# BULLETIN



28 February 2023

# Deeper insights on Australian Wages The rate of increase in hourly wage rates continues to dissappoint resulting in a downward revision to our forecasts.

- The Wage Price Index (WPI) gained 0.8% in December, less than market expectation for a 1.0% rise and Westpac's 1.1%. This was also a step down from the 1.1% increase in September but it is worth noting that September was revised up from an original print of 1.0%.
- Despite the step down in the quarterly pace, the annual rate lifted to 3.3%yr, a modest increase from 3.2% in September, and well up on the 2.4%yr pace at December 2021. It is also the fastest annual pace since December 2012.
- Private sector wages rose 0.8%qtr, again slightly stronger than the public sector lift of 0.7%. At 3.6%yr, private sector wage inflation continues to outpace public sector wage inflation of 2.5%yr, a dynamic that has been evident since mid-2021.
- The ABS noted that while the December wage increase was a step down on the September increase, it was still higher than any December increase in the previous decade.
- The smaller states continue to outperform the larger south eastern states, but even in WA - which had the fastest pace of wage rate inflation in the December quarter - public sector wages are acting as a break on overall wage inflation.
- Various measures from the Wage Price Index\*

		dob	Dec-22
0.65	0.79	1.07	0.78
2.4	2.6	3.2	3.3
2.4	2.6	3.4	3.6
2.2	2.4	2.4	2.5
2.6	3.3	4.1	3.8
2.2	2.7	3.3	3.6
1.9	2.1	2.4	2.6
2.6	2.9	3.8	4.2
2.2	2.3	2.2	2.4
	2.4 2.4 2.2 2.6 2.2 1.9 2.6	2.4 2.6 2.4 2.6 2.2 2.4 2.6 3.3 2.2 2.7 1.9 2.1 2.6 2.9	2.4 2.6 3.2 2.4 2.6 3.4 2.2 2.4 2.4 2.6 3.3 4.1 2.2 2.7 3.3 1.9 2.1 2.4 2.6 2.9 3.8

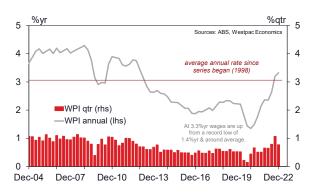
- \* Total pay excluding bonuses, seasonally adjusted.
- # Seasonally adjusted by Westpac. Sources: ABS 6345.0

#### **Wage forecasts**

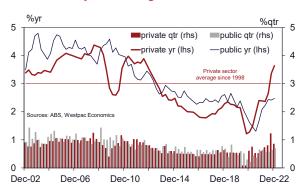
		Mar-23	Jun-23	Sep-23	Dec-23
Wage Price Index	(index)	144.2	145.7	147.2	148.7
	(%qtr)	0.8	1.0	1.0	1.0
	(%vr)	3.5	3.8	3.7	4.0

- Wage inflation continues to be faster in goods production and distribution while business services wage inflation has also picked up. Household services wage inflation continues to lag behind with eduction and health services, providing below average wage increases.
- In the year, the change (or lift) in household services wage inflation was significantly less than that for the others.
- Individual wage negotiations continue to provide higher rates of wage inflation as this sector reacts to tightness in the labour market. The impact of the recent lift in awards/minimum wage was mostly present in the September quarter, with less of a contribution from this sector in December. Enterprise bargaining wage inflation continues to lag not just because of the delay from extended duration of agreements but also because agreed wage rises in this sector continue to hold around 3%yr.
- Wage inflation continues to be more benign than expected while the unemployment rate, which bottomed out at a higher level than expected, is already starting to rise.
- Westpac has revised down the end 2023 forecast for WPI inflation from  $4\frac{1}{2}$ %yr to 4.0%yr.

#### **Wage inflation above average**



#### Public vs. private wages



Past performance is not a reliable indicator of future performance. The forecasts given above are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The results ultimately achieved may differ substantially from these forecasts.



#### Wage pressures ease even if they remain elevated

The 0.8% increase in December was a step down in the quarterly pace of wage inflation. However, the ABS noted that the December increase in hourly wage rates was higher than any December quarter increase in the previous decade. This follows on from the September and June 2022 quarter increases which were also higher than their comparable quarters back to 2012.

