

AUSTRALIAN MARKETS WEEKLY



Generational shift - an older workforce, a lower NAIRU

In this issue

Generational shift - an older workforce, a lower NAIRU 2

Calendar of economic releases 6

Forecasts 7

Analysis – Generational shift - an older workforce, a lower NAIRU

- Unemployment has edged higher since earlier this year as strong employment growth has failed to keep pace with even stronger growth in the supply of labour, with the participation rate reaching a post-WW2 high of 66%. Analysing the age split of the labour market, the participation rate is up across the board from the most recent national low in 2016, although the increase has been driven by older people, especially those in their early 60s.
- We think the increase in participation reflects a mix of economic, public policy and demographic factors, namely: (1) a desire to lift incomes, which have stagnated in real terms over recent years; (2) high debt-servicing ratios given record household gearing; (3) tighter access to the age and disability support pensions, including a lift in the eligibility age; and (4) rising longevity risk and relatively modest superannuation balances.
- In our view, the public policy and demographic factors are likely to persist, where international work suggests increased participation by older workers contributes to a lower NAIRU and a flatter Phillips curve, pointing to inflation and interest rates staying lower for longer.

The week ahead – AU RBA minutes, unemployment; NZ GDP; US FOMC rate cut

- On Tuesday, we think the minutes of the RBA's September Board meeting are likely to emphasise a range of global and domestic downside risks to the outlook, which could surprise markets given the relatively bland post-meeting statement. Locally, the labour market remains key for the RBA's outlook, where NAB expects Thursday's labour force survey to show the unemployment rate edged higher to 5.3%, with moderate employment growth of 17k (consensus: 15k, 5.2%).
- Internationally, investors are seeking clarity on the impact of the weekend terrorist attack on Saudi oil production. We expect Thursday's NZ GDP to expand just 0.3% in Q2, or 1.9% over the past year (market: 0.4%; RBNZ: 0.5%). Also note the potential for non-trivial historical revisions. In the US, the FOMC is expected to cut the funds rate from 2-2.25% to 1.75-2% on Wednesday and signal a preparedness to do more as needed, easing policy further mainly as insurance against the continuing trade war. In the UK, a supreme court ruling is due on the legality of PM Johnson's decision to suspend Parliament until 14 October. The BoJ is expected to keep the policy rate unchanged at -0.1% on Thursday.

To contact NAB's market experts, please click on one of the following links:

[Ask the Economists](#)

[Ask the FX Strategists](#)

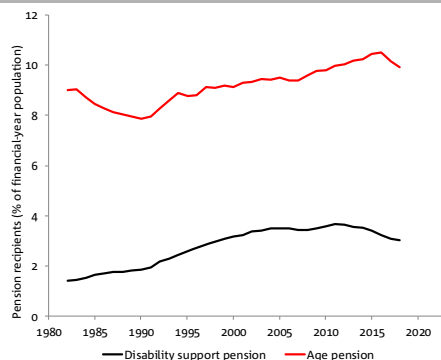
[Ask the Interest Rate Strategists](#)

Key markets over the past week

| | Last | % chg week | | Last | bp/% chg week |
|---------|--------|------------|----------|-------|---------------|
| AUD | 0.6877 | 0.2 | RBA cash | 1.00 | 0 |
| AUD/CNY | 4.86 | -0.6 | 3y swap | 0.94 | 7 |
| AUD/JPY | 74.2 | 0.8 | ASX 200 | 6,674 | 0.4 |
| AUD/EUR | 0.621 | 0.0 | Iron ore | 95 | 6.4 |
| AUD/NZD | 1.077 | 0.8 | WTI oil | 59.6 | 3.0 |

