

## The next lost decade?

The US is currently facing what could be the worst financial crisis since the 1930's. As bank failures spread and the economic backdrop deteriorates, fears that the US will mimic Japan's period of anaemic growth and falling asset prices have intensified. In this edition of *Fundamentals*, Legal & General Investment Management (LGIM) Economist, Tim Drayson, examines the similarities and key differentiators between the two periods of decline, and critically evaluates what it means for the fate of the US economy.

At the end of the 1980s, Japan's business model was revered around the world. Unemployment was negligible and household wealth had increased substantially. The expansion ran out of control after international pressure to reduce trade imbalances encouraged a halving of interest rates to 2.5% in 1987. This fuelled a surge in credit and asset prices. Inflation began to increase in 1989 and interest rates were raised to cool the economy. Policy was tightened

for the last time in the summer of 1990 even though the stock market had fallen sharply and property prices were cooling. The Bank of Japan was worried that the fall in the yen would add to inflationary pressure. Growth slowed sharply in 1991 and has never fully recovered since, averaging only a little above 1% over the last sixteen years. House prices have fallen almost continuously and the economy has been mired in deflation.

Pre-crisis	Japan	US
Build up of debt	✓	✓
Extensive use of leverage	✓	✓
Belief asset prices wouldn't fall	✓	✓
Business investment boom	✓	✗
Housing investment boom	✓	✓
Strong productivity growth	✓	✓
Low unemployment	✓	✓
Low Inflation	✓	✓
Low government debt	✓	✓
Fiscal deficit	✗	✓
Current-account deficit	✗	✓
Low household saving	✗	✓

Figure 1  
Source: LGIM



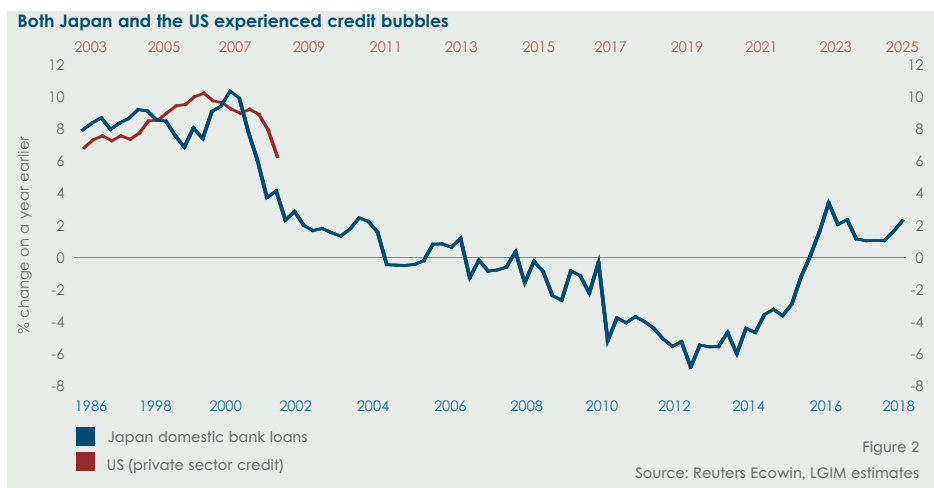
### Inside:

Market Overview

Snapshot: The Great Depression

Forecast: Emerging economy slowdown

# Article Contd.



There are fears the US is about to follow the Japanese experience. Both countries share similar characteristics prior to the initial downturn (Figure 1). Unemployment was low and inflation was under control, but just starting to rise. Confidence was high that the strength in productivity growth would be sustained. Credit growth was strong, underpinned by increasing use of leverage. Japanese domestic bank loan growth neared 10% in the late 1980s and US private sector debt has grown at a similar rate over the last few years (Figure 2). Fuelling the credit boom was a belief in both countries that house prices would never fall.

### It's what's inside that counts

While there are similarities there are also some important differences. The real estate and particularly stock market bubbles in Japan were significantly greater than those we have seen in the US. The US has not experienced a business investment boom (Figure 3) and home-building has already adjusted down to historically low levels.

In contrast, the excess capacity created by Japan's overinvestment contributed to the slide into deflation. Unfortunately, the US also has some less favourable characteristics. It starts the downturn with a weaker fiscal position than Japan and a very low household saving rate. The latter is reflected in the large current-account deficit and makes the dollar vulnerable should overseas investors become less willing to finance it.

