



Ron Bewley PhD, FASSA

Woodhall's Weekly

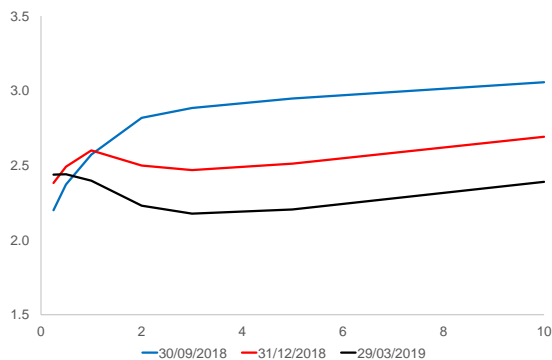
Inverted yield curve – so what?

- **Are all inversions the same?**
- **GDP growth in the US just fine**
- **US-China trade talks resume**

Overview

Does my curve look flat in this chart? The big fuss last week was about the inversion of the US yield curve. Back at the end of September 2018 (the blue curve), the yield curve had the 'normal' shape. As the term of the bond lengthened, the yield increased reflecting the additional risk.

Chart of the week: US yield curve



At the end of 2018 (the red curve) the 10-year was well above the 90-day rate but there was a little dip around 1-5 years. Nobody worried. A week ago, panic set in as the yield curve inverted to become the black line. It is really, really important to note that the short-end rate hardly moved over the six months. It was the long-end that changed as inflation expectations changed. This is not the stuff of recession predictors.

Some said the 2006 inversion – the last such occurrence – led the way into the GFC. Not the case! In the six months leading up to the inversion, the short rate moved up 50 bps or so. It was the tightening then that 'caused' the recession along with property prices crumbling and credit markets freezing.

Q4 US growth was revised down to 2.2% from 2.6% at the first revision. A few weeks before, markets expected 2.2% and got 2.6% so 2.2% for the final estimate is just what had previously been expected. Fed chair Powel is predicting 2.1% for 2019!

The US trade deficit came in at a 10-month low on the back of increased exports to China of soybeans and autos. Just what the doctor ordered. The bilateral talks resumed on Thursday and have reportedly started well.

One has to feel some empathy for the UK PM, Theresa May. She was landed the job when Cameron pulled a shifty and now no one will agree to anything. At a recent vote a number of Brexit solutions were tendered and all were rejected. It's so easy to be the rejector and so hard to be the creator. Maybe they should send the whole lot to the Tower if they can't agree. Monarchs used to know how to rule!

We think major markets are just fine again but spare a thought for the Turks. Their overnight swap rates on lira borrowings just hit 1,000%.

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General Advice Warning: This note has been prepared without taking account of the objectives, financial situation or needs of any particular individual. Any individual should, before acting on the information in this note, consider the appropriateness of the information, having regard to the individual's objectives, financial situation and needs and, if necessary, seek appropriate professional advice. Past returns are no guarantee of future performance.

Market expectations

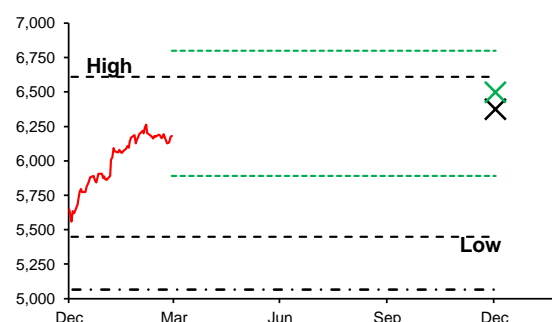
Our start-of-year 2019 eoy forecasts for the ASX 200 are given in Table 1 (left column) together with the latest calculations (right column) and last week's (middle column) for comparison. Chart 1 includes a trace of the index to compare with the forecast highs and lows.

