more give, less take

Oil Market Update – February 2015

by NAB Group Economics

Key points

- After the drastic falls towards the end of 2014, oil indexes started to exhibit some tentative signs of stabilisation since mid-January. Prices traded mainly around mid to high USD40s a barrel in the second half of the month, before breaking decisively above USD50s in the first week of February on the weakening of USD and news of workers' strikes in a number of US refineries. These strikes, which are currently ongoing, are in response to plans by oil companies to slash spending following the 60% peak-to-trough fall in oil prices since June last year.
- In the absence of any concrete forward guidance by major oil producers on how the global glut can be addressed in the near term, the volatility in oil prices as indicated by the OVX index continued to track at historically-elevated levels, with the short-term trading patterns tending to be guided by any geopolitical news and economic data that would remotely indicate changes to the status quo of a heavily oversupplied global market.
- The oil futures curve has moved into a contango (where forward prices are higher than spot prices) since October 2014 and has steepened over time since then. This typically indicates excessive downward adjustments in commodity prices within a short time alongside the lowering of longer-term price expectations. Contangos in commodity markets tend to be short-lived phenomenon nonetheless.
- The supply responses to the price falls to-date across oil producers have been highly variable and disorderly. A number of producer countries which are heavily reliant on oil revenue to fund their government expenditures, such as Russia and Iraq, have lifted output volumes in a bid to make up for income shortfalls. Meanwhile, US oil crude supplies continue to grow at a robust rate, despite a steady fall in rotary rig count since mid-December.
- Against the backdrop of significant price retreat and a widening contango, there are signs of rejuvenation in short-term physical demand, particularly tanker storage demand by traders in Asia and stockpiling of reserves of major importing countries such as China and India, although not sufficient to make a meaningful dent to the supply overhang.
- Given the above, we have revised our oil price forecast profile lower through 2015 and 2016, with the recovery in oil prices expected to pick up pace in the second half of this year.

Contents

Recent market movements	2
Supply conditions	3
Supply conditions con't	4
Demand conditions	5
Oil shock impact on Australia and NAB quarterly forecasts	6