#### Private sector wages show signs of peaking

During the COVID crisis the Fair Work Commission (FWC) adjusted the timing of wage increases by sector so the timing of minimum/award wage increases were spread out through the year rather than being lumped into the September quarter. In 2022 the FWC return to more normal timing with most sectors getting an increase in September except for hospitality, tourism and aviation jobs which would be paid in December.

In September 2022 the proportion of jobs getting a wage increase rose to 46%, the largest percentage in the data back to 2012, with an average pay increase of 4.3% (also the largest wage increase back to 2012).

For December, the proportion in the private sector getting a wage increase fell back to 21%, down on the 23% in 2021 but still stronger that the average of 15% from 2012 to 2019. The average wage increase moderated a touch to 4.0% in December, softer than September but only beaten for second place by a 4.1% increase in June 2012.

On average it does appear that those getting a wage increase in December tend to get a smaller increase compared to those getting an increase in September, but this is not always the case. In 2020, those getting a wage rise in December saw a larger than average increase than those who had a wage rise in September (2.7% vs. 2.4%) but given this was in the middle of the COVID crisis, it is safe to assume this is an extreme outlier. There was, however, no change in the September and December wage increase paid in 2015 and 2016.

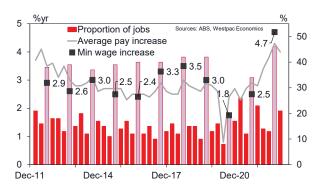
#### Public sector wages lifting but still lagging private sector

In contrast to the private sector, the average hourly wage increase for public sector jobs in December was higher than that paid in September (2.8% vs. 2.3%) and higher than the same quarter a year earlier (2.2%). This was the result of higher state wage caps, interim arrangements for Commonwealth agencies and enterprise agreements benchmarked against CPI. The public sector average wage increase has been gradually strengthening since 2020 but with an average increase of just 2.8% for those getting an increase, it is still well below that for the private sector and the award/minimum wage increase.

## While more on enterprises agreements get a pay rise those on individual arrangements get a larger pay rise

Jobs covered by an individual arrangement were the main drivers of wage growth in December. The ABS did note that fewer jobs covered by individual arrangements received a wage increase in December compared to jobs covered by an enterprise agreements. However, jobs covered by an individual arrangements continue to received higher average increases than those on enterprise agreements or awards/minimum wage. Hence, the average quarterly increase for individual arrangements, and the contribution from individual arrangements to the total average increase, was larger than that for enterprise bargaining or awards/minimum wage.

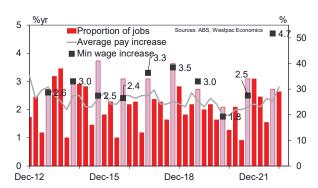
#### Private sector wage increase in quarter



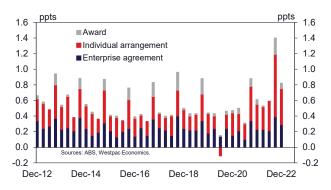
#### Private pay increase in quarter vs annual WPI



#### Public sector wage increase in quarter



#### **Wage inflation by bargaining arrangement**



Past performance is not a reliable indicator of future performance. The forecasts given above are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The results ultimately achieved may differ substantially from these forecasts.



We tend to focusing on wage outcomes from individual arrangements as historically, they seem to be more market sensitive and thus more reactive to changes in labour market conditions. Various surveys suggest that ongoing robust demand for labour, and the competition for skilled labour in particular, resulted in employers granting larger wage increases than usual to retain and/or attract workers for key roles.

This quarter the ABS also noted that the proportion of jobs covered by an individual wage arrangements has increased steadily since 2017. Back in December 2017 the proportion of jobs covered by an individual arrangement was 36%, lower than the proportion covered by an enterprise agreement at 49%. By December 2022 the proportion covered by both pay setting methods was the same at 43%.

As we noted earlier, the average increase in award/minimum wages for 2022 was between 4.6% and 5.2%. The increases in award wages were scheduled to be paid in two stages, with award-based rises to hospitality, tourism and aviation jobs to be paid in December. All other award-based rises were paid in the September quarter which is part of the reason why we historically see a surge in wage increases in the September quarter.

#### Enterprise bargaining wage rises drifting higher

In the February Statement on Monetary Policy (SoMP) the RBA noted that their liaison program continued to report that the increase in wages growth was driven by strong demand, the need to attract and retain staff as well as higher inflation outcomes. The Bank noted that wages growth in enterprise agreements remained moderate, reporting that average annual wage increases in newly lodged private agreements were 3.1% the December quarter, slightly higher than the September average of 2.9%.