Table 1: ASX 200 range forecasts 2018

Forecast CY19	Forecast origin		
	31-Dec-2018	22-Mar-2019	29-Mar-2019
Low	5,450	5,900	5,900
High	6,600	6,800	6,800
End	6,400	6,500	6,500
Fair value	6,100	6,150	6,150
Exuberance	-7.1%	1.0%	0.5%
ASX 200	5,646	6,195	6,181

Note: the latest forecasts in the right-hand column do not provide updates of the original forecasts in the left column of numbers. Rather the latest forecasts facilitate an assessment of the degree to which the original forecasts are on track, or not. Moreover, exuberance is assumed to be eroded over a 12-month period and so the 'latest' forecasts are less reliable the closer is the current date to the end-of-year and the greater is any mispricing.

Chart 1: Graphical representation of Table 1



Note: the low and high are based on 'normal' volatility levels. The 'high-volatility' low allows for well above normal volatility and a breach of which starts to suggest the base-line forecasts may no longer be relevant. The dashed black lines are derived from average volatility assumptions; the dot-dash line corresponds to high volatility.

The eoy forecast for 2019 (left-hand column in Table 1) was 6,400 with a forecast high of 6,600 and a forecast low under normal volatility of 5,450. The 'high-volatility' forecast low was 5,050. [See the IOZ:IVV:IHVV section for the decision rules surrounding these low and high forecasts. The updated eoy 2019 forecast (Table 1, last column) is 6,500. Fair value is 6,150.

It should be stressed that when markets are heavily mispriced, the speed with which mispricing is eroded is key to making a good forecast. In this table we assume that it takes 12 months to erode the mispricing which is possibly a very conservative assumption.

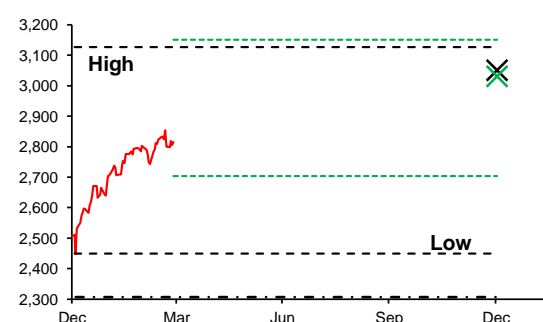
Table 2: S&P 500 range forecasts 2018

Forecast CY19	Forecast origin		
	31-Dec-2018	21-Mar-2019	28-Mar-2019
Low	2,450	2,730	2,700
High	3,130	3,170	3,150
End	3,050	3,040	3,030
Fair value	2,900	2,830	2,830
Exuberance	-13.3%	1.0%	-0.6%
S&P 500	2,507	2,855	2,815

Note: see notes for Table 1.

Our eoy 2019 forecasts for the S&P 500 are given in Table 2. Because overnight data are not available to us until the afternoon, the latest data for Wall Street will usually be presented for the day before the ASX 200 in this *Weekly* that we try to post at around 10am on a Saturday.

Chart 2: Graphical representation of Table 2



Note: see notes to Chart 1.

Our original forecast for eoy 2019 was 3,050 with a high of 3,130 and a low of 2,450. The 'high-volatility' low was 2,300.

The updated eoy forecast for the S&P 500 is 3,030. Fair value is 2,830

Market stats

Our market volatility index (Chart A-1 to be found in the Chart Appendix) is below average at 9.8%. Our Fear Index (Chart A-2) is in the zone at 10.1%. The VIX stands at 13.7%. Our Disorder index (Chart A-3) is in the zone at 0.8%.

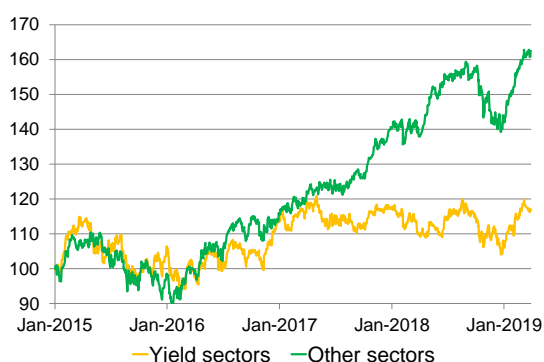
Our updated 12-month capital gains forecast (Chart A-4) is +7.4%. The market is just expensive at +0.5% (Chart A-5). So that leaves the adjusted rolling 12-month capital gains' forecast at +6.8%. The comparable 12-month adjusted capital gains forecast for the S&P 500 stands at about +9.5%.

