’s revealed for what it is — an overvalued idea. Money flows out, and all the gains that were enjoyed in the expansion are essentially given back. The financial crises of the past 15 years have unfolded along these lines fairly consistently (see Figure 1). In this essay, we examine briefly each of these crises with the ultimate aim of identifying markets that are susceptible to crises in the future.

Figure 1:
Financial crises share common traits



The Asian Contagion

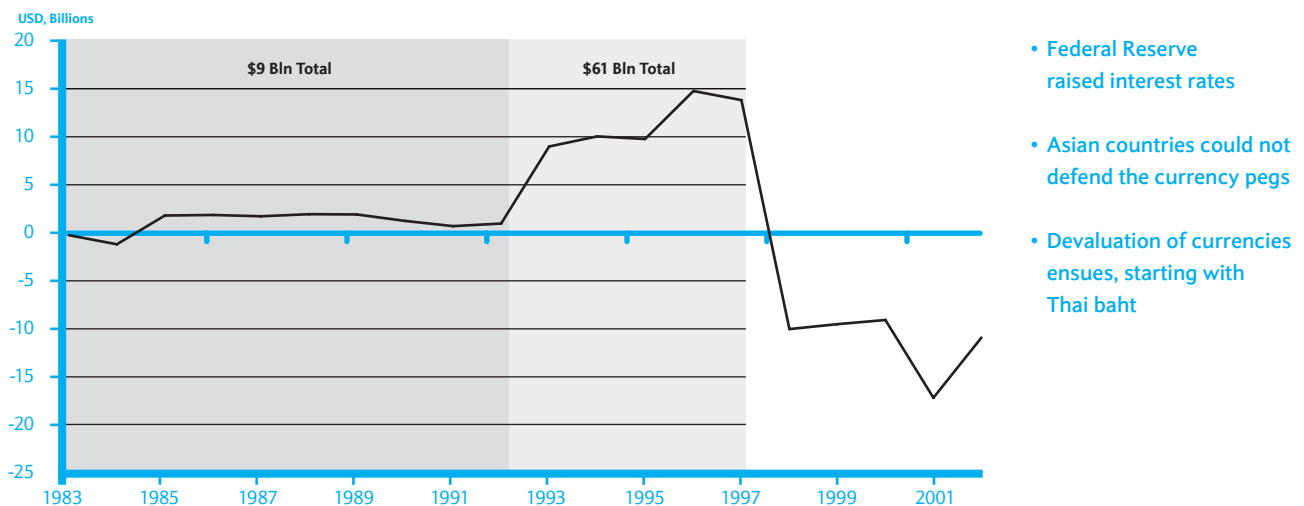
In the early 1990s, Asia enjoyed a period of sustained high growth – 8% to 9% annual growth in gross domestic product¹ – thanks in part to the liberalization of markets, favorable demographics and low wages. Assisted by currency pegs and low U.S. interest rates (negative, in real terms), the “idea” that Asia represented the new investment opportunity took hold, and the capital flow to Asia was impressive. Not only did the amounts change, but the rate of change increased as well. From 1992 to 1997, \$61 billion² was invested, compared with roughly \$9 billion total over the 10 years from 1983 to 1992 (see Figure 2). That roughly sevenfold increase raised investment as a percent of the region’s GDP to 33%.² When large sums of money enter fairly new markets, the stage is set for the creation of an asset bubble; money is mispriced and asset prices are distorted. In this case, it infected the real estate markets and eventually the publicly traded equity markets.

Historically, developed market equities had traded at premiums to their developing market brethren, but as money flowed into developing Asia mid-decade, multiples expanded, eventually exceeding the developed market equities. Then, as the U.S. economy emerged from a recession, the Federal Reserve began raising interest rates; this put pressure on Asian currencies as money started to flow back to the U.S. As private capital flows fell, serial currency devaluations followed; eventually recessions ensued, and the asset bubbles unwound.

The Internet Bubble

In this episode, the “New Idea” was that technology would conquer the business cycle. Headlines heralded a new age of commerce: New business models based on digital platforms would transform old industries. A brave new world was at hand.

Figure 2: Capital inflows to Asia surged rapidly then plummeted



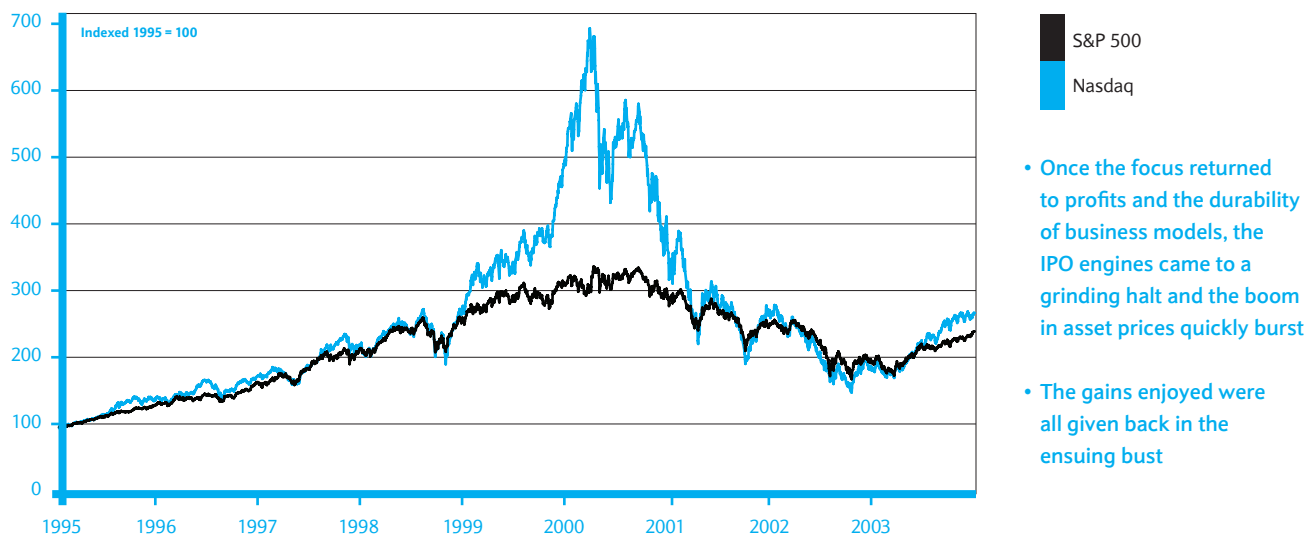
Source: IMF

- Federal Reserve raised interest rates
- Asian countries could not defend the currency pegs
- Devaluation of currencies ensues, starting with Thai baht

¹ Source: International Monetary Fund. Developing Asia refers to: Republic of Afghanistan, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Fiji, India, Indonesia, Kiribati, Lao People’s Democratic Republic, Malaysia, Maldives, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Samoa, Solomon Islands, Sri Lanka, Thailand, Democratic Republic of Timor-Leste, Tonga, Tuvalu, Vanuatu and Vietnam.

² International Monetary Fund

Figure 3: Relative performance of the Nasdaq and S&P 500 (1995-2003)



Source: FactSet

A great deal of money poured into the sector. Dwarfing the money invested in prior years, roughly \$63 billion of venture capital was invested in Internet companies from 1998 to 2000 – 15 times more than in the previous three years combined³ – presaging the six-fold increase in initial public offerings that resulted.

In the public markets, the rush of money was seen in valuations. The new-economy (Nasdaq) enjoyed valuations – price to earnings ratios of nearly 160 – that the old economy (S&P 500) could only envy (see Figure 3).

When the new economy failed to deliver on its promise in the form of earnings and the durability of the business models seemed dubious, the IPO engines came to a grinding halt. The spectacular rise in technology shares was essentially surrendered.

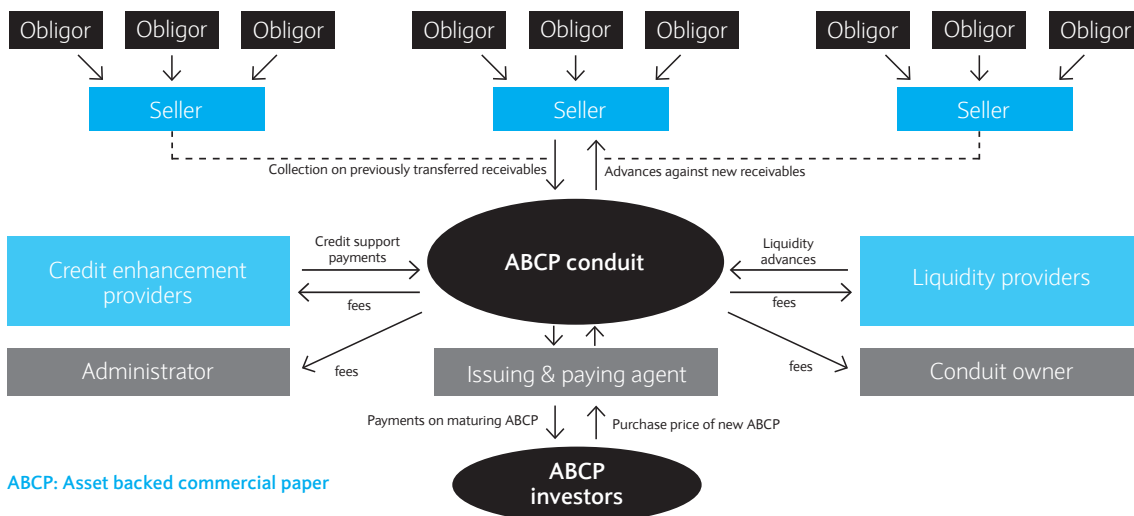
The Securitization Engine: How to Make AAA Securities Out of Subprime

The “New Idea” at the root of the latest financial crisis was based on the assumption that somehow risk could be transformed into non-risk by slicing risk into pieces and spreading it amongst many investors. The securitization magic that concocted AAA-rated asset-backed securities – offering higher yields – from subprime mortgages, credit card receivables and auto loans proved irresistible to investors, particularly against a backdrop of low interest rates. (In the aftermath of the recession that followed the bursting of the technology bubble, the Federal Reserve cut interest rates to levels that in real terms were negative.)

The financial engineering designed to isolate the higher risk components of a pool of loans from the triple-A cash-flows built impossibly complex structures (see Figure 4).

³Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report, Thomson Reuters

Figure 4: “New Idea” – eliminate risk through diversification



ABCP: Asset backed commercial paper

Generating Structured Investment Vehicles (SIV) funded by asset-backed commercial paper, these engines transmitted packages of risk throughout the capital markets and facilitated the rise of the shadow banking system, which eventually came to exceed the size of the traditional banks.

To ensure that banks had continuing ability to lend, the traditional banking system used SIVs as conduits to offload liabilities into the shadow banking system. The assets in the traditional banking system combined with those in the shadow banking system led to the epic expansion in credit creation, which inevitably led to a mispricing of money and, therefore, risk. This was clearly manifested in the decline in mortgage underwriting standards. Loose underwriting produced such confections as the euphemistic “Ninja loan” — No Income, No Job or Assets loans.

The reckoning of this episode of American finance arrived when poor underwriting standards collided with interest rate resets on adjustable rate mortgages. Naturally, mortgage delinquencies and defaults escalated, and with slivers of

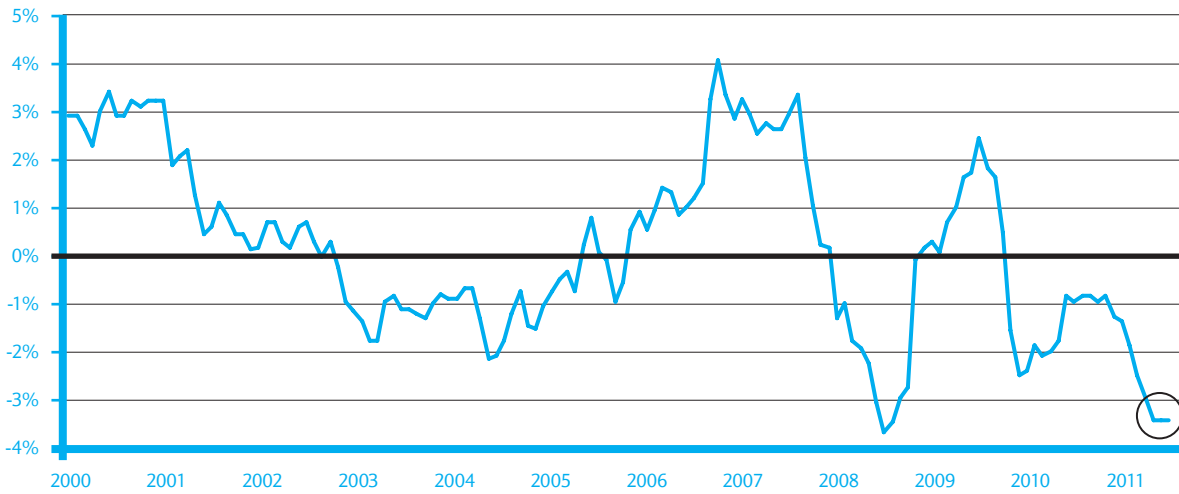
mortgage risk spread far and wide, the virtue of securitization became a vice, quickly destabilizing the financial system. The rest is history. This new idea combined with profound mispricing ushered in the most severe recession in modern times along with the worst bear market since the 1930s.