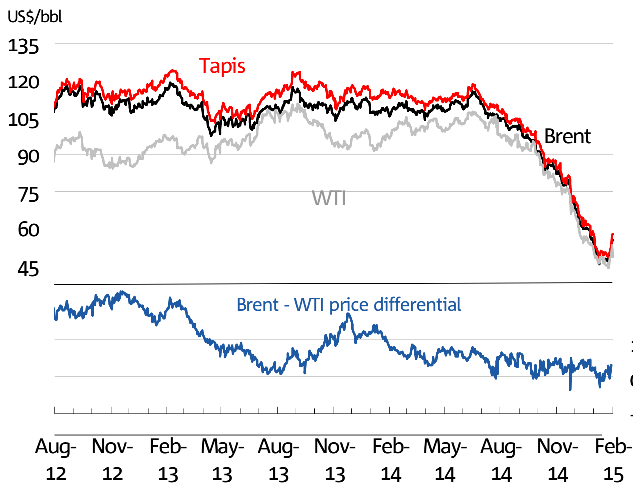
Contact

Vyanne Lai vyanne.lai@nab.com.au

Recent market movements

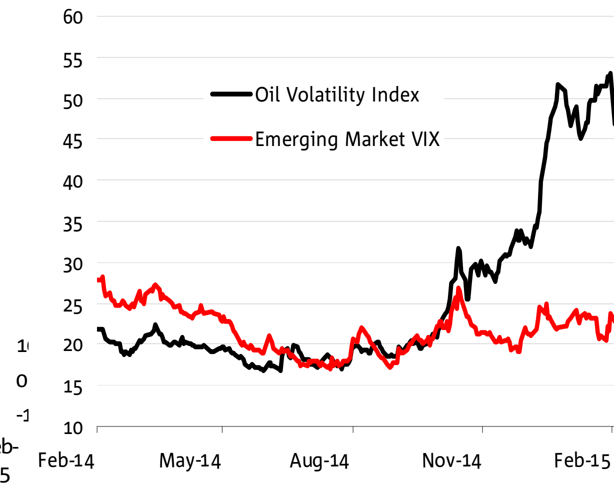
- Oil prices continued their downward trajectory in January, with Brent, Tapis and WTI falling by 22%. 21% and 20% respectively in monthly average terms. Since mid-Jan, there have been some tentative signs of stabilisation, and more recently, prices have exhibited some bullish spurts on a weaker USD and strikes by workers which are currently taking place in a number of US refineries, although production has not been affected much.
- In a high-volatility market environment where little has changed to fundamentals, daily prices have become highly reactive to any data or political news that would suggest changes to the status quo of a heavily oversupplied global market. In addition to the US refinery strikes, the news of the death of King Abdullah of Saudi Arabia on 27th Jan also triggered a short-lived spike in prices.
- In the absence of any concrete forward guidance by major oil producers as to how the global glut can be addressed within the short-term, the volatility in oil prices as indicated by the OVX Index (see Figure 2) continues to track at historical highs increasingly divergent from overall volatility in emerging markets.
- In its recent official statements, OPEC showed no signs of wavering in its policy stance not to cut production but to allow market forces determine the price floor.
- The oil futures curve has moved into a contango (where forward prices are higher than spot prices) accompanied by downward level shifts since October 2014. This typically indicates excessive downward adjustments in commodity prices within a short time alongside the lowering of longer-term price expectations. Contangos in commodity markets tend to be short-lived phenomenon nonetheless.
- An oil contango offers incentives for traders to undertake physical oil storage as long as storage costs do not exceed the premium between spot and delivery prices. Reports from shipbrokers suggest that some of the world's largest oil traders, such as Vitol, Koch Industries Inc., Shell and Trafigura Beheer BV, have sought to take advantage of the contango by securing floating storage in tankers under one-year charters.
- Indicating a market of high uncertainty, speculative activity volumes (including both long and short positions) in the managed money market has increased since late December, but the overall level of net long positions has been hovering around 277,000 since mid-December. While we are of the view that current oil prices are below longer-term equilibrium levels, the rebalancing of a global surplus of the current scale against sluggish growth in demand is expected to be a drawn-out process. Hence we expect global spot prices are likely to remain at subdued levels for both this year and the next.

Figure 1: Oil Price Indexes



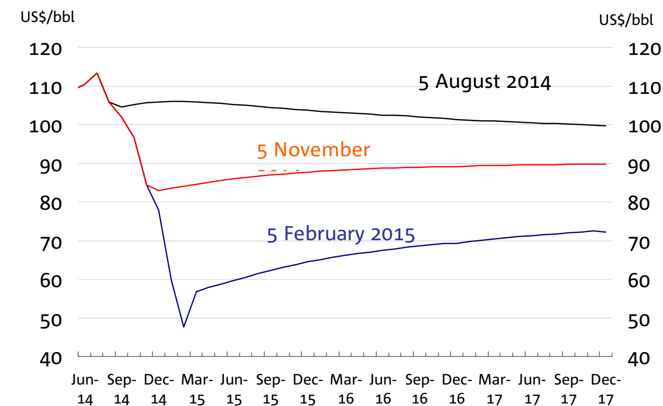
Source: Thomson Datastream

Figure 2: OVX and VIX Indicators



Source: Bloomberg and NAB Group Economics

Figure 3: Forward Curves at Various Points in Time



Source: Bloomberg and NAB Group Economics

Supply conditions

- In the wake of oil price correction of extraordinary proportions to-date, the supply response across oil producers have been highly variable and disorderly. A number of producing countries which are heavily reliant on oil revenue to fund their government expenditures have lifted output volumes in a bid to make up for income shortfalls.

