

## EQUITIES

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## COORDINATOR'S MESSAGE

**By Brian Matthews**

In this bumper edition of Equities Bulletin we have two articles, the first by Robert Vagg an AIA member and regular contributor to our education program; the second by Zac Zacharia, a Representative of Ord Minnett Ltd whose previous articles in this bulletin have been thought provoking and well received. Each of the articles relate to the stock market and each is forward looking - Robert's (which may provide some comfort to the longer-term investor) more so than Zac's which provides a more cautious shorter-term outlook with two possible scenarios. By reading both you may be able to determine how Zac's scenarios can be reconciled with the long-term trends evident in Robert's model of the market.

Robert's article '*A comparison of long-term trends in the US and Australian stock markets*' is based on a generic model that he has developed. This is described in some detail in the May 2009 issue of Investors' Voice. In the article below Robert outlines the linkages evident in the performances of the US and Australian markets. He then reviews and illustrates the Primary Trend in each of these markets and details observations apparent from the trends, noting that the Primary Trend indicates fair value at any point in time. Fair value for both the US and Australian markets at January 1, 2010 and 2015 are provided as examples. Volatility and the impact of currency movements on the markets are then reviewed.

Zac Zacharia's article '*The sharemarket - running out of puff?*' refers to both fundamental signals and signals from the charts to determine probable market outcomes, with specific reference to trend direction and momentum, market sentiment, and commitment to the trend. Based on that analysis, Zac details two possible scenarios that could unfold over the coming few weeks to months. He concludes by outlining a proactive approach that he believes astute investors should take.

*Brian Matthews is a member of the AIA.*

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# A comparison of long-term trends in the US and Australian stock markets

By Robert Vagg

Much can be learned from the detailed history of a stock market that may be used to evaluate its current position and likely future direction. The field of technical analysis is based on the recognition of such definable trends and historically repetitive patterns. This article compares in detail the long-term behaviour of the US and Australian stock markets, as represented by the S&P500 Composite and the All Ordinaries Price Index, respectively, or their index precursors. Much of this analysis is based on a generic model developed by the author and described for the Australian market in the May 2009 issue of *Investors' Voice*.<sup>1</sup>

## US-Australian Market Connections

The US stock market is important to Australian investors for many reasons, both fundamental and technical. Apart from those with direct holdings, investors in managed funds that have an international component have an indirect holding in the US market. So also do the many Australians who are members of large retail or industry super funds, since local markets are of insufficient size to absorb the amount of investment capital involved.

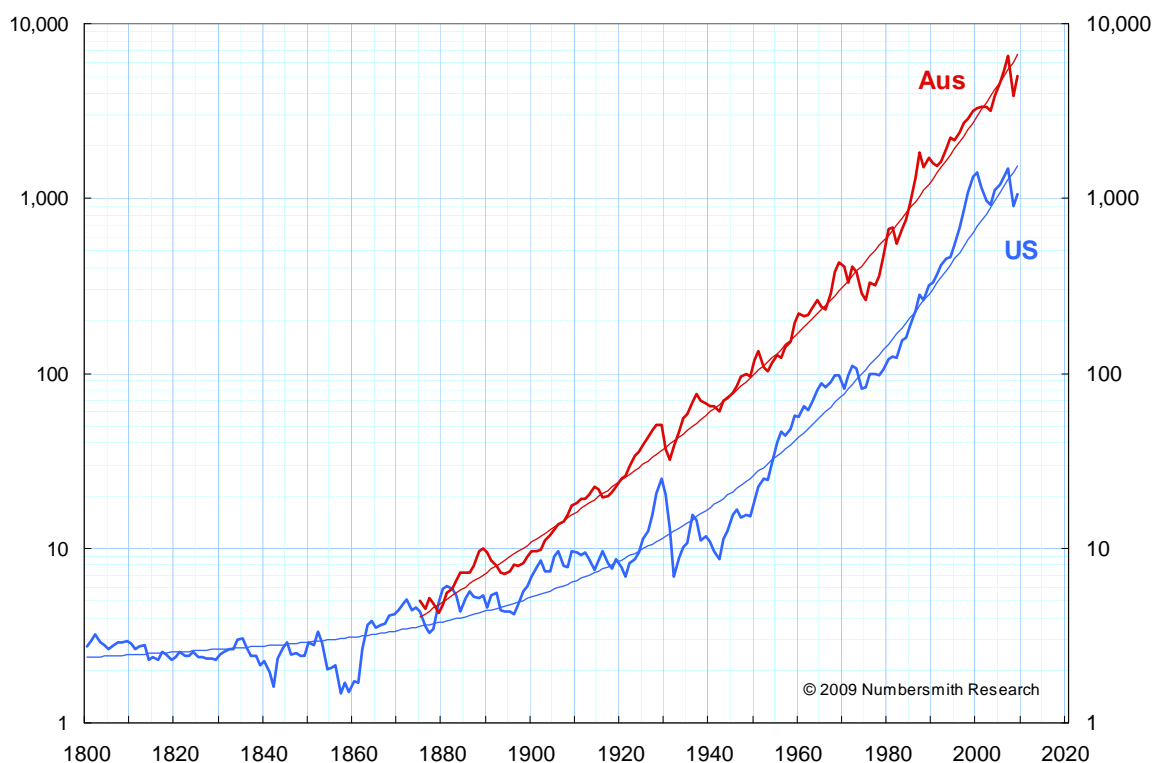
The correlation between movements in the US stock market with those of our own goes well beyond their obvious daily oscillations. As part of a globalised financial system, the two markets are closely linked. In the short term, one key reason for a correlation is the constant relative re-balancing between local and international components of equities holdings required of mutual or managed funds in order to satisfy trust deed guidelines. Thus, if the US market falls overnight the local market then is sold in order to maintain those prescribed relative weightings. This process does not involve recourse to fundamentals.

Reference to the back pages of company annual reports reveals the familiar names of large international investment houses to be commonly listed among the top twenty shareholdings of Australia's major public companies. The latter are less Australian owned than is generally thought. To US-based mutual and hedge funds, Australia forms part of their international holdings, which must be sold down when their investors place redemptions for cash. For this reason, as was manifest in late 2008, we have a contagious one-way exposure to the prevailing sentiment of the US investor. Again, in that particular case, little regard was paid to local fundamentals.

## The Primary Trends

A comparison of the long-term behaviour of the two stock markets is portrayed in Figure 1. This shows Australia's price index, the All Ordinaries, to have significantly outperformed its US counterpart throughout its history. This outperformance would be even greater if corresponding accumulation indices were to be displayed, given the Australian market's consistently higher dividend returns. The comparison displays an important feature. The plots of both indices show upward curvature over time, demonstrating the gradually changing nature of their underlying economies from cyclical to higher growth. This indicates a consistently increasing annual growth rate over time for both markets, which is particularly pronounced in the US market from the middle of the twentieth century onwards (*i.e.* after WW2).

