

# Natural Gas Market Update

## National Australia Bank

- **US natural gas prices trend higher on rising exporting prospects and forecasted warmer-than-average temperatures in the upcoming summer.**
- **British natural gas prices have returned to more normal levels as supply pressures ameliorate from restored Qatari deliveries and Norwegian production.**
- **Prices in Asia Pacific mostly turned southwards in March, albeit still at historical highs. Weak Chinese industrial data and softer Brent oil prices were responsible.**
- **Henry Hub prices to lift in near term on summer cooling demand and positive global sentiments from US export prospects.**
- **Asian LNG prices forecast to ease from an inventory supply overhang and imminent gradual resumption of nuclear reactors.**

Last few months had been marked by some highly interesting developments, some arguably historic, in the dynamics of global natural gas markets. In a landmark move that potentially signals a new era of US energy exports, the US government approved the second application to export liquefied natural gas (LNG) to countries lacking a free trade agreement (FTA) with the US on Friday 17 May, opening up the scope for the US to play a larger role in the global energy space. The approval of Freeport LNG's facility in Quintana Island, Texas ended nearly two years of delays in processing export permits, which were held up as lawmakers weighed the pros and cons of exporting the nation's newly discovered wealth of natural gas to markets abroad. While this is clearly economically sensible from a resource allocation viewpoint, it has taken time to get the politics out of the way. Supporters of the arrangement suggest that increasing US energy exports would help to create jobs and reduce trade deficits, while in a geopolitical sense, challenge the iron grip by rivals such as Russia and Iran in Europe in natural gas and benefit import-reliant allies such as India and Japan. Conversely, opponents have been urging the Department of Energy to more widely consider the upward pressure of unrestricted exports on domestic prices which would adversely affect the consumer utilities and manufacturing sectors.

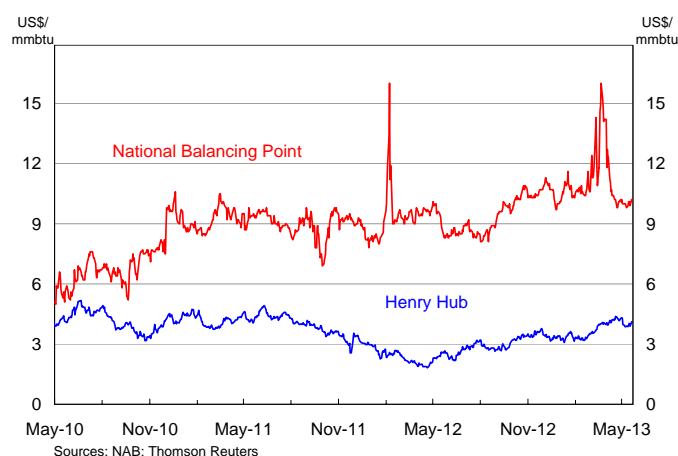
This proves to be unequivocally positive news for Japan, the largest LNG importer in the world, which has been proactively negotiating with the US government in hope of importing LNG from low-cost US despite not having a FTA with the country.

### Recent Price Movements

The US natural gas spot prices were on a broad upward trend through March and most of April, hitting a 20-month high in recent weeks. An unseasonably cold March spurred prices higher after three months of relative flat prices, as space-heating demand increased through much of the country and led to large storage withdrawals. Prices continued to rise in April as lingering cold in the Midwest kept demand elevated. The Henry Hub spot price averaged \$4.17 per MMBtu in April, the highest monthly average price since July 2011. At the turn of month in May, US natural gas

prices tracked lower as seasonal conditions turned milder. However by the second week of May, dramatic shifts in temperatures in parts of the country to be warmer-than-average steered prices in the opposite direction. That said, the monthly average is lower than that of April to be approximately \$4.05, which is as expected as the northern hemisphere enters the shoulder period between heating demand in winter and heating demand in summer. Hot and humid temperatures forecast for most parts of the Midwest and East Coast over the second half of May and most of June point to increasing energy demand as homes and businesses turn on air conditioning.