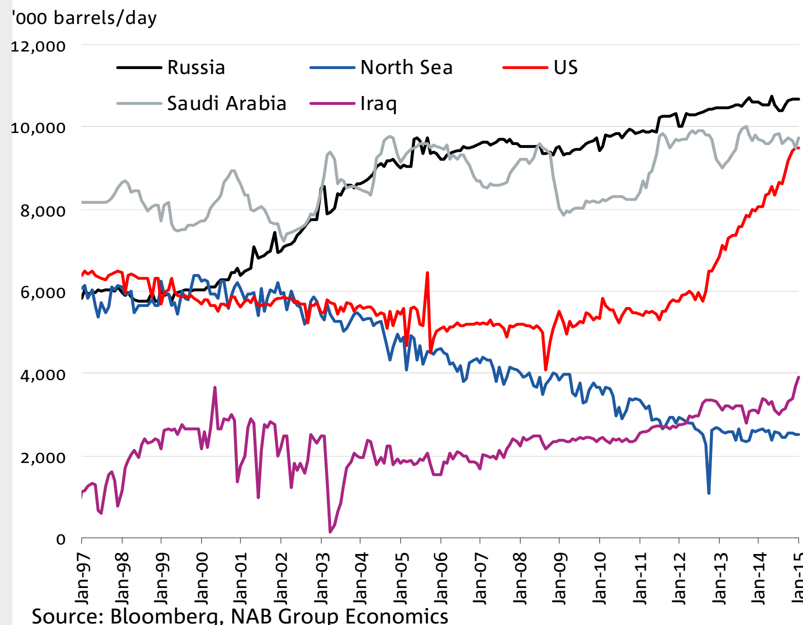
- Russia's 2014 oil output hit a post-Soviet record high average of 10.58 million barrels per day. Similarly, Iraqi crude output reached a record 4 million barrels a day in December as the competition amongst OPEC members to defend their market shares intensified, with a wave of discounts being offered to Asian customers by Saudi Arabia, Iraq, Kuwait and Iran.

- In the US, preliminary negative supply responses have emerged in the forms of falling rig count since mid-December and signs of cutback in exploratory activities, with major plays preferring to maximising output from existing wells.

- However, overall US output volume continued to grow unrelentingly in January to average around 9.18 million barrels a day, based on the weekly field production data by Energy International Administration (EIA). EIA also estimated that US crude oil production will rise from an average of 8.7 million bbl/d in 2014 to 9.3 and 9.5 million barrels a day for 2015 and 2016 respectively, representing annual growth of 7.4% and 2.2%. Their forecasts are contingent on the West Texas Intermediate (WTI) annual average price projections of around USD54.6 and USD71 a barrel correspondingly for the two years. Our price forecasts for both years are lower relative to EIA's, which imply slower supply growth from the US by extension based on EIA's methodology.

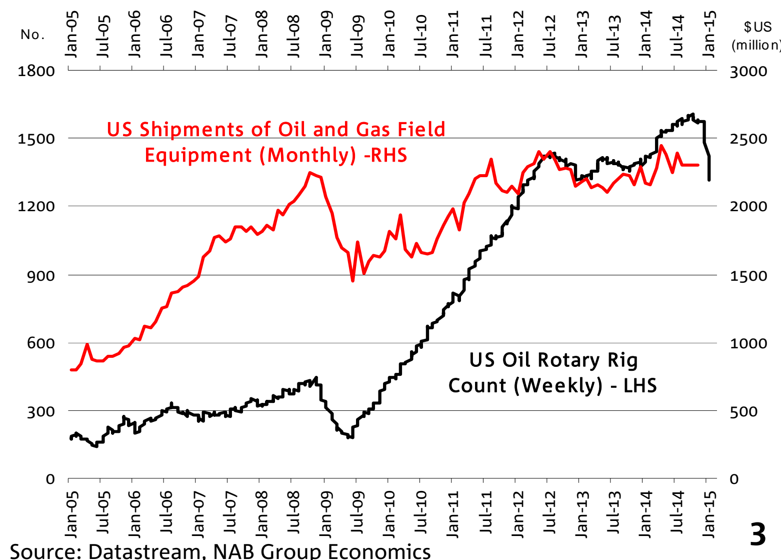
- Given the rather resilient estimates of US production, a relevant question becomes: "How low must prices be, and for how long, before we can expect to see a more sizeable slowdown in US output?" Research into the cost structures of US shale production by a number of investment banks produces a wide range of estimates, but the major overlap of the estimated breakeven prices for the prolific basins of Eagle Ford, Bakken, Permian and Niobrara Basin lie between USD40 to USD70 a barrel, which indicates that the more cost-effective projects are likely to be still profitable under current price conditions.