Safety in Sovereigns?

If past is prologue, then let’s ask what is today’s “New Idea” — and is money moving to this idea?

The “New Idea” is that given the structural imbalances in the economy, we will be in a low interest rate, low growth environment for the indefinite future. In fact, a low growth environment is the “new normal.” Looking at interest rates, we see they are plumbing the absolute and inflation-adjusted levels that preceded previous financial upheavals (see Figure 5 on following page).

Figure 5: The Federal Funds rate in real (inflation-adjusted) terms



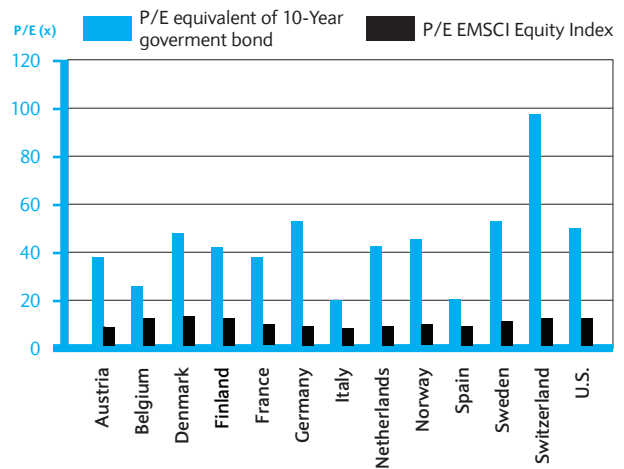
Source: Bloomberg

As the bull market in uncertainty prevails, it is easy to see why money has flocked to sovereign debt markets around the globe. Remarkably, real yields are negative by some measures across the yield curve for U.S. Treasury script, but the prices being paid for the income generated are hard to understand. The current multiples on offer for U.S. Treasury securities (as well as those of other developed markets) map to bull markets where caution was thrown to the wind. Consider Figure 6; the price-to-earnings multiple equivalent for the 10-year government bond of each of the noted countries today far outstrips the price-to-earnings multiple of that country's equity market.

Does the notion of a “new normal” make sense? Is it really different this time? Does the yield curve make sense? Has too much money chased into the idea that there is safety in government bonds — when across the yield curve, the only thing that you're *guaranteed* is a loss in the purchasing power of capital invested in these securities? Investors are flocking to a big “New Idea,” expanding valuations. Is this idea going to play out the way the earlier ideas did? Or will investors see similarities between this course and the path of prior mishaps and avoid another precipice?

One thing is clearly different this time. The bursting of the three previous bubbles was followed by a flight from risk by investors: very bad news for markets. When this bubble bursts it will likely be accompanied by the realization that balanced, diversified⁴ risks *are* worth taking. And that will be very good news.

Figure 6: Relative valuations of bond and equity markets



Source: Bloomberg, MSCI
Equity market valuation as of August 31, 2011
and bond market valuation as of September 7, 2011

⁴Diversification does not guarantee against loss.

Is there life after debt?

By Kevin Gardiner, Head of EMEA Investment Strategy

Debt can be a crushing burden. But it is not necessarily the binding constraint on the global economy that many currently assume it is. Balance sheets have two sides and debt represents only one side of the story.

Debt has been dominating the headlines, and the received wisdom is that debt crises are followed by prolonged periods of slow growth. But received wisdom is often wrong and the misreading of balance sheets by policymakers can cause great trauma. It's important to step back and consider debt and its implications from a critical perspective.

There is a Lot of Debt Out There...

We begin our analysis by dimensioning "debt," with a focus on the U.S., commonly portrayed as being tightly shackled by "too much debt." Indeed, debt in the U.S. has risen significantly in the last 50 years, outpacing the wider economy. Total U.S. debt expressed as a multiple of GDP rose from around 1.4 in Q1 1961 to 3.7 in Q1 2009, before subsiding a little, to 3.4 in Q2 2011 (see Figure 1). For the period as a whole, debt has grown

at a nominal (i.e., not adjusted for inflation) annualised compound rate of 8.7%, alongside nominal GDP growth of 6.9%.

This debt is owed by four core segments: consumers, the government, non-financial businesses, and financial sector businesses. Over the past 51 years, the increases have been largest in the financial sector, followed by the consumer sector. This was also the case for the sub-period that culminated with the 2007 crisis. Over the decade to the 2009 peak, the financial sector debt/GDP ratio rose proportionately by 69%; consumer debt by 48%; corporate debt by 31%; and government debt by 22%. Since the peak, *deleveraging* is most visible in the financial sector with the ratio falling by 25%. The consumer and corporate sectors' ratios have declined more modestly by 8% while the government debt/GDP ratio has actually risen by 17%.

Figure 1: Total U.S. debt has risen

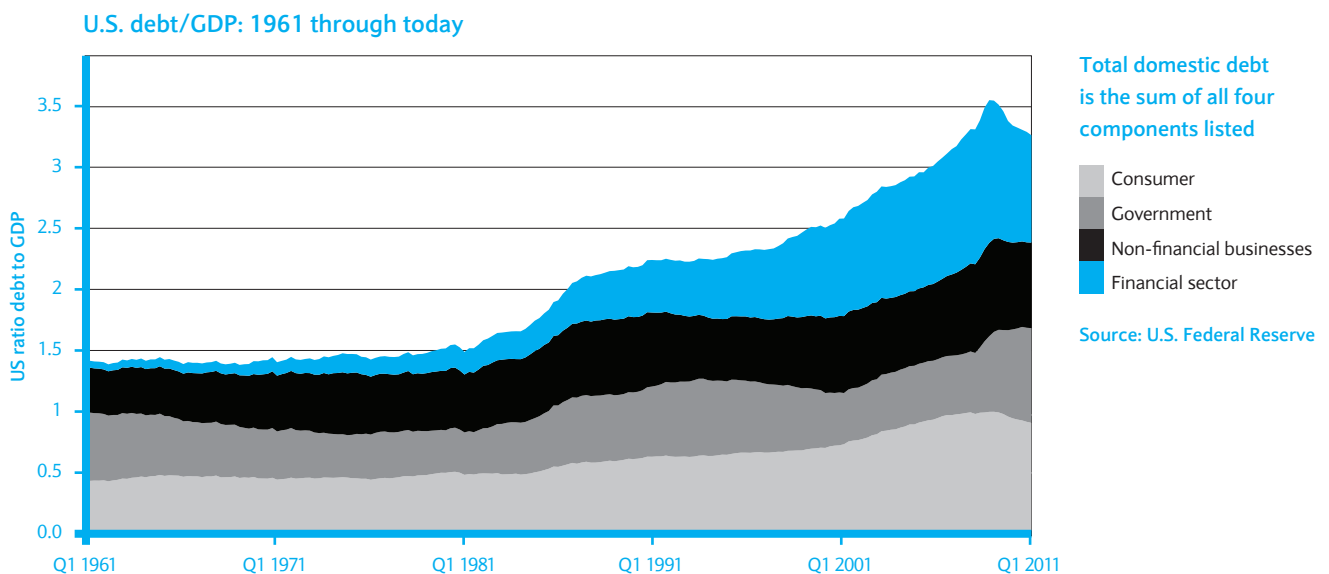
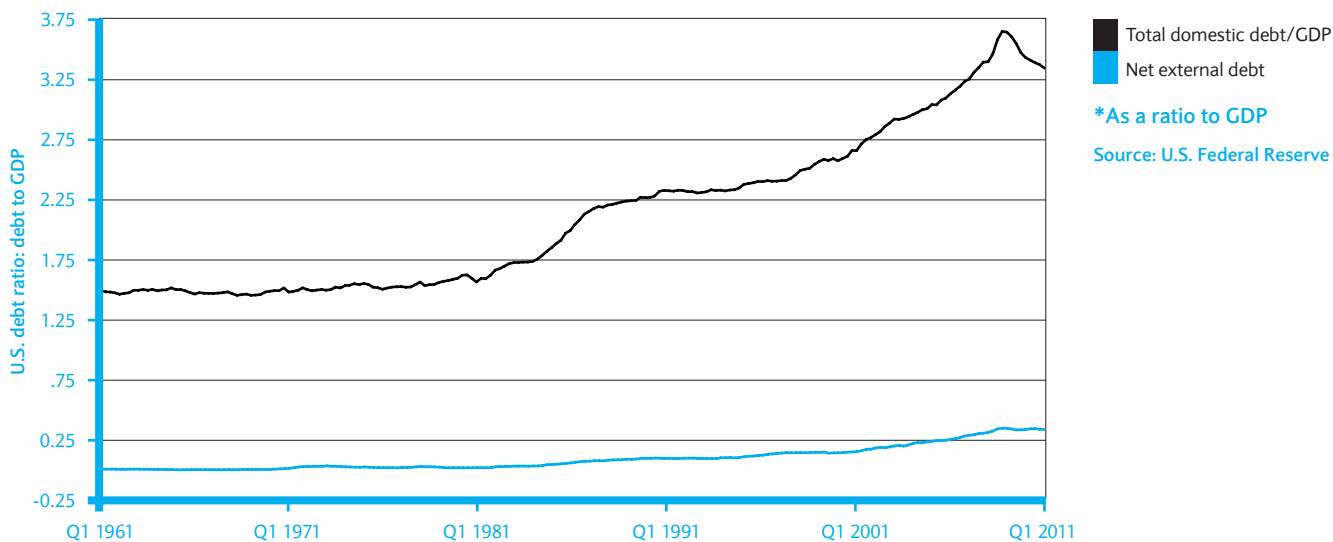


Figure 2: U.S. gross debt consolidates to its net overseas liability*



Nonetheless, it's important to remember that all balance sheets have two sides. For every borrower there is a lender and after allowing for cross-sector double-counting, net exposures can be very different from the gross picture presented in the chart and dominating the media. Sectoral balance sheets comprise not only loans and bonds but non-debt financial liabilities and assets including tangible assets.

For example, consumers borrow from banks, but at the same time they collectively own most of those banks. They also own most of the corporate sector and many of the bonds issued by the government. When this cross-ownership is allowed for, the borrowing of the U.S. as a whole consolidates to the amount that it has borrowed from the rest of the world — that is, its net overseas liability.

Figure 2 plots the total U.S. debt/GDP ratio from Figure 1 (the “gross liabilities”), alongside the net overseas liability of the U.S. as a ratio to GDP. Whereas the gross debt burden is currently 3.4 times GDP, the net international position as estimated by the Fed is a liability of just 0.4 times GDP. Annual data compiled by the U.S. Bureau of Economic Analysis (BEA), which uses a more comprehensive definition of liabilities that

includes corporate equities and direct investment alongside bonds and loans, puts it at just 0.2 times GDP.

The U.S.' net international investment position is the difference between two very large numbers. Its international liabilities of \$23 trillion¹ (1.5 times GDP) tend to have a higher fixed income weighting than its overseas assets of \$20 trillion, which have bigger weightings in equities and direct investment. Most important, though, is that those liabilities are denominated largely in dollars, while the assets are in other currencies. With overseas assets amounting to some 90% of liabilities, a depreciation of the dollar by around 11% could wipe out that net external liability altogether. This assumes, of course, that other things — such as the level of equity markets — are equal, which they might not be in such a situation. But the point is that the U.S. enjoys some flexibility in being able to borrow so much in its own currency.

Of course, in a crisis gross exposures matter — they can freeze the system, as we were reminded in 2008. The consumers, companies and banks with the assets are not necessarily the ones with the liabilities, and it is the borrowers whose activities are interrupted when crisis hits.

¹ Using the BEA data

... But Aggregate Balance Sheets of Companies and Consumers are Healthy

As noted earlier, the corporate sector's debt relative to GDP has fallen modestly since the 2009 peak, but turning to the asset side of the sector's balance sheet, we see a surge in corporate cash holdings, which has taken the aggregate "quick" ratio (short-term assets relative to short-term liabilities) to the highest level in a quarter century at least (see Figure 3). Of course, the corporate sector itself is still "owned" by others, mostly U.S. households (both directly, and indirectly through their holdings of mutual funds and so forth).

Once the assets (domestic and international) on the aggregate consumer balance sheet are taken into account, consumer assets are huge. In addition to owning most of the debt issued by the other domestic sectors (and some issued by overseas corporates and governments), households have substantial equity holdings. The household sector's gross financial assets amount to roughly \$50 trillion, vastly more than its total gross liabilities of \$14 trillion (and, for that matter, the U.S.' international liabilities in the BEA data of \$23 trillion). Add in tangible assets, and U.S. consumers' net worth is hugely positive, equivalent to

3.9 times GDP. Although it has fallen by a fifth since its 2007 high, it is actually 9% above its 50-year average (see Figure 4 on following page). And while net housing wealth is admittedly below its long-term average, it remains firmly positive. (Of course, "Read all about it: U.S. household net worth stable!" would not grab many readers, listeners or viewers.)

Apart from balance sheets, another consideration is the cost of servicing any given debt burden at the current time. While consumers' (gross) debt levels may remain historically high, the cost of servicing that debt isn't. It has fallen a long way as interest rates have been lowered to levels last seen in 1995, according to the Fed data.