Sector pricing (Chart A-6) is such that the Property (+7.2%) and Materials (+7.0%) sectors are

significantly overpriced. However, IT (+4.8%) is perhaps too expensive to buy.

Chart 3 shows an interesting angle on the yield play. Our composite yield sector (Financials-x-REITS, REITS, Telcos and Utilities) and the 'other' (seven) sector moved roughly together for 2015, 2016 and the first half of 2017. Since then the yield play went nowhere and slipped since mid-2018. The 'other index' performed very strongly until October 2018. Since then the other sector fell strongly – then rallied in 2019.

Chart 3: Total returns indexes for 'yield' and 'other' aggregated sectors



SMSF Share Portfolio

We last rebalanced our share portfolio in my SMSF on 1st February 2019. I kept the style at 100% High Conviction. There are again 23 stocks in the portfolio. No adjustments were made to the new model portfolio.

Table 3: Total returns from SMSF portfolio

Period	Portfolio	ASX 200	Alpha
Since inception	10.9%	7.6%	3.3%
4 years	8.6%	6.0%	2.7%
3 years	14.4%	12.0%	2.3%
2 years	11.4%	7.1%	4.3%
1 year	18.1%	12.1%	6.0%
6 months	3.7%	2.2%	1.5%
3 months	14.7%	10.7%	3.9%

Note: Since June 25th 2014. Returns include dividends. For periods above one year, the returns are annualised.

The performance of domestic equities in our SMSF portfolio – including various rebalances – against the ASX 200 since late June 2014 is shown in Table 3. That corresponds to an outperformance of +3.3% p.a. (annualised) since inception. The portfolio has been returning +10.9% p.a.

In Table 4, I show the performance (including dividends) of the individual stocks since the last rebalance.

We have one stock (MFG) beating the index by more than 10% since February 1st 2019 and one stock (TWE) trailing by more than -10%.

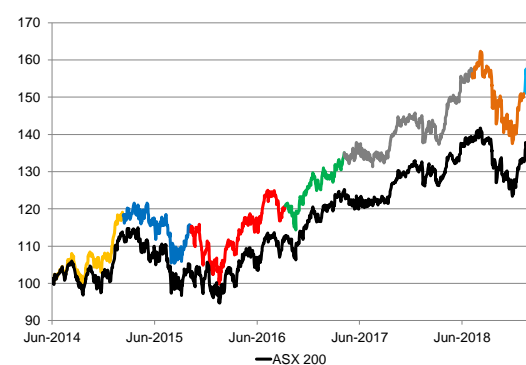
Table 4: Individual stock total returns

	ALL	ALQ	BHP	BXB	CIM	CSL	CWN	GMG
Return	0.7%	2.7%	10.7%	10.2%	8.8%	0.5%	-2.1%	15.3%
Alpha	-6.1%	-4.1%	4.0%	3.4%	2.0%	-6.3%	-8.9%	8.5%
	LLC	MFG	MQG	NCM	RIO	RMD	SCG	SGP
Return	6.3%	29.3%	11.9%	3.2%	12.5%	10.7%	5.5%	3.5%
Alpha	-0.5%	22.5%	5.1%	-3.5%	5.8%	3.9%	-1.3%	-3.3%
	SHL	SUN	TAH	TCL	TWE	WBC	XRO	ASX200I
Return	6.3%	7.2%	1.6%	8.9%	-3.6%	6.6%	12.4%	6.8%
Alpha	-0.5%	0.4%	-5.2%	2.1%	-10.4%	-0.2%	5.6%	0.0%

Note: Since August May 1st 2018. Returns include dividends.

The returns chart (Chart 4) shows the recent performance using colours to denote rebalanced portfolios.

Chart 4: SMSF and ASX 200 total returns



Note: the different coloured sections show the impact of rebalancing.