Figure 4: Crude Production by Major Countries (Monthly)



Source: Bloomberg, NAB Group Economics

Figure 5: US Rig Count and Shipments of Gas Field Equipment

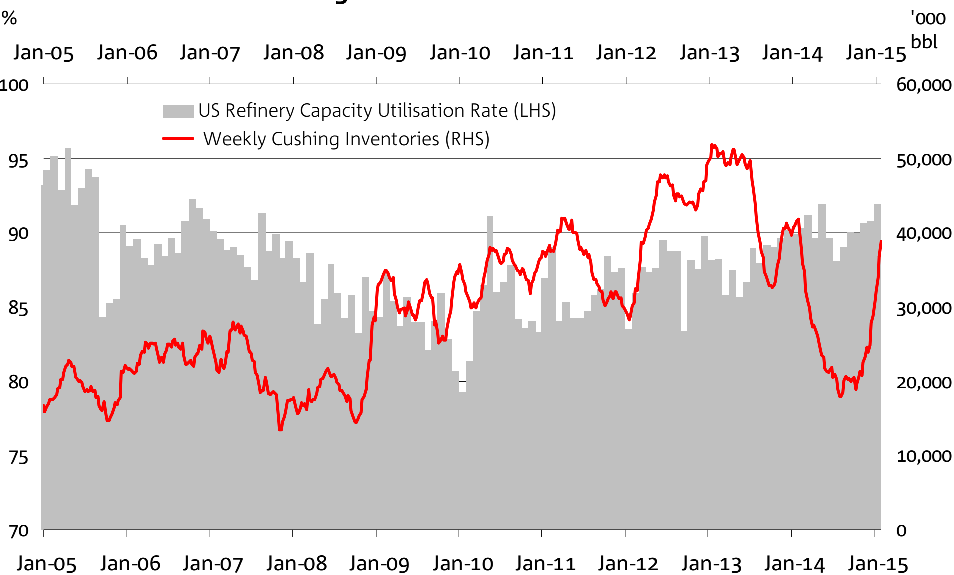


Source: Datastream, NAB Group Economics

Supply conditions con't....

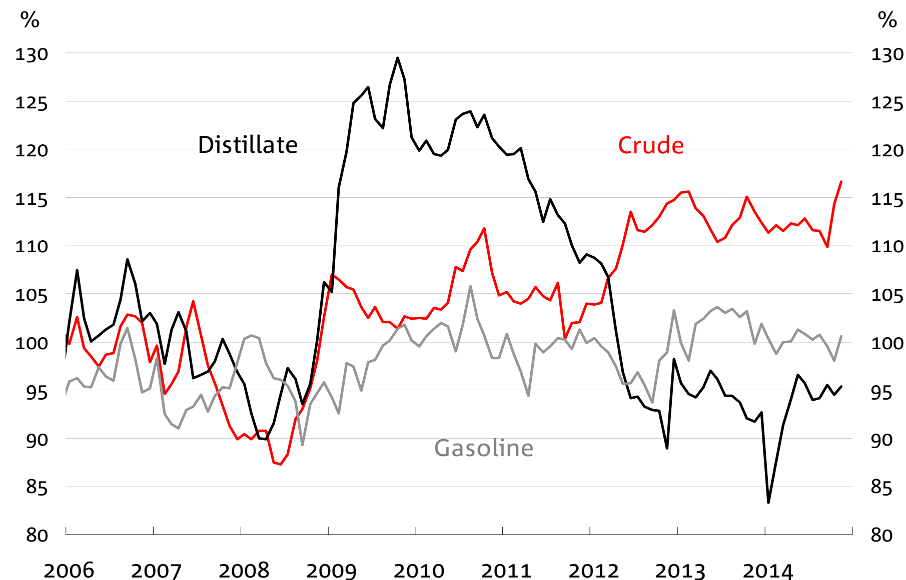
- That said, the level and speed of the cutback in drilling activity is not likely to be a linear process. While currently most of the cut-backs to-date had been a redirection of investments by major projects away from marginal exploration and research drilling to focus on core drilling of major tight oil plays, a sustained period of lower oil prices might start affecting core activity more substantially, and the deceleration in activity will pick up significantly relative to what we are witnessing at the moment.
- The inundation of US-produced light, sweet crude is also placing pressure on refineries at the Gulf Coast, which have been running at capacity utilisation rates of 90+% for 8 out of the last 9 months. In the past few years, the rise in US shale oil had been largely absorbed through reducing imports of similar characteristics, such as those from Nigeria and parts of West Africa, with net crude imports from Nigeria falling from a total of 280 million barrels in 2011 to just around 18+ million barrels in 2014 (projected based on available data to November).
- The flow-on impact resulted in a rapid accumulation in US crude inventories to a record high 413.06 mb, with around 10% stored at the low-cost delivery point at Cushing. With a capacity of around 80mb at Cushing, storage capacity constraint is not a limiting factor. The expected accumulation of US crude stocks in the coming months as some refineries go under seasonal maintenance during spring is likely to exert downward pressure on WTI relative to Brent, widening the gap between the two.
- Based on the above, we are highly unlikely to see any meaningful decline in oil output by major producers this year, barring any change in the firmly held stance by OPEC not to scale back production, and further weakening of prices.