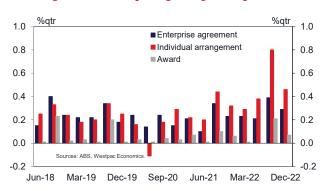
From the bargain contributions to the average wage hourly wage rate increase supplied by the ABS, we estimate that annual wage inflation for enterprise agreements has lifted from a low of 1.8%yr at June 2021 to 2.6%yr at December 2022. The flow of enterprise agreement data from the Dept. of Employment & Workplace Relations suggests this pace is likely to drift a bit higher than a 3%yr pace by mid-2023.

#### Wage inflation slowest in household services

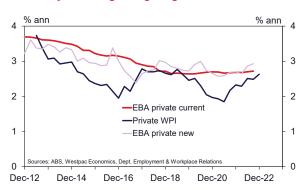
As durable goods inflation peaks, attention has shifted to services inflation and as labour is the key input into services, wage inflation in this sector has also come under increasing scrutiny. For now, services wage inflation has lagged behind goods production and distribution wages. In the year to December goods production wages are up 3.8%yr, goods distribution wages are up 3.7%yr while business services are up 3.6%yr and household services are up 3.0%vr - household services wages have the lowest rate of inflation. From this point there is not a compelling argument to suggest that we can be confident that as goods and business services wage inflation slows as expected through 2023 that household services wage inflation will pick up and fill the gap. On a half year annualised basis, goods production wages have lifted 4.1%, goods distribution wages are up 4.9%, business services are up 4.1% while household services wages continue to lag lifting just 3.5%.

Looking at household services industries' wages helps shed some light on what is going on. Outside of eduction, where wage inflation continues to track along at just under 2½%, the recent lift in other household services industries appears to be driven by the bounce back from the moderation in wage rises during the COVID period. Arts & recreation and other services wage inflation are currently running around 4%yr while accommodation and food services are at 3.4%yr and health care is at

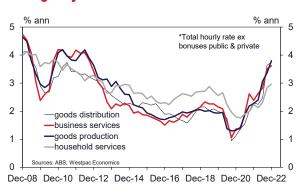
#### Wage increases by bargaining arrangement



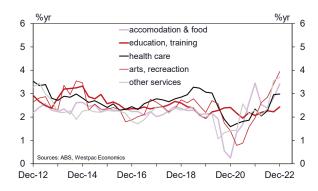
#### **Enterprise bargaining wages**



#### **Wages by broad sectors**



Household services wages



Past performance is not a reliable indicator of future performance. The forecasts given above are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The results ultimately achieved may differ substantially from these forecasts.



3.0%yr. Given that wages in accommodation & food services, other services and even arts & recreation would have suffered from staff shortages during the COVID period, the reopening of the borders and surge in working age population seen through 2022 should go some way to relieve these pressures and thus wage inflation is likely to peak in 2023.

#### All industries have seen some acceleration in wage inflation but the pace is far from equal

As the RBA noted in the February SoMP, wages growth accelerated in just about all industries in the year to September, supported by the tight labour market. Wages growth had been the strongest in the retail trade industry, supported by two award wage increases in the year reflecting the high share of jobs in that industry either on awards or that are covered by enterprise agreements or individual arrangements linked to awards.

In the December quarter retail wage inflation (3.9%yr) slipped down to fourth place, replaced by wholesale trade (4.2%yr), manufacturing (4.0%yr) and arts & recreation (3.9%yr) and only just above financial services (3.8%yr). Of the top ten industries with the fastest pace of wage inflation, ranging from wholesale (4.2%yr) to professional & scientific services (3.6%yr) there were three household services in the list; arts & recreation, retail and other services (3.7%yr).

When ranked by percentage point change in the annual rate of wage inflation (second chart over) utilities are at the top (2.4ppt), then arts & recreation (2.0ppt), wholesale trade (1.9ppt), manufacturing, financial services, transport, mining and administrative support (all 1.5ppt). At the bottom with no significant change in wage inflation are four major household services industries; health care (0.6ppt), education & training (0.4ppt), public admin (0.1ppt) and accommodation & food services (0.0ppt).