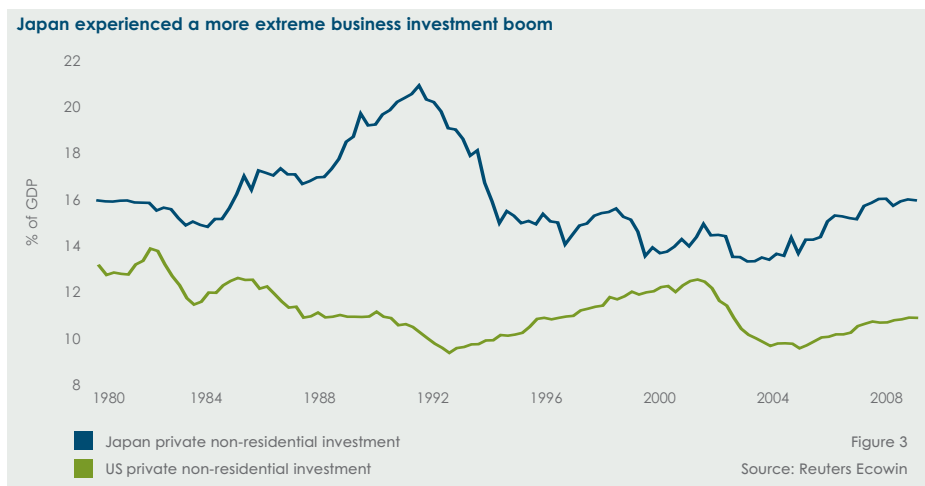
### Case study – Japan

The first recession in the early 1990s in Japan was not too severe. The Bank of Japan didn't see the necessity to cut interest rates rapidly and remained concerned about inflation as the yen was initially weak. The first rate cut only occurred in mid-1991. By this point the stock market had fallen by around a third. There was only a mild contraction in output in 1992 which served to eliminate the positive output gap created by the preceding boom. In the initial phase of the downturn Japanese loan growth slowed sharply but still remained positive. The Japanese credit crunch didn't really begin until several years later. As growth recovered in the mid-90s, led primarily by domestic demand, bond yields rose. Unemployment only rose slightly in the downturn reflecting the corporate culture of job security.

Stocks fell sharply in Japan in 1991 and 1992, but even at their lows, prices were still above levels seen at the start of 1986 (Figure 4). Residential land prices lagged the decline in stock prices and in the initial stages the falls in house prices were not particularly large.

With hindsight the Bank of Japan was far too slow to cut interest rates, but at the time there was no major event to trigger an aggressive response. Certainly Japan didn't face the seizing up of credit markets that are currently plaguing the US. The first major bank crisis didn't happen until December 1994 with the failure of two urban credit cooperatives, Tokyo Kyowa and Anzen. Asset prices appeared to be adjusting to more realistic levels without much of an output loss. There was widespread belief of decoupling between the financial and real economy. It was thought Japan's industrial strength would allow it to weather the asset market declines without lasting damage.

Inflation continued to moderate in 1992 and 1993, but interest rate cuts lagged behind the drop in inflation, leaving real interest rates positive. With growth recovering in 1994, interest rates were left on hold, even as inflation fell further. Inflation hovered around zero for the next couple of years, but this was partly the result of the sustained appreciation of the currency. In real trade-weighted terms, the yen rose 40% between 1990 and 1995.



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The more serious deflation didn't begin until the onset of the severe recession in 1997-98. This downturn was exacerbated by the Asia crisis and the decision to tighten fiscal policy by around 2% of GDP in April 1997 via a combination of tax rises and spending cuts. Banks were slow to get rid of their bad debts and recapitalise in earlier years, leaving them ill-equipped to cope with the 1997 recession. In addition, some high-profile financial company bankruptcies in 1997 triggered a sharp rise in household saving. This exacerbated the recession and by the end of the year land prices were falling more rapidly than at anytime since the bubble burst.

### Key differences between the US & Japan

Events have unfolded much more abruptly in the US than in Japan. While the US economy is not yet technically in recession, labour markets and the financial sector are adjusting rapidly. Unemployment has risen sharply and there have already been several high profile bank failures. House prices have fallen sufficiently quickly to restore affordability (figure 5) – though it's hard to get a mortgage at present and new home building is now running below sales. It will take time to work off excess inventories, but this should allow house prices to stabilise much more quickly than in Japan which failed to address its glut of properties.

A combination of a different regulatory and political structure than Japan and

intense market pressure is forcing a rapid restructuring of the US financial system. Insolvent banks are closing, which means those left should be better placed to resume lending. The close ties between Japan's banks and companies meant they were too reluctant to let failing firms fold. This left banks in a poor position to extend fresh loans to growth industries. Japan's deflation compounded the problems and US policy-makers are determined not to repeat the same mistakes.