**Figure 1. Long-term Views of the All Ordinaries and S&P500 Price Indices**



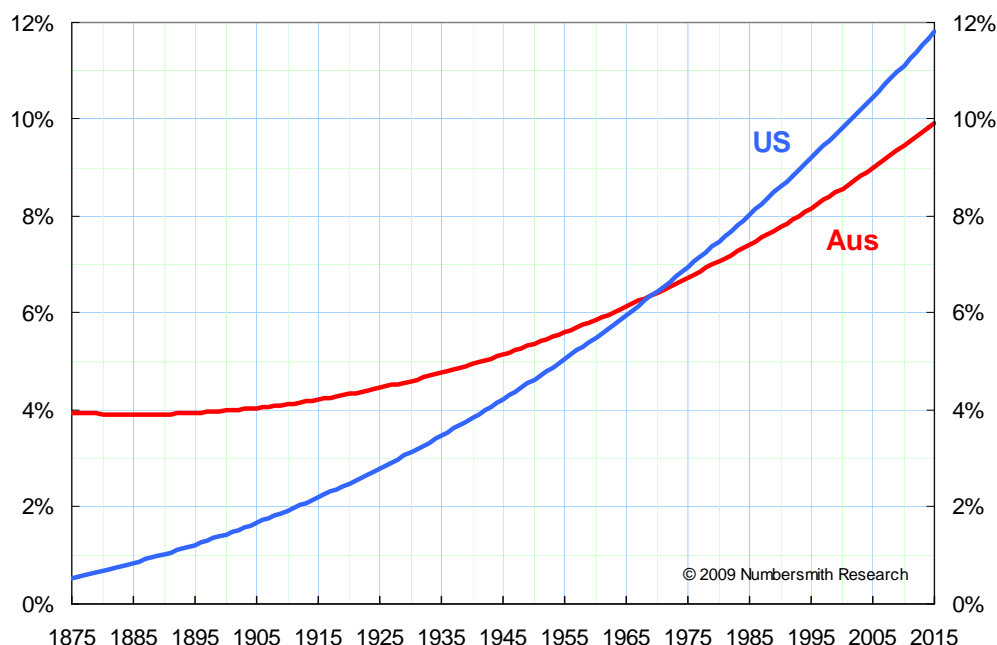
When plotted on a log scale, as here, a constant rate of compounding growth would appear as a straight-line trend. However, trendlines fitted to the indices in Figure 1 are clearly not straight. Rather, they demonstrate third-order compound growth, meaning that the annual growth rates also have increased in a compounding manner over time. It is common to see in the financial media similar long-term charts with straight lines incorrectly fitted to represent trend growth. Such interpretations are misleading, in that they fail to take into account the changing growth characteristics of these markets, and of their underlying economies.

The trendlines displayed in Figure 1 represent the *Primary Trend* that is fundamental to each respective market. The value calculated for the Primary Trend at any time would represent the *Primary Mean* (long-term fair value) for the market at that date.<sup>1</sup> It is clear that deviations from these central Primary Trends are more pronounced in the US market, indicating higher levels of volatility (and therefore higher risk). In this long-term context, the recent GFC appears as a normal divergence on these index charts. These volatility characteristics are examined in further detail below.

Figure 2 displays the changing annual growth rates for these markets calculated from their respective Primary Trends. These plots demonstrate the different growth characteristics of the two markets, as well as the compounding nature of their growth rates. The Australian market began its history near the end of the 19<sup>th</sup> century growing at an annual rate of 4.0%, which has increased steadily to now average 9.4% pa. By comparison, the US market entered the 20<sup>th</sup> century growing at a rate of only 1.4% pa, but has displayed higher growth since the later part of that century.

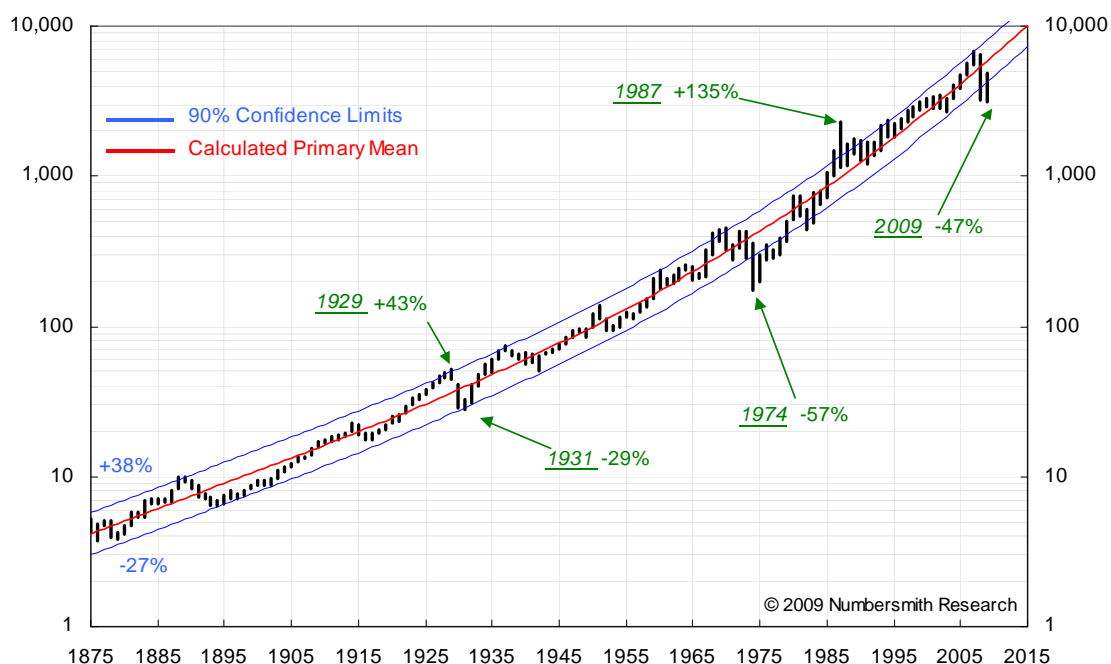
An interesting issue arises from the compounding nature of these growth rates. Since price/earnings (P/E) ratios contain a component that allows for perceived growth in future earnings, this component should increase along with increasing growth rates. As a result, market P/E ratios should slowly expand going forward rather than fluctuate around a static average, and hence it would be arithmetically incorrect to quote a “long-term average market P/E”.