This understates the improvement in the last few years in the ability of U.S. households and companies to service their debt. Consumer and corporate cashflow have improved faster than savings ratios because of reduced spending on capital outlays – new houses in the case of the consumer, and plant, equipment and buildings for companies. Free cashflow has risen tremendously after 2006. As a result, the rebound in the private sector's financial balance has been equivalent to roughly 12%

Figure 3: Corporate "quick ratio" – short-term assets relative to short-term liabilities

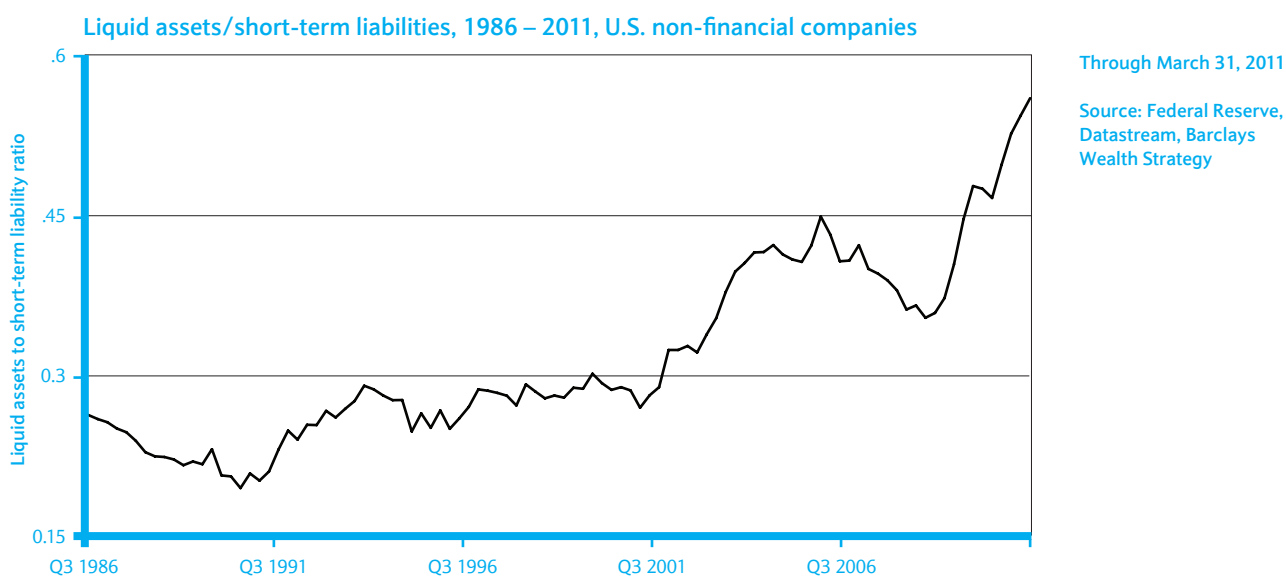
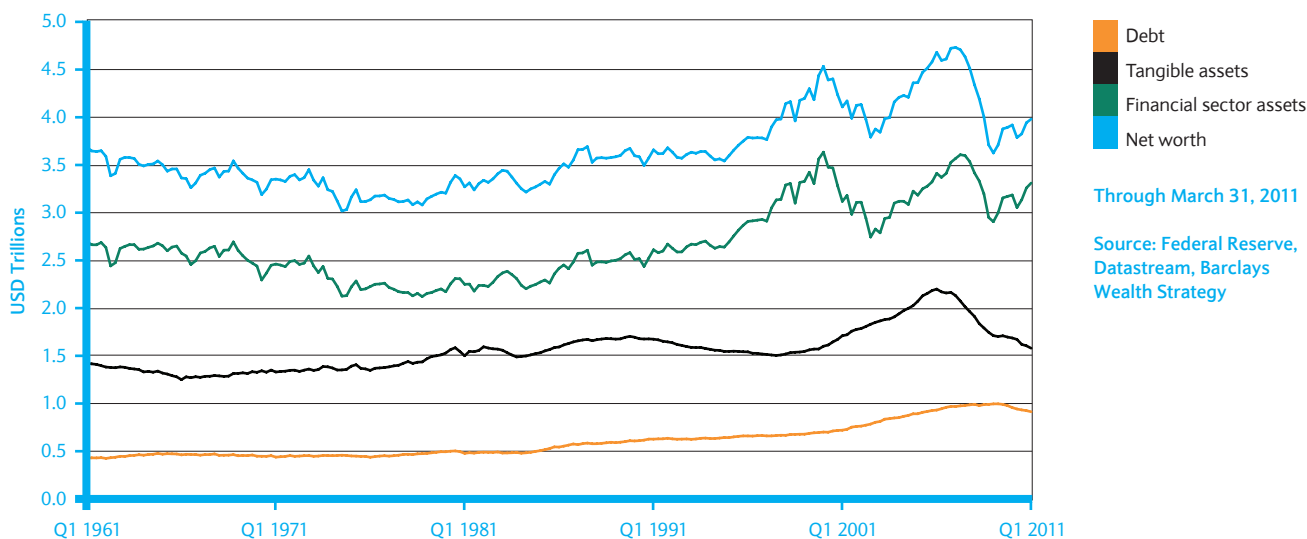


Figure 4: U.S. consumers' net worth



of GDP at the high point, and has allowed it both to maintain the bulk of its current spending, and also to deliver the post-2009 deleveraging noted above (modest in the case of the household sector, more pronounced in the case of corporates if we allow for the cash on corporate balance sheets).

Growth Can Coincide With Deleveraging

Reckless lending and borrowing can of course be damaging economically – but excessive credit controls, or rationing, can be damaging too. Few would disagree with the idea that lending was too lax after 2003, but economic growth requires some degree of credit expansion.

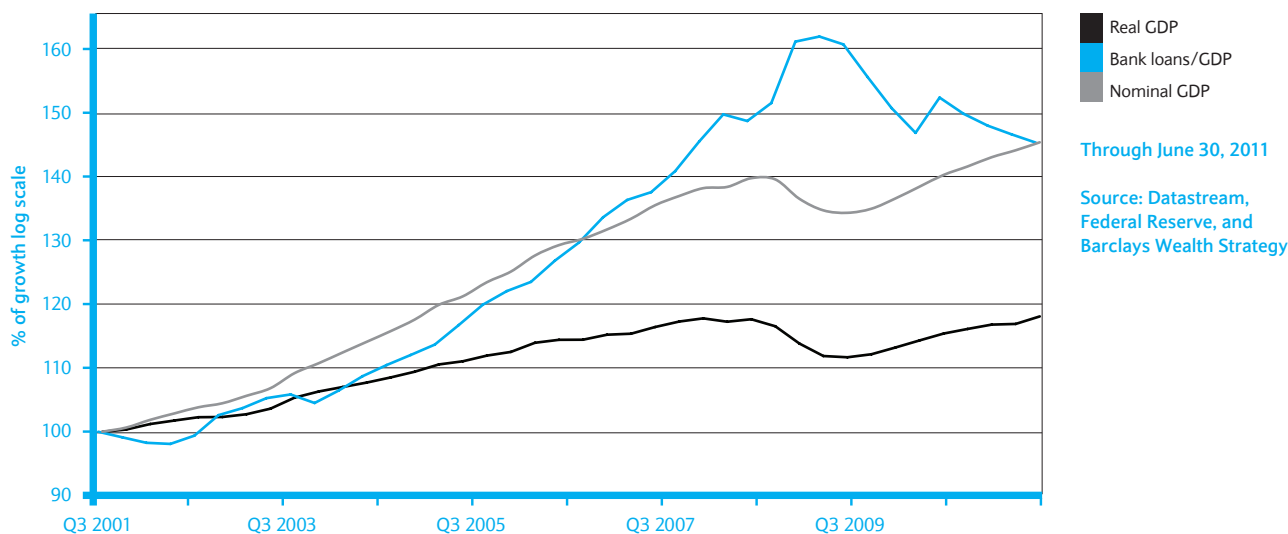
From this perspective, the need for speedy, aggressive deleveraging across the board now may be overstated, as may be the impact of any deleveraging that does occur. The biggest surge in borrowing in the last cycle was in the financial sector, and this is where deleveraging is now fastest. This borrowing seems to have had a relatively modest effect on the wider economy. While the financial sector's debt/GDP ratio was rising by more than two-thirds in the decade to 2009, the average growth rate of U.S. GDP over that period was just 1.9% compared with a 50-year average of 3.1%. Since so much of this financial

sector activity seems to have had little relevance to growth, deleveraging there might not act as a brake on growth that many assume constricts the economy. After all, if something is in excess supply, cutting back on it need not be a constraint. Of course, we are talking here of the financial sector's own debt, as opposed, for example, to borrowing from banks by small companies, where clearly the availability of working capital can be very important. Across the wider economy, deleveraging to date has been more gradual and has not prevented recovery (see Figure 5 on following page).

What does history have to say about debt and its aftermath? The lessons to be drawn from it may not be what they seem.

Take two obvious debt disasters – the experience of the German Weimar republic in the immediate aftermath of the First World War, when reparations effectively added a massive debt burden to the fragile German economy and the U.S.' Great Depression, when a rising real debt burden intensified the post-crash downturn. Both episodes were exacerbated by (different) policy mistakes, and today's policymakers have learned from these experiences.

Figure 5: GDP and deleveraging



In the case of Germany, the central bank resorted to literally printing money, contributing to the subsequent hyperinflation and eventually monetary (and political) collapse. The exercise makes Mr. Bernanke’s current experiment with “Quantitative Easing” pale in significance. There are stories of shoppers using wheelbarrows to carry banknotes around toward the end. But, of course, that experience is one of the reasons why the Fed is acting so cautiously and indirectly by comparison.

In the Great Depression, rather than being held too loose, monetary policy was too tight as bank failure and deflation kept real interest rates at painfully high levels. But again, the current Fed is well aware of the risks of erring on the side of hawkishness – indeed, Mr. Bernanke is himself an expert on the monetary history of the Great Depression and is clearly determined to do what he can to ensure no repeat.

Yes, There is Life After Debt

Received wisdom is often wrong and always lazy, and we would encourage readers to question the headlines. This is not to say that there are no problems out there, but the picture commonly painted of the aggregate U.S. economy being tightly shackled by “too much debt” is overly simplistic. There are other considerations and forces at work here. Financial balance sheets can certainly cause great trauma if policymakers are not careful. But long-term prosperity is usually driven by the classical “factors of production” – our endowments of land, labour, and capital and the efficiency and technology with which we use them – and not by finance.

So when you next read about how the average human owes \$XX,000, or that the next generation will each inherit a debt burden of \$YY,000, start by asking a simple question. To whom will they repay it?

Will the euro survive?

By Aaron Gurwitz, Chief Investment Officer

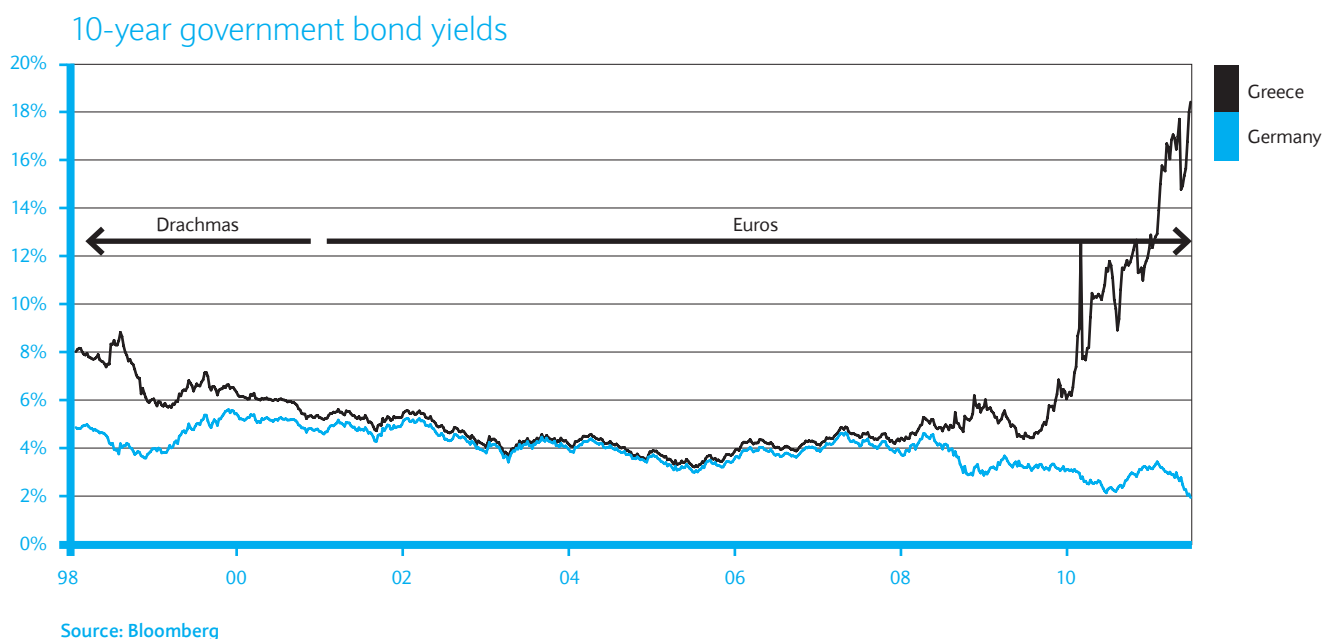
- The euro area sovereign debt saga is unlikely to end any time soon in either financial catastrophe or a final resolution
- For the foreseeable future, the contradictions of a continental currency union without a fiscal union will continue to be a source of risk, and occasional opportunity.
- Whether this lingering problem amounts to an occasional minor irritant in financial markets or a source of periodic extreme volatility will depend on how adeptly policymakers deal with the evolving situation
- And, very importantly, on whether the global and European economies continue to recover.