Source: Bloomberg

Chart of the week: Tighter access to the age pension



Generational shift - an older workforce, a lower NAIUR

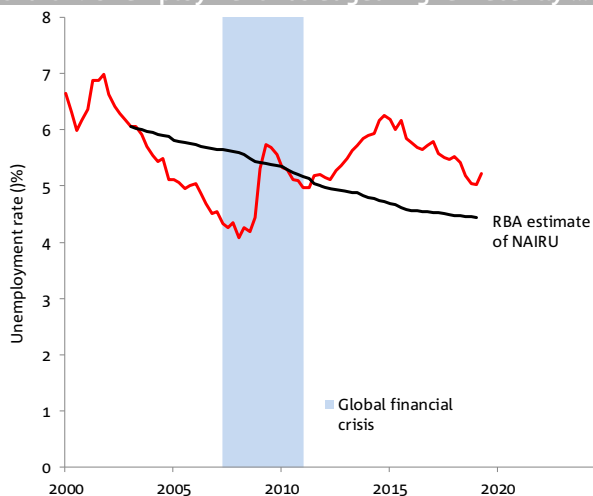
- Unemployment has edged higher since earlier this year as strong employment growth has failed to keep pace with even stronger growth in the supply of labour, with the participation rate reaching a post-WW2 high of 66%. Analysing the age split of the labour market, the participation rate is up across the board from the most recent national low in 2016, although the increase has been driven by older people, especially those in their early 60s.
- We think the increase in participation reflects a mix of economic, public policy and demographic factors, namely: (1) a desire to lift incomes, which have stagnated in real terms over recent years; (2) high debt-servicing ratios given record household gearing; (3) tighter access to the age and disability support pensions, including a lift in the eligibility age; and (4) rising longevity risk and relatively modest superannuation balances.
- In our view, the public policy and demographic factors are likely to persist, where international work suggests increased participation by older workers contributes to a lower NAIUR and a flatter Phillips curve, pointing to inflation and interest rates staying lower for longer.

Unemployment has edged higher despite strong employment growth as more people join the workforce

A key influence on monetary policy over the past year has been the state of the labour market, where the Reserve Bank is trying to grow the economy at a faster rate to reduce unemployment toward the estimated NAIUR of 4.5% so as to return inflation to the 2-3% target band.

However, unemployment has risen from a multi-year low of 4.9% in February to 5.2%. The rise in unemployment has occurred due to strong jobs growth failing to keep pace with even stronger growth in the supply of labour, with the participation rate reaching a post-WW2 high of 66%.

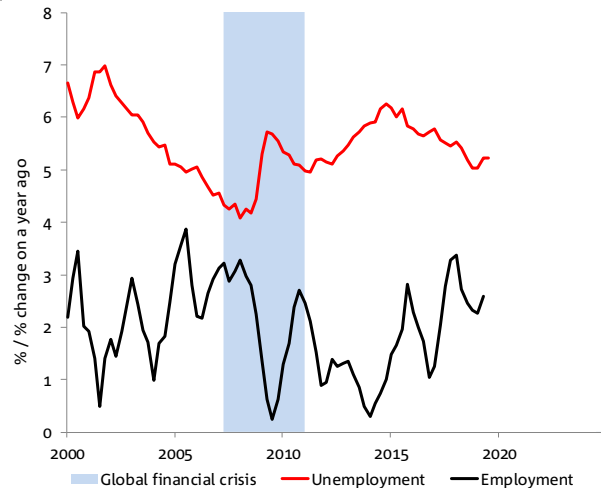
Chart 1: Unemployment has edged higher recently ...



Note: The data are quarterly averages. The NAIUR = non-accelerating inflationary rate of unemployment.

Source: Australian Bureau of Statistics, Reserve Bank of Australia, National Australia Bank

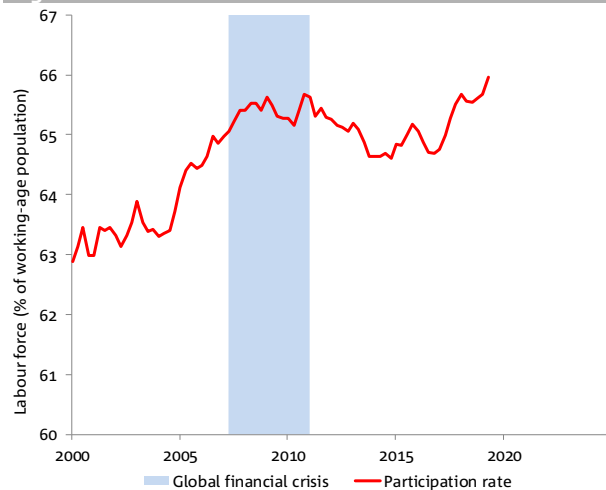
Chart 2: ... despite strong jobs growth ...