**Figure 2. Stock Market Trend Annual Growth Rates**

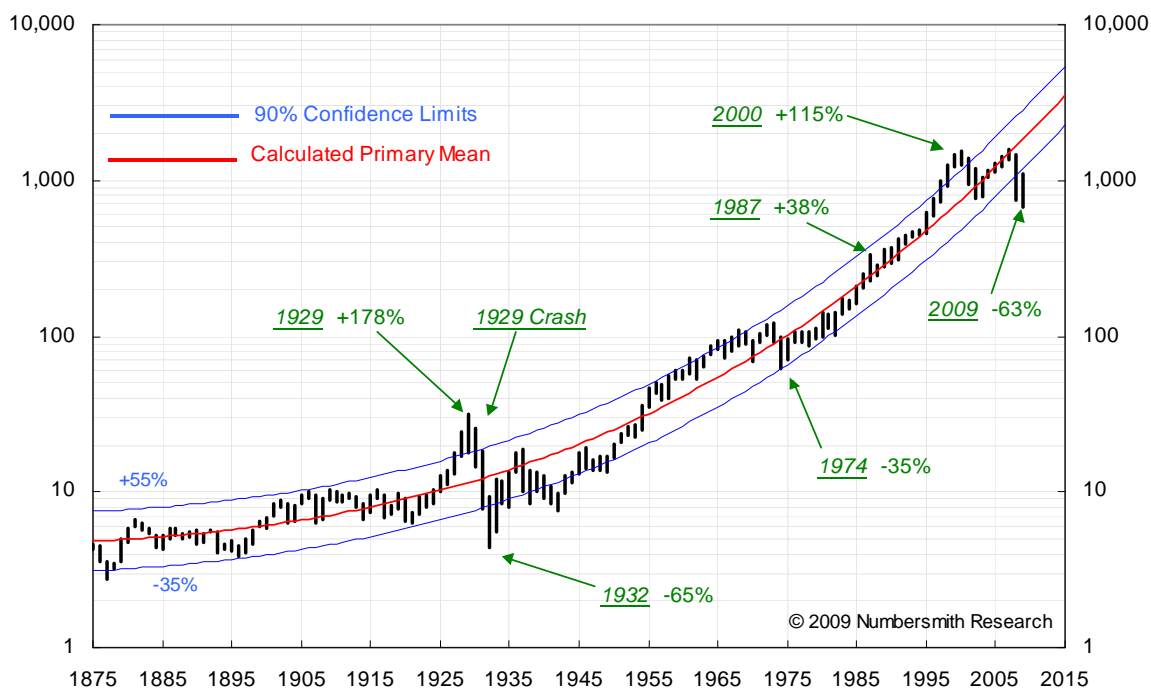


The two markets are compared in greater detail in Figures 3 and 4. Here the index values are plotted using the price range for each year since 1875. The availability of values calculated for the two Primary Trends allows a comparison of indicated fair value for the two markets at any time. *Mean* values calculated for 1 January 2010, for example, are All Ordinaries 6376 and S&P500 2037, whereas corresponding values for 1 January 2015 are 10118 and 3503, respectively. Such an exercise also affords a method of estimating the degree of over- or undervaluation prevailing in those markets. Examples are presented in the diagrams for some infamous market extremes.

**Figure 3. The All Ordinaries Price Index Primary Model**



**Figure 4. The S&P500 Composite Price Index Primary Model**

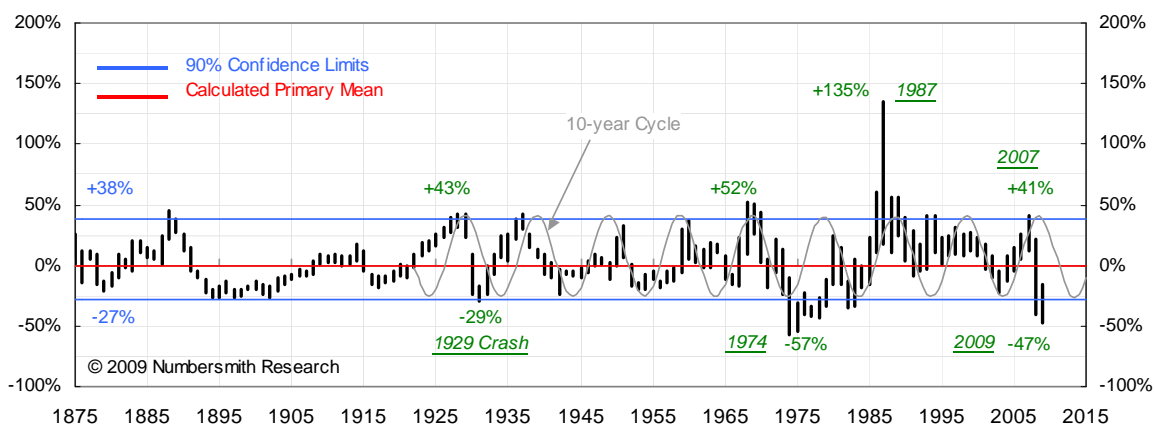


### Volatility

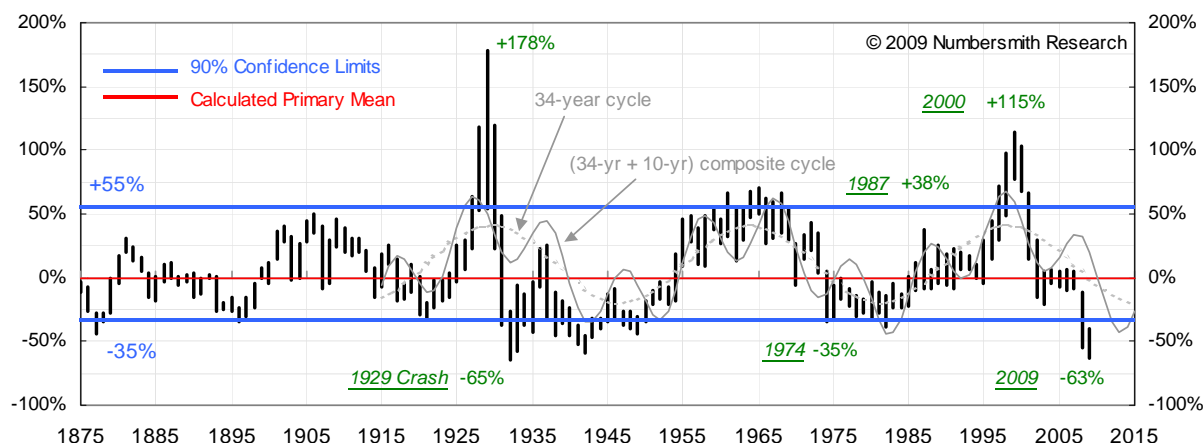
As well as the Primary Trend for each index, statistically-derived 90% confidence limits are shown as lines running parallel to the central trendlines to form channels that quantify their volatilities.<sup>1, 2</sup> Comparison of the relative widths of the two channels demonstrates the higher volatility of the US market. Its channel limits calculate at 55% above and 35% below the central trend position. The corresponding channel for the Australian index is narrower and better defined, with respective limits at +33% and -27%. The index values are seen to meander consistently within these two channels, rarely wandering beyond their limits. In this respect, it is interesting to note that in their volatility extremes there is little correlation between the two markets.

Percentage movements in the indices relative to their central trendlines are illustrated in Figures 5 and 6. These allow graphical comparison of volatility patterns that characterise the two markets and would permit an easier estimation of each market's relative valuation at any time.