### Henry Hub and National Balancing Point Prices



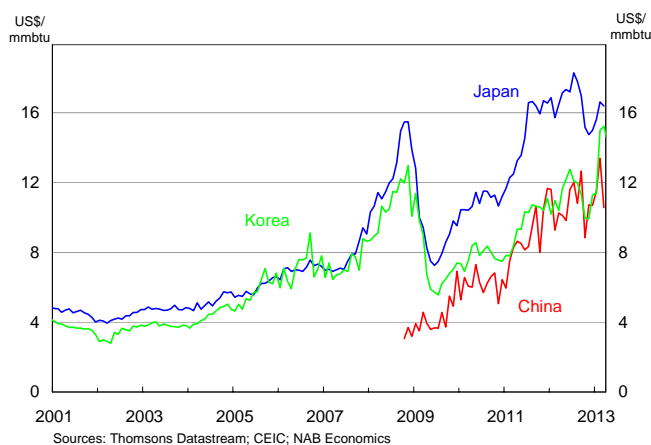
Looking ahead, we anticipate the recent strength in natural gas prices to consolidate going into the US summer. At the moment, summer is forecast to be warmer than average for much of the continental US, which is likely to induce an uplift in cooling demand. Positive global sentiments associated with the imminent liberalisation of the US LNG export market to allow access to its relatively cheap supply by non-FTA partners is also likely to lend some support to prices. Also appearing to support prices is the slowing growth in production and inventory accumulation from their trailblazing pace from late 2011 through most of 2012, with "deficits" – actual monthly underground storage levels -- to be below their five-year averages occurring from February to May. While we expect that price strength is likely to be maintained, we are a little cautious on the degree of upside risk to prices. Since May 2012, higher gas prices have resulted in a steady switch to coal for electricity generation. In recent times, the US\$4 mark is typically the resistance price level where the switch from natural gas to coal occurs, acting to limit upside pressures to gas prices. That said, the likely entry of the US as a legitimate world natural gas supplier could potentially be a game changer as demand from countries like Japan and India, which have very few cheaper energy substitutes, more than compensates for the diversion of domestic demand in the US. This will consequently result in the closing of gap between low US prices and the average world price.

In the UK, natural gas prices have fallen about 4% in April since the advent of the natural gas shortage "scare" that caused the

National Balancing Point price to spike to its record high in the second last week of March. Lower Brent oil prices have also served as a factor in the fall. Supply pressures have since been alleviated with deliveries from Qatar and restored production in Norway helping to replenish stocks. The March incident highlighted the fragility in the UK energy policy which relies predominantly on imports, further exacerbated by the intense competition from higher paying Asian buyers absorbing supplies from Qatar and the Atlantic Basin. Recognising the potential significant implications of the US shale gas revolution, European Union leaders have urged faster integration of the bloc's power and natural-gas markets to lower energy prices as the EU's cost gap widens from its largest trading partner, threatening to undermine EU's industrial competitiveness. If the EU becomes a fully integrated market, it could save as much as 35 billion euros (\$45 billion) a year in electricity costs in 2015 compared with 2012, according to the European Commission, the bloc's regulatory arm.

In Asia, the LNG market has broadly turned southwards in March, with the sharpest drop observed in China. In Japan, LNG import prices were down 3.0 per cent in the month although still at historically high of at US\$16.40/mmbtu. The notable depreciation in yen in recent months has resulted in strong upward pressures in the import price of LNG. The Korean LNG prices, which follow the lead of Japanese LNG prices, fell 6%. Chinese natural gas prices suffered the most severe fall of 21%. More recently, the downturn in prices in the Asian spot LNG market over March were largely attributable to weak industrial activity data from China and softer Brent prices.