Note: The data are quarterly averages.

Source: Australian Bureau of Statistics, National Australia Bank

Chart 3: ... with the participation rate at a post-WW2 high



Note: The data are quarterly averages.

Source: Australian Bureau of Statistics, National Australia Bank

Participation in the workforce is up across the board, with the largest gains among older people

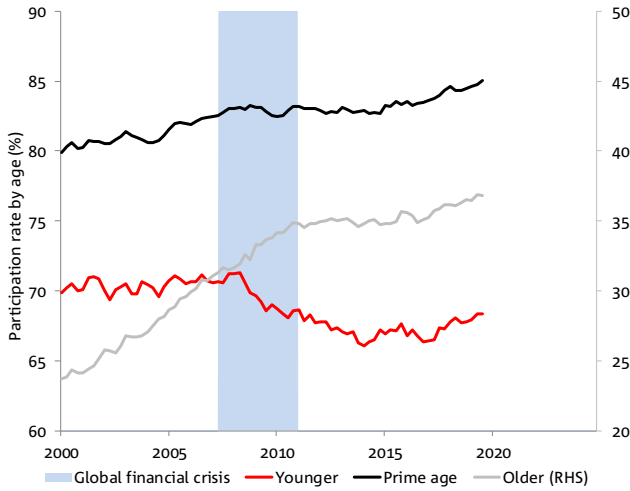
Given that Australia's population is getting older, we analysed the age split of the labour market.

From the low in the national participation rate in 2016, we found:

- **Younger people have seen the second-largest rise in participation.** There has been a 1.9pp increase since 2016 in the participation of people aged 15-24 years, mostly due to higher participation among those aged in their early 20s.
- **Prime-age participation has increased the least.** Participation of people aged 25-54 years has increased by 1.6pp since 2016. Participation among those aged 25-34 years is up 2.4pp, while participation of those aged 35-54 years has risen by 1.5-1.9pp.
- **Older people have seen the largest rise in participation.** The participation rate for people aged 55 years and over has risen by 2.4pp, accounting for almost all the increase in overall participation.

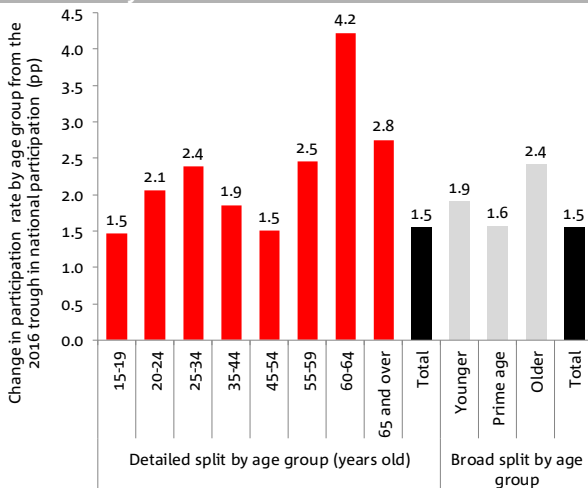
Participation among those in the early 60s is up 4.2pp, while it has increased 2.5pp for those in their late 50s and by 2.8pp for people aged 65 years and over.