**Figure 5. All Ordinaries Volatility Relative to Primary Mean**



**Figure 6. S&P500 Volatility Relative to Primary Mean**



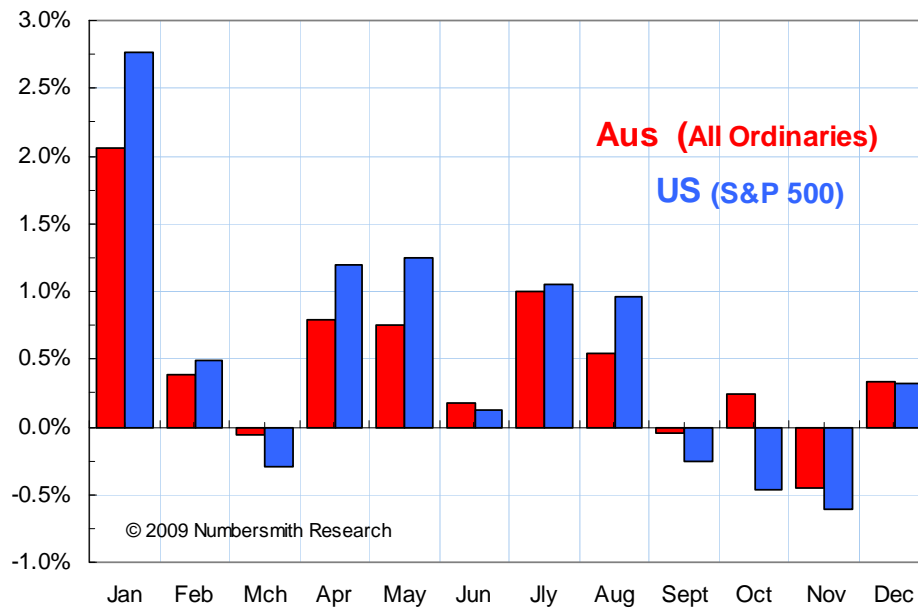
Excessive volatility in the Australian market has occurred on only three occasions – 1974, 1987 and 2009. The US market achieved its abnormal extremes in 1929, 1932, 2000 and 2009. Of particular interest is the fact that there is only a minor correlation between the volatilities of the two markets in both 1974 and 1987. The recent GFC, therefore, represents a unique common feature. Comparison of Figures 3–6 might suggest why US markets have been consistently compared with the 1929 Crash during the recent crisis, whereas the Australian market more often has been compared with the falls of 1974. Similar levels of undervaluation were achieved in each case.

The excessive volatility of the US market from 1929 through the Great Depression has been referred to frequently, with the 1929 peak not being achieved again until 25 years later. There have been occasional suggestions recently that the US market now might follow a similar course. Close inspection of Figure 4 provides information on that period. From the bottom reached in 1932 the market in fact demonstrated above-average growth for the next three decades. In particular, the five-year period through 1932–37 was a bull market. That the 1929 peak was not reached again until 1954 may be ascribed to the gross overvaluation (of 178%) created by the bubble formed at the end of the ‘roaring twenties’ decade rather than slow growth from 1932 onwards. The Great Depression period in Australia also witnessed a six-year bull market, although the preceding peak and crash were nowhere near as extreme as in the US. The period following the 1974 low in Australia displayed the highest growth in the history of the index.

Since WW1 a volatility cycle of 10-years approximate length has been apparent in the Australian market (Figure 5), peaking near the end of each decade. This has been described previously as this market’s Secondary Cycle.<sup>1</sup> US volatility over the same period (Figure 6) would appear to be better described by a corresponding decade cycle superimposed upon a broader underlying 34-year cycle. The latter indicates formation of a major low in the US market around this current period.

The volatility demonstrated by the indices may be compared on a shorter timescale. Figure 7 profiles the typical year, illustrating the average positions of the two markets for any month relative to the previous one, derived from mid-range monthly values for each index since 1950. An obvious correlation exists between the two markets in this timeframe. The phase from September through November is conspicuous historically as a period of little or negative returns, although inspection of the underlying data reveals that much of this effect may be ascribed to a few well-known significant falls occurring around October. New-year optimism is apparent in the January values, perhaps due to a degree to media promotion at that time of year. Remembering that the data derives from price indices, the dips present around February/March and August/September in part may be due to shares commonly going ex-dividend around these times, a matter of particular relevance to the Australian market.

**Figure 7. Average Monthly Change In Indices (1950-2009)**

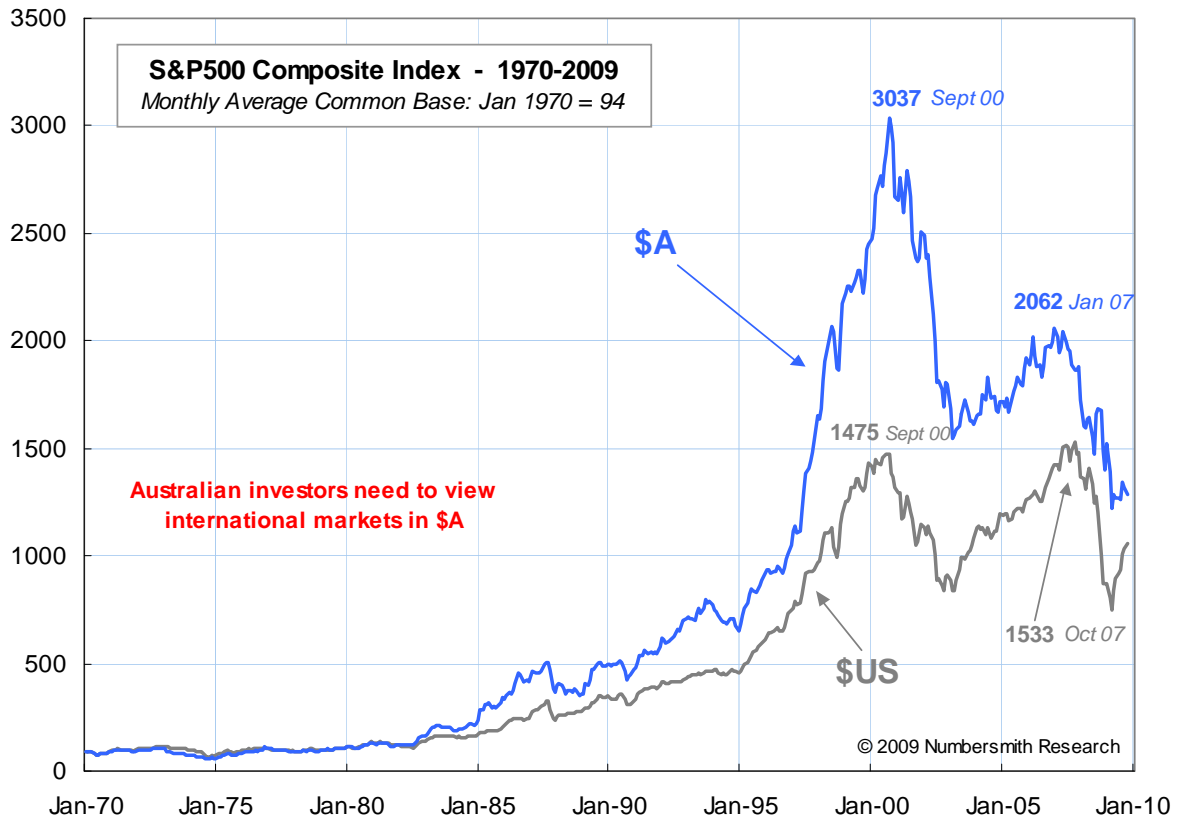


A note of caution is appropriate here. Diagrams similar to Figure 7 for individual markets appear quite frequently in the media. The average values portrayed here range from ca +2.5% to -0.5%. However, the standard deviations calculated for each month range from 3.6% to 6.7%, indicating that the errors involved are significantly greater than the average values reported. Hence little confidence should be placed on their interpretation for predictive purposes.