Western Europe has become a very strange and somewhat disturbing place economically and financially. It has a common currency, but, unlike other continent-sized single currency zones, it is neither a fiscal nor a full political union. From the euro's inception in 1998 until about two years ago, this discrepancy was not particularly problematic. But the system's internal contradictions have become much more worrisome, as is illustrated in the divergence between the Greek and German 10-year government bond yields (see Figure 1).

Given that the euro area economy is the world's second largest and that complex interbank linkages would automatically spread any European financial problems everywhere, the problems in Europe command all investors' attention.

It is difficult to predict the future course of this evolving, imperfect currency union. The governance structure that might generate a solution – or prevent chaos – is diffuse and ambiguous. But, despite its complexity and ambiguity, the

Figure 1: German and Greek 10-year government bond yields (1998-2010)



situation is still subject to careful analysis. Our analysis leads us to conclude that Europe will continue to “muddle through.” This process is unlikely to end in a financial catastrophe or in a radically restructured relationship among the euro area member countries any time soon. Uncertainty about the ability of some European governments to meet their full debt service obligations will continue to be the source of periodic market volatility over several years to come. But whenever the situation threatens to drive any large number of banks into insolvency, policymakers will likely find some way to relieve the pressure temporarily, moving the euro area towards a more perfect fiscal union, one small step at a time.

How do we come to this conclusion?

Historical Context: Six Decades of Political and Economic Integration

The euro area sovereign debt crisis is best understood as an episode in the history of European political and economic integration. After a 30-year period of war and depression from 1914 to 1945, Europeans made the implicit, collective *political* decision to reorganize the governance of their continent in a way that would prevent future conflict and enhance future prosperity. The means chosen repeatedly over the past 60 years by democratically elected governments has been a process of increasing political and economic integration.

By the early 1990s, a common monetary policy and a common currency were seen as the appropriate next step in the process. The problem was that, while sensible politically, it was not optimal economically. The collection of 12 (now 17) countries that adopted the euro do not represent an “optimal currency area” — a concept developed by economist Robert Mundell.

Mundell set forth four essential criteria for identifying geographic areas best served by a single currency: labor mobility; capital mobility and price and wage flexibility; participants with similar business cycles; and a fiscal risk sharing system. Think of these in the context of the U.S. versus Europe.

The U.S. system of fiscal risk sharing ameliorates some of the adverse impacts of being part of a single currency zone. At present, the U.S. state of Florida has a high unemployment rate largely because it is suffering the after effects of a real estate bubble that subsequently burst. Spain is in a similar situation: high unemployment following a high-amplitude real estate cycle. But in Florida, the pension (Social Security), and health care (Medicare and Medicaid) payments come largely from the federal government in Washington, while in Spain all of these payments are funded by Madrid. Small wonder that the Spaniards may wish they still had the option to devalue the peseta to stimulate economic growth, while no one in Florida has any reason to think outside the “box” of the U.S. currency union.

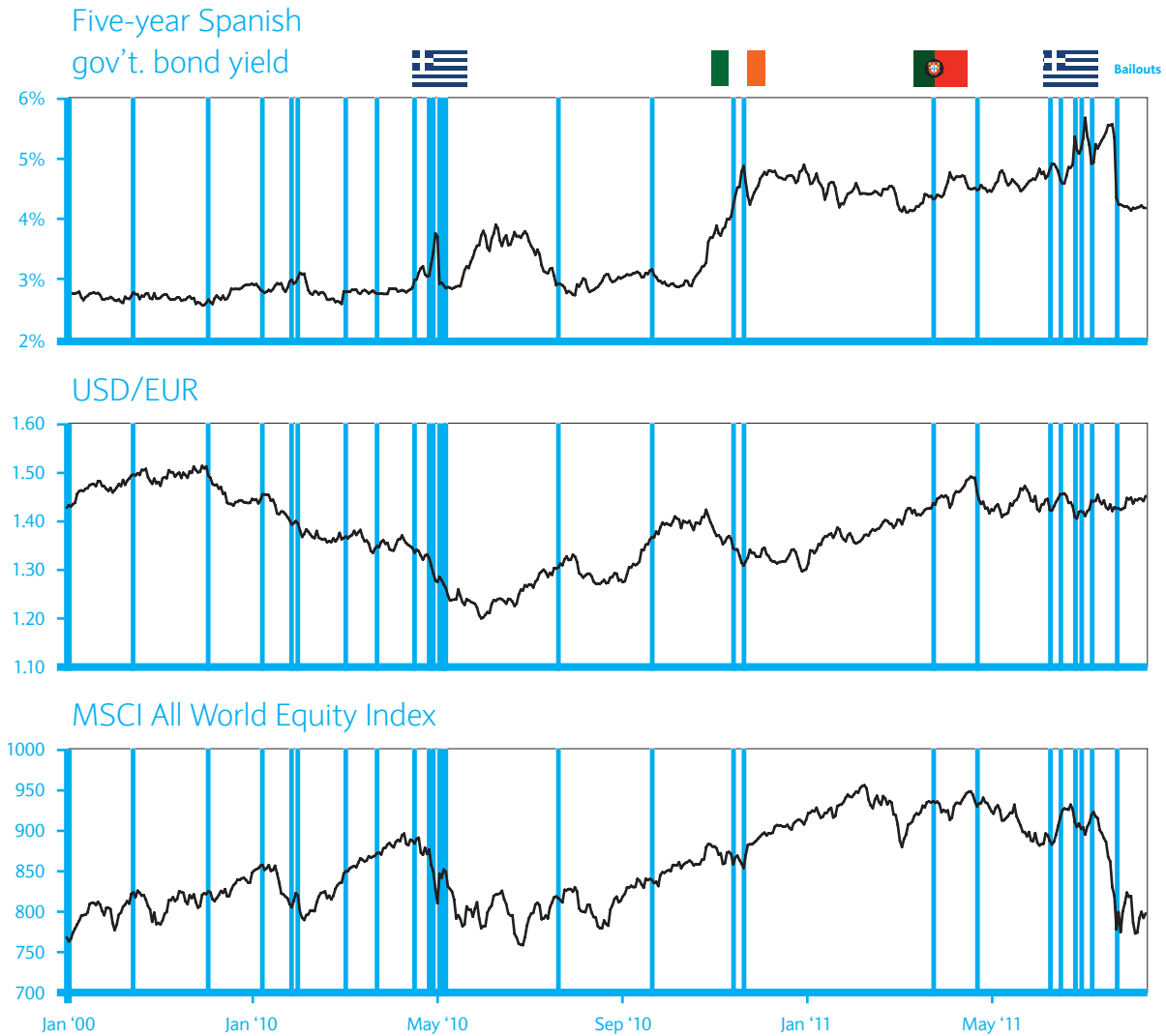
From Theory to Crisis

While many economists recognized that the common currency might not be optimal for all of the countries in the euro area, the problems remained theoretical in the relative prosperity of 1998 – 2008. It wasn’t apparent that the Greek government’s ability to violate the spirit of the operative treaties’ fiscal rules while borrowing money at nearly the same rate as Germany was allowing their debt service burdens to rise to levels unsustainable in a major downturn. The problem only became apparent in the spring of 2010, at which point debt markets closed to the country. The government didn’t have the money to pay off maturing debt and couldn’t refinance it.

The threat of a Greek default concentrated policymakers’ minds. While countries with substantially larger economies had defaulted without triggering massive global disruptions, a sudden, unexpected failure of a euro area member country to meet its financial obligations would have had severe global economic consequences.

Government bonds serve as the principal lubricant of any modern financial system. Interbank borrowing collateralized by government bonds enables our financial system

Figure 2: Impact of euro area debt crisis on financial markets (January 2000 - May 2011)



Source: Bloomberg

to process payments quickly and thereby facilitate billions of financial transactions daily. Because government bond holdings are essential to banks' operations and because the bonds of governments denominated *in their own currency* are deemed credit "risk-free," accountants have generally allowed banks to carry their holdings in these securities at "book value," and regulators have not required banks to hold capital reserves against potential credit losses on home-currency government bonds.

Until the spring of 2010, European banks and their regulators had operated on the presumption that *all* euro area sovereign bonds would always be treated equally. The possibility that bonds from Greece and other euro area countries were no longer credit "risk-free" and that banks might realize losses on these bonds raised the risk that interbank lending might freeze up. (Such a freeze occurred immediately after the Lehman Brothers bankruptcy, and the global economy and markets are still trying to recover.)

At that point, global financial markets began sending the clear signal that the world financial system was again at risk and something needed to be done to avoid sudden default by a European sovereign borrower. In response, Europe's governments, the European Central Bank (ECB) and the International Monetary Fund (IMF) sought a way to prevent a Greek default and set it on a sustainable debt path. Leaders managed to find what looked like a solution – a combination of direct “bailout” loans to Greece from the European Union and the IMF and *the quid-pro-quo* of Greek fiscal austerity measures. Markets calmed, but the solution proved temporary.

This cycle has been repeated several times since. In Figure 2, we plot yields on Spanish government debt, the U.S. dollar/euro exchange rate and returns from the global equity markets over the past two years, and overlay vertical lines that denote two dozen key events in the euro area crisis. The charts also indicate when the Greek, Irish and Portuguese governments were bailed out of imminent insolvency.

The impact of the euro area sovereign debt problem has been substantial but episodic, and each flare-up has affected different markets. When Greece was threatened by imminent default, currency and equity markets suffered most. The U.S. dollar/euro exchange rate fell below €1.20 per dollar on June 7, 2010, reflecting fears that the common currency's design flaws would precipitate the union's break-up. Subsequently, however, the exchange rate impact has been minimal; investors have apparently concluded that the euro will survive for the present.

Greece's fiscal situation remains worse than any other euro area member. Its financial liabilities totaled 147% of gross domestic product at the end of 2010. The total for Italy, Ireland, Portugal and Spain were 127%, 102%, 103% and 66%, respectively. Even so, when it became clear that other countries also needed help and that the first rescue package for Greece was insufficient, contagion spread as investors sold Spanish and Italian government bonds, forcing yields higher. Aggressive intervention by the ECB stabilized these

markets, at least temporarily. But the risk that Italy and/or Spain – with combined government debt that is 3.6 times larger than that of Greece, Ireland and Portugal in total – might require a bailout continues to disrupt markets.

The flaws in the euro area structure have become one of the two primary sources of uncertainty and risk in the global economy, the other being the fragility of the U.S. economic recovery. When the crises flares up, investors become more worried and the prices of stocks and other risk assets decline, so assessing how this saga may unfold is germane to any global investment outlook.

A Political Analysis of a Political Challenge

The future of the euro area will be largely determined by political considerations. After all, the common currency project was essentially a political enterprise, albeit one with important economic and financial ramifications. Any political analysis requires understanding the key decision-makers, their motivations, their constraints and their influence on the outcome.

Let's begin with the common motivations. All participants assign the highest priority to avoiding any repetition of the catastrophic financial crisis and sharp global economic downturn that followed the Lehman Brothers collapse. And they all seek to preserve and expand the benefits of 60 years of progress toward European political and economic integration.

Similarly, the decision makers operate under common constraints. A weak global economy means policymakers cannot look to rapidly increasing tax revenues to help the at-risk countries balance their budgets over the next few years. Regulatory and accounting considerations effectively eliminate some solutions attractive from an economic and political point of view because such solutions would require large numbers of banks to realize substantial losses.

Besides these key commonalities, each participant in the euro area decision making process has individual goals and constraints. In this respect the major players are:

The German Government. As Europe's largest and richest economy, Germany carries the most weight in the decision making process. Angela Merkel's government shares the goal of avoiding a catastrophe, but the members of the governing coalition wish to avoid it at minimal financial cost to their economy and minimal political cost to themselves as they face an increasingly "euro-skeptical" electorate. **The French, Dutch, Finnish and Austrian** governments share many of Germany's policy objectives and constraints.

The Greek Government. The Greeks and their current government are paying a high price for past fiscal irresponsibility. The Greek economy remains in a deep downturn – contracting 4.2% in 2010, and by a forecast 5.8% in 2011, and 1% in 2012¹ — largely because of the deep government spending cuts and steep tax increases demanded by the European Union and IMF. So it is not surprising that domestic political opposition to the terms of the bailouts have been impassioned and that the Greek government is frequently accused of foot dragging on the implementation of the austerity measures. But the Greeks *have* to accept the best terms they can get. The country's *primary* fiscal deficit means that revenue collections do not cover the government's day-to-day operations² (schools, firehouses, hospitals). With the capital markets closed to them, the Greek government has no alternative but to pay the price demanded for bailout funds in order to keep supporting core services. **Portugal and Ireland**, the other two beneficiaries of rescue packages, are pursuing similar goals under similar constraints, but the Greek situation is much worse.

