6 January 2018

Woodhall's Weekly

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Release of 2018 Woodhall forecasts

- **ASX 200 forecast for eoy 2018 at 6,400**
- **S&P 500 forecast for eoy 2018 at 2,890**
- **US nonfarm payrolls data miss expectations**

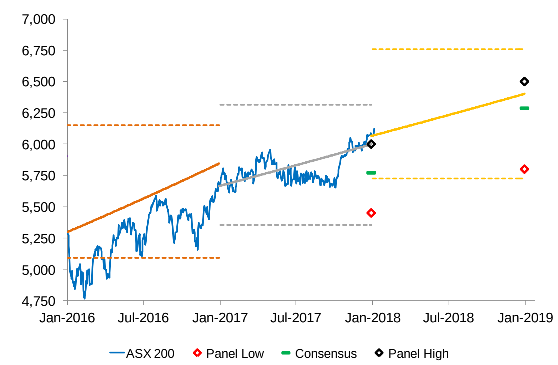
Overview

Only one week into 2018 and we have a new decade high on the ASX 200. Our new forecast for the end of 2018 is 6,400 which is only a modest increase on the actual eoy 2017 of 6,065 partly because we had the market overpriced by 1.5% on December 31.

An ABC survey of eoy18 forecasts from seven big houses has a high of 6,500 and a low by the perennial bear, Morgan Stanley, of 5,800. The consensus mean is 6,286.

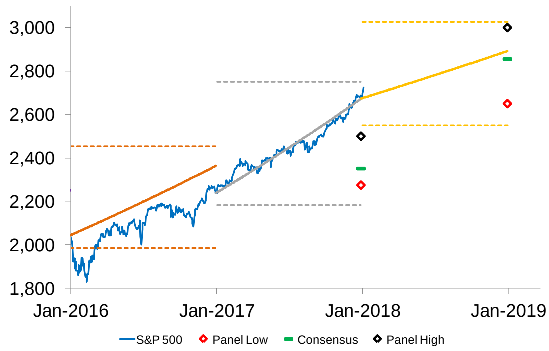
The new forecasts, together with the old forecasts and actual behaviour, are shown in the following chart. It turns out that this year we are 'in the pack' but above the consensus mean.

Chart of the Week: ASX 200 and forecasts



In the next chart we repeat the previous chart analysis for S&P forecast of 2,890. As it turns out, the Woodhall forecast is again above the consensus mean but in the pack – in stark contrast to last year as shown in the next chart.

Chart of the Week: S&P 500 and forecasts



A Business Insider survey of 12 eoy18 forecasts has a high of 3,000 and a low of 2,650. The consensus mean is 2,855.

What is particularly important to us (see the Geared Section in this report) is that the current S&P 500 level is almost at the 2017 forecast high. Therefore we must consider the possibility of starting a sell-down. That view is amplified by the market being +3.9% overpriced using our measure of exuberance.

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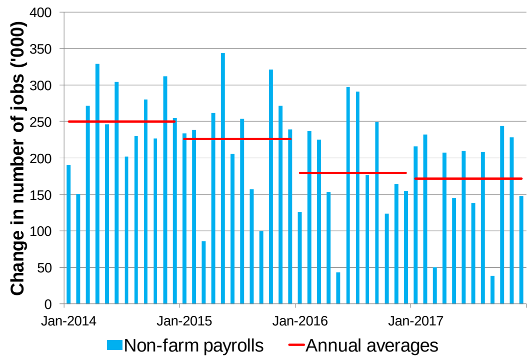
While we are predicting a reasonable increase in the index, the low forecast is substantially below current levels. We plan to revise our strategy following this interesting situation.

The nonfarm payrolls data dropped overnight with a bit of a thud. Only 148,000 jobs were created compared to an expected 190,000. But, as one can note from the following chart, it is within normal ranges.

Chart of the week: US nonfarm payrolls



To some extent, this new number is better than a stronger one as the latter might have created a bit too much enthusiasm.

But what was good is that there was a small pick-up in wages growth to 2.5% and the previous jobs number was revised upwards to 252,000 from 228,000.