Asian LNG Prices

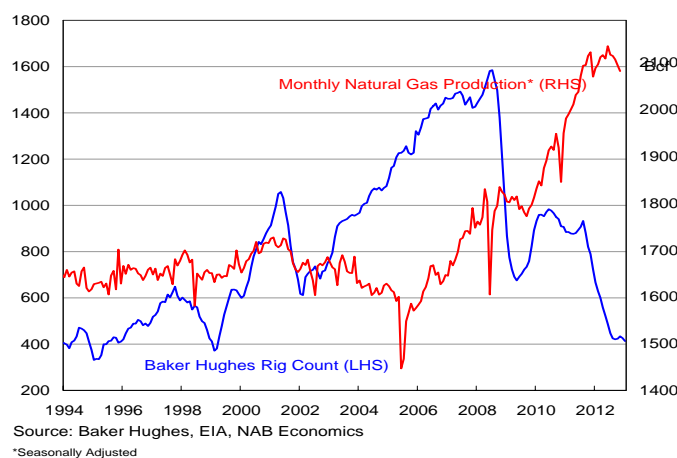


### Market Conditions

Production in the US is at a historical high, despite having come off its peak in September 2012. A sustained period of low natural gas prices has triggered a steady decline in the number of rigs to its lowest level in more than 13 years. According to Baker Hughes, the US natural gas rig count was down to 413 in April, the lowest monthly reading since May 1999 and down significantly on levels in excess of 900 at the same time last year. That said, an increase in efficiency and focus on productive wells and oil-targeted drilling have contributed to flush natural gas supply despite a dramatic cutback in rigs. After accounting for seasonal factors, monthly marketed production was down 0.6 per cent in February (the latest data available), to around 2081bcf, a level which is still elevated by historical comparison. However, a massive withdrawal in March as a result of unseasonably cold weather has culminated in deficits relative to the five-year averages, the first of such deficits since September 2011. This has prompted natural gas imports – which accounted for around

8% of total natural gas consumption in the US in 2012 – to increase in the month relative to a year ago, mainly via pipelines from Canada and some from Mexico. However, the overall import trend has been declining in recent years from the peak of accounting for about 16% of consumption in 2007. In the near term, the impact of reduced drilling activity is expected to slow production growth further; particularly as current price levels still imply that dry gas drilling is very unprofitable. The caveat to that is of course the highly fluid policy directions implied by the heated debate surrounding natural gas exports currently. The future production trajectory in the US will be contingent on the pace at which the US government approves natural gas projects to have unrestricted access to export markets in the next few months, with the recent precedent made out of the Freeport terminal sparking renewed hopes for a string of applications by such projects still waiting for approval. In the longer term, some factors which will affect US export prospects may include the development of new production capacity in foreign countries, particularly from deepwater reservoirs, shale gas deposits, and the Arctic. In addition, the speed and extent of price convergence in global natural gas markets and the degree to which natural gas competes with liquids in domestic and international markets will also affect exports. In its recent report of Annual Energy Outlook, the Energy Information Agency (EIA) forecasts natural gas production to grow by just 0.4% in 2013 and decline in 2014 by 0.6%, reflecting an inflection point where the industry consolidates from the rapid rise since 2006. More rapid expansion in production will ensue in 2015 as export markets become more accessible.