Crucially, the Federal Reserve (Fed) has recognised the dangers that deflation pose in a highly indebted economy and has aggressively cut interest rates. Real interest rates are now negative, even using core CPI. If the Fed sees any sign that core inflation could fall much below 2% it is likely to cut interest rates again.

### Mind the liquidity trap

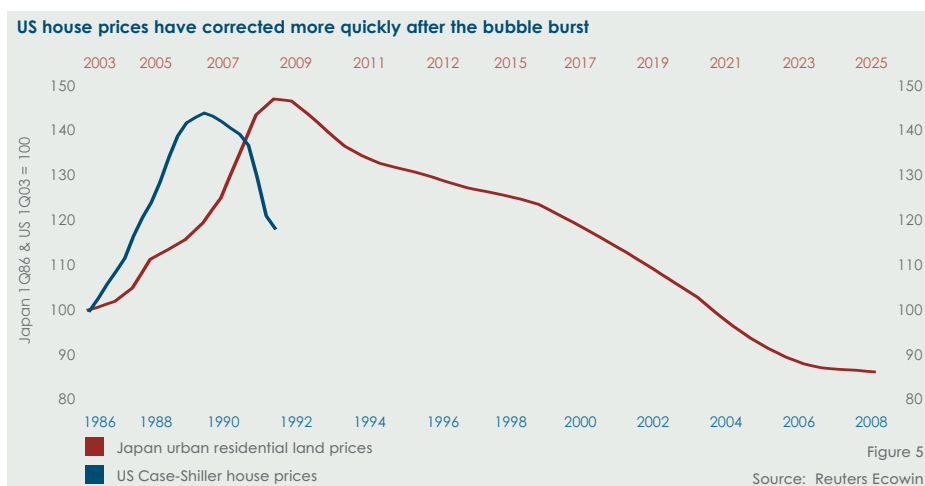
Japan was stuck in a liquidity trap once interest rates fell to zero, yet as Fed Chairman Ben Bernanke discussed in his now famous 2002 speech 'Deflation: making sure 'it' doesn't happen here', there are several unorthodox measures a central bank can use even after policy rates have reached zero.

The most extreme involves printing money. Despite the creative techniques used to get liquidity into the system over the last year, the Fed has not yet resorted to these radical options. The Bank of Japan has been constitutionally banned from printing money following the disastrous attempt to solve the fiscal crisis immediately after the Second World War. This led to hyperinflation.

The irony is that resorting to the printing press might have helped Japan because it does not rely on external financing. In contrast, the US still has a large current-account deficit, requiring nearly \$800bn of financing a year. The dollar would be vulnerable if there was any sign the US was printing money. If the rest of the world were to lose confidence in the dollar, there would be little the US authorities could do to prop it up.

### Risks remain

Japan had a strong fiscal position as it entered the downturn. The public finances were in surplus and national debt was low. Japan first attempted to use fiscal policy to revive the economy in the spring of 1992



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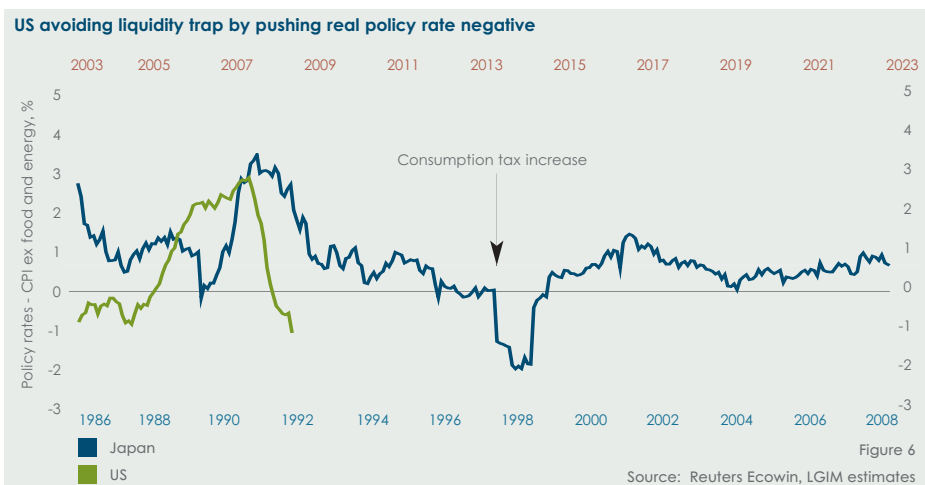
(Figure 6). One of the problems with using fiscal policy was that whenever a stimulus package was announced, bond investors would anticipate a recovery. Bond yields would rise, increasing borrowing costs and short-circuiting the recovery. With the US public finances already showing a large deficit entering the downturn and the additional cost of the Troubled Asset Relief Program and the nationalisation of several financial institutions, the US needs to be careful not to raise concerns about its ability to pay off its debt.