Figure 6: US Monthly Refinery Capacity Utilisation Rate and Weekly Crude Stock at Cushing



Source: EIA, NAB Group Economics

Figure 7: US Inventories* (Proportion of Long-run Average, Seasonally Adjusted)



* Observations from December 2012 and February 2013 are EIA estimates
Source: EIA, NAB Group Economics

Demand conditions

- Against the backdrop of significant price retreat and a widening contango (upward sloping forward curve), there are signs of rejuvenation in short-term physical demand, particularly tanker storage demand by traders in Asia and stockpiling of reserves of major importing countries such as China and India, although not sufficient to make a meaningful dent in the supply overhang.

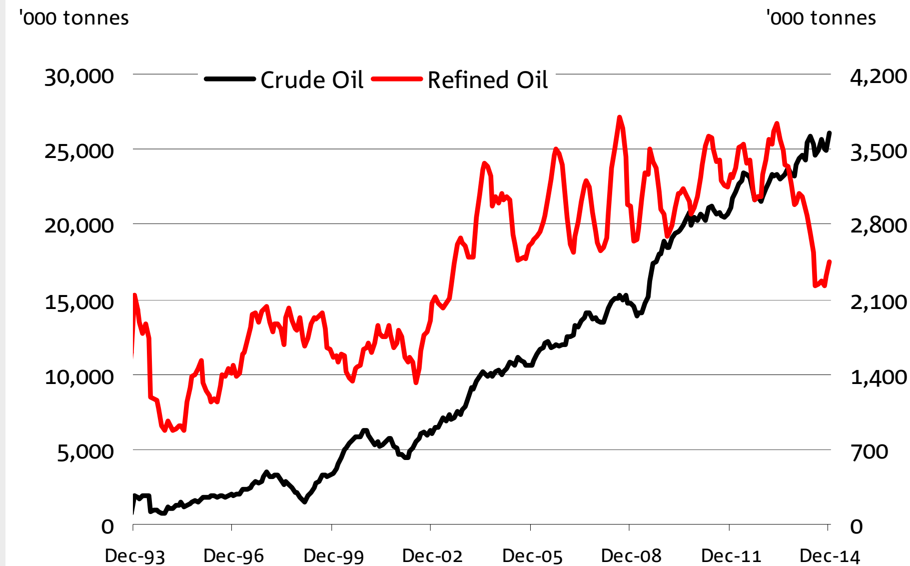
- Chinese crude imports climbed 9.3% in 2014, partly driven by stockpiling of strategic and commercial reserves, while charting a monthly record high of 30.4 kilo tonnes in December. In a move to leverage on the low oil prices to implement policy reforms which otherwise would be challenging in a high oil-cost environment, Chinese authorities issued new policy directives on 28th January which require oil enterprises to maintain crude oil inventories equivalent of 15 days of usage when international crude-oil prices are USD130 per barrel and below, and at least 10 days of inventory when prices exceed USD130 per barrel.