### **Currency Exchange Effects**

The international holdings of Australian investors, either direct or as a component of a balanced growth fund, are very much dependent on currency exchange rate movements. As Figure 8 demonstrates, there can be a stark difference in investment performance if the S&P500 is expressed in either Australian or US dollars. An unhedged Australian holding invested in the US since 1970, for example, would have benefited from a falling trend in the \$A/\$US exchange rate to achieve outperformance by September 2000 of a little over 100%. However, this advantage has been diminishing gradually throughout the current decade as a result of a reversal of this trend.

**Figure 8. S&P500 Index in \$A and \$US (1970-2009)**



**Figure 9. S&P500 Index in \$A and \$US (2000-2009)**

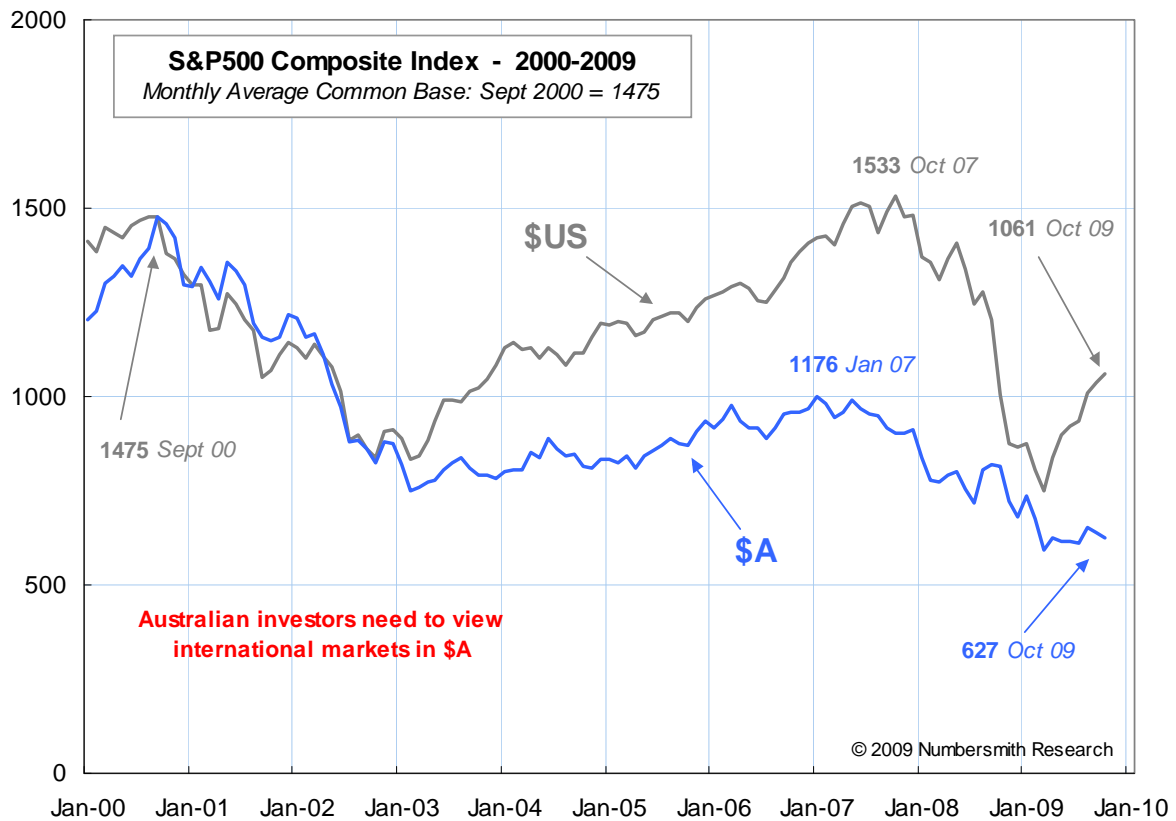


Figure 9 demonstrates the result of an equivalent investment made at the peak in September 2000. Represented in \$A, the index has been in continuous decline, and currently exhibits 41% relative underperformance. In particular, it may be seen that the recent recovery in the US stock market since early 2009 of ca 50% will have been negated for an Australian investor by a corresponding relative depreciation of the \$US. With Australia's economic performance, and hence the \$A, now expected to be more closely linked to nearby higher-growth developing markets, it is possible that this declining trend may continue for the foreseeable future.

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<sup>1</sup> "A Long-Term Model of the Australian Stock Market", R.S. Vagg, Investors' Voice: Supplement, AIA Quarterly Newsletter, May 2009. (copy available on the AIA website)

<sup>2</sup> 90% confidence limits were calculated using monthly average values for the two indices.

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## The sharemarket – running out of puff?

By Zac Zacharia

It's amazing what a change a few months can bring to the stock market – and investor sentiment! Following on from my previous article featured in the June 2009 edition of Equities Bulletin, I mentioned that the market was at a crossroads and we were expecting a pullback first followed by a rally that would confirm that a new bull market had in fact commenced. This pullback occurred in early June 2009 – with a 4 week decline of approximately 9% that ended in early July 2009 at 3710.1. Since then, the market started an accelerated uptrend that seems to have found resistance at time of writing at 4897.5 in mid-October – just shy of the psychologically significant 5000 level (which coincidentally is also 50% of the downtrend – a significant resistance level in any market). What happens next will define whether the last 8 months were, in fact, the start of the next long term bull market – or just a substantial bear market rally.

### Fundamental Signals

The 58.7% rally since March 2009 was driven primarily by investors regaining optimism on the back of signals that the worst of the global financial crisis was behind us. Everyone can agree that Australia has fared well through it all, avoiding a technical recession when other developed economies succumbed. As credit markets started to thaw, the most recent reporting season provided nervous investors with confidence that company defaults were to be lower than expected, and that balance sheets were substantially stronger (due in part from the myriad of equity raisings over the past year).

The public has revelled in the generous government stimulus packages provided to keep the economy moving and economic data confirmed this sentiment - suggesting that industrial production was increasing again, business and consumer confidence was growing, and that there is an end in sight to rising unemployment. Emerging markets, in particular, were also becoming stronger - and all eyes turned to Asia again to fuel Australia's GDP growth. Demand indicators should start to spread across sectors and countries, and even housing activity is starting to pick up again in the UK and USA, albeit from historically depressed levels.

This acceleration phase is very likely coming to an end, however, with economic growth expected to remain strong, but not accelerate at the same pace. Moving forward one should not expect the same level of positive surprises from the economic data. Now that the risk of serious economic weakness has abated, the RBA is likely to wind down its insurance policy (by raising the cash rate) and target 4% within the next 6 months – in a delicate balancing act to maintain inflation at manageable levels. The economic recovery (or slowdown in deterioration) has taken even the RBA by surprise, and Australia's GDP is now forecast to grow by 1% in 2009 to 2.9% in 2010.

As for valuation support for stocks, the profit outlook has become more robust following the August reporting season. Consensus earnings estimates point to a slightly weaker 2010 financial year in

terms of earnings per share, an improvement from the position a few months ago. Meanwhile, estimates have consolidated for 20% earnings per share growth in 2011. A price/earnings ratio of 16.1 times earnings for the next 12 months sits above the long-term average of around 15.5 times.

However, a broad-based turnaround in 2011 earnings brings the valuation multiple back to a more acceptable level and astute investors should consider accumulating portfolio positions across a range of sectors and stocks, including AGL Energy, Origin Energy, CSL, OneSteel, CSR, Orica, United Group, IAG, QBE, Telstra, ANZ and Westpac.