A rise in government bond yields would choke off any chance of a recovery. Conversely, if bond yields fall, reflecting the willingness of foreigners to continue funding the deficits and fears of deflation then there would be scope for a further expansion of fiscal policy to boost growth. This means we see limited downside risks to bond yields even in a weak growth environment.

One further concern is a potential rise in protectionism. It seems unlikely US authorities will go down this path as exports have been one of the few areas of strength in the US economy and will need to continue growing to help preserve jobs.

### Trust in the Fed

We are confident the Fed has the ability to avoid a repeat of Japan's experience with deflation even if it risks a weaker dollar and higher long-term inflation once the economy recovers. Even so, a period of



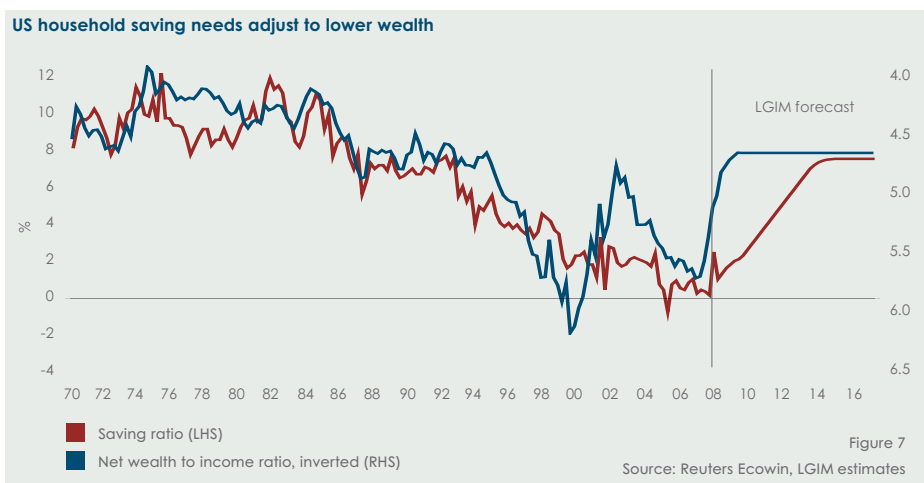
weak US growth now seems inevitable. US households have borrowed consumption from the future. This is best illustrated by the drop in average homeowner equity in homes from 65% in 1990 to 45% now. This ratio will drop further as house prices continue to fall. Over the next few years, homeowners will have to save more and inject equity into housing (Figure 7).

Consumer spending accounts for 70% of the economy, so each one point move in the saving rate (all else equal) changes domestic demand by almost 3/4 of a point. The difficulty is raising the saving ratio without having a severe impact on consumption. If households decide to save more and lower spending, this will undermine income growth for others, making it harder for them to rebuild saving. We estimate that for every one percentage point rise in the saving ratio, consumption

growth will fall by two percentage points. Any rise in the saving ratio will need to be very gradual to avoid a sharp deceleration in consumption growth. This is why real interest rates are likely to remain low in the US for a prolonged period.

### The bottom line

To summarise, the US is heading into recession along with many other developed economies (Figure 8). Concerns that the US might repeat Japan's experience are likely to intensify. But we believe that policy-makers will cut interest rates aggressively to ward off this threat. Globally short-dated government bonds should perform well. If conventional efforts to reflate fail to gain traction, the US is likely to pursue more unorthodox policies. This should prevent a sustained bear-market in equities and housing, but also put a floor under long-term bond yields and could undermine the dollar.



	Japan	US
Falling asset prices	✓	✓
Bank failures	✓	✓
Prompt monetary policy response	✗	✓
Prompt fiscal policy response	✗	✓
Financial sector restructuring	✗	✓
Deflation	✓	✗
Unstable currency	✗	?
Rise of protectionism	✗	?

Figure 8 Source: LGIM

## Market Overview

Traditionally, September is a bad month for financial markets, this year it has been catastrophic. A year on from the US sub-prime housing fall-out, the credit crisis has now claimed a number of large, high profile casualties.

What started out as US housing market weakness has quickly spread throughout global financial markets, severely undermining the financial sector. As a result of growing risk aversion, banks have moved to keep hold of liquidity, reduce their leverage and limit the amount of loans they make. In aggregate, this has caused tighter credit conditions globally. This is significant as bank credit availability is a key driver of economic activity. Ongoing turmoil in the banking sector, tight lending standards and rising unemployment continue to undermine the significant monetary easing by the Federal Reserve (Fed) and tax cuts from the US Government that have occurred to date.