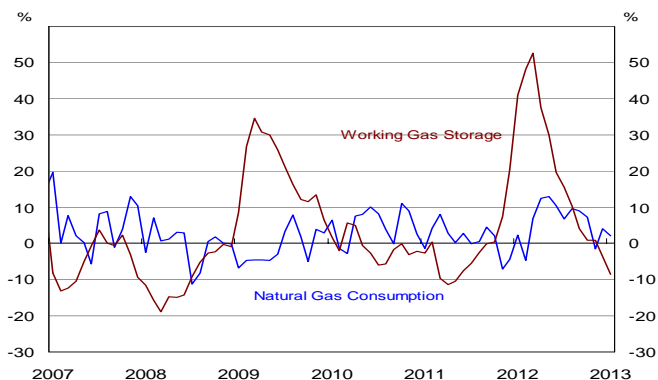
US Production and Rig Count



US natural gas consumption in the past autumn and winter months was up significantly compared to a year earlier, except for December where consumption was less. In February (for which the latest consumption data is available), natural gas consumption was up 2% year-on-year. Helping drive the monthly figures, residential consumption was up 14% y-o-y and commercial consumption 10%. This was partly offset by a sharp 13% decline in the consumption by the electric power sector as the rising natural gas prices since May last year induced a substantial switching to coal-powered electricity generation. This is evident in the latest figures published by the EIA which suggest that natural gas, while accounting for an equal share of 32% of total electricity generation as coal in April 2012, has been only fuelling about 25% of generation each month since November 2012, with coal having gained ground to 40% or more. Despite the recent reversal of fortune, coal's share of total electricity generation remains below the historical average prior to 2009. In the seven years to 2008, coal's share of total generation ranged from 48% to 51%. In the near-term, the EIA expects natural gas consumption to increase by 0.7% in 2013 and to fall by 0.9% in 2014.

In response to falling drilling activity, the growth in monthly injections has slowed considerably in recent months. In February, natural gas storage levels were down more than 4% on a year earlier, dwarfed by the stratospheric year-on-year growth rates that were evident in early 2012 (see Graph). Reflecting this, natural gas inventories started to lapse into deficit late March, hitting a low of 1673 bcf in the first week of April. Looking ahead, inventories should start building up again as the weather turns milder, but not to the levels observed late last year.

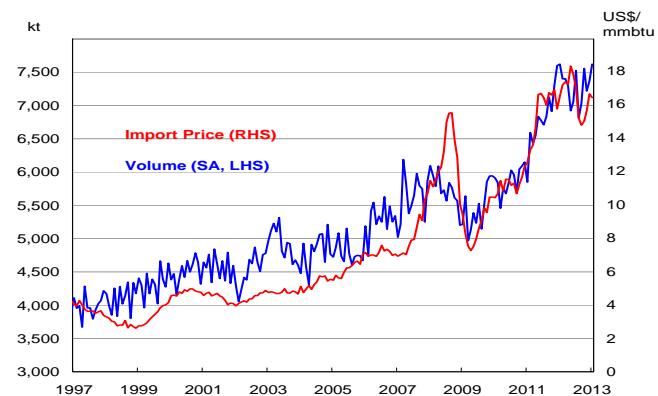
**US Natural Gas Storage and Consumption (y-o-y % change)**



Source: EIA, NAB Economics

The increasing prospect of the US becoming an unrestricted gas exporter has been greeted with enthusiasm by several import-reliant major natural gas markets in Asia, of which unsustainably high energy import bills have escalated to become a major issue of national concern. Natural gas trading in the region predominately relies on long-term contracts in which the price of gas is linked, or indexed, to that of oil. However this practice has kept Asian gas prices much higher than those in other markets, to around four times the price paid by North American gas trading hubs. As such, countries such as Japan and China have launched a number of initiatives, including negotiations with the US government and providing incentives to the energy firms in their respective countries to make inroads into securing relatively cheaper US supplies.