### Overall wage inflation has little variation between mainland states but WA leaps ahead for private sector wages

WA does have the fastest pace of wage inflation at 3.6%yr, a touch faster than the national average of 3.3%yr and while the NT has the slowest pace for any state/territory at 2.6%yr the mainland states rate of wage inflation are compatible; NSW and Vic at 3.3%yr, Qld at 3.4%yr with SA and Tas at 3.5%yr. It is marginal, but the smaller states are experiencing faster wages growth than the two large south eastern states.

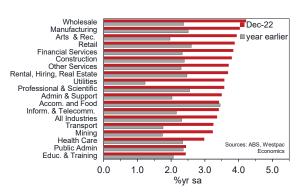
However, when you look at private sector wage rates then it is clear the smaller states stand out with faster than average wages growth. As noted earlier, private sector wages are growing at a 3.6%yr pace but in WA they have grown 4.2%yr compared to 3.4%yr in Victoria and 3.5%yr in NSW. Private wages in Qld are not much faster than the south eastern corner at 3.6%yr but they have lifted by 3.8%yr in SA and 3.9%yr in both Tas and the NT.

As a result, it has been the drag from public sector wage rates that has been holding back wage inflation. While this is true at a national level, 2.5%yr vs. 3.6%yr, WA is the most extreme example with public wage rate inflation of just 1.1%yr vs. 4.2%yr for the private sector. Only the NT is worse with public sector wage inflation of just 0.6%yr. NSW public sector wage inflation is around the national average for the sector at 2.5%yr. Vic is a bit stronger at 2.8% while Qld and SA outperform the average at 2.9%yr. Tas is not far behind at 2.7%yr but there is no state where public wages are growing faster than the national average for all wages and they are well behind private sector wage inflation.

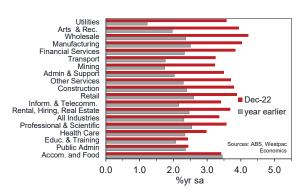
#### Sign that wage inflation will peak around 4%

Before the release of the December WPI, Westpac was forecasting that wage inflation would peak at  $4\frac{1}{2}$ yr around the end of

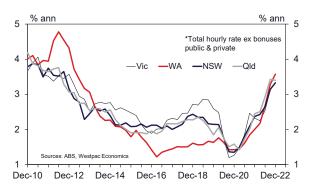
#### Wages growth by industry, sa



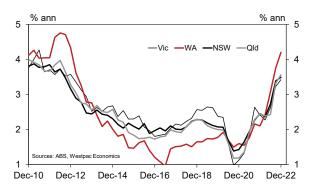
#### Industry wages growth ranked by ppt change



#### **Wage inflation by state**



#### **Private sector wages**



4

Past performance is not a reliable indicator of future performance. The forecasts given above are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The results ultimately achieved may differ substantially from these forecasts.



2023. However, not only do we have an update on wages that further highlighted wage inflation accelerating at a much slower than expected pace but we also had confirmation that the labour market is turning over, making us more convinced that wage pressures are likely to ease through 2023.

Annual growth in the Labour Cost Index from the NAB business survey peaked near the end of 2022 and has moderated as we headed into 2023. The quarterly change in the Seek Asking Salary Index, which saw some volatility through 2021 and 2022, has begun to show some signs of moderating moving into 2023.

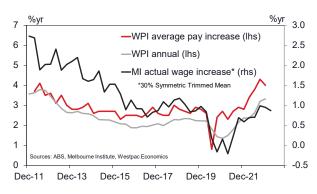
We are also seeing something similar in household/consumer surveys. The Westpac Melbourne Institute Consumer Sentiment Survey has a number of wage indicators. Coming out of COVID lock down, expected wage increase lifted from a low of 0.1% in 2020 to a peak of 1.1% in September 2022 before holding around 1.0% as we moved into 2023. While wage expectations may have levelled out, they are still higher than the 2019 average of 0.8%.