Central banks have responded to recent events by trying to provide liquidity to the banking system in order to restore confidence and entice banks to begin lending to each other again. The good news is that oil prices have fallen, inflationary pressures are easing and global monetary and fiscal policy are now more stimulative, this should be positive for sentiment and markets.

## Equity Overview

### UK Stabilising the system?

While the market rose 4.3% in August, the turmoil currently playing out in the financial sector has led the UK equity market 13.5% lower in September and caused significant sell-offs during the start of October.

While some commentators have blamed 'speculators' for the collapse in banks' share prices, this view is simplistic as in the long run share prices are determined by fundamental valuation – which has changed dramatically as the credit cycle has turned.

We have been extremely cautious on UK banks for some time and we are now at a very serious juncture, where the risks of systemic failure are high. In response, the UK government has recently announced significant measures aimed at stabilising the banking sector.

We remain cautious on shares in businesses which have their profits heavily leveraged to the economic cycle and prefer more defensive positions in sectors such as healthcare and utilities.

### US Student of the Great Depression

After rising 1.2% in August, US equities slumped almost 10% in September and the losses have continued into October. In fear of the economy spiralling into a Japan-style slowdown, the Fed appears to be willing to take any steps necessary to address the financial crisis and stabilise the economy. Chairman Ben Bernanke has studied the Great Depression in detail and has expressed before how determined he will be to prevent deflation happening again. The Fed's latest measure to directly buy commercial paper reinforces this view.

However, despite measures taken by the Fed (and other central banks), it is unlikely that a recession in the developed world in 2009 will be prevented. As growth slows, US corporate earnings should fall sharply during 2009, perhaps by a further 20%. However, equity markets appear better placed for a downturn in earnings than they were in 2001, with valuations more attractive. This should limit the extent of share price declines and further policy easing could provide markets with some support.

### EUROPE Combating the crunch

As measured by the DAX index, the German equity market lost around 9% during the month of September and the French CAC 40 index declined 10%. Ongoing shocks to the banking sector and a deteriorating economic outlook have sent these markets even lower at the start of October.

As the financial crisis has spread, the European Central Bank has become less interested in fighting inflation and more concerned about the ongoing slow down in economic growth. With the outlook for the world economy arguably the weakest we've seen in some 40 years, equity markets have been under significant pressure.

European equity markets were particularly shaken during September as governments in Belgium, the Netherlands and Luxembourg were forced to step in to save Belgium's biggest bank, Fortis and the German government stepped in to support the country's second-largest commercial property lender, Hypo Real Estate.

### Major Equity Markets – Total Returns £ 2007/2008

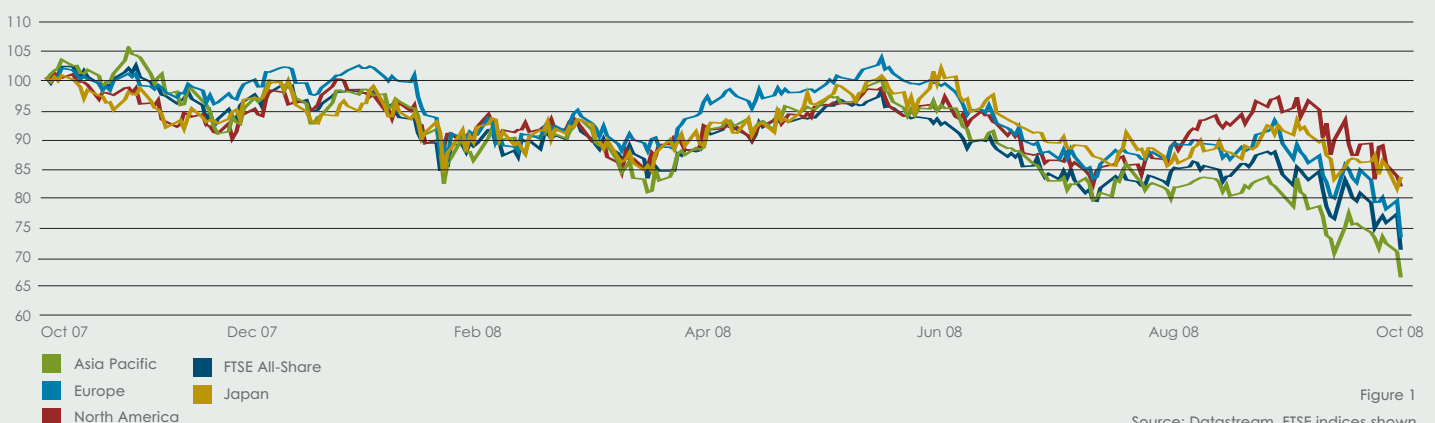


Figure 1

Source: Datastream, FTSE indices shown

## Equity Overview Contd.

### JAPAN

#### Unwinding the carry trade

The Japanese sharemarket fell 14% during September. At the end of the month, Japanese equity market valuations were around 34 year lows and more than half of the market is trading below book value, and declines have intensified during the start of October.