Italian and Spanish Governments. Their fiscal situations are not as dire as Greece's. Italy is running a primary surplus and Spain's government debt-to-GDP ratio is not particu-

larly high. Still, both countries need independent access to financial markets so they can borrow additional money for operations and/or to pay interest on outstanding debt. So both governments advocate policies that support the prices of euro area sovereign debt. These include current open market purchases by the ECB and prospective buying by the European Financial Stability Facility (EFSF).

The European Central Bank. While it is *not* the ECB's job to ensure member governments' borrowing costs are capped, its responsibilities do include assuring the viability of Europe's financial markets and the soundness of its banking system, which is predicated on interbank lending. If any substantial proportion of European government bonds were no longer acceptable as good collateral, many of the Continent's financial institutions would fail. The recent disruptions in the European sovereign debt market have challenged the ECB to walk a fine line between preserving market viability, on the one hand, and appearing to aid and abet fiscal irresponsibility by monetizing budget deficits, on the other. To date they have resolved this dilemma by leaving the direct lending to the most troubled borrowers – (Greece (Ca/CC/CCC), Ireland (Ba1/BBB+/BBB+) and Portugal (Ba2/BBB-/BBB-) – to the European Union and the IMF, while intervening to support prices for Italian (Aa2/A/AA-) and Spanish (Aa2/AA/AA+) bonds.

The International Monetary Fund. The IMF is the principal institution through which the rest of the world – the U.S., China, etc. – has contributed to the management of the euro area's sovereign debt problems. The Fund's goals are to help minimize the collateral damage to the global economy and financial system and to encourage solutions that address the fundamental causes of the problem.

Where Could It Go From Here?

Since the euro area sovereign debt crisis began, we have been advising that policymakers would likely "muddle

¹ Barclays Capital forecasts

² A country running a primary surplus raises enough revenue to pay for operations but not enough to cover interest costs on outstanding debt.

Figure 3: The euro area scenarios from here, and the implications

	If	Then (all else held equal)
10% Best case	<ul style="list-style-type: none"> • Collective guarantee of Zone sovereign debt • Enforceable fiscal discipline on all members • Central mechanism for occasional fiscal stimulus • Explicit fiscal cross-country subsidies 	<ul style="list-style-type: none"> • Powerful euro rally • Risk assets do very well • German bond yields rise • Peripheral spreads collapse
40% Muddle through well	<ul style="list-style-type: none"> • Implementation of EFSF • Favorable German court ruling • Occasional liquidity infusions from IMF, ECB • More generous renegotiated bailouts 	<ul style="list-style-type: none"> • Euro appreciates gradually • ECB tightens steadily • Risk assets produce normal returns
45% Muddle through badly	<ul style="list-style-type: none"> • Political, legal resistance to current plan • Renegotiated deal • Larger bond-holder losses • Prolonged economic weakness in periphery • Italy and Spain remain at risk 	<ul style="list-style-type: none"> • Small negative impact on euro • Risk asset prices decline somewhat • German interest rates remain very low • Peripheral spreads grind wider; spike occasionally
5% Worst case	<ul style="list-style-type: none"> • Disorderly default by Greece • Euro becomes something very different • Extreme austerity in periphery • Most European banks nationalized • Catastrophic financial crisis • Global depression 	<ul style="list-style-type: none"> • Large losses on all investments, except highest grade bonds and gold

Source: Barclays Wealth

through” the problem over a long period of time. We anticipated that this muddling process would be accompanied by periodic spikes of market volatility and would continue to be a source of uncertainty and risk for investors. This is still our view. But now, having presented our full analysis of the situation, we are in a position to add some detail.

When we speak of “muddling through” we mean that the probabilities of a quick resolution or a catastrophic collapse are quite low. We see four possible scenarios for how this situation could evolve over the next year or so (see Figure 3). The probabilities we’ve assigned to each are necessarily subjective, based on our understanding of the history of European unification and of the current financial and economic climate.

Worst Case Scenario (5%). Popular unrest in Greece could reach the point where a debt service suspension became the only option. Or, a coalition of northern European governments

could balk at providing further help. Under such circumstances, banks could refuse to lend to each other on an unsecured basis and, lacking sufficient reliable collateral in the world for secured interbank lending, the international finance system might freeze up. The effect would very likely be a resumption of the global economic downturn – a second great depression – and large losses on all investments except a very few governments’ bonds. The euro might survive this disaster, but the nature of the currency union would be very different from what it is today. This outcome would be so disastrous that policymakers will likely do what is required to avoid it.

Muddle Through Badly (45%). This is what has been happening and seems the most likely way for things to continue. Under this scenario, the Greeks, the Portuguese and the Irish reduce spending and increase tax collections less than originally agreed to but by enough to keep the bailout money flowing. The EFSF does get fully capitalized, but markets remain

skeptical as to whether the facility is large enough. The ECB continues supporting Spanish, Italian and possibly other bond markets as needed until the EFSF can assume the role of euro area lender of last resort.

In this scenario disaster is always averted, but at each point, it's a close call with temporary solutions adopted only *after* markets signal there is no alternative. Uncertainty about the outcome continues to suppress consumer, business and investor confidence. The European and global economies and financial markets remain chronically ill, neither recovering nor dying.

Muddle Through Well (40%). This is the same as the muddle through badly scenario but things evolve more quickly. The Greeks and others continue receiving bailout tranches for good faith efforts despite their failure to achieve deficit reduction goals. Euro area parliaments approve the EFSF legislation relatively easily. European banks build up their capital cushions, enabling them to realize more losses on their government bond portfolios. Problems tend to be solved before market volatility spikes. Extreme fiscal austerity keeps growth so weak that government debt continues to increase slowly as a percentage of GDP. So the fundamental problem remains unresolved and the risk of eventual default by euro area sovereign borrowers continues to unsettle markets.

Problem Solved (10%). As the crisis has progressed through a series of stop-gap remedies, more and more influential policy makers have begun talking openly about an ultimate resolution. Proposals include changes to the European Union and common currency treaties to strengthen the enforcement of fiscal integrity and provide more automatic intra-union fiscal subsidies. Doing some or all of that through a centralized issuer of "euro bonds" is an element of many of these proposals.

It is unlikely that such substantial changes could be adopted quickly. But if crisis-fatigue sets in, opinions might unify quickly around a resolution, removing the risk of euro area sovereign insolvency. If such an outcome looked more likely and nothing

adverse were happening elsewhere in the world, a sharp rally in equity markets would occur (especially the European bourses). German government bond yields would increase sharply and peripheral bond spreads would collapse.

Conclusion

These four scenarios reflect our assessment of how the situation might evolve over the next year or two. In our view, the most likely outcome of the continuing euro area sovereign debt saga is that there will be no outcome – neither financial catastrophe nor a final resolution – over the next year or so. Instead, the internal contradictions of a continental currency union that is not a fiscal union will be a source of continued uncertainty and risk and occasional opportunity for many quarters, possibly years to come. Whether it's an occasional minor irritant or a source of periodic extreme volatility will depend on how adeptly policymakers deal with the evolving situation and, very importantly, on whether the global and European economies continue to recover over time. Economic growth will make this and all other global problems easier to solve. If growth falters, everything becomes more difficult.

Over a three- to five-year horizon the likelihood of the "problem solved" outcome increases substantially. The current crisis has made it clear that the right next step is toward a robust system of fiscal integration. Member countries have already turned monetary policy over to a centralized body, the ECB. Surrender of a large degree of fiscal sovereignty would be a big next step, but it is a step that Europe should and will take.

Investment implications? Such a source of chronic uncertainty underscores why diversification³ is essential. It would be foolish to express a great deal of confidence about how this situation will work out over time. Therefore, a well conceived investment portfolio should include some investments that will do well under the more benign scenarios – global equities, euro-denominated assets, etc. – and some that will provide protection in the worst and second-to-worst cases, namely, high-quality, U.S. dollar denominated assets.

³Diversification does not guarantee against loss.

Is Asia the answer or another question?

Reconciling economic growth and stock market valuation

By Benjamin Yeo, Head of Asia Investment Strategy

- Assuming reasonably competent management, we believe Asia's economic growth rate will remain as strong in the next 20 years as it has been over the past 30 years.
- Solid economic fundamentals, burgeoning intra-Asian trade and domestic consumption will fuel the next phase of Asian growth. Exports to the developed world will play a smaller role than in the past.
- Individual country growth will diverge because of different socio-economic structures and the varying abilities of governments to promote development.
- In the medium term, China, India and Indonesia look most attractive in our view.

It appears increasingly possible that the developed economies are entering an extended period of very slow growth, a "lost decade." In evaluating the potential drivers of future global economic growth, all eyes naturally turn to Asia: Could Asia, with its historically rapid growth, burgeoning populations and industrializing economies, be the answer? Or, will Asia's economies stall too? In short, is the "Asia Story" a buy or not?

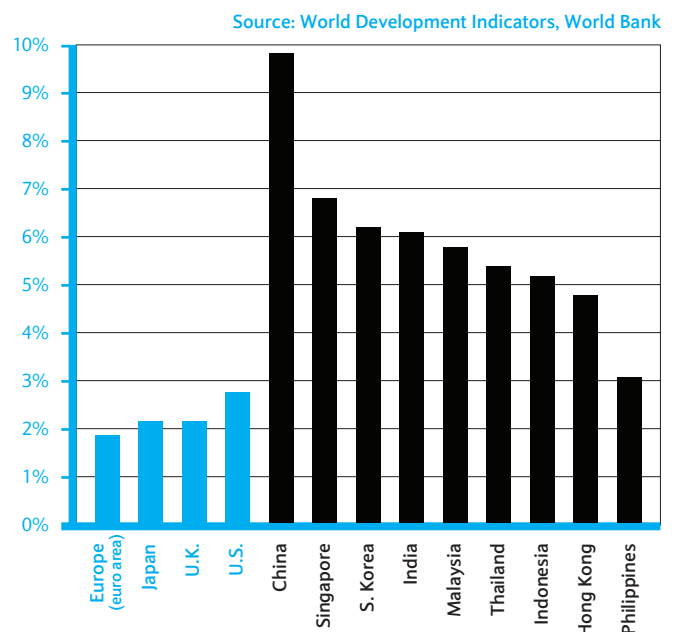
Drivers of the "Asian Miracle"

From 1980 to 2010, the average rate of gross domestic product growth among Asian countries was 5.8% — more than double the 2% average growth rate of the developed block (see Figure 1).

While the speed of Asia's next phase of expansion is unlikely to be this fast, several of the key economic fundamentals that have driven the past 30 years of economic growth remain in place.

1. An economic strategy and plan which captures the strategic pragmatism of Asian policymakers and is focused on one of two approaches:

Figure 1: Economic growth: compound annual growth rate (CAGR) 1980-2010



- a. An export-driven focus within an industrialization program that is based on a country's comparative advantages. Historically, Hong Kong, Singapore, Korea, Taiwan, and, more recently, China have adopted this strategy.
 - b. An import substitution program, driven by governmental subsidies and infant industry protectionism. India, Indonesia, Malaysia and Philippines have traditionally followed this path.
2. An educated, well-trained labor force with a very strong work ethic.
 3. A vigorous native entrepreneurial class that invests at a breakneck pace in plants, equipment and physical infrastructure. For example, the gross investment rate across Asia grew from 27% to 36% between 1992 and 2009.¹
 4. A high savings rate – the gross savings rates across Asia was 42.3% in 2009 up from 24.8% in 1982 – which has typically translated into high levels of investment. Although expected to moderate in the coming years, this savings rate should remain relatively high.

These four key factors will continue to power Asia's economic expansion in the coming decade, with a proviso: In order to sustain future growth, Asian policymakers must successfully manage certain structural transitions that are critical for investment and business planning.

- Appropriate socio-political development must accompany economic development; this maintains the social stability necessary for strategic business planning and therefore growth. Take Indonesia: During Suharto's regime, which fostered a socially unstable environment in which cronyism and corruption were perceived as

rampant, foreign investors did not want to invest and there was little incentive for work or productivity. Growth rates were below the long-term trend of 4% annual GDP growth. By contrast, since Indonesia righted its political regime in 2004 and implemented sound economic policies, GDP growth has been above 5%. Singapore, Malaysia, Hong Kong, Taiwan, South Korea, and, more lately, China number among the more stable countries in our view, while Indonesia, Thailand, Philippines and India appear more volatile.

- Technological capability must continue to increase to ensure competitiveness. The Philippines, Malaysia, Thailand and Indonesia, for example, must continue to expand their technological base. Policymakers in those countries can: (a) encourage indigenous innovation (e.g., Taiwanese and South Korean IT companies are important globally); or (b) foster technology transfer from more developed nations (e.g., government policies in Singapore, Hong Kong and China attracted multinational corporations, which then facilitated the transfer of technology).
- Infrastructure must be adequately developed or improved to eliminate economic bottlenecks. For example, in Indonesia, where GDP growth in excess of 5% is expected to continue, older infrastructure needs updating. Policymakers there are working on the land reform bills needed to facilitate transport network development and the increased economic openness necessary to attract foreign investment into infrastructure.
- Greater transparency in corporate financial reporting and management must be actively fostered to further develop Asia's domestic capital markets and attract foreign investment.