- Globally, economic growth appears to be continuing at a sub-trend pace with industrial output and world trade expanding by around 3% yoy and business survey readings consistent with moderate growth. A sustained period of supply-driven oil price weakness is expected to be supportive of global growth on balance in the medium term (despite the divergent fates of oil importing vs exporting countries), which will in turn feed into higher oil demand.

- In its latest monthly report, OPEC has revised up its global oil demand forecast for 2015 to 92.30 mb/d, citing favourable demand conditions from OECD America and emerging Asian economies, especially those stemming from industrial and transportation sectors involving LPG. gasoline and jet fuel.

- However, we continue to expect global oil supply to outstrip demand for this year and next in the order of 0.5 to 1mb a day for 2015, before narrowing to less than 0.5 mb for 2016, which will contain the upward mobility of oil indices during this period.

Figure 8: Chinese Imports of Crude Oil and Refined Oil, 6-month Moving Average



Source: CEIC Database, NAB Group Economics

The impact of oil shock on Australia

- To examine the effects of an isolated oil shock, we have run modelling scenarios based on moves in the oil price to date. These suggest that in the short term the main impacts are likely to be seen in lower inflation and interest rates. The overall impact will also be contingent on the degree to which second round price effects are passed through to consumers and ultimately, household spending. Lower consumer prices might also factor into weaker wage growth pressures, which are already at historic lows.
- While the price effects are largely self-explanatory, the limited windfall for real activity (at least in the near-term) is perhaps a little surprising to most. This is largely a reflection of the offsets to higher disposable income we can expect to see, such as negative wealth effects from lower (energy) equity prices and a greater contraction in business (namely mining) investment that will weigh on the labour market.
- But perhaps most importantly from a banking perspective, is what this implies for interest rates. Less inflationary pressures – along with lower global interest rates – suggest lower official domestic interest rates are called for. The RBA already cut the cash rate by25 bps in February, and our view is that they will likely need to move again in the coming months, although the timing will be very time dependent. Lower interest rates will be instrumental in the anticipated recovery of consumption and dwelling investment, which along with very strong exports growth as resources production ramps-up, will drive better growth going into 2016.

NAB quarterly oil price forecasts

- Over the past month, our view that the oil prices are likely to stay "low and long" for this year and the next has firmed somewhat. This largely reflects what we believe to be the entrenched market view that the correction of the current global glut will be a drawn-out process, and that any potential signalling by OPEC to pare back production, in the event that it arises, will only have a limited boosting effect.
- As such, we have revised our forecasts for oil prices further downwards throughout 2015 and 2016, with prices reaching high 50s by the end of the year, before recovering to mid to high 60s next year. In the short-term, the disparity in oil production growth rates between the US and Middle East will also exert pressure on WTI relative to Brent, with the gap between the two widening over the course of 2015.

Figure 9: NAB Oil Price Forecasts (Quarterly Average)

	Spot	Actual	Forecasts							
	5/02/2015	Dec-14	*Mar 15*	*Jun 15*	*Sep 15*	*Dec 15*	*Mar 16*	*Jun 16*	*Sep 16*	*Dec 16*
WTI (US$/bbl)	50.5	73	47	49	54	60	63	65	68	70
Brent (US$/bbl)	56.9	76	51	54	58	63	66	68	70	72
Singapore Gasoil (Auc/L)	0.57	0.58	0.52	0.55	0.59	0.62	0.64	0.67	0.68	0.70
Tapis (US$/bbl)	58.2	79	53	55	60	65	68	70	72	75
Australian Retail Unleaded Petrol (AUc/L)*	NA	135	113	118	123	128	131	134	136	138

Sources: NAB Economics; RACQ; Thomson Datastream

* Denotes 5-capital average **Estimate

Group Economics
Alan Oster
Group Chief Economist
+61 3 8634 2927

Jacqui Brand
Personal Assistant
+61 3 8634 2181

Australian Economics and Commodities
James Glenn
Senior Economist – Australia
+(61 3) 9208 8129