So we started the year with a gain of +0.94% which is a very good sign. With many investors coming later to the party the danger we are looking at is one of the creation of a mini bubble. We are ready to take profits – but not yet.

Regular readers may notice we have slimmed down our Weekly. That will make it easier to update on a Saturday morning without any material loss of any information regarding our view.

Also, we are in the UK for a month so the posting will be made Saturday morning UK time – about 11 hours later than normal.

Market expectations

Our start-of-year 2018 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 forecasts highs and lows.

Table 1: ASX 200 range forecasts 2018

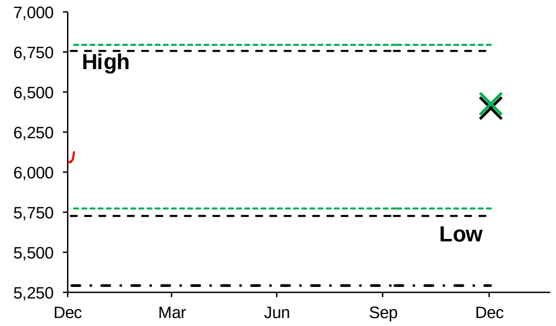
Forecast	Forecast origin		
CY18	**30-Dec-2017**	**29-Dec-2017**	**5-Jan-2018**
Low	5,750	5,750	5,750
High	6,750	6,750	6,800
End	6,400	6,400	6,450
Fair value	5,950	5,950	6,000
Exuberance	1.5%	1.5%	2.3%
ASX 200	6,065	6,065	6,122

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.

The eoy forecast for 2018 (left-hand column in Table 1) was 6,400 with a forecast high of 6,750 and a forecast low under normal volatility of 5,750. The 'high-volatility' forecast low was 5,300. [See the IOZ:IVV:IHVV section for the decision rules surrounding these low and high forecasts.]

The updated eoy 2018 forecast (Table 1, last column) is 6,450. Fair value is up at 6,000.

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.

Our eoy 2018 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 publish at around 10am on a Saturday.

Our original forecast for eoy 2018 was 2,890 with a high of 3,030 and a low of 2,550. The 'high-volatility' low was 2,360.

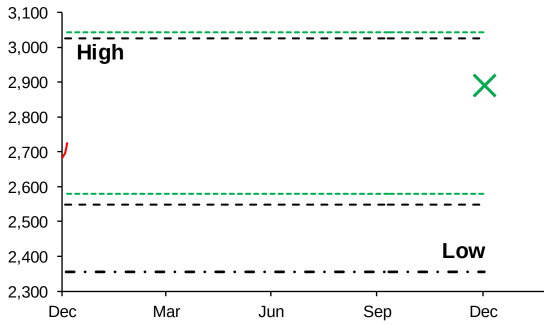
The updated eoy forecast for the S&P 500 is 2,890. Fair value is steady at 2,620.

Table 2: S&P 500 range forecasts 2018

Forecast CY18	Forecast origin 30-Dec-2017	28-Dec-2017	4-Jan-2018
Low	2,550	2,560	2,580
High	3,030	3,030	3,040
End	2,890	2,890	2,890
Fair value	2,620	2,620	2,620
Exuberance	-1.2%	2.5%	3.9%
S&P 500	2,674	2,688	2,724

Note: see notes for Table 1.

Chart 2: Graphical representation of Table 2



Note: see notes to Chart 1.

Market stats

Our market volatility index (Chart A-1 to be found in the Chart Appendix) is below average at 9.3%. Our Fear Index (Chart A-2) is in the middle of the zone at 8.6%. The VIX stands at below average at 9.2%. Our Disorder index (Chart A-3) is at the bottom of the zone at 0.5%. With market volatility and fear below average the market is being very well behaved and can continue this rally.

Our 12-month capital gains forecast (Chart A-4) has risen to +7.5%. The market is modestly over-priced by +2.3% (Chart A-5). So that leaves the adjusted 12-month capital gains' forecast at +5.1%. The comparable 12-month adjusted capital gains forecast for the S&P 500 stands at about +6% since the market is +3.9% overpriced.