The past several years saw the development of a 'yen carry trade' where investors sought to take advantage of the low interest rate environment in Japan to borrow in yen and invest in higher yielding assets in other markets (typically the US government bond market).

This has kept the yen low relative to its major trading partner's currencies. However, the yen has had a rebound in recent months as the yield on US government bonds has fallen and investors have 'unwound' their positions.

### ASIA / EMERGING MARKETS

#### Slowdown ahead

Despite a number of emerging economies being less affected by stress in global credit markets, equity markets in the region have not escaped the recent sell-off. In September, resource intensive markets declined the most, with Indonesia down -18.8%, Taiwan falling -16.8%, China slumping -20.1% and Russia -26.4% lower. The losses as we go into October, so far, have been even more severe, the Philippines, Malaysia and South Korea have held up slightly better.

Our estimates for emerging market economies now point to a significant slowdown ahead. Strong credit growth has been an important driver of emerging market growth and is likely to suffer as risk aversion rises.

Also stock prices have fallen significantly and a weaker outlook for the global

economy is bad news for commodity prices and global trade (significantly affecting key exporters in the region).

During the past month, the People's Bank of China cut official interest rates for the first time in six years.

The medium term outlook for Asian and emerging markets is likely to be driven by the extent of the slowdown in the global economy, and the trajectory of oil and commodity prices.

Economies such as China and India have been less affected by the stress in global credit markets. However they are vulnerable to a slowdown in the real economy. China looks best placed to stabilise economic growth, but its challenge is to generate enough additional growth from domestic demand to make up for a shortfall in exports.

## Fixed Income Overview

As the credit crisis continues to wreak havoc through both credit and equity markets and economic growth in the developed world grinds to a halt, investors have sought the safety of government bonds. However, much of this theme has already been reflected in lower yields (which mean higher bond prices), meaning the potential for further gains are limited.

Index-linked government bonds now look the more attractive as real yields have risen and break-even inflation rates have fallen.

Despite proposals to stabilise the US financial system and a further co-ordinated injection of funds into the money markets by the major central banks, confidence amongst corporate bond investors remains extremely fragile.