**Japanese Imports and Implied Price**

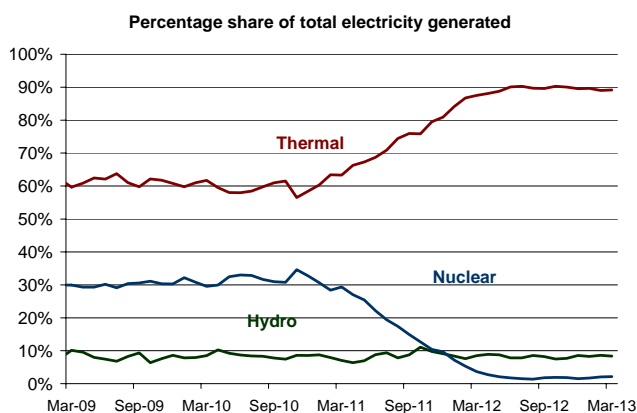


Source: CEIC, NAB Economics

After seasonal adjustment, Japanese imports of LNG have fluctuated around 7300 kilo tonnes per month since early 2012, having picked up by more than 20% since the aftermath of the Fukushima nuclear incident. Import prices during this period have also risen to a corresponding level. In the next few months, imports are expected to remain somewhat subdued with high level of inventories and summer shoulder period approaching. However, a pickup in industrial activity in Japan spurred by the recent round of aggressive monetary easing by the Bank of Japan could see imports rising towards the end of 2013. Nuclear generation hit a

record low in 2012, accounting for just 2.3% of Japan's electricity generated while thermal power is responsible for almost 90%. Soaring energy inflation and massive losses faced by utilities companies since the shutdown of nuclear reactors are exerting immense political pressure on the Japanese government to respond quickly to contain any further spill-over effects, as Japanese households have already been burdened with higher utility rates. This has in turn stoked speculation that Japan authorities are inching closer towards restarting two of its nuclear reactors, led by utilities firm Tokyo Electric Power Co which operated the stricken Fukushima Dai-ichi plant. It appears that so far the two major political parties (Democratic Party Japan and Liberal Democratic Party) have successfully silenced public debate on the issue, which means the resumption in nuclear generation is likely to gain traction once the new independent nuclear regulator, Nuclear Regulation Authority, finalises the compilation of safety standards in July.

**Japanese Electricity Generation**

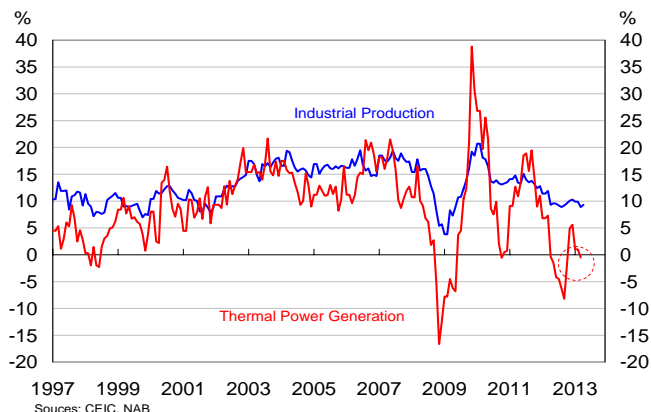


Growth in China's thermal power generation has slowed notably since its peak in the second half of 2011, consistent with a broad downward trend in industrial production. As a result, Chinese imports of LNG only grew by 19% compared to a year ago – a modest figure compared the average of 30% in 2012. That said, natural gas still only comprises a small share of around 4% of total power generation, although the Chinese government has set explicit targets in boosting the share of natural gas of total energy consumption to 10% by 2020 stemming from its intention to reduce pollution (as a result of heavy coal use) and diversify fuel mix in end-use sectors. China's ambitions in this area are evident in its recent active exploratory activities in shale gas but so far they have yielded very little success due to technological and physical barriers. Meanwhile, the Chinese government is looking to secure long-term supply from external sources and encourage technological capabilities in the area. It is currently in the finalisation process of a 30-year supply deal with Russia and has made inroads tapping into US expertise in shale developments for domestic development. For example, Sinopec in 2011 paid \$2.2 billion for access to five shale plays in a deal with US company Devon Energy Corp.