Actual wage increases paid, as reported by the Westpac Melbourne Institute Consumer Sentiment Survey, peaked at 1.0% in September 2022 and has moderated to under 1% in early 2023. Perhaps more importantly, actual wage rises are currently just on par with the 2019 average of 0.9%. It is surprising that actual wage rises paid, as reported by this survey, only just returned to be on par with the pre-COVID rates when we had expected them to be a fair bit stronger. This observation is supported by the proportion expecting to get a pay rise; peaking at 39.3% in December, this has moderated in early 2023 while the recent peak was also less than the 2019 average of 41.7%. Given just how tight the labour market was 2022, and reports of widespread wage increases being paid, it is quite surprising the pro-

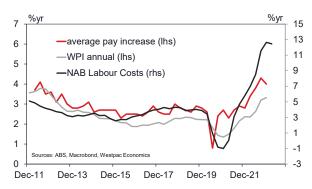
#### Ave pay increase vs MI expected wage increase



#### Ave pay increase vs MI wage increase



#### Ave pay increase in quarter vs annual WPI



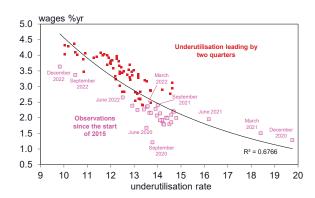
#### Ave pay increase in the quarter



#### Ave pay increase vs expected pay increase



#### **Underutilisation & private wages, national**



Past performance is not a reliable indicator of future performance. The forecasts given above are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The results ultimately achieved may differ substantially from these forecasts.



portion reporting wage rises did not get back to the pre-COVID level which was what we at least expected. In fact, given how tight the labour market was, we would have hoped that the proportion expecting wage rises would have been stronger than it was in 2019.

#### We have lowered our wage inflation forecast for end 2023

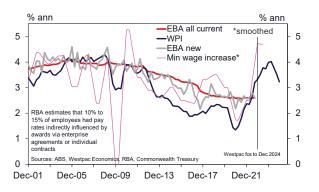
Before the release of the December WPI, Westpac was forecasting that annual growth in the WPI would peak at 4½%yr in late 2023 on the back of an up-tick of the pace of wage inflation reflecting the tightening of the labour market through 2022 (wage inflation lags the labour market by around six months). In the charts over you can see how the fall in underutilisation to historical lows represents a significant tightening of the labour market supported by businesses reporting just how hard it is to find labour from the Westpac-Australian Chamber Industrial Trends Survey.

However, it does appear we are past the best for the labour market. Back in June 2022 we had thought that the unemployment rate would fall to 3.2% by end of 2022. In the end the unemployment rate hit a low of 3.4% in November 2022 before lifting back to 3.7% in January 2023. While there might be some isolated factors that resulted in a weaker than expected employment outcomes (see January Labour Force - as illness fades more go on holidays), it does not change the fact the labour market has softened sooner than expected and we are now looking for the unemployment rate to be back to around 4.6% by end 2023 compared to our comparable forecast back in June 2022 of 3.5%. We also see the underutilisation rate (unemployment plus underemployment) rising from here, lifting 9.4% in the December quarter 2022 to 12% at the December quarter 2023.

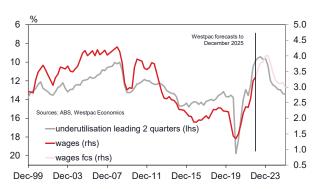
For these reasons we have lowered our peak in wage inflation at end 2023 from  $4\frac{1}{2}$ %yr to 4.0%yr.

Justin Smirk, Senior Economist, ph (61-2) 8254 9336

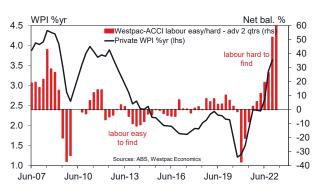
#### Wages growth by bargaining sector



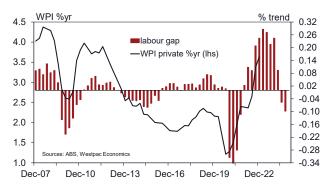
#### Labour market drives wages



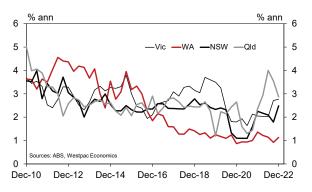
#### It is very very hard to find labour



#### Labour market pressures set to ease in 2023



#### **Public sector wages**



6

Past performance is not a reliable indicator of future performance. The forecasts given above are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The results ultimately achieved may differ substantially from these forecasts.

## **DISCLAIMER**



© Copyright 2023 Westpac Banking Corporation

#### Things you should know.

Westpac Institutional Bank is a division of Westpac Banking Corporation ABN 33 007 457 141 ('Westpac').