¹ Source: World Development Indicators of the World Bank. All figures in this article are from this source unless otherwise specified. <http://data.worldbank.org/data-catalog/world-development-indicators>

- Vigilant macroeconomic management is required to avoid pronounced boom and bust cycles and sustain growth. Last year offers a good example: Central banks in China, Malaysia, India, Korea and Thailand began tightening monetary policy preemptively in 2010 as inflation rose.

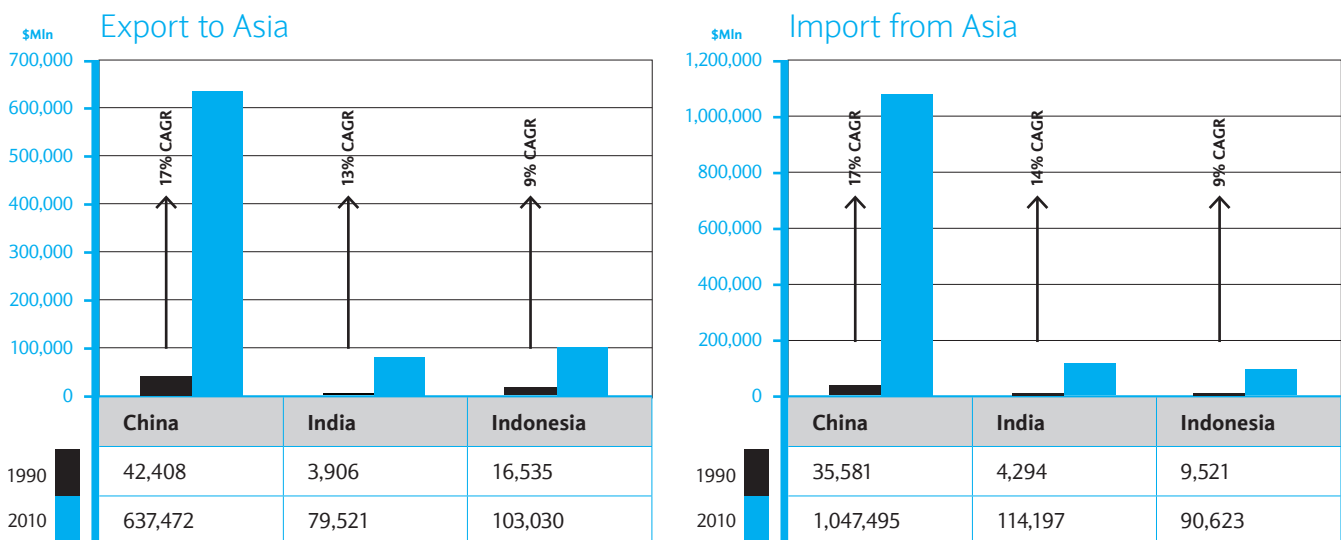
Assuming these structural elements are successfully managed, we believe that Asia's growth in the next two decades will be similar to that of the past 30 years, regardless of any slowdown or prolonged period of very slow growth in the developed economies (i.e., Europe, Japan, U.K. and U.S.). Why? Because the region will benefit from the growing impact of two trends that are not dependent on the developed economies' health: rising intra-Asian trade and increasing domestic demand and consumption.

Between 1990 and 2010, China's exports to Asian countries grew at a compound annual growth rate of 17%, India's grew at 13% and Indonesia's at 9% (see Figure 2); the imports they sourced from Asian countries grew at similarly rapid rates.

If intra-Asian exports and imports grow in China, India, and Indonesia at similar rates, the value of intra-Asian trade will double by 2015. Such an ongoing and significant increase in intra-Asian commerce will likely benefit the more open economies of Singapore, Taiwan and South Korea — which have substantial exposure to electronics, pharmaceutical, oil and IT sectors — and Hong Kong (an economic and financial gateway for China), in addition to Indonesia, India and China.

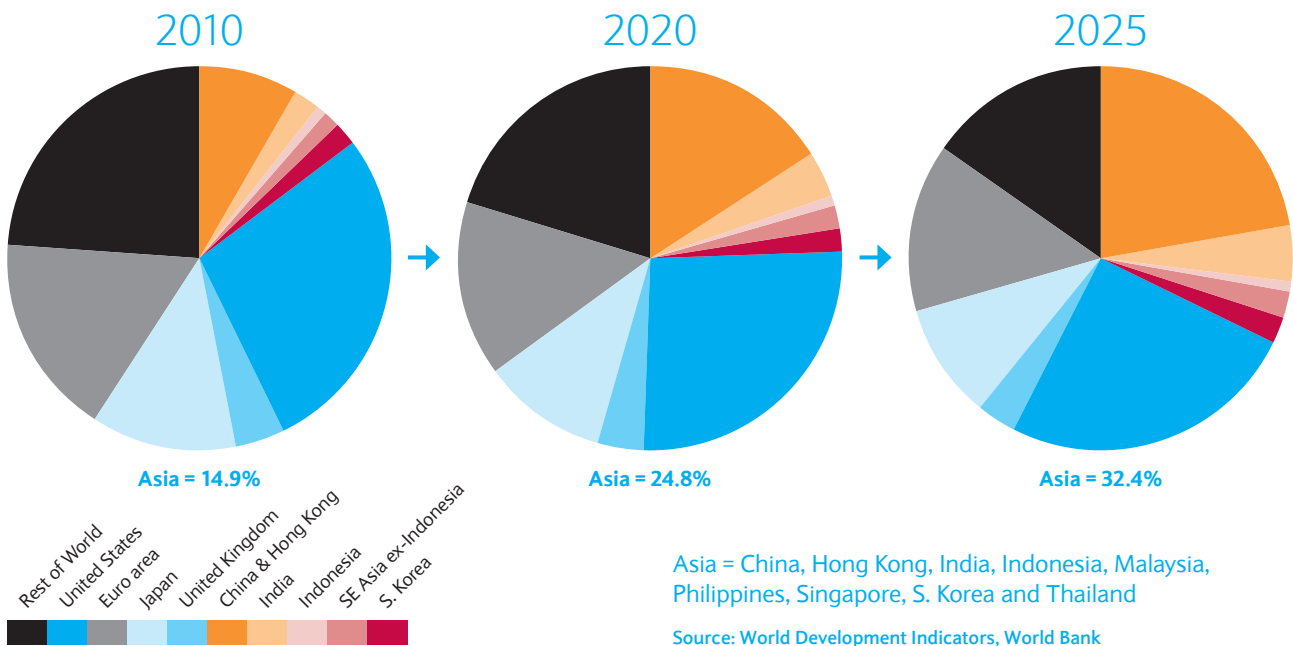
The second regional driver of Asia's future growth in the medium term, linked to the first, is rising domestic demand and consumption, especially in the countries with continent-sized potential consumption bases: China, India and Indonesia (CI²). These countries' large populations coupled with, by 2020, an emerging middle-class consumer, will drive the next phase of economic development (savings, investment, and, finally, consumption). China has 1.3 billion people (20% of the world's population), while India has 1.2 billion people (18% of global population) and Indonesia 245 million. In 2009, Chinese citizens purchased \$9.4 billion

Figure 2: Intra-Asia trade likely to support asian growth, mitigating against slower global growth



Source: World Development Indicators, World Bank
CAGR: Compound Annual Growth Rate

Figure 3: Asia's contribution to global GDP



of luxury goods, or 28% of global demand, overtaking the U.S. as the world's second largest consumer of items such as designer handbags, according to the Chinese Academy of Social Sciences (CASS). Based on current per capita income growth, China is expected to buy \$14.6 billion of luxury goods by 2015, outstripping every other country's consumption, CASS forecasts.

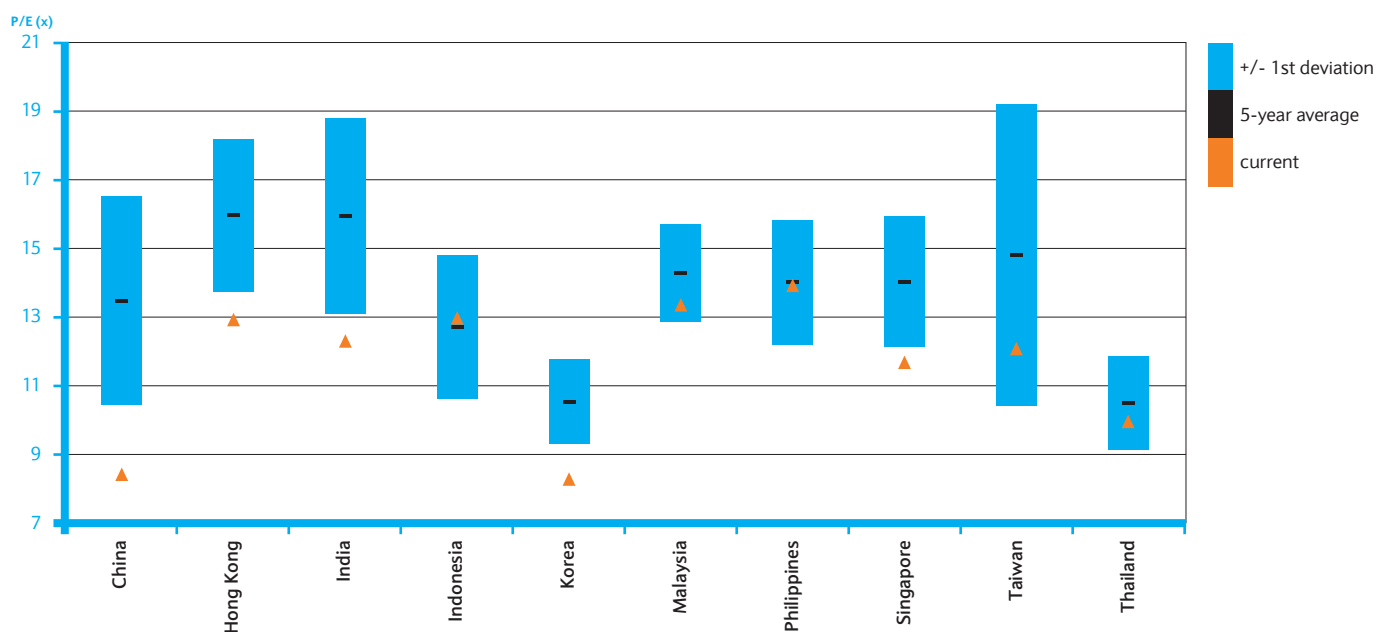
In Figure 3 above, we use individual Asian country's historical average growth rates from 1980 to 2010 to forecast Asia's growth over the coming two decades and the compound annual growth rate (CAGR) of 2.9% for the same period to forecast global GDP growth. Based on those assumptions, Asia will represent nearly 25% of global GDP by 2020, up from 14.9% last year. Even if one assumes a significant slowdown in developed economies and Latin America lowers global growth to 2.1%, the picture of Asia's importance emerges as similar.

Market Valuations vs. Expected GDP Growth

In view of the fairly positive Asia growth outlook, do the valuations of Asian equities fully reflect their prospects? Are they expensive? By traditional valuation parameters such as price-to-earnings (PE) ratios or price-to-book (PB) value ratios, we believe they are attractive. Even taking into account recent PE multiple expansions, Asian markets are trading either within one standard deviation or below one standard deviation of their five-year historical mean as of September 21, 2011 (see Figure 4); Asian equities are reasonably valued.

However, an alternative approach to valuations — one that compares the market capitalization of the country's stock market to its gross domestic product — tells a somewhat different story. In Figure 5A, we have plotted this ratio for several regions over the two decades from 1990 to 2010. A ratio above 100 suggests overvaluation, a ratio below 100, undervaluation. By this measure, global equities, especially after the recent downturn, are fairly attractive. U.S. equities are trading below their 10-year average Market Cap/GDP, although still

Figure 4: Valuations appear normal on the basis of price-to-earnings multiples



Source: Thomson Reuters, Datastream, Barclays Wealth
Data as of September 21, 2011

above the 100 mark. European equities, though below 100, are perhaps attractive but by historical comparison not as far below their norm as U.S. equities seem to be.

At the end of 2010, the Asian ratio was about 120, potentially implying overvaluation. However, this region-wide ratio masks huge valuation differences across markets. It includes, for example, the overvalued markets of Singapore and Hong Kong, where a large percentage of the total market capitalization does not contribute to local GDP (S-chips and H-shares of “foreign” companies traded on Singapore and Hong Kong exchanges). In addition, Asian markets have undergone a structural re-rating based on increasing economic development. From far below 100, the Asian historical average has been rising, hitting a peak in 2007. With the 2011 market correction, the current ratio now ranges between 104 and 110.