The IOZ:IVV:IHVV Update

Decision rules: given the data in Tables 1 and 2, I use the following decision rules – until new rules are formed, expected to be January 1 2020. These rules are based on calendar year forecasts for new money:

Buy IOZ at 5,450 from Table 1 (up to maximum levels determined by risk assessments) and start to sell at 6,600 for new investments. If the ASX 200 falls to 5,050 (high-volatility low) it might be prudent to exit the strategy until clarity emerges and then buy back in at (well) above 5,050 but below 5,450.

Buy IVV:IHVV at 2,450 (up to maximum levels determined by risk assessments from Table 2a) and sell at 3,130 for new investments. If the S&P 500 falls to 2,300 (high-volatility low) it might be prudent to exit the strategy until clarity emerges and then buy back in at (well) above 2,300 but below 2,450.

For older investments, some regard is taken of the trigger points set when the investments were made.

Charts 5 and 6 are based on the price indexes as this is the metric where the signals are being made.

The strategy has been returning +11.6% pa since inception (Table 5) (including dividends). The IVV+IHVV leg is up +13.7% pa. The IOZ part of the strategy is up +9.7% pa. The table below shows that I am 55% hedged in the Wall Street component. The domestic share of the portfolio is 56%.

Table 5: Total returns on IOZ:IVV strategy

29-Mar-2019	Inc divs.	Current allocation	
ETF	IRR pa	Total	USA
IOZ	9.7%	56%	
IVV+IHVV	13.7%	44%	100%
IVV	12.6%		45%
IHVV	15.2%		55%
Total	11.6%	100%	
Indexes	Alpha pa		
ASX 200	7.7%	2.0%	
S&P 500	10.0%	2.6%	
S&P 500 (\$A)	13.3%	1.9%	

NB: IRR is the internal rate of return (p.a.) that compensates for the different buy and sell points and include dividends on the day they were paid and not the ex-div date. See notes in the Strategy Section for further explanation and charts. The index returns are based on a start date of 1/7/2014 for the ASX 200 and S&P 500 when the strategy was launched. The S&P 500 (\$A) return starts from 22/12/2014 when IHVV first became available.

I have also included the benchmarks for each ETF in Table 5 so I can calculate any outperformance from the buying low – selling high strategy. Annualised outperformance is eroded in the long-run to zero unless fresh buys are made or a sell signal arrives.

The Charts 5 and 6 in the strategy section now include a yellow square to show where the hedging trades were made. The red diamonds denote the buy points. The green boxes denote the sell points.

There is nothing in recent behaviour to suggest to us that the underlying forecasts for the ASX 200 or the S&P 500 have been proven to be invalid. We plan to flag any perceived weaknesses if and as they eventuate.

The IOZ:IVV:IHVV Strategy

(Except for the charts, this section does not usually change week to week)

I plan to use the Table in the 'IOZ:IVV:IHVV Update' section to keep readers informed about the performance of my geared portfolio [an approximate equal mix of two ETFs: IOZ for the ASX 200 and IVV:IHVV for a partially hedged exposure to the S&P 500]. I will await the sell signals in times to come.

The basis of the strategy is to buy when the indexes (using ETFs) get very close to or cross the beginning of the year predicted low – and to sell when the indexes reach the predicted highs – as indicated in the 'Market Expectations' section. I do not use the weekly updated lows and highs for this purpose. These update statistics help me consider whether or not the strategy is going awry.

Since the IVV ETF is unhedged it benefits from \$A depreciations and vice versa. I switch to IHVV – the hedged version of the S&P 500 ETF – when I think the currency is more likely to appreciate – or at least insure against it. When I am unsure, I blend IVV and IHVV.

Note that the irr is a single annualised return to summarise all of the buys of the three ETFs and the current value including dividends when paid and not when the ETF went ex-div.

The following charts show where I bought. Since the 'buy' signals are based on the S&P 500 (as I do not have credible exchange rate predictions – hence an implicit no-change assumption).