Vyanne Lai
Economist – Australia
+(61 3) 8634 0198

Amy Li
Economist – Australia
+(61 3) 8634 1563

Phin Ziebell
Economist – Agribusiness
+(61 4) 75 940 662

Industry Analysis
Dean Pearson
Head of Industry Analysis
+(61 3) 8634 2331

Robert De Iure
Senior Economist – Industry Analysis
+(61 3) 8634 4611

Brien McDonald
Senior Economist – Industry Analysis
+(61 3) 8634 3837

Karla Bulauan
Economist – Industry Analysis
+(61 3) 86414028

International Economics
Tom Taylor
Head of Economics, International
+61 3 8634 1883

Tony Kelly
Senior Economist – International
+(61 3) 9208 5049

Gerard Burg
Senior Economist – Asia
+(61 3) 8634 2788

John Sharma
Economist – Sovereign Risk
+(61 3) 8634 4514

Global Markets Research
Peter Jolly
Global Head of Research
+61 2 9237 1406

Australia
Economics
Ivan Colhoun
Chief Economist, Markets
+61 2 9237 1836

David de Garis
Senior Economist
+61 3 8641 3045

FX Strategy
Ray Attrill
Global Co-Head of FX Strategy
+61 2 9237 1848

Emma Lawson
Senior Currency Strategist
+61 2 9237 8154

Interest Rate Strategy
Skye Masters
Head of Interest Rate Strategy
+61 2 9295 1196

Rodrigo Catril
Interest Rate Strategist
+61 2 9293 7109

Credit Research
Michael Bush
Head of Credit Research
+61 3 8641 0575

Simon Fletcher
Senior Credit Analyst – FI
+61 29237 1076

Equities
Peter Cashmore
Senior Real Estate Equity Analyst
+61 2 9237 8156

Distribution
Barbara Leong
Research Production Manager
+61 2 9237 8151

New Zealand
Stephen Toplis
Head of Research, NZ
+64 4 474 6905

Craig Ebert
Senior Economist
+64 4 474 6799

Doug Steel
Markets Economist
+64 4 474 6923

Kymberly Martin
Senior Market Strategist
+64 4 924 7654

Raiko Shareef
Currency Strategist
+64 4 924 7652

Yvonne Liew
Publications & Web Administrator
+64 4 474 9771

Asia
Christy Tan
Head of Markets Strategy/Research, Asia,
+ 852 2822 5350

UK/Europe
Nick Parsons
Head of Research, UK/Europe,
and Global Co-Head of FX Strategy
+ 44207710 2993

Gavin Friend
Senior Markets Strategist
+44 207 710 2155

Derek Allassani
Research Production Manager
+44 207 710 1532

Important Notice

This document has been prepared by National Australia Bank Limited ABN 12 004 044 937 AFSL 230686 ("NAB"). Any advice contained in this document has been prepared without taking into account your objectives, financial situation or needs. Before acting on any advice in this document, NAB recommends that you consider whether the advice is appropriate for your circumstances.
NAB recommends that you obtain and consider the relevant Product Disclosure Statement or other disclosure document, before making any decision about a product including whether to acquire or to continue to hold it. Please click here to view our disclaimer and terms of use.

Disclaimer

This document has been prepared by National Australia Bank Limited ABN 12 004 044 937 AFSL 230686 ("NAB"). Any advice contained in this document has been prepared without taking into account your objectives, financial situation or needs. Before acting on any advice in this document, NAB recommends that you consider whether the advice is appropriate for your circumstances. NAB recommends that you obtain and consider the relevant Product Disclosure Statement or other disclosure document, before making any decision about a product including whether to acquire or to continue to hold it. Products are issued by NAB unless otherwise specified.

So far as laws and regulatory requirements permit, NAB, its related companies, associated entities and any officer, employee, agent, adviser or contractor thereof (the "**NAB Group**") does not warrant or represent that the information, recommendations, opinions or conclusions contained in this document ("**Information**") is accurate, reliable, complete or current. The Information is indicative and prepared for information purposes only and does not purport to contain all matters relevant to any particular investment or financial instrument. The Information is not intended to be relied upon and in all cases anyone proposing to use the Information should independently verify and check its accuracy, completeness, reliability and suitability obtain appropriate professional advice. The Information is not intended to create any legal or fiduciary relationship and nothing contained in this document will be considered an invitation to engage in business, a recommendation, guidance, invitation, inducement, proposal, advice or solicitation to provide investment, financial or banking services or an invitation to engage in business or invest, buy, sell or deal in any securities or other financial instruments.

