

What's the chance a bond crash?

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Key points

- > Sovereign bonds have had a great run, but with yields near record lows and global growth improving this is unlikely to continue.
- > A 1994 style bond crash is a risk, but unlikely at this stage as it's hard to see monetary tightening this year. The most likely scenario is a gradual grind higher in bond yields. This could still see bonds return zero this year.

Introduction

For the last few years the big worry has been that the global economy would slide back into recession. Cash and sovereign bonds in “safe countries” were seen as safe havens. With those fears fading, a new worry is that bond yields, after falling for years, will shoot higher as central banks start to tighten and investors switch to shares – causing losses for bonds and threatening other assets. This note looks at the key risks for bonds: are they in a bubble? What's the risk of a 1994 style bond crash?

Bond returns 101

Late last year I did a client seminar where the host and I warned that with bond yields around record lows the great returns from fixed income investments over the last few years can't be expected to continue and may go in reverse if bond yields rise. This seemed to cause much consternation, with many seemingly thinking that “past returns are a good guide to future returns” and if bond yields rise surely that means higher returns from bonds.

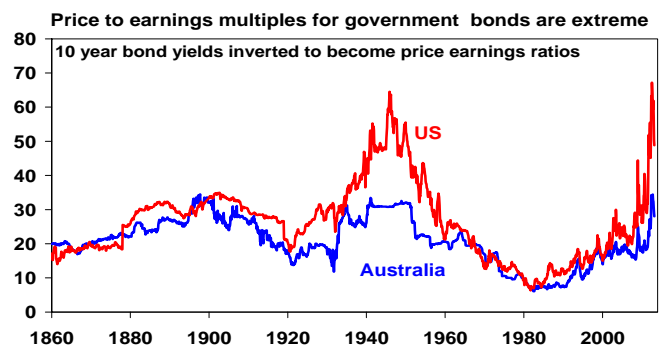
Bond returns come from two sources: yield and capital growth when the yield changes. For example, if the government issues a bond for say \$100 and agrees to pay \$5 a year in interest, this means an initial yield of 5%. If an investor buys the bond with a 5% yield and holds it till it matures the return will be 5%. Obviously the higher the yield the better. However, in the short term its value will vary inversely with the changes in the level of bond yields. Taking the \$100 bond example, if the economy weakens and interest rates fall to say 4%, investors will snap up bonds paying 5% and in so doing push their price up till the yield they pay is 4%. This is effectively what's been happening over the last few years as bond yields have fallen. Of course there is a lot more maths involved as the impact depends on the maturity of the bond, ie how long it will take before the government has to pay investors back. This relates to what is called “duration”. The average duration of a typical Australian bond fund is around 4 years which means that each 1% fall in yields means a capital gain of 4%. However, if bond yields rise the effect goes in reverse, ie bond prices fall.

So the return an investor gets from bonds is made up of the yield (or income flow) they receive and in the short term any capital growth or loss if bond yields fall or rise. If the yield is

just 3.5% a 1% rise in the yield to 4.5% would mean a capital loss of 4% and a total return over a year of -0.5%. If yields are unchanged the return will be just 3.5%.

Near record low bond yields

Last year saw sovereign bond yields in the US, Australia and other major countries fall to record lows, providing a strong capital boost to returns. Because a bond yield is the earnings the bond generates each year divided by its value, turning it upside down gives a price to earnings ratio. As seen in the next chart this is extremely high, in fact 49 times in the US and 28 times in Australia. If these sort of price earnings multiples applied to shares, it might be seen as a bubble!



Source: Global Financial Data, Bloomberg, AMP Capital

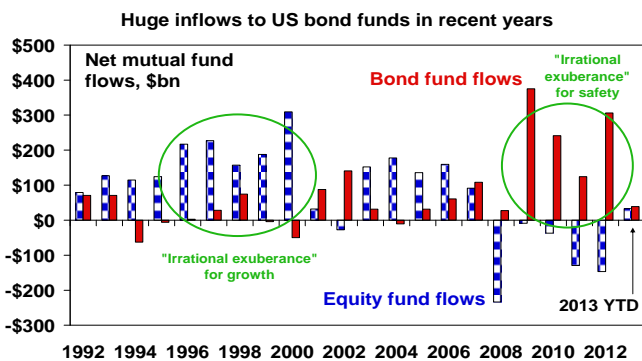
Are bonds in a bubble?

Of course, it's never that simple. For one thing interest payments on bonds are known with certainty whereas share earnings are less certain. But more importantly, both fundamental and bubble like elements have played a role in the bond rally. On the fundamental side, the sharp fall in bond yields from the early 1980s can be explained by the shift from high inflation to low inflation. The more recent fall to record lows also reflects some fundamental factors.

- Sub-par economic growth and low inflation have lowered equilibrium levels for interest rates and bond yields.
- Various central banks have been actively buying bonds.
- Aging baby boomers have invested in bonds seeking to get more yield into their portfolios.

However, there are also some bubbly elements. In particular:

- The longer official interest rates have remained near zero in the US and Europe, the more investors have started to assume that they will remain low indefinitely. Classic behavioural finance at work here!
- Some of the flows into sovereign bonds in recent years reflect safe haven demand. This is perfectly rational. But there also appears to be an element of demand in response to expectations that past returns will continue. This is evident anecdotally from the client seminar I referred to earlier. But it can also be seen in the huge inflows into bond funds which in the next chart look a bit like the huge inflows into equity funds in the late 1990s. Inflows to bonds have also been huge at an institutional level, eg UK pension funds typically have 35% in bonds today compared to around 20% in the year 2000, although this is far less evident in Australia.