Chart 5: IOZ buy points - ASX 200

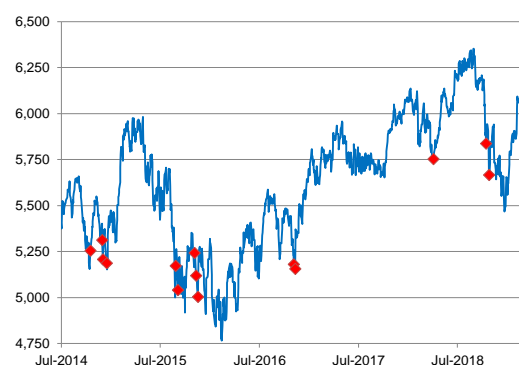


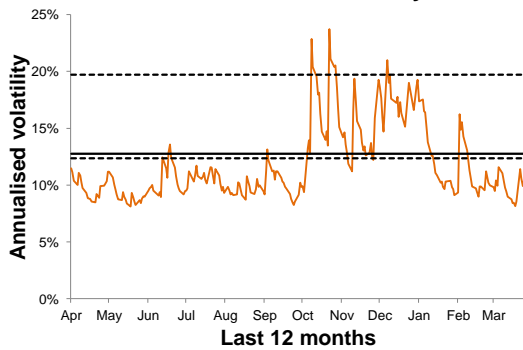
Chart 6: IVV/IHVV Buys - S&P 500



The charts in this strategy section include a yellow square to show where the hedging trades were made. The red diamonds are the buys. The green squares are the sells.

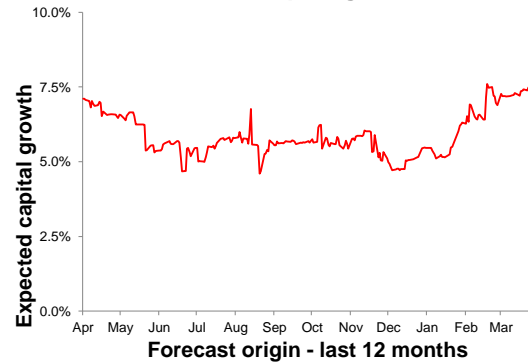
Chart Appendix

Chart A-1: Market volatility



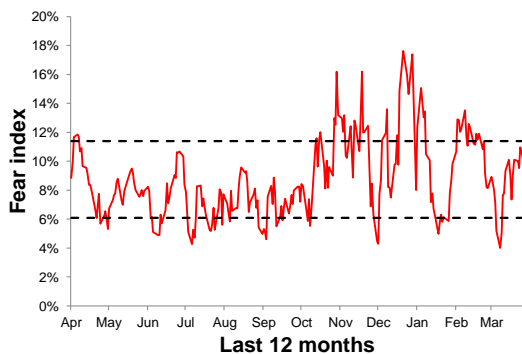
Notes: The solid black line depicts the average volatility since January 2010; the lower dotted line depicts the average volatility pre the GFC; the higher dotted line depicts the average level of volatility during the GFC - up to December 2009. The brown line is a daily estimate of the ASX 200 index volatility.

Chart A-4: 12-month capital gains forecasts



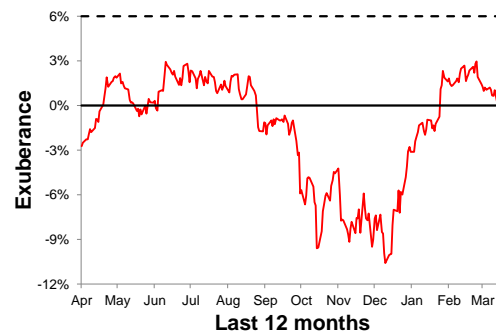
Notes: Each business day we update our estimates for capital gains on the ASX 200 for the following 12 months. For example, the left-most estimate on the vertical axis is a forecast for the 12 months concluding today. The right hand estimate is for the 12 months from today.