The Information is subject to change without notice, but the NAB Group shall not be under any duty to update or correct it. All statements as to future matters are not guaranteed to be accurate and any statements as to past performance do not represent future performance.

The NAB Group takes various positions and/or roles in relation to financial products and services, and (subject to NAB policies) may hold a position or act as a price-maker in the financial instruments of any company or issuer discussed within this document, or act and receive fees as an underwriter, placement agent, adviser, broker or lender to such company or issuer. The NAB Group may transact, for its own account or for the account of any client(s), the securities of or other financial instruments relating to any company or issuer described in the Information, including in a manner that is inconsistent with or contrary to the Information.

Subject to any terms implied by law and which cannot be excluded, the NAB Group shall not be liable for any errors, omissions, defects or misrepresentations in the Information (including by reasons of negligence, negligent misstatement or otherwise) or for any loss or damage (whether direct or indirect) suffered by persons who use or rely on the Information. If any law prohibits the exclusion of such liability, the NAB Group limits its liability to the re-supply of the Information, provided that such limitation is permitted by law and is fair and reasonable.

This document is intended for clients of the NAB Group only and may not be reproduced or distributed without the consent of NAB. The Information is governed by, and is to be construed in accordance with, the laws in force in the State of Victoria, Australia.

Analyst Disclaimer: The Information accurately reflects the personal views of the author(s) about the securities, issuers and other subject matters discussed, and is based upon sources reasonably believed to be reliable and accurate. The views of the author(s) do not necessarily reflect the views of the NAB Group. No part of the compensation of the author(s) was, is, or will be, directly or indirectly, related to any specific recommendations or views expressed. Research analysts responsible for this report receive compensation based upon, among other factors, the overall profitability of the Global Markets Division of NAB.

United Kingdom: If this document is distributed in the United Kingdom, such distribution is by National Australia Bank Limited, 88 Wood Street, London EC2V 7QQ. Registered in England BR1924. Head Office: 800 Bourke Street, Docklands, Victoria, 3008. Incorporated with limited liability in the State of Victoria, Australia. Authorised and regulated by the Australian Prudential Regulation Authority. Authorised in the UK by the Prudential Regulation Authority. 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.

US Disclaimer: If this document is distributed in the United States, such distribution is by nabSecurities, LLC. This document is not intended as an offer or solicitation for the purchase or sale of any securities, financial instrument or product or to provide financial services. It is not the intention of nabSecurities to create legal relations on the basis of information provided herein.

Hong Kong: In Hong Kong this document is for distribution only to "professional investors" within the meaning of Schedule 1 to the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) ("SFO") and any rules made thereunder and may not be redistributed in whole or in part in Hong Kong to any person. Issued by National Australia Bank Limited, a licensed bank under the Banking Ordinance (Cap. 155, Laws of Hong Kong) and a registered institution under the SFO (central entity number: AAO169).

New Zealand: This publication has been provided for general information only. Although every effort has been made to ensure this publication is accurate the contents should not be relied upon or used as a basis for entering into any products described in this publication. To the extent that any information or recommendations in this publication constitute financial advice, they do not take into account any person's particular financial situation or goals. Bank of New Zealand strongly recommends readers seek independent legal/financial advice prior to acting in relation to any of the matters discussed in this publication. Neither Bank of New Zealand nor any person involved in this publication accepts any liability for any loss or damage whatsoever may directly or indirectly result from any advice, opinion, information, representation or omission, whether negligent or otherwise, contained in this publication. National Australia Bank Limited is not a registered bank in New Zealand.

Japan: National Australia Bank Ltd. has no license of securities-related business in Japan. Therefore, this document is only for your information purpose and is not intended as an offer or solicitation for the purchase or sale of the securities described herein or for any other action.