Major Bond Markets – Total Returns £ 2007/2008

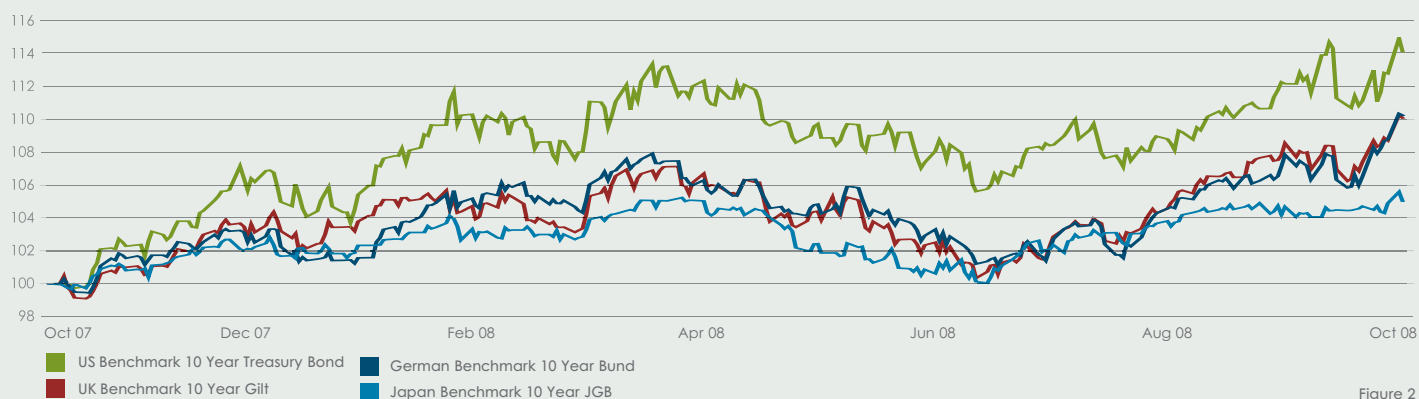
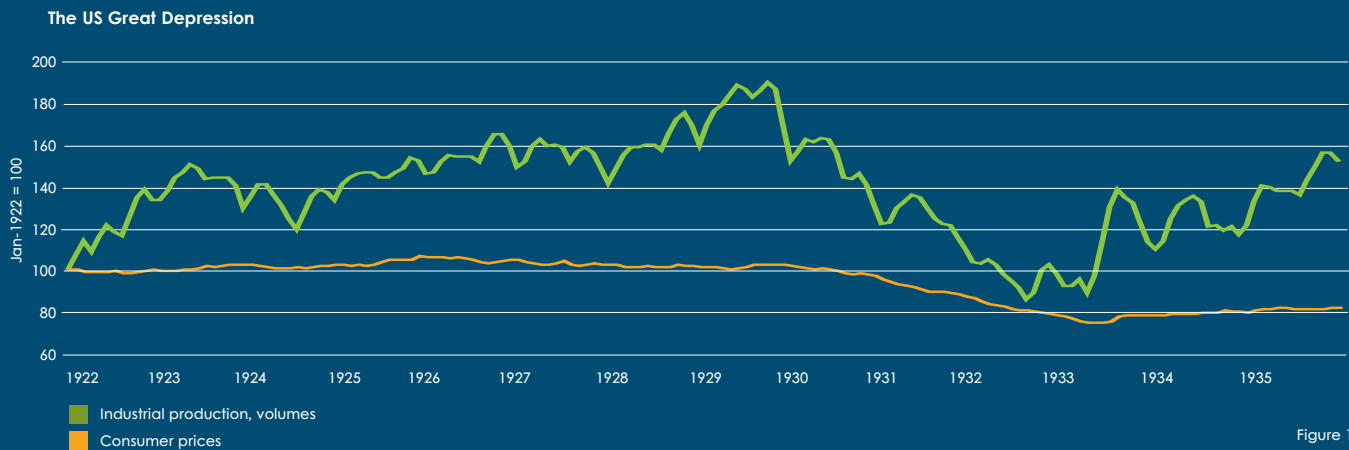