Steady progress in China's LNG exploration and import program has taken place against the backdrop of a weakening domestic economy. Chinese GDP growth was below expectations at 7.7% year-on-year in the March quarter, casting doubt over expectations for a robust recovery in the Chinese economy in the first half of the year. Partial economic indicators also showed lack in momentum, highlighting the slack that remains in private demand despite government efforts to jump start the economy last year. Industrial production has been growing around the 9% mark in recent months – a level below the long-run average, while the official PMI published by the NBS has been around the neutral

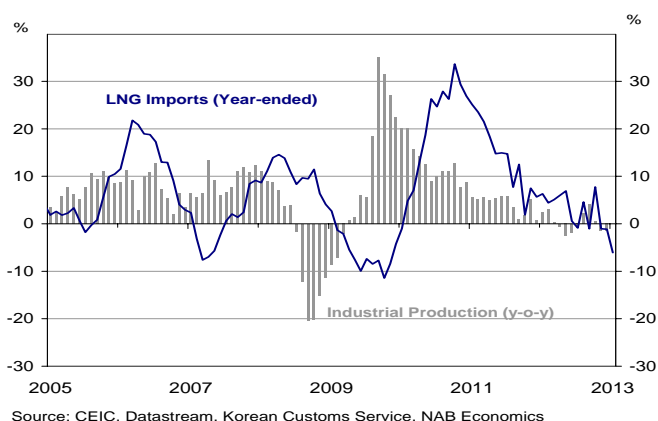
point since May 2012, signalling very gradual expansion in manufacturing. In our latest monthly note on China, we have revised our forecast for China's GDP growth down further to 7¼% in 2013 and 7½% in 2014 (both were 8% previously).

**Chinese Thermal Power Generation (y-o-y % chg)**



A similar story can be told for the rest of Asia which saw their demand growth for LNG notably deteriorate through the March quarter. In Korea, year-ended growth in LNG imports contracted in February and March. While this partly reflects the general weakness in demand, a pick-up in natural gas prices since November might also be responsible for the moderation in imports as utility plants preferred to deplete inventories instead. That said, natural gas prices actually moderated in April from plenty of cargo supply and as the country entered into the shoulder season before summer's cooling demand ramps up. Industrial production, a reasonable proxy for energy production, has remained largely stagnant since the beginning of last year from slowing external demand, with recent data suggesting contractions in February and March. Nevertheless, the slowdown in industrial activity was downplayed somewhat by the relatively bullish GDP growth data of 0.9% growth in the March quarter.

**Korean LNG Imports**

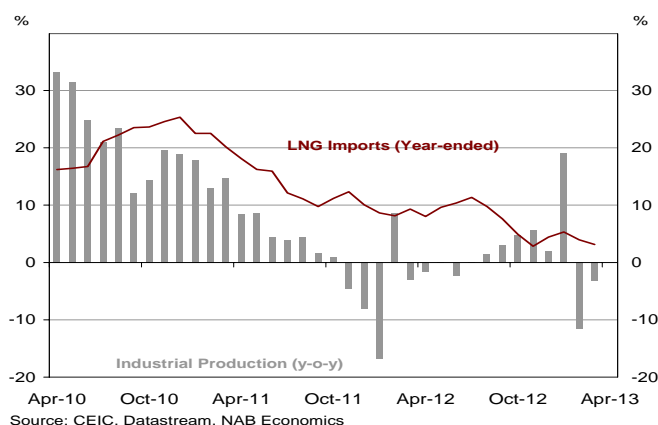


Despite an uptick in GDP growth in the March quarter, the risks to Korea's near-term economic outlook are skewed to the downside. Coming to the fore as the biggest threat is the sharp yen depreciation lately from an aggressive round of quantitative easing in Japan, which significantly undercuts the competitiveness of Korean exports. Monetary easing options by the Korean central bank are also hamstrung by the high levels of household debt, which is feared to spiral further upwards in an accommodative environment. Overall, this suggests that industrial

demand in the energy sector is unlikely to experience any revival anytime soon unless more drastic policy actions are taken.

In Taiwan, year-ended natural gas import growth has slowed since mid 2012. Similar to Korea, Taiwan's economy had been held back by slowing external demand from both China and Europe, which had acted as a significant drag on the industrial sector which in turn lowered industrial demand for electricity. The weakening yen is also posing significant risks to Taiwan's exports. As a result, electricity generation growth is generally soft, up by only 0.2% in March from a year earlier. Having said that, prospects of domestic consumption and private investment in Taiwan appear to be more robust compared to that of South Korea, which suggest their near-term demand for natural gas will be more resilient.