Chart A-2: Fear index



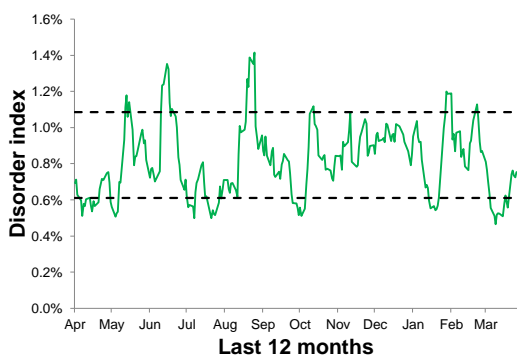
Notes: The fear index is a measure of 'excess' volatility denoting behaviour outside the open/close values each day. The two dotted lines depict the band in which the fear index resided before the GFC in two thirds of days. Extended periods below the lower dotted line might indicate complacency. Extended periods, or extreme values, of the index above the higher dotted line might indicate a propensity for the market to overreact in an irrational manner.

Chart A-5: Market exuberance



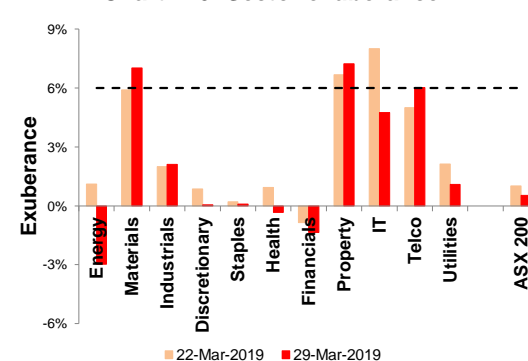
Notes: Exuberance is our measure of mispricing on the ASX 200. A value below the solid black line denotes the market is perceived to be cheap and above that line expensive. Experience suggests that exuberance above +6%, denoted by the dotted line, is an indicator of a potential correction of 6% to 10% - or for the market to move sideways for an extended period.

Chart A-3: Disorder index



Notes: The disorder index measures the degree to which the 11 sectors' daily returns move in harmony. The two dotted lines depict the band in which the disorder index resided before the GFC in two thirds of days. Extended periods below the lower dotted line might indicate belief that there is little information to have different impacts on different sectors. Extended periods, or extreme values, of the index above the higher dotted line might indicate investors and traders are lurching from sector to sector in search of a new trend.

Chart A-6: Sector exuberance



Notes: The estimates in this chart are based on the same notions as for Chart A-5. More detailed information on mispricing is contained in our companion weekly publication in the same section of our website

Glossary

Abenomics – Japan's Prime Minister Shinzo Abe came to power early in 2013 and has brought a new economic style to managing that economy.

ASX forecasts - We have further supplemented our forecasting process for the ASX 200 by including not just a forecast of the peak (at some unspecified time during the year) but also the low. Thus, we now have an end point (e-o-y forecast) and a range for the whole year. Naturally, on a rising market the low is more likely to occur earlier in the year and the high nearer the end. Since we publish our forecasts to the nearest 50 points to reduce the sense of false accuracy a change of just a couple of points can kick the forecast over by 50 points at around the 25 and 75 marks.

Australian debt ceiling – Labor brought in a debt ceiling in mid 2008 of \$75bn to self-impose some fiscal discipline during the onset of the GFC. Within seven months that ceiling was almost trebled to \$200bn and it has since been raised to \$300bn during Labor's term in office. Since before 2008 we had no debt ceiling that is equivalent to an infinite ceiling!!

Bad debt, good debt – Whether one is referring a household or national debt, the classification implies the following. Good debt is expected to produce income or other returns in the future – such as from infrastructure spending or buying a principal place of residence. Bad debt is used to finance 'recurrent' expenditure such as pensions or family holidays.

Black Friday – This term is used for the Friday after Thanksgiving in the US to denote the start of the shopping season for the holidays. Black refers to the accounts going back into the black from increased sales – it is certainly not a negative term!

Brexit – on 23rd July 2016 Britain voted to leave the European Union. The process is expected to take at least two years and negotiations must take place to engineer a smooth transition.

CAIXIN (formerly HSBC) flash PMI – CAIXIN publishes an alternative to the official PMI for China. It is based on a survey of predominantly small to medium sized firms – unlike the official version. The number on the 1st of the month gets much less attention than the official but the preliminary, or 'flash', reading gets attention as a read a week or two before the official numbers.