## Chart Signals

The Weekly Charts confirm what investors are feeling and economists are saying. When an investor analyses price charts, there are certain things to look for to provide confirmation:

- 1) Trend Direction
- 2) Trend Momentum
- 3) Sentiment of participants
- 4) Commitment to the trend

## Trend Direction

**Figure 1**

ALL ORDINARIES (.AORD): Last: 4,546.30 Change: -100.600 Volume: 1,269,344.00

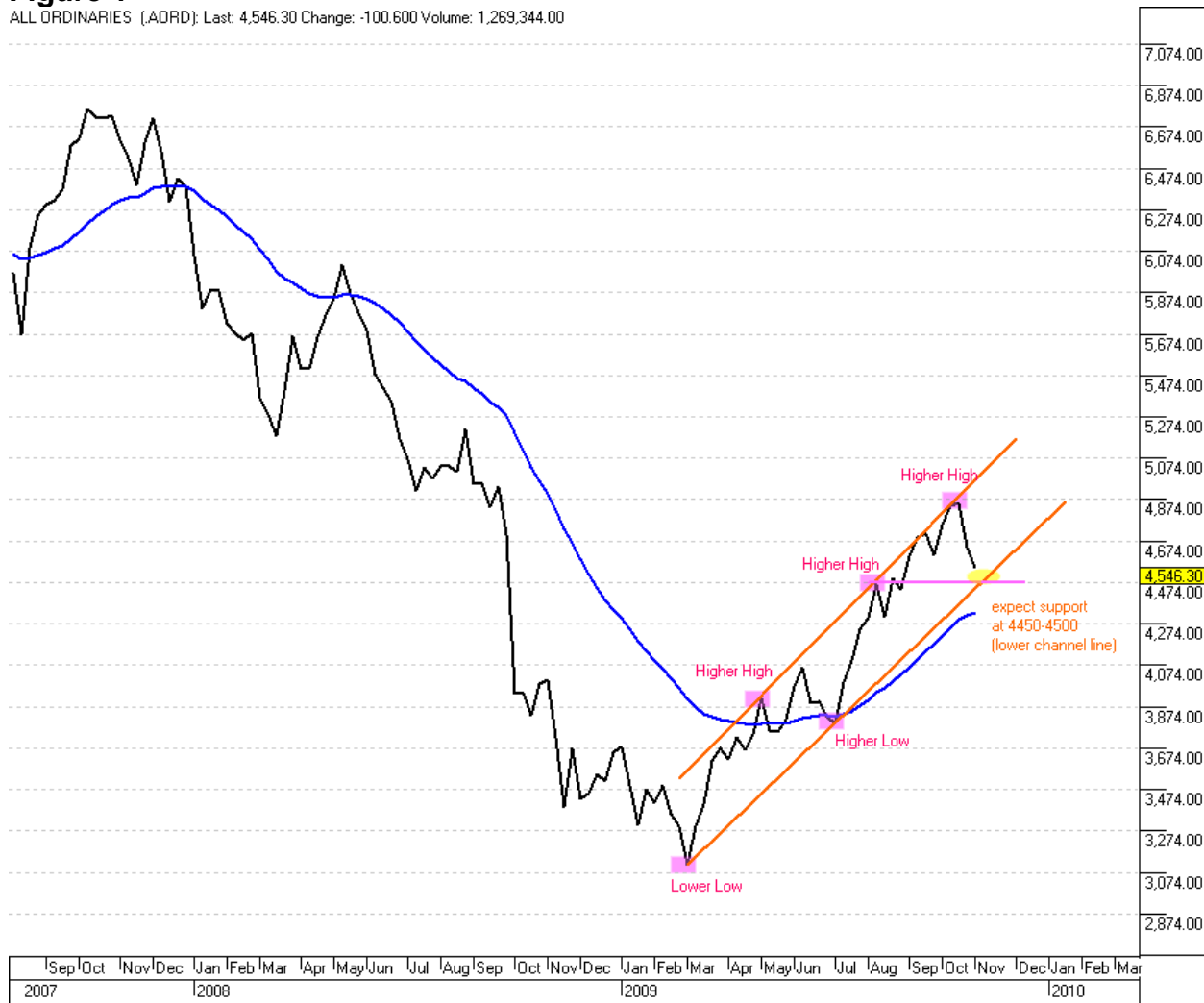


Figure 1 above (representing a weekly close line chart (black line) of the All Ordinaries Index overlaid with a 30 week moving average as a blue line) shows the stellar rise since March, and also illustrates clearly the June 2009 pullback that we were awaiting. This chart also confirms that our market is clearly trending up over a 12 month period: note the higher peaks and higher troughs, and also the fact that the Index is above its 30-Week moving average. It is however very

far away from this average, suggesting that the Index was overheated - and at time of writing experiencing a pullback. Remember that corrections in a bull market are buying opportunities.

The chart also shows the upward channel within which the Index has been trading, and how the Index has been finding significant resistance against the upper channel line – further confirming that a pullback was likely. When price action hits a resistance zone, an investor may consider taking profits - or lightening positions, particularly those that have participated in the significant rally. The pullback is likely to find support at approximately the lower channel line, in this case, around 4450-4500. A break of this level, and also of the 30-Week moving average is bearish.