**Taiwanese LNG Imports**



**Forecasts**

The potentially historically significant implications of the recent developments in global natural gas dynamics makes it very timely to cover natural gas in depth this month, since our last detailed update was a while back in November. It has also changed, to some extent, our fundamental views on the future paths of natural gas prices in various regions, as the emergence of the US as a likely unrestricted global exporter suggests that the currently fragmented global natural gas market is likely to consolidate and prices paid by different regions will begin to converge, although the momentum will only start to build up substantially in 2015 when Sabine Pass, the first export terminal approved in the US starts its operation. However, we believe that Henry Hub prices are likely to track higher in the lead-up as more export projects get approved. As such, we have lifted our forecasts of Henry Hub prices slightly over the forecast period since our last monthly report. On the other hand, Japan is likely to be a beneficiary of the loosening of US exports policy, which will see the currently stratospheric prices it is paying for imported natural gas moderating over the next few years, as indicated by our downward revisions in Japanese gas prices this month. The imminent resumption of a number of nuclear reactors during the second half of this year is also likely to gradually reduce Japan's reliance on imported natural gas, exerting downward pressure on prices.

[vyanne.lai@nab.com.au](mailto:vyanne.lai@nab.com.au)  
[rob.brooker@nab.com.au](mailto:rob.brooker@nab.com.au)

## Quarterly Price Profile

### Natural Gas Forecasts – Quarterly Average

US\$/mmbtu	Actual	Forecasts							
	Mar-13	<i>Jun 13</i>	<i>Sep 13</i>	<i>Dec 13</i>	<i>Mar 14</i>	<i>Jun 14</i>	<i>Sep 14</i>	<i>Dec 14</i>	<i>Mar 15</i>
Henry Hub	3.49	4.15	3.90	4.20	4.40	4.50	4.30	4.35	4.40
Japan LNG	16.21	15.75	14.80	15.00	15.20	14.50	14.00	14.00	13.50
Brent Oil	113	103	105	106	105	106	105	104	104

Source: Datastream, CEIC, NAB Economics

## Global Markets Research

Peter Jolly  
Global Head of Research  
+61 2 9237 1406

### Australia

#### Economics

Rob Henderson  
Chief Economist, Markets  
+61 2 9237 1836

Spiros Papadopoulos  
Senior Economist  
+61 3 8641 0978

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

Ken Hanton  
Senior Credit Analyst  
+61 2 9237 1405

#### Equities

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

Jenny Khamphet  
Senior Real Estate Equity Analyst  
+61 2 9237 9538

## Group Economics

Alan Oster  
Group Chief Economist  
+61 3 8634 2927

### 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

Mike Jones  
Currency Strategist  
+64 4 924 7652

Kymerly Martin  
Strategist  
+64 4 924 7654

### UK/Europe

Nick Parsons  
Head of Research, UK/Europe,  
and Global Co-Head of FX Strategy  
+ 44 207 710 2993

Gavin Friend  
Markets Strategist  
+44 207 710 2155

Tom Vosa  
Head of Market Economics  
+44 207 710 1573

Simon Ballard  
Senior Credit Strategist  
+44 207 710 2917

Derek Allassani  
Research Production Manager  
+44 207 710 1532

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

Rob Brooker  
Head of Australian Economics  
+61 3 8634 1663

Alexandra Knight  
Economist – Australia  
+(61 3) 9208 8035

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

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

Robert De lure  
Senior Economist – Property  
+(61 3) 8634 4611

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

Gerard Burg  
Economist – Industry Analysis  
+(61 3) 8634 2778

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

James Glenn  
Economist – Asia  
+(61 3) 9208 8129

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

## 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.

## Important Notices

**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 in the UK by the Financial Services Authority.

**USA:** 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.