Figure 2  
Source: Datastream

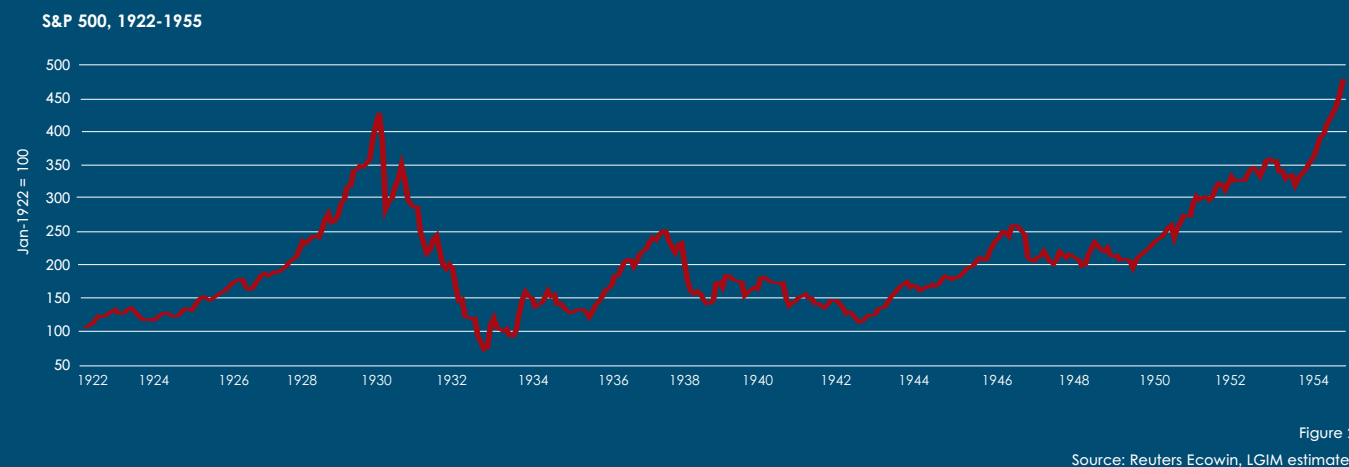
## Snapshot

# The Great Depression

It is justifiable to worry about the US repeating the Japanese experience of a decade of sluggish growth, but fears the US is on the brink of a depression are greatly exaggerated. The slump in the 1930s was exacerbated by a series of policy mistakes which are unlikely to be repeated. The US economy enjoyed a period of rapid growth in the 1920s with industrial production almost doubling. There was virtually no inflation as the gold standard led to price stability. But the boom was financed by an unsustainable build-up of debt and rise in asset prices. Finally recognising the danger, the Federal Reserve banned bank loans for margin trades in early 1929, but the stock market and economy didn't peak until late summer. The stock market then crashed in the autumn of 1929. After a brief recovery in early 1930, activity and stocks plunged through the rest of the year (Figure 1). Banking failures were widespread and the Smoot-Hawley Tariff Act was signed. This triggered a worldwide increase in protectionism. In 1931 the Federal Reserve tightened monetary policy to defend the gold standard and in 1932 taxes were increased significantly. Both policies prolonged the depression.



Nominal GDP halved between 1929 and 1933 and unemployment for male workers rose to 25%. Deflation quickly became entrenched. This increased the real debt burden and magnified the negative feedback loop between declining activity, rising defaults and restricted access to credit. The recovery only arrived once the US came off the gold standard in 1933 and the new president (Franklin Roosevelt) embarked on a massive expansion of public spending. But it wasn't until 1954 that the stock market regained its 1929 high (Figure 2).



While the recent increase in private sector debt and asset prices bears some resemblance to the 1930s, the policy response has been very different. Federal Reserve Chairman Ben Bernanke is a leading authority on the Great Depression and is determined not to repeat the policy errors. The most important action is to keep real interest rates negative to prevent the debt burden becoming more onerous. Without the constraints of the gold standard, there is no limit to the amount of money which can be injected into the economy to prevent the vicious cycle of debt deflation taking hold.

## UK Forecast

## Emerging economy slowdown

UK Economy		Price Inflation (HICP)		GDP (Growth)		10 Yr Gilt Yields		Base Rates		\$/£		£/Euro	
		Average 2008	Average 2009	Average 2008	Average 2009	End 2008	End 2009	End 2008	End 2009	End 2008	End 2009	End 2008	End 2009
Market participants forecasts		%	%	%	%	%	%	%	%	%	%	%	%
	High	4.30	3.50	1.80	1.70	4.85	5.07	5.00	4.50	1.90	1.96	0.86	0.84
	Low	3.10	2.00	0.80	-1.60	4.20	3.95	3.50	3.00	1.68	1.50	0.78	0.72
	Median	3.80	2.70	1.20	0.70	4.35	4.34	4.50	4.00	1.76	1.68	0.80	0.77
	Last month median	3.70	2.60	1.40	0.90	4.56	4.66	4.75	4.00	1.80	1.75	0.81	0.77
Legal & General Investment Management		3.90	3.30	0.90	-0.40	4.00	4.50	4.00	2.00	1.79	1.79	0.80	0.80

Source: Bloomberg and LGIM estimates

Amidst the current volatile environment, the table has been altered to extend the range of forecasts to capture a greater sample size. This now reflects more up-to-date adjustments. The forecasts above are taken from Bloomberg and represent the views of between 20-40 different market participants (depending on the economic variable). The 'high' and 'low' figures shown above represent the highest/lowest single forecast from the sample. The median number takes the middle estimate from the entire sample.

Our lead indicator for emerging economies, which aims to predict growth at least nine months ahead, is currently pointing to a sharp slowdown in the region in coming months. The largest pressures forcing this decline have been the dramatic sell off in the region's equity markets and lower Baltic freight levels. The Baltic Exchange's dry sea freight index for global raw materials has slumped recently as economic decline in the developed world, ongoing financial turmoil and weaker demand for commodities from a slowing China has led to fears of a sustained slowdown in global trade.

Our forecasts for the UK remain more cautious than consensus. Falling housing prices, tighter lending conditions and higher unemployment lead us to anticipate negative growth in 2009. While we have been cautious for some time (flagging the possibility of a recession in May) the median consensus forecast has been aggressively revised down during the past few months. We have revised our GDP forecasts lower from last month. We now expect growth to decline -0.4% in 2009, while the median forecast points to be around 0.7%.

In contrast to consensus, our Bank of England model was pointing to a decline in official interest rates last month, which we subsequently saw with the coordinated 0.50% monetary easing from the major central banks. While this has not been reflected in the median forecast figures for 2008 above, we continue to have one of the lowest base rate estimate for 2009. We anticipate more aggressive policy easing next year than other market participants, as inflation falls back and growth remains weak. Our model suggest that UK official interest rates could decline to 2.00% by the end of 2009.

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