Sector pricing (Chart A-6) is such that Materials (11.4%) and Energy (7.1%) are heavily over-priced in the danger zone. Staples (+3.4%), IT (+5.4%) and Telcos (3.1%) are quite overpriced.

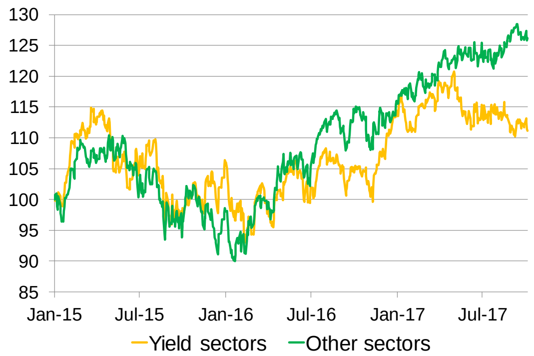
The yield play definitely waned during 2016 and 2017 but there was a big comeback for a while. However, from Table 3, we note Yield is still slipping back into underperforming across the board as Materials got back into the swing.

Table 3: Yield play - total returns

Period	Sector Yield	Other	Difference
1 year	-2.8%	8.9%	-11.7%
6 months	-0.6%	3.6%	-4.2%
3 months	0.0%	0.0%	0.0%
1 month	0.0%	0.0%	0.0%

Chart 3 shows another interesting angle on the yield play. The yield sector lost relative to 'other' around the end of 2015 but the two lines got back together in February 2016 and broke free again at the end of June 2016. The bank tax and scandals effects are quite clear at the end of the yellow line.

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

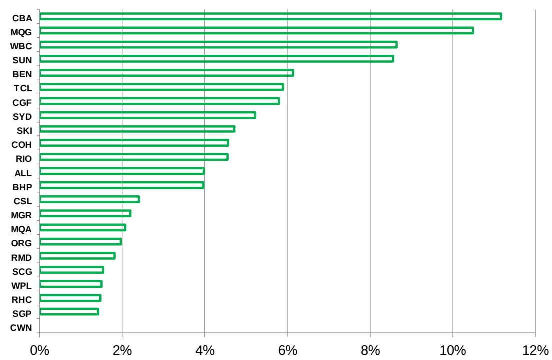


SMSF Share Portfolio

I last rebalanced my share portfolio in my SMSF on May 1st 2017. It was set at 50% High Conviction and 50% High Yield by my definitions.

There are currently 22 stocks in my domestic direct equity portfolio.

Chart 4: Current holdings



The performance of my domestic equities in my SMSF portfolio – including various rebalances –

against the ASX 200 since late June 2014 is shown in Table 4. That corresponds to an outperformance of +2.6% p.a. (annualised) since inception. The portfolio is returning +11.0% p.a. over more than three and a half years.

Table 4: Total returns from SMSF (domestic equities)

Period	Portfolio	ASX 200	Alpha
Since inception	11.0%	8.3%	2.6%
3 years	10.8%	9.3%	1.6%
2 years	15.7%	14.2%	1.5%
1 year	12.6%	11.1%	1.5%
6 months	7.5%	8.7%	-1.2%
3 months	7.8%	8.1%	-0.3%

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

In Table 5, I show the performance (including dividends) of the individual stocks since the last rebalance.