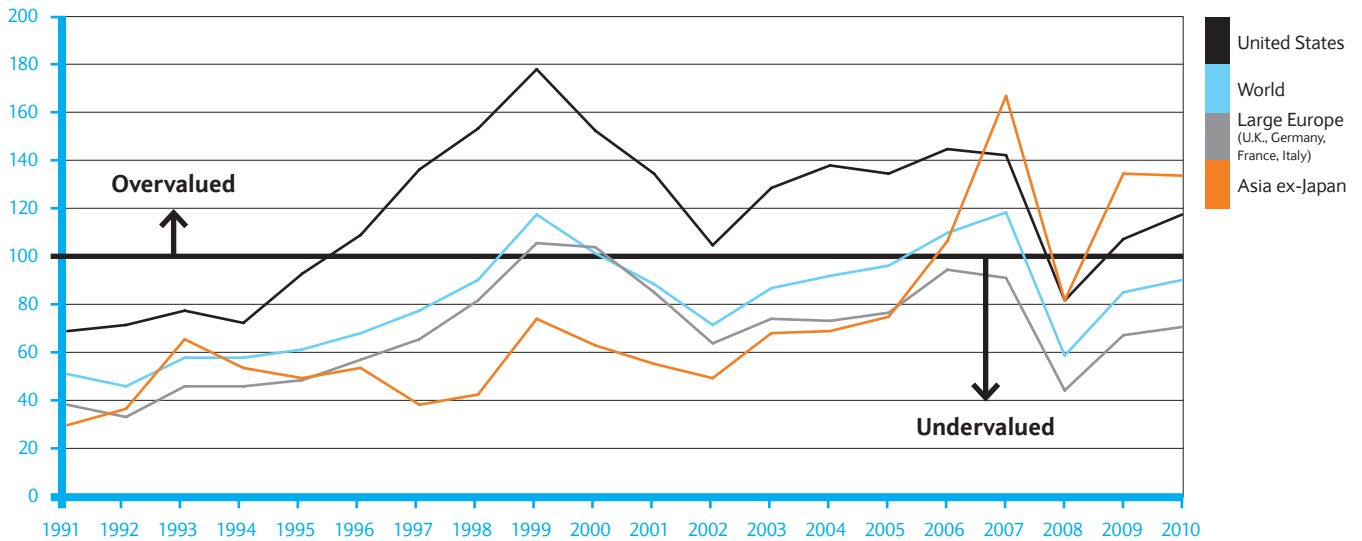
Delving deeper and looking at the CI²² countries whose medium-term outlook seems most positive, the picture

is still more compelling. China, India and Indonesia are all below 100 (Figure 5B). Indonesia’s equity market returned approximately 2% as of September 16, 2011, when most equity markets globally registered negative returns. With a PE multiple of 13.5 times, it is the only Asian equity market trading above its five-year historical average PE multiple of 12.6. So, by traditional valuation metrics, Indonesian equities may not seem compelling. However, based on the Market Cap/GDP ratio, Indonesian equities are well below 100. Further, Indonesian equities may be poised for a structural re-rating similar to that of the Asian ratio, premised on the country’s continued conducive political environment and successful resolution of obstacles to infrastructure build out.

In conclusion, assuming that the key drivers of past economic growth are in place and with burgeoning intra-Asian trade and domestic consumption, Asia’s economic growth over the next 20 years is likely to resemble the astonishing expansion of the past 30 years.

²²China, India, Indonesia

Figure 5A: Global market cap/GDP (1991 to 2010)

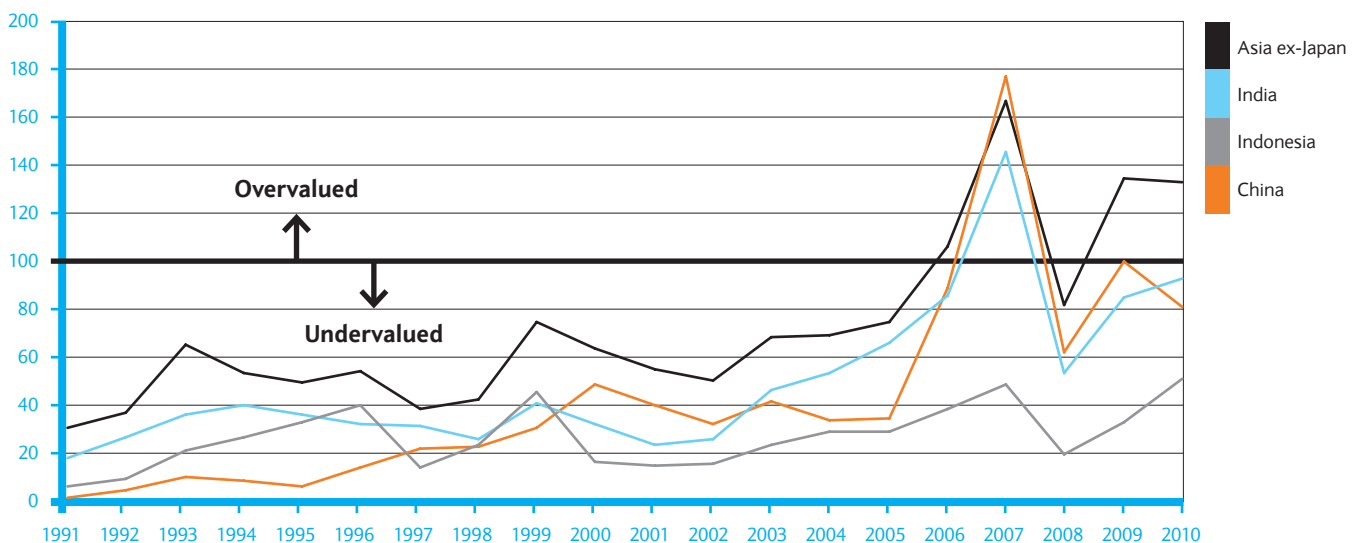


Source: World Development Indicators, World Bank

Of course, policy makers must continue to manage successfully the key structural factors needed to facilitate corporate strategic business planning and attract foreign direct investment.

While there will be divergent economic performances of individual countries due to differences in socio-economic structures and the varying abilities of governments to promote factors conducive to growth, in our view China, India and Indonesia look most attractive.

Figure 5B: Asia market cap/GDP (1991 to 2010)



Source: World Development Indicators, World Bank

What should I do?

Translating long-term trends into action

By Greg. B. Davies, Head of Behavioural Finance

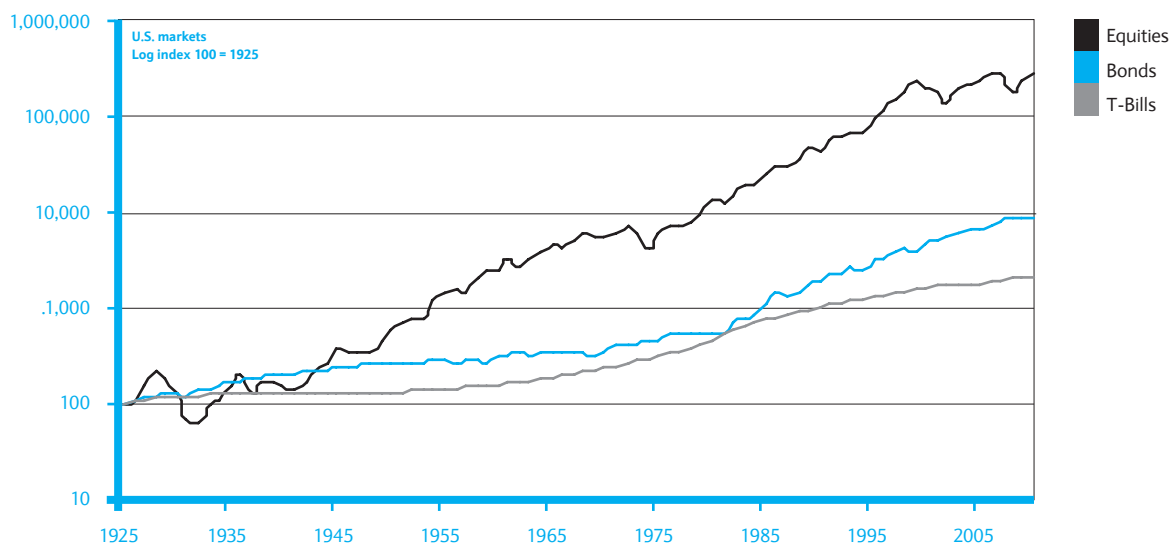
- Over the long term, investors have been rewarded for taking on risk.
- Good investment decisions can be made without the use of a crystal ball.
- Psychological liquidity is just as important as financial liquidity when making investment decisions.
- Diversification, rebalancing and tactical portfolio adjustments are key to successful investing.¹

The further we look into the future, the murkier the outlook becomes. This is an incontrovertible truth. In investing, however, we can frequently have greater confidence about long-term outcomes than about short-term performance. That's because the further ahead we look, the less individual events matter (their idiosyncratic effects average out over time) and the more we can rely on universal features of risk and return.

Risk vs. Reward

The core principle of investing is that in the long run, investors have on average been rewarded for taking risk. The reason is: investors are reluctant to buy risky assets unless they are sufficiently cheap to compensate for the potential losses. If assets are too expensive relative to the risks, then investors will sell, depressing prices and thus reinstating the long-term reward for taking risk. Sometimes markets err and prices are too high relative to the risk; sometimes new risks materialize and the

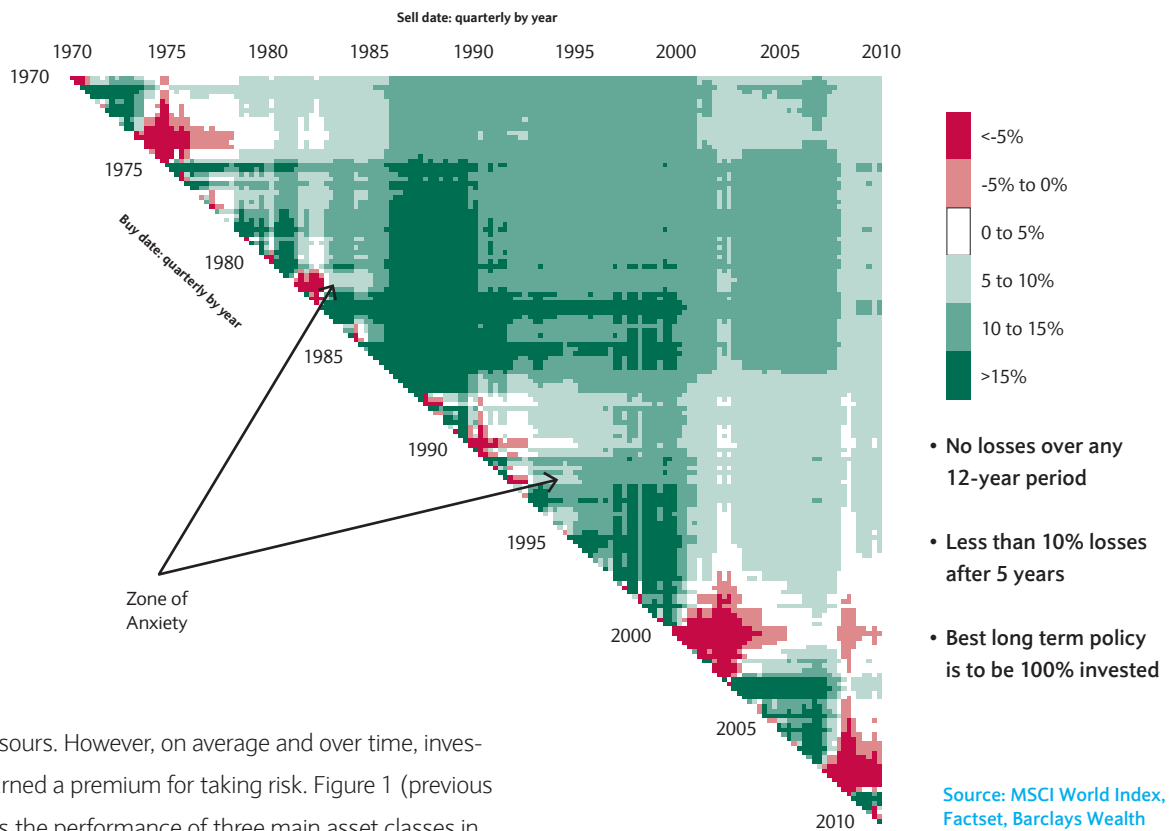
Figure 1: Performance of U.S. bond and equity markets



Source: Barclays Capital, Datastream

¹ Diversification does not protect against loss. Rebalancing does not guarantee an investor's goals and objectives will be met.

Figure 2: MSCI World annualized returns based on quarterly buy and sell dates



investment sours. However, on average and over time, investors have earned a premium for taking risk. Figure 1 (previous page) shows the performance of three main asset classes in the U.S. from 1925 to today. On occasion the riskiest asset class, equities, has underperformed safer bonds or even treasury bills. Indeed, for the first two decades, a bond investor would appear the winner, but an investor who had put 100% of his wealth in a diversified equity portfolio in 1925 would be vastly better off today than with any safer asset class.

The fact is that equity markets are risky, which is why they typically offer better returns in the long run. Although the future becomes murkier the further ahead we look, investing sensibly in risky assets is a lot less uncertain in the long run than in the short run, particularly if we follow basic principles to reduce risk and get through short-term uncertainty.

Moving Beyond the Zone of Anxiety

The heatmap in Figure 2 shows equity returns are more uncertain in the short term. Each spot in this chart shows the average annual returns investors could have achieved

by investing in the MSCI Developed World Equity index based on when they bought and when they sold from 1970 to today. The diagonal line from top left to bottom right shows every possible quarterly purchase date over the period; the dates along the top represent each point at which the investor could have sold. Thus, the red spots close to the long diagonal show the negative returns that investors would have suffered if they had bought into falling markets and sold shortly thereafter, e.g., during 1970s stagflation, the early 2000s Internet bubble collapse, or the 2008 financial crisis.