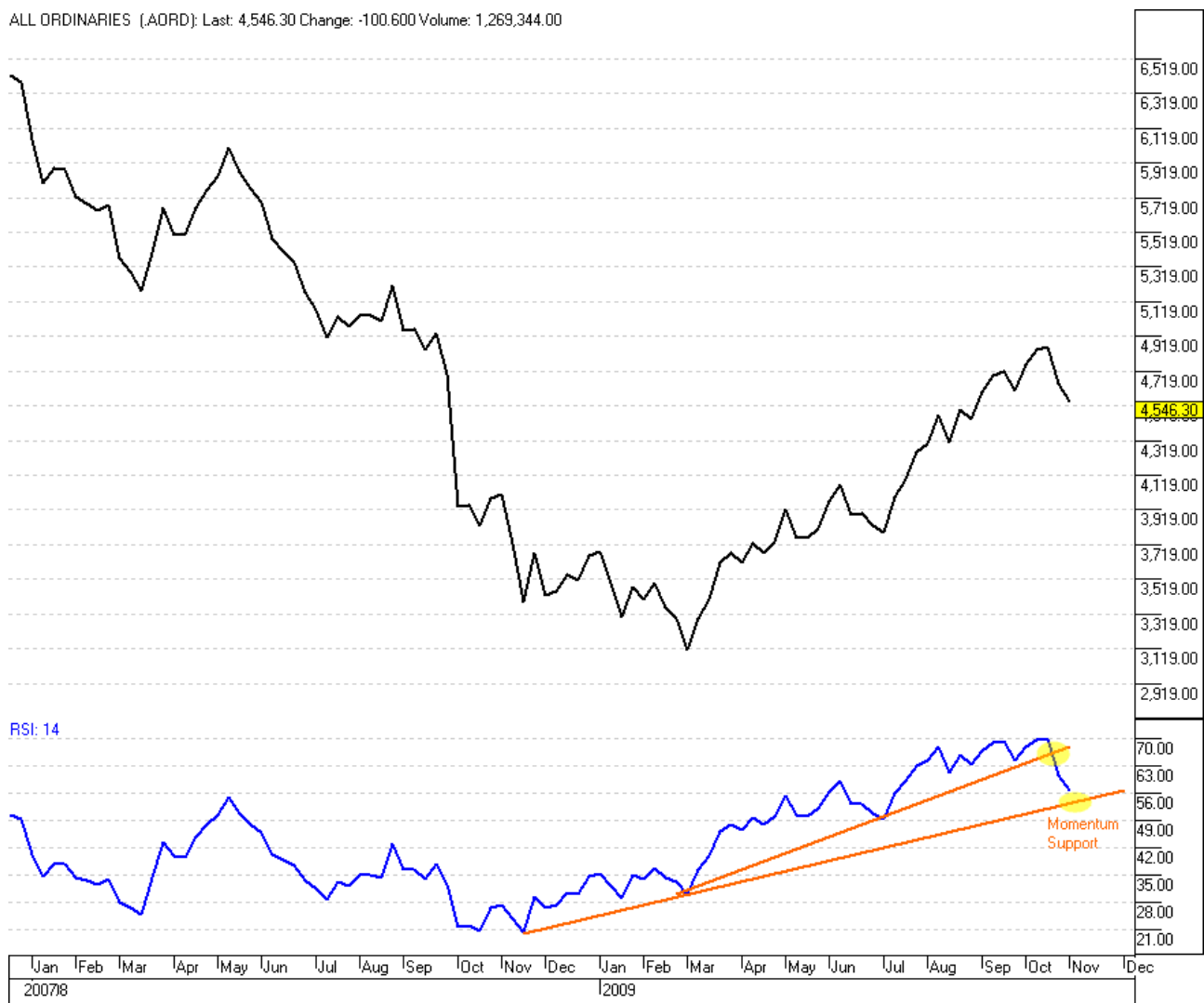
## Trend Momentum

**Figure 2**

Figure 2 below includes an indicator called the relative strength indicator (RSI) - which is a useful momentum indicator. Long term, it is clear that momentum is trending up, however in the short term, it is apparent that the upward momentum had lost strength (the RSI indicator has fallen from extreme highs and pointing down).

Note also that there is a potential level of support coming up for this downward momentum to slow down and turn back up at the uptrend line shown on the RSI indicator below.

ALL ORDINARIES (AORD): Last: 4,546.30 Change: -100.600 Volume: 1,269,344.00



## Sentiment

Figure 3 below shows the All Ordinaries Index overlaid with the “Guppy Multiple Moving Average” template, which is a series of long term and short term moving averages coloured red and blue respectively to represent long term and short term investor sentiment.

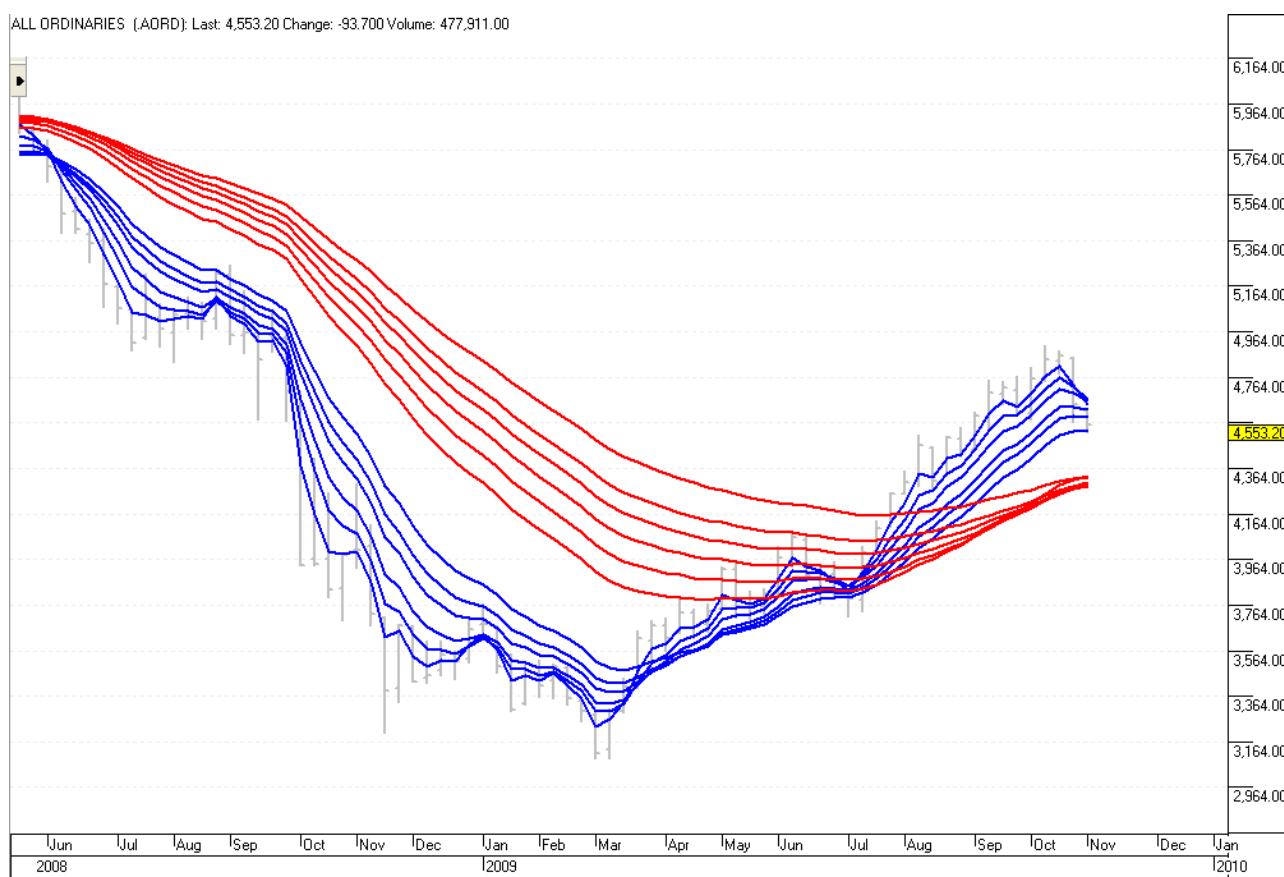
Short term investor sentiment (blue lines) has been bullish since July 2009 when this group crossed above the longer term sentiment (red lines). Sentiment of the latter group has started to turn up and become bullish and provided the shorter term sentiment doesn’t decline below the red group, the market is likely to establish a sustained longer term uptrend.

At the time of writing, short term sentiment is starting to turn slightly negative, a common occurrence when there is profit-taking amongst shorter term investors.

As an investor, we do not want to see the blue group dip under the red group as this will be a bearish signal - indicating that the bear market has resumed and both groups of investors are negative.