#### Disclaimer

This material contains general commentary only and is not intended to constitute or be relied upon as personal financial advice. To the extent that this material contains any general advice, it has been prepared without taking into account your objectives, financial situation or needs, and because of this, you should, before acting on it, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs, and, the disclosure documents (including any product disclosure statement) of any financial product you may consider. Certain types of transactions, including those involving futures, options and high yield securities give rise to substantial risk and are not suitable for all investors. We recommend that you seek your own independent legal or financial advice before proceeding with any investment decision. This material may contain material provided by third parties. While such material is published with the necessary permission none of Westpac or its related entities accepts any responsibility for the accuracy or completeness of any such material. Although we have made every effort to ensure the information is free from error, none of Westpac or its related entities warrants the accuracy, adequacy or completeness of the information, or otherwise endorses it in any way. Except where contrary to law, Westpac and its related entities intend by this notice to exclude liability for the information. The information or correct any inaccuracy which may become apparent at a later date. The information contained in this material does not constitute an offer, a solicitation of an offer, or an inducement to subscribe for, purchase or sell any financial instrument or to enter a legally binding contract. Past performance is not a reliable indicator of future performance. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertaintie

#### **Country disclosures**

**Australia:** Westpac holds an Australian Financial Services Licence (No. 233714). This material is provided to you solely for your own use and in your capacity as a client of Westpac.

For XYLO Foreign Exchange clients: This information is provided to you solely for your own use and is not to be distributed to any third parties. XYLO Foreign Exchange is a division of Westpac Banking Corporation ABN 33 007 457 141 and Australian credit licence 233714. Information is current as at date shown on the publication. This information has been prepared without taking account of your objectives, financial situation or needs. Because of this you should, before acting on this information, consider its appropriateness, having regard to your objectives, financial situation or needs. XYLO Foreign Exchange's combined Financial Services Guide and Product Disclosure Statement can be obtained by calling XYLO Foreign Exchange on 1300 995 639, or by emailing customercare@XYLO.com.au.

**New Zealand:** In New Zealand, Westpac Institutional Bank refers to the brand under which products and services are provided by either Westpac or Westpac New Zealand Limited ("WNZL"). Any product or service made available by WNZL does not represent an offer from Westpac or any of its subsidiaries (other than WNZL). Neither Westpac nor its other subsidiaries guarantee or otherwise support the performance of WNZL in respect of any such product. The current disclosure statements for the New Zealand branch of Westpac and WNZL can be obtained at the internet address www.westpac.co.nz. For further information please refer to the Product Disclosure Statement (available from your Relationship Manager) for any product for which a Product Disclosure Statement is required, or applicable customer agreement. Download the Westpac NZ QFE Group Financial Advisers Act 2008 Disclosure Statement at www.westpac.co.nz.

China, Hong Kong, Singapore and India: This material has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (as defined in the applicable Singapore laws and regulations) only. Recipients in Singapore of this material should contact Westpac Singapore Branch in respect of any matters arising from, or in connection with, this material. Westpac Singapore Branch holds a wholesale banking licence and is subject to supervision by the Monetary Authority of Singapore. Westpac Hong Kong Branch holds a banking license and is subject to supervision by the Hong Kong Monetary Authority. Westpac Hong Kong branch also holds a license issued by the Hong Kong Securities and Futures Commission (SFC) for Type 1 and Type 4 regulated activities. This material is intended only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance. Westpac Shanghai and Beijing Branches hold banking licenses and are subject to supervision by the China Banking and Insurance Regulatory Commission (CBIRC). Westpac Mumbai Branch holds a banking license from Reserve Bank of India (RBI) and subject to regulation and supervision by the RBI.

**UK:** The contents of this communication, which have been prepared by and are the sole responsibility of Westpac Banking Corporation London and Westpac Europe Limited. Westpac (a) has its principal place of business in the United Kingdom at Camomile Court, 23 Camomile Street, London EC3A 7LL, and is registered at Cardiff in the UK (as Branch No. BR00106), and (b) authorised and regulated by the Australian Prudential Regulation Authority in Australia. Westpac is authorised in the United Kingdom by the Prudential Regulation Authority. Westpac is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. Westpac Europe Limited is a company registered in England (number 05660023) and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

This communication is being made only to and is directed at (a) persons who have professional experience in matters relating to investments who fall within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (b) high net worth entities, and other persons to whom it may otherwise lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). Any person who is not a relevant person should not act or rely on this communication or any of its contents. The investments to which this communication relates are only available to and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such investments will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely upon this communication or any of its contents. In the same way, the information contained in this communication is intended for "eligible counterparties" and "professional clients" as defined by the rules of the Financial Conduct Authority and is not intended for "retail clients". With this in mind, Westpac expressly prohibits you from passing on the information in this communication to any third party. In particular this communication and, in each case, any copies thereof may not be taken, transmitted or distributed, directly or indirectly into any restricted jurisdiction. This communication is made in compliance with the Market Abuse Regulation (Regulation(EU) 596/2014).