China's shadow banking – In essence, the China government dictates what all banks must lend at and pay for deposits. As a result, if a potential borrower is deemed too risky at the prevailing rate, the banks refuse to lend (rather than increase borrowing rates as may happen here). The 'failed' borrower may then seek funding from the shadow banking system that is not so regulated.

FOMC – The Federal Open Market Committee determines monetary policy in the United States. It can be thought of as being similar to our Reserve Bank board.

GOP – stands for Grand Old Party which is an alternative name for the US Republican Party.

High-Yield Sectors: by this, we mean Financials, Property, Telcos and Utilities.

International Monetary Fund (IMF) – Managing Director, Christine Lagarde (French), since 28th June 2011. The IMF is charged with fostering global monetary cooperation.

ISM - Institute of Supply Management produces a 'PMI-like' number for the US economy. Like the PMI, 50 is the cut off between improving and worsening expectations.

Long-run mispricing – Our measure is based on analysing trends over more than a century of data. The average period of over-

under-pricing is about 18 months. That is, we do not expect the market to rapidly approach its fair value.

MYEFO (Mid-year economic and fiscal outcome) is a mid-year update on the Australian Budget situation – usually in December.

PMI – This acronym stands for Purchasing Managers Index. There is one for most countries and separate statistics for manufacturing and services. Manufacturing typically gets more attention. The official statistics are published in the first few days of each month – with China on the 1st. A reading less than 50 means the sector is decreasing in its growth rate – so if China growth slows from 8% to 7%, its PMI should be below 50. If the US speeds up from 2% to 2.5%, its PMI should be above 50. Note also the existence of the CAIXIN measure and its 'flash' or preliminary estimate.

Savings ratio – In Australia, the ratio of net savings to household disposable income defines the savings ratio.

Short-run mispricing – Our exuberance measure is our mispricing statistic reported in Chart 5. It is based on 12-month-ahead forecasts of the ASX 200. Please see the notes under Chart 5.

Tapering – It was the name given to the exit strategy from QE3. It is not a tightening monetary policy – just an increasingly less accommodative stimulus.

US non-farm payrolls data – are usually published on the first Friday of each month. They are generally considered to be the most reliable indicators for employment and unemployment in the US. Roughly speaking, a 200,000 increase in jobs is considered strong. Of course less new jobs are needed when the economy is running at full employment.

Key people

Australia – Prime Minister, Scott Morrison, (Liberal) since 24th August 2018; Treasurer, Josh Frydenberg, since 24th August 2018; Governor of the Reserve Bank of Australia (**RBA**), Dr Philip Lowe, since 18th September 2016.

China – President Prime Minister, Xi Jinping, since 14th November 2013; Premier, Li Keqiang since 15th March 2013; Yi Gang, President of the People's Bank of China (**POBC**) since March 2018.

Europe – President of the European Central Bank (**ECB**), Mario Draghi (Italian), since 1st November 2011; Chancellor of Germany, Dr Angela Merkel, since 22nd November 2005; President of France, Emmanuel Macron, from May 2017; Prime Minister of Greece, Alexis Tsipras, since 21st September 2015.

Japan – Prime Minister, Shinzo Abe, since 26th December 2012; Emperor, Akihito, enthroned 12th November 1990; Governor of the Bank of Japan (**BoJ**), Haruhiko Kuroda, since 20th March 2013.

New Zealand – Prime Minister, Jacinda Arden, October 2017; Governor of the Reserve Bank of New Zealand (**RBNZ**), Adrian Orr, since 27th March 2018.

United Kingdom – Prime Minister, Theresa May, since 11th July 2016; Chancellor of the Exchequer, Philip Hammond, since 13th July 2016; Governor of the Bank of England (**BoE**), Mark Carney (Canadian), since 1st July 2013.

United States of America – President, Donald Trump, from January 20th 2017 (4 year term); Chair of the Federal Reserve Bank (**Fed**), Jerome "Jay" Powell, since 5th February 2018 (4 year term)