Table 5: Individual stock total returns

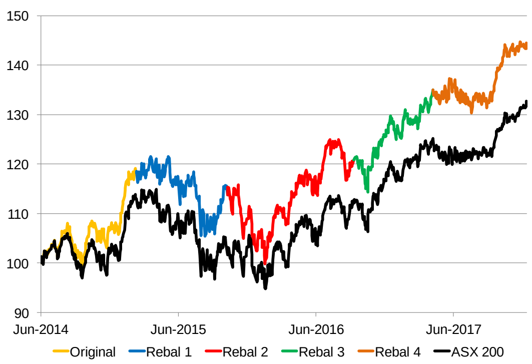
	ALL	BEN	BHP	CBA	CGF	COH	CSL	
Return	16.3%	-1.6%	31.4%	-4.5%	7.3%	24.1%	8.4%	
Alpha	10.3%	-7.6%	25.4%	-10.5%	1.3%	18.1%	2.4%	
		MGR	MQA	MQG	ORG	RHC	RIO	RMD
Return		4.9%	17.5%	11.6%	33.6%	1.1%	34.9%	21.0%
Alpha		-1.1%	11.5%	5.6%	27.6%	-4.9%	28.9%	15.0%
	SCG	SGP	SKI	SUN	SYD	TCL	WBC	WPL
Return	-0.7%	-6.2%	-1.3%	2.1%	6.1%	3.4%	-7.1%	10.2%
Alpha	-6.7%	-12.2%	-7.3%	-3.9%	0.1%	-2.6%	-13.1%	4.2%

Note: Since May 1st 2017. Returns include dividends.

We have seven stocks beating the index by more than 10% since May 1 (ALL, BHP, COH, MQA, ORG, RIO and RMD) but three (CBA, SGP and WBC) are trailing by more than -10%.

The returns chart (Chart 5) shows the recent performance using colours to denote rebalanced portfolios as well as the trend gains.

Chart 5: SMSF and ASX 200 total returns



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

Table 6 shows the gap between broker forecasts for one year hence (Target) and current price. A negative value for T/P - 1 expressed as a percentage change therefore indicates brokers on average think the stock is overpriced.

Table 6: Price and current broker forecasts

Sector	Stock	Price	Target	Rec	T/P - 1
Energy	ORIGIN ENERGY (EX BORAL)	9.58	9.50	2.40	-0.8%
	WOODSIDE PETROLEUM	34.57	24.56	3.00	-28.9%
Materials	BHP BILLITON	30.58	23.70	2.33	-22.5%
	RIO TINTO	78.25	61.90	2.20	-20.9%
Industrials	MACQUARIE ATLAS ROADS GRC	6.31	6.50	2.28	3.0%
	SYDNEY AIRPORT	7.11	7.28	2.40	2.3%
	TRANSURBAN GROUP	12.36	12.68	2.50	2.6%
Discretionary	ARISTOCRAT LEISURE	23.08	25.00	2.09	8.3%
Health	COCHLEAR	172.19	144.25	3.90	-16.2%
	CSL	142.70	112.82	2.00	-20.9%
	RAMSAY HEALTH CARE	70.60	74.50	2.50	5.5%
	RESMED CDI.	10.99	8.62	2.42	-21.6%
Financials	BENDIGO & ADELAIDE BANK	11.89	11.36	3.23	-4.4%
	CHALLENGER	14.05	13.19	2.57	-6.1%
	COMMONWEALTH BK.OF AUS.	81.16	81.65	2.92	0.6%
	MACQUARIE GROUP	101.34	101.67	2.38	0.3%
	SUNCORP GROUP	13.88	14.50	2.38	4.5%
	WESTPAC BANKING	31.47	33.94	2.53	7.8%
Property	MIRVAC GROUP	2.35	2.44	2.58	3.8%
	SCENTRE GROUP	4.15	4.46	2.16	7.3%
	STOCKLAND	4.41	4.73	2.25	7.3%
Utlities	SPARK INFRASTRUCTURE GP.	2.44	2.60	2.80	6.6%

Note: T/P -1 is the broker target price divided by the current share price minus one giving an indication where the price might move to over the coming 12 months.

There are now just two stocks with a recommendation at worse than 3.0: BEN and COH. COH is a “Captain’s pick” that has served me well over the years. I also held onto it to reduce churn in the last rebalance.

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 2019. These rules are based on calendar year forecasts for new money:*

Buy IOZ at 5,750 from Table 1 (up to maximum levels determined by risk assessments) and start to sell at 6,750 for new investments. If the ASX 200 falls to 5,300 (high-volatility low) it might be prudent to exit the strategy until clarity emerges and then buy back in at (well) above 5,300 but below 5,750.