#### Disclaimer continued overleaf

## DISCLAIMER



#### Disclaimer continued

#### **Investment Recommendations Disclosure**

The material may contain investment recommendations, including information recommending an investment strategy. Reasonable steps have been taken to ensure that the material is presented in a clear, accurate and objective manner. Investment Recommendations for Financial Instruments covered by MAR are made in compliance with Article 20 MAR. Westpac does not apply MAR Investment Recommendation requirements to Spot Foreign Exchange which is out of scope for MAR.

Unless otherwise indicated, there are no planned updates to this Investment Recommendation at the time of publication. Westpac has no obligation to update, modify or amend this Investment Recommendation or to notify the recipients of this Investment Recommendation should any information, including opinion, forecast or estimate set out in this Investment Recommendation change or subsequently become inaccurate.

Westpac will from time to time dispose of and acquire financial instruments of companies covered in this Investment Recommendation as principal and act as a market maker or liquidity provider in such financial instruments.

Westpac does not have any proprietary positions in equity shares of issuers that are the subject of an investment recommendation.

Westpac may have provided investment banking services to the issuer in the course of the past 12 months.

Westpac does not permit any issuer to see or comment on any investment recommendation prior to its completion and distribution.

Individuals who produce investment recommendations are not permitted to undertake any transactions in any financial instruments or derivatives in relation to the issuers covered by the investment recommendations they produce.

Westpac has implemented policies and procedures, which are designed to ensure conflicts of interests are managed consistently and appropriately, and to treat clients fairly.

The following arrangements have been adopted for the avoidance and prevention of conflicts in interests associated with the provision of investment recommendations.

- I. Chinese Wall/Cell arrangements;
- II. physical separation of various Business/Support Units;
- III. Strict and well defined wall/cell crossing procedures;
- IV. a "need to know" policy;
- V. documented and well defined procedures for dealing with conflicts of interest;
- VI. reasonable steps by Compliance to ensure that the Chinese Wall/Cell arrangements remain effective and that such arrangements are adequately monitored.

**U.S.:** Westpac operates in the United States of America as a federally licensed branch, regulated by the Office of the Comptroller of the Currency. Westpac is also registered with the US Commodity Futures Trading Commission ("CFTC") as a Swap Dealer, but is neither registered as, or affiliated with, a Futures Commission Merchant registered with the US CFTC. Westpac Capital Markets, LLC ('WCM'), a wholly-owned subsidiary of Westpac, is a broker-dealer registered under the U.S. Securities Exchange Act of 1934 ('the Exchange Act') and member of the Financial Industry Regulatory Authority ('FINRA'). This communication is provided for distribution to U.S. institutional investors in reliance on the exemption from registration provided by Rule 15a-6 under the Exchange Act and is not subject to all of the independence and disclosure standards applicable to debt research reports prepared for retail investors in the United States. WCM is the U.S. distributor of this communication and accepts responsibility for the contents of this communication. All disclaimers set out with respect to Westpac apply equally to WCM. If you would like to speak to someone regarding any security mentioned herein, please contact WCM on +1 212 389 1269. All disclaimers set out with respect to Westpac apply equally to WCM.

Investing in any non-U.S. securities or related financial instruments mentioned in this communication may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the SEC in the United States. Information on such non-U.S. securities or related financial instruments may be limited. Non-U.S. companies may not subject to audit and reporting standards and regulatory requirements comparable to those in effect in the United States. The value of any investment or income from any securities or related derivative instruments denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related derivative instruments.

The author of this communication is employed by Westpac and is not registered or qualified as a research analyst, representative, or associated person under the rules of FINRA, any other U.S. self-regulatory organisation, or the laws, rules or regulations of any State. Unless otherwise specifically stated, the views expressed herein are solely those of the author and may differ from the information, views or analysis expressed by Westpac and/or its affiliates.