Source: Bloomberg, AMP Capital

- Finally, bonds are very overvalued from a long term perspective. The table below looks at current ten year bond yields relative to our assessment of their long term value based on potential long term nominal GDP growth. On this basis, bond yields are well below long term sustainable levels. This suggests that bonds are vulnerable if sentiment towards them changes.

Bond yields are well below sustainable levels

	Current 10 year bond yield, %	Potential long term nominal economic growth, %pa
US	2.0%	4.3%
Germany	1.6%	3.3%
UK	2.2%	3.3%
Japan	0.7%	2.3%
Australia	3.6%	5.2%

Source: Bloomberg, AMP Capital

The risk of a 1994 style bond crash

An example where this happened was in 1994. In the early 1990s bond yields were pushed down by recession, falling inflation and then a jobless recovery. However, the cycle turned aggressively in 1994 after the economic recovery became well entrenched in 1993. In response, then Fed Chairman Greenspan raised the Fed Funds rate from 3% to 6% starting in February 1994 and the RBA raised the cash rate from 4.75% to 7.5% over four months starting in August 1994. This saw 10 year bond yields rise from 6.4% to 10.7% in Australia and from 5.2% to 8% in the US, which saw Australian bonds generate a loss of -4.7% in 1994. And the rise in bond yields went so far as to pressure equity markets which lost 8.2% in Australia that year and returned only 1.3% in the US. What's the risk of a rerun? The next table provides a comparison of economic conditions in 1994 and today.

The US and Australia: 2013 versus 1994

	Feb 1994	Feb 2013 *
US GDP growth, %yoy	3.1	1.5
US output gap**, %	-0.9	-5.7
US unemployment rate, %	6.6	7.9
US core inflation, %yoy	2.8	1.9
Aust GDP growth, %yoy	4.4	3.1
Aust core inflation, %yoy	2.2	2.3
Aust housing credit growth, %yoy	19.0	4.5

* Latest available data. ** % difference between actual and trend GDP. Source: Bloomberg, AMP Capital

The level of yields and investor exposure to bonds are now more extreme than in 1994. However, a number of factors suggest the risk of a 1994 bond sell-off is still low at present:

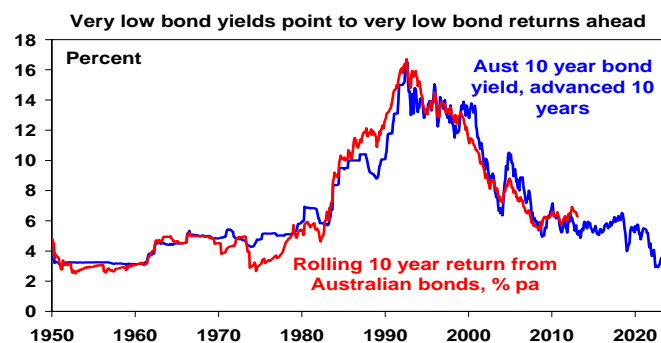
- Economic growth is weaker and more fragile today thanks to fiscal austerity and households and businesses more focussed on reducing debt than adding to it.

- Given the severity of the 2008-09 recession and the slow recovery since, US economic activity is running further below potential, so the "output gap" and unemployment are both higher than was the case in 1994. In other words, there's a lot more spare capacity around now.
- Inflation is lower and low inflation expectations are more entrenched than was the case twenty years ago.
- In Australia, there is a short term risk to growth as mining investment slows and non-mining activity remains soft.

The Fed has indicated it's unlikely to raise interest rates as long as unemployment is above 6.5% and this looks likely to remain the case at least for the next year. Similarly while the Fed may slow its bond purchases by year end it's unlikely to start selling bonds this year. And in Australia the debate is still about whether rates need to be cut again. So as things currently stand, monetary tightening - which was the trigger for the 1994 style bond crash - looks unlikely any time soon. However, if the global recovery continues it may be more of a risk for 2014 or 2015. Key indicators to watch in this regard though are US unemployment, credit growth and inflation.

What does this all mean for investors?

First, while a 1994 style bond crash looks low risk for this year, current low bond yields point to subdued bond returns ahead. The best predictor of bond returns for the next ten years is the current yield. At 3.6% it doesn't augur well for long term bond returns. And this year if bond yields back up around 1% as we expect returns are likely to be around zero.



Source: Global Financial Data, Bloomberg, AMP Capital

Second, it still makes sense for investors requiring investment income to search out alternatives offering higher yields such as corporate debt, real estate investment trusts and high yield shares given that these assets offer some protection as they benefit from stronger economic growth & as such can probably all better withstand a gradual back up in bond yields, say 1% this year. (A 1994 style back up would be more of a problem though for each of these assets.)

Thirdly, even if bond yields do rise aggressively it should be noted that while the 1994 bond crash led to poor returns for most assets, in 1995 bonds and shares both rallied.

Fourthly, the 1994 experience showed bonds aren't always the perfect diversifier.

Finally, very low bond yields highlight the need for active fixed income management where the portfolio manager can increase the exposure to less vulnerable credit and reduce a portfolio's duration to limit the impact of a rise in bond yields.

The bottom line is that it makes sense to strategically lighten sovereign bond exposures in favour of assets providing better yields and growth prospects.

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