Buy IVV:IHVV at 2,550 (up to maximum levels determined by risk assessments from Table 2a) and sell at 3,030 for new investments. If the S&P 500 falls to 2,360 (high-volatility low) it might be prudent to exit the strategy until clarity emerges and then buy back in at (well) above 2,360 but below 2,550.

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

Charts 6 and 7 are based on the price indexes as this is the metric where the signals are being made.

The strategy has been returning +13.2% pa since inception (Table 7) (including dividends). The IVV-IHVV leg is up +15.3% pa. The IOZ part of the strategy is up +11.2% pa. The table below shows that I am 51% hedged in the Wall Street component. The domestic share of the portfolio is 55%.

Table 7: Total returns on IOZ:IVV strategy

5-Jan-2018	Inc divs.	Current allocation	
ETF	IRR pa	Total	USA
IOZ	11.2%	55%	
IVV+IHVV	15.3%	45%	100%
IVV	12.3%		49%
IHVV	19.6%		51%
Total	13.2%	100%	
Indexes		Alpha pa	
ASX 200	8.5%	2.7%	
S&P 500	11.9%	0.3%	
S&P 500 ($A)	13.0%	6.6%	

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 7 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 6 and 7 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 me that the underlying forecasts for the ASX 200 or the S&P 500 have been proven to be invalid. I 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 6: IOZ buy points - ASX 200

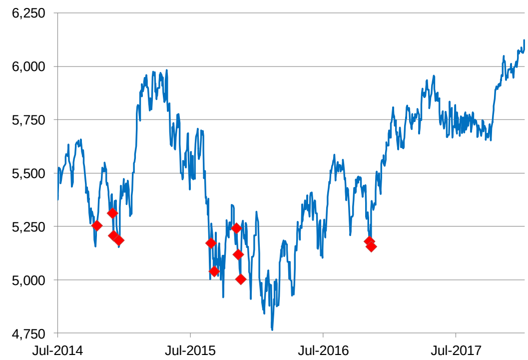
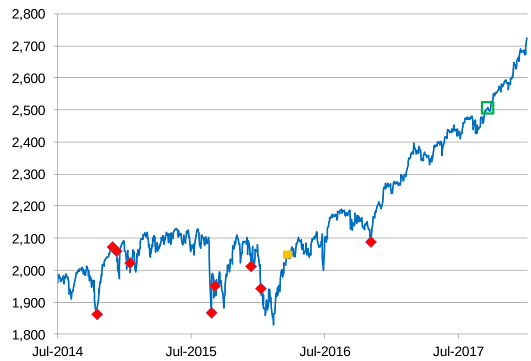


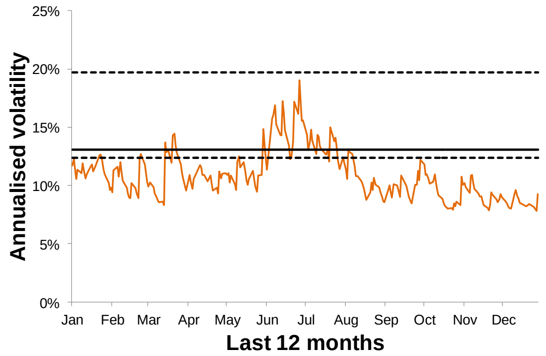
Chart 7: IVV/IHVV Buys - S&P 500



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.