Each possible diagonal line represents the distribution of returns arising from any particular holding period. So, for example, the longest diagonal shows the distribution of returns for just one quarter – we see irregular oscillations between extreme red and extreme green.

We have drawn two other black diagonal lines, showing five-year and 12-year holding periods. For investments held for longer than 12 years, there is no red, regardless of when they were purchased. Most of the red appears in holding periods of under five years, which we call the *Zone of Anxiety*. Beyond it, the proportion of losses is less than 10% for all holding periods. That's because unpredictable and extreme events tend to average out over time. If we're prepared to hold on to our investments over long periods then we can be much more secure in our assessment of risk and return.

The problem is this: we live perpetually in the short-term, in the here and now, in the *Zone of Anxiety*. So we are always buffeted, financially and emotionally, by the short-term's extreme uncertainty. To profit from the green beyond 12 years, we must be able to continually cope with the trials of the present. This is never easy: the inevitable patches of red are always accompanied by stress, doubt, fear and anxiety.

The surest way of reducing long-term returns is not, as one might assume, investing at the wrong time; it is *selling* at the wrong time. Stretching vertically from the recent red patches of this century all the way up through the entire map are stripes of white and of lighter green. Investors who sold in these periods of crisis harmed their long-term returns, no matter how long they had been holding their investments.

To avoid this disastrous result, we must first ensure our financial liquidity needs are met so we're not forced to sell at the worst times because we need the cash or are overextended on borrowing. In addition, we must arm ourselves with 'psychological liquidity'. To do this, we need to understand our financial personality, in particular our *composure*, our natural degree of emotional engagement with the short-term. Ensuring we develop and follow a thoughtful, sensible investment decision making framework can also help reduce the costs of anxiety.

Improving Long-Term Expected Returns

Let's examine three simple but powerful approaches to investing that can both improve long-term expected returns and also reduce short-term anxiety.

Diversification

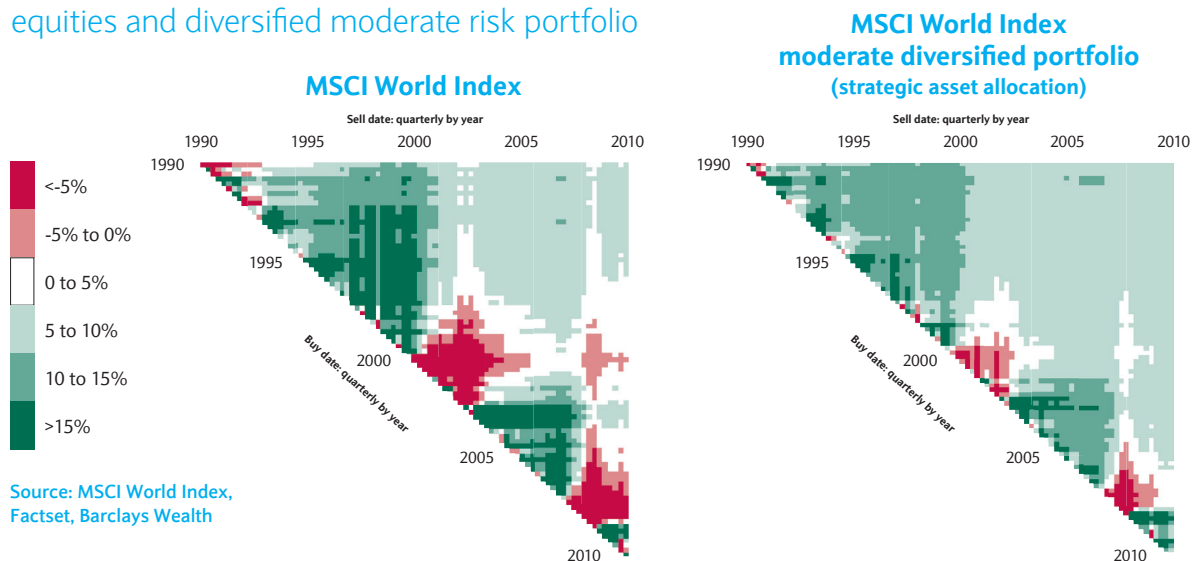
The first is diversification: the map to the left examines only the returns from a single asset class, developed market equities. Whilst the MSCI World index reflects a globally diversified portfolio of equities, great improvements can be achieved by investing in an asset allocation which blends equities with a broad range of asset classes including cash, bonds, emerging market equities and alternative investments. It is well established that diversification can improve the long-term risk-return characteristics of a portfolio. Just as important, diversification helps to reduce the proportion of red in the short term, making it much easier for investors to cope with the zone of anxiety, as long as they keep focused on the overall portfolio and avoid getting too caught up in the details. Barclays Wealth's Strategic Asset Allocations seek optimal combinations of the full range of investable asset classes that provide the best possible long-term risk and return characteristics.

Figure 3 (following page) focuses on the period from 1990 to today, showing how the use of the diversified strategic asset allocations for a moderate risk portfolio improves not only long-term performance but also substantially reduces both the magnitude and intensity of the red patches in our heatmap.

The Art of Rebalancing

The second essential approach to surviving the *Zone of Anxiety* is more active. It requires responding to events as they unfold, but doing so in a systematic way. We are all prone to *action bias*, the desire to *do something* in times of turmoil. But, unfortunately, human psychology inclines us to respond to events in precisely the wrong way. We feel more comfortable taking risk when times are good, and avoid risk when we feel uncomfortable.

Figure 3: Returns of diversified developed market equities and diversified moderate risk portfolio



Source: MSCI World Index, Factset, Barclays Wealth

The Diversified Moderate Risk Portfolio consists of nine asset classes using the following benchmarks: **Cash and Short Maturity Bonds:** Barclays Capital Global Treasury 1-3y (Hedged in USD); **Developed and Government Bonds:** Barclays Capital Global Treasury 7-10y (Hedged in USD); **Investment Grade Bonds:** Barclays Capital Global Credit - Corporate (Hedged in USD); **High Yield & Emerging Markets Bonds:** Barclays Capital Global HY (Hedged in USD) (83%) & Barclays Capital Global EM (Hedged in USD) (17%); **Developed Markets Equities:** MSCI The World Index NR (USD); **Emerging Markets Equities:** MSCI EM (Emerging Markets) NR (USD); **Commodities:** Dow Jones-UBS Future Commodity Index; **Alternative Trading Strategies:** equally weighted across these four: HFRI Relative Value TR, BarclaysHedge Global Macro, Credit Suisse-Dow Jones Event Driven and Credit Suisse-Dow Jones Managed Futures; **Real Estate:** MIT/CRE TBI US Index (LOC) (70%) & IPD UK (LOC)(30%).

Simulated, modelled or hypothetical performance results have certain inherent limitations. No representation is being made that any client will or is likely to achieve the hypothetical returns represented above. These simulated results are presented gross of all management fees. Such results are hypothetical and do not represent actual trading, and thus may not reflect material economic and market factors, such as liquidity constraints, that may have had an impact on the Barclays Wealth Americas' actual decision making.

This leads us to increase risk after markets have risen (buying high), and exiting risky assets when markets are falling (selling low).

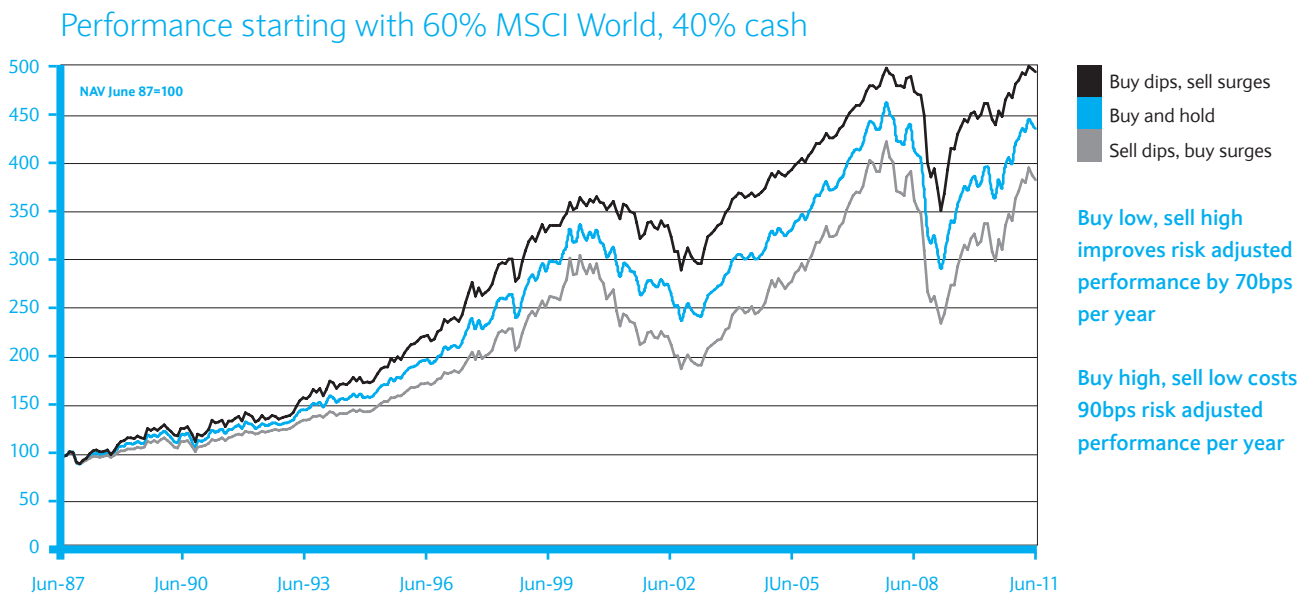
This can be effectively combated by simple rebalancing. Whenever assets increase in value such that their share of our portfolio grows, we can reduce our holdings to bring them back into line with our long-term asset allocation. When assets decrease as a share of our portfolio, we can increase our holdings. In doing so, we ensure that in small continual ways we buy low and sell high. Our natural inclination is, however, to “unbalance,” to buy more of what has gone up and to sell decreasing assets out of nervousness.

We can also harm our performance in much more significant ways: by selling out of investments to a great degree when we feel the fear that accompanies a red zone, and by enthusiastically chasing rising markets when we find ourselves in

a short-term green zone. This reflex to buy high and sell low is a response to our emotional needs in the Zone of Anxiety. Rather, we should stay focused on our true long-term investment objectives.

To illustrate the substantial effects of how we respond to events over time, Figure 4 reconstructs the performance of a single portfolio, starting with 60% in the MSCI World Index and 40% in cash, using three different investment approaches. The first approach (the blue line) is a simple buy and hold strategy: don't respond to events at all. The second approach (the green line) is a combination of regular monthly rebalancing and buying on dips/selling on surges (when the index falls by more than 20% in a 12-month period, we increase the equity allocation by 20%, and when it increases by more than 25% in a 12-month period, we reduce the allocation by 20%). The third approach is a combination of monthly “unbalancing,” with selling on dips and enthusiastically joining the herd to buy surges.

Figure 4: Performance comparison of a single portfolio under three different investment approaches²



Source: Barclays Wealth

The results are dramatic. Relative to the buy and hold strategy, the approach we naturally fall into by chasing emotional comfort costs us 90 basis points of risk-adjusted performance per year. In fact, studies of actual investor behaviour have shown that this figure is quite conservative. A recent Cass Business School study, sponsored by Barclays Wealth, showed that U.K. equity investors on average gave away 120 basis points annually over a 20-year period. Many other studies have found even higher “investor behaviour penalties.” By contrast, a simple process of rebalancing, and buying low, selling high, leads to an annual risk-adjusted improvement of 70 basis points per year. This difference in approach equates to an annual risk-adjusted improvement in performance of 1.6% per year. Compounded over the long term, this amounts to a very significant difference in performance.

Conclusion

Both of the approaches we’ve discussed thus far, diversification and rebalancing, can be implemented by absolutely anyone without requiring any prediction of future events. However, we can do better than this. The last approach involves taking to heart the insights in the other articles in this publication.

We don’t have to rely only on the rear view mirror, because as we’ve seen in these articles, over the medium- to long-term, we have significant knowledge and strategic analysis that we can bring to bear to understand how events might unfold. It would be a mistake to use this analysis to second guess what might happen next week. But over a three- to eighteen-month timeframe, we can have a much greater degree of confidence in both our expectations for the future and the associated risk.

We can supplement sensible backward looking responses to events with educated forward looking views. This enables us to understand when it might be good to tactically overweight certain asset classes and underweight others. Taking one last glance at the heatmap we can see that, even though in the long-term we can rely on getting to greenery eventually, there are also times when we can improve our long-term returns by assessing when to tactically adjust our portfolio. Our Tactical Asset Allocation Committee meets fortnightly to reevaluate our current tactical investment weights and this can be added to the strategic benefits of diversification and rebalancing to further improve our ability to survive our perpetual existence in the zone of anxiety.

²Since markets on average go up, the dip vs. surge asymmetry is necessary to ensure comparable average equity allocations between the approaches over the whole period.

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