Market Booms

What causes them?

By John Robertson

Reading time: 4-8 mins

Macroeconomic conditions are usually critical to the timing and direction of a stock market boom. The empirical evidence also suggests an impact from strong linkages across markets.

Put simply, stock prices should go higher if companies are worth more. The basic test of value is whether projected free cash flows are rising. If they are rising for companies generally, the market generally should be moving to higher levels.

Economic life, however, is never quite that simple. There are times when markets appear persistently undervalued refusing to reflect improvements in financial performance.

At other times, markets can seem grossly overpriced taking too optimistic a view of the prospective income streams attributable to the companies comprising them.

A September 2006 paper by Michael D. Bordo and David C. Wheelock, 'When Do Stock Market Booms Occur? The Macroeconomic and Policy Environments of 20th Century Booms' (Federal Reserve Bank of St Louis Working Paper 2006-015A), provides some insights within an international comparative framework to the principal macroeconomic factors which affect movements in stock prices.

The study covers ten countries over 80 years. Australia is one of the ten countries covered. The other nine are: Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, the UK and the USA.

The authors identify for each country the timing and duration of stock market cycles and the macroeconomic circumstances surrounding each of them. In doing that, they have been able to draw out the circumstances which have usually been most propitious for stock market booms.

Boom or bubble?

A **market boom** can be thought of as an extended period of unusually high price appreciation.

For purposes of the study, a boom is any period of time of at least three years from trough to peak with an average annual rate of increase in the real stock price index of at least 10%.

A boom is not necessarily a bubble. A **stock market bubble** suggests something about value: that prices have gone well beyond what someone should be prepared to pay for any given income stream.

As long as improvements in company financial performance at least match price appreciation, even over a very prolonged period of time, stocks could remain undervalued. There may be a boom, but no bubble.

In this study, the authors did not measure prospective income streams. Consequently, they could not discuss whether periods of strong price appreciation turned into market bubbles.

The common features

The authors identified three features which have most commonly occurred in twentieth century stock market booms:

1. low or falling interest rates;
2. above average and rising real GDP growth; and
3. below long-term average and falling inflation rates.

Market peaks were commonly associated with these conditions coming to an end.

From a microeconomic perspective, these conditions would also be consistent with improving valuations.

Above average or rising GDP growth would frequently imply better than average profit growth or, possibly, profit growth exceeding the previous expectations of what might be possible.

Low or falling interest rates would likely have a beneficial effect on consumer expectations and spending decisions. They might also change expectations about long-term interest rates leading to an upward revaluation of any corporate income stream.

Australia's experience

In the case of Australia, the authors identified eight stock market booms, the timing of which is described in the **first table**.

The Australian history shows that a boom can last anywhere from three months to eight years, so there is little in the analysis about the length of a boom to give us a solid basis for how one should judge the duration of the current market performance, for example.

The **second table overleaf** shows, for Australia, averages calculated by ***thebigpicture*** Economics for cash interest rates, GDP growth and inflation over the past 30 years.

Between the first quarter of 2003 and the second quarter of 2006, Australia's equity market went up 97%.

Growth was close to average, but consistent with the Bordo and Wheelock analysis, interest rates and inflation were historically low.

Boom Start: Market Minimum	Boom End: Market Peak	Average % pa change Month after trough to peak	Boom Start: After prior 25 month peak surpassed	Months duration after prior peak surpassed	Average % pa change: From month after prior peak	Decline (%) 12 mths after peak	Decline (%) to next minimum
Dec-20	Feb-29	10.7	Jul-21	91	9.1	-20.1	-41
Sep-30	Mar-37	17.8	Oct-34	30	13.7	-12.2	-31.6
Jul-56	Jul-60	15.8	Aug-57	35	15.9	-11.6	-20.2
Oct-66	Dec-69	21.8	Oct-87	26	17.5	-24.8	-42.2
Aug-77	Nov-80	21.9	Sep-79	14	32.1	-27.2	-47.2
Jul-82	Sep-87	25.2	Mar-86	18	39.3	-35.8	-46.3
Dec-90	Jan-94	18.9	Oct-93	3	36.9	-23.8	-23.8
Aug-98	Jun-00	13.4	Jan-99	18	6.5	-0.8	-23.8

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Australian Macroeconomic Cycle			
	30 year average	2003-06	Now
Interest rates	8.9%	5.2%	6.3%
GDP growth	3.2%	3.1%	2.2%
Inflation	5.4%	1.5%	3.9%

Each of the three key macroeconomic indicators have since become less supportive of higher market values (growth is lower and inflation and interest rates higher) and the average value of the Australian equity market has been 4% below its peak. However, despite this deterioration in conditions, the economic environment is relatively benign. Although higher, interest rates and inflation, for example, remain below their longer term averages. Similarly, economic growth is slipping, but with the mining sector being so strong, the likelihood of even a brief contraction in the economy seems slim.

The **first table** also addresses what might happen if the market actually does turn down. Historically, the median decline in the Australian market over the 12 months after a peak has been passed has been just over 20% and the full extent of the fall (i.e. taking account of markets being weaker for more than twelve months) has been over 30%. The total decline, according to Bordo and Wheelock, has ranged between 20% and 47%.

Clearly, identifying the macroeconomic conditions causing a change in market direction is far easier with the benefit of hindsight.

It is possible, for example, that policy tightening in the USA might already have ended and that lower interest rates during 2007 will eventually carry markets there beyond current levels.

Linkages with Australia, especially through the impact of interest rates on global commodity prices, might carry the Australian market higher despite some concerns here about inflation in the short-term.

The next set of interest rate rises in, for example 2008 or 2009, might be the more aggressive tightening in policy which brings an end to the current stock market cycle and, with the benefit of hindsight, will show clearly an association between macroeconomic conditions and stock market returns consistent with the pattern evident over the past 80 years.

Moving together

One influence on the frequency of booms has been the extent to which markets have been integrated and how readily they have been able to interact with one another.

The study noted the tendency for stock market booms to be "roughly in sync across countries throughout the 20th century".

The **chart below**, drawn from the data analysis by Bordo and Wheelock, highlights this tendency. It shows, for each year between 1920 and 2000, the proportion of countries reviewed which could be characterised as being in the midst of boom conditions.

There is some tendency for most or none to be experiencing ongoing booms at any one time.

Some exceptions

While market booms most commonly occurred when growth, interest rates and inflation were appropriately aligned, many booms also occurred when output growth was normal or slower than normal, or when inflation exceeded its long-term average.

Bordo and Wheelock found that, between the first and second World Wars, the timing and extent of stock market booms in several countries was associated with changes in exchange rate policies, including changing commitments to the gold standard.

Resurgent growth after World War II associated with market reforms and fresh flows of capital characterised booms in Europe in the 1950s and 1960s.

In both instances, these unusual conditions of forced adjustment caused a reappraisal of equity values based on the new conditions.

Unfortunately, Bordo and Wheelock do not uncover any hitherto secret formula for market success. However, their historical analysis shows how market booms more often than not depend on real macroeconomic phenomena with policy changes and regulatory conditions playing a role when they are sufficiently momentous to effect a change in the economic landscape.

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