**Figure 3**

ALL ORDINARIES (.AORD): Last: 4,553.20 Change: -93.700 Volume: 477,911.00



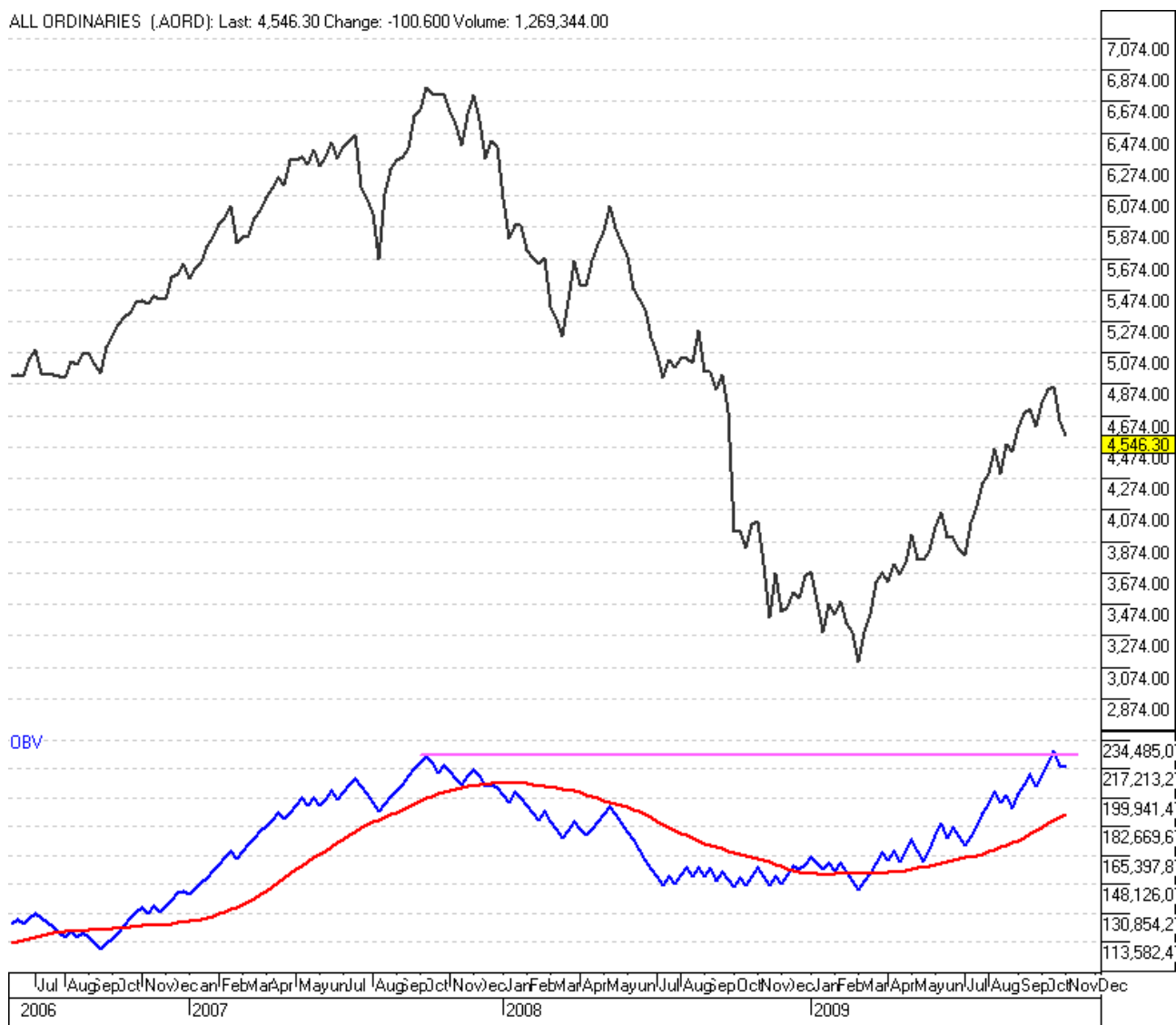
## Commitment

Figure 4 shows an overlay of the on balance volume (OBV) indicator (blue line) which represents whether volume is flowing into or out of the market. Positive volume flow (represented by the OBV rising) is a sign of commitment to the trend as money comes into the market.

I have also added a 30-Week Moving Average of the OBV (shown as a red line), and one can clearly see how money started flowing back into the market from late March 2009 when the OBV crossed above its moving average and rose. This provided the fuel for the trend which we have seen over the last 8 months. An interesting observation is how in recent weeks the OBV has reached an extremely high level which is approximately the highest level that the bull market reached in November 2007.

**Figure 4**

ALL ORDINARIES (AORD): Last: 4,546.30 Change: -100.600 Volume: 1,269,344.00



## Where to next?

Based on the above analysis, I present two possible scenarios that could unfold over the coming few weeks to months:

### Scenario 1:

An investor should expect a pullback in any healthy bull market, especially so when the market gets ahead of itself and rallies strongly for more than 4 weeks in a row. Typically, these retracements can be up to a 10% decline in prices, or they can cause the price to move sideways for a period of time. In either of these situations, the pullback should occur on lower volume than that which was seen when the price was trending higher.

The most likely technical scenario for the All Ordinaries Index in the near term is that it will continue to retrace towards the lower channel line of the uptrend (which started in March 2009) - at approximately the 4450-4500 zone (61.8% of the rally since July 2009 and 78.6% of the rally since March 2009) – and hold, prior to resumption of the uptrend.

Should this level be broken however, further support levels are likely to be around 4300 (50% of the uptrend since July 2009), 4200 (61.8% of the uptrend that started in March 2009) and finally 3900 (50% of the uptrend that started in March 2009).

Either one of these support levels is likely to provide sufficient momentum for a bounce that could attempt to retest the previous high. It is important to be aware that the deeper the pullback is, the harder it will be for the index to rally and retest – let alone break - the previous peak of 4897.5.

One thing that is very likely though is that the subsequent rally (once the market finds support at any of these levels) is going to be slow and somewhat restrained. Investors will await further positive economic data and validation from things such as companies' earnings in the first quarter reporting season to determine whether share prices are indeed matching valuations.

### **Scenario 2:**

Although unlikely, the All Ordinaries Index could experience a deeper pullback over the next few weeks and months and break 3900. It is difficult to predict what catalyst would cause such a catastrophic decline, but should this occur, it will likely confirm a possible recommencement of the bear market, and categorise the rally since March 2009 as just a massive bear rally!

Therefore, the 3900 level is an important one *if* it is ever broken and could well drive the market down to the March 2009 lows again. Therefore, it is the absolute level where the conscientious investor should reassess their entire portfolio.

### **Final Thoughts**

As I mentioned in a previous edition of the Equities Bulletin, astute investors should regularly review their portfolios - at least weekly - to assess when it is time to "hold em", and when its time to "fold em". I do this weekly for all my clients' accounts using the methodology I described above. Remember, you will never consistently pick the exact top or the exact bottom - but at least you will be on the right side of the market as its moving up, and out of the market when it gets turbulent.

The most difficult thing investors encounter is the emotional battle of selling a stock – especially if it was purchased at a significantly lower price. But as we have discussed in prior articles, there's a time to be invested in the market and a time to be invested in cash.

A useful tool to assist with this decision is to analyse price charts systematically and objectively to determine whether investor sentiment and the price trend is changing for a particular investment.

Being proactive is certainly the key to successful investing.

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*All charts courtesy of MDS Market Analyser ([www.mdsnews.com](http://www.mdsnews.com)). Guppy Multiple Moving Average method applied from the teachings of Darryl Guppy ([www.guppytraders.com.au](http://www.guppytraders.com.au)).*

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