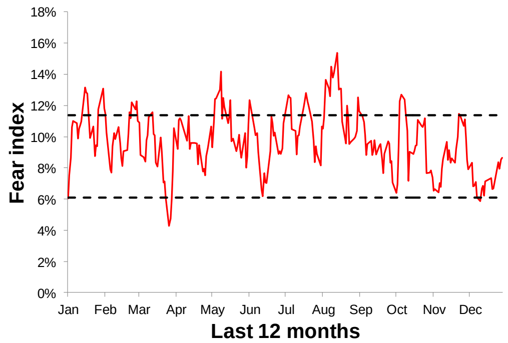
Chart Appendix

Chart A-1: Market volatility



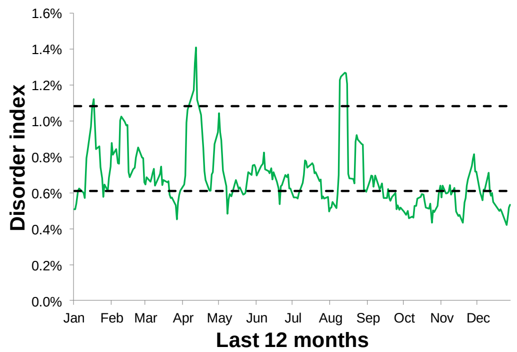
Notes: The solid black line depicts the average volatility since January 2010; the lower dotted line depicts the average volatility pre the GFC; the higher dotted line depicts the average level of volatility during the GFC - up to December 2009. The brown line is a daily estimate of the ASX 200 index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

Chart A-2: Fear index



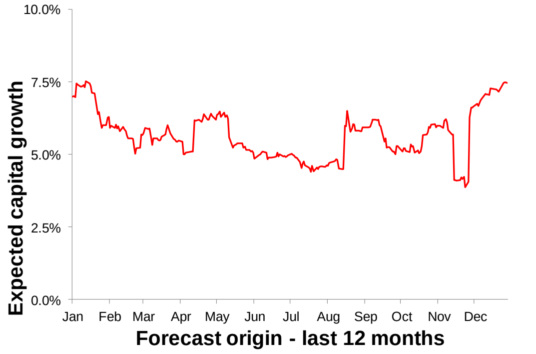
Notes: The fear index is a measure of 'excess' volatility denoting behaviour outside the open/close values each day. The two dotted lines depict the band in which the fear index resided before the GFC in two thirds of days. Extended periods below the lower dotted line might indicate complacency. Extended 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-3: Disorder index



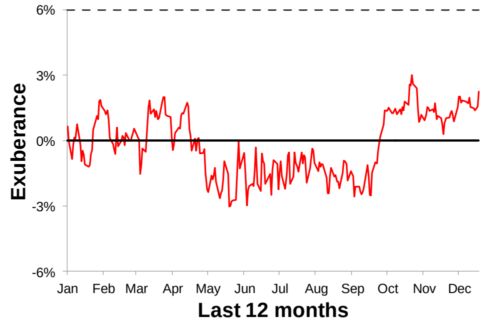
Notes: The disorder index measures the degree to which the 11 sectors' daily returns move in harmony. The two dotted lines depict the band in which the disorder index resided before the GFC in two thirds of days. Extended periods below the lower dotted line might indicate belief that there is little 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-4: 12-month capital gains forecasts



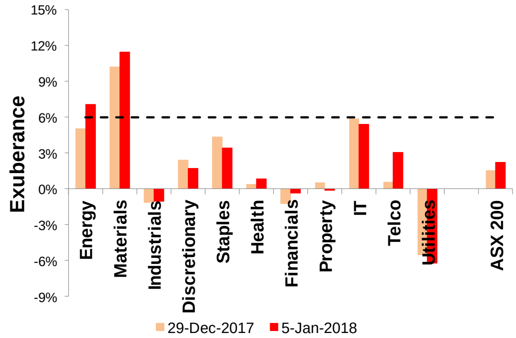
Notes: Each business day we update our estimates for capital gains on the ASX 200 for the following 12 months. For example, the left-most estimate on the vertical axis is a forecast for the 12 months concluding today. The right hand estimate is for the 12 months from today.

Chart A-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-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- or 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, Malcolm Turnbull, (Liberal) since 14th September 2015; Treasurer, Scott Morrison, since 21st September 2015; 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; President of the People's Bank of China (**POBC**) since December 2002.

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; Minster of Finance, Steven Joyce, since 20th December 2016; Governor of the Reserve Bank of New Zealand (**RBNZ**), Graeme Wheeler, since 26th September 2012.

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**), Dr Janet Yellen, since 3rd April 2014 (4 year term). Jerome "Jay" Powell to succeed in February 2018.