Chart 4: Participation is up across the board, especially for older people



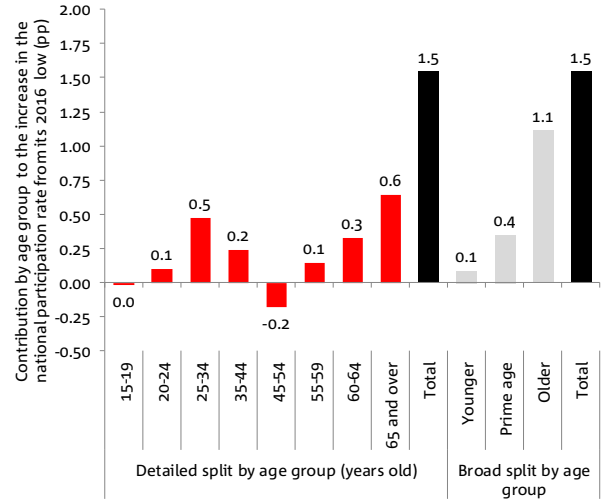
Note: The data are quarterly averages.
Source: Australian Bureau of Statistics, National Australia Bank

Chart 5: Participation has risen the most for those aged in their early 60s ...



Source: Australian Bureau of Statistics, National Australia Bank

Chart 6: ... and older workers have driven the national increase in participation



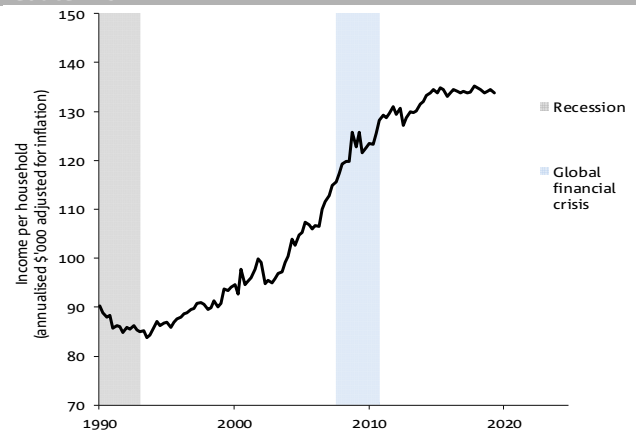
Note: Numbers may not add because of rounding.
Source: Australian Bureau of Statistics, National Australia Bank

Increased overall participation reflects economic factors and the ageing of the population

In our view, record labour-force participation reflects an aging population, motivated to stay in the workforce for longer by a number of economic, public policy and demographic factors.

- **A desire to lift incomes, where income per household has stagnated over recent years in real terms.** We estimate that average income per household has been broadly unchanged in real terms since 2014. This reflects slow growth in wages, with the unemployed and underemployed seeking more hours to boost incomes (the new labour account showing that total hours sought by unemployed and underemployed workers are high at 7.9% of available hours).¹

Chart 7: Income per household has broadly stagnated in real terms



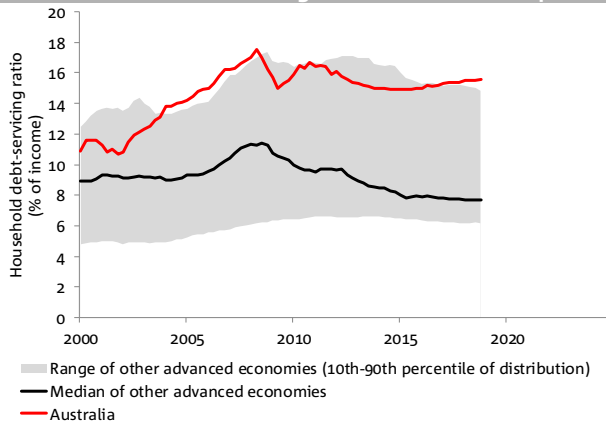
Note: The number of households was estimated by NAB using data from the Survey of Income and Households.
Source: Australian Bureau of Statistics, National Australia Bank

- **Mortgage debt-servicing ratios remain high.** Even with the lowest mortgage rates since the 1950s, debt-

¹ Available hours of work = actual hours worked + hours sought by the unemployed and underemployed.

servicing ratios for households remain high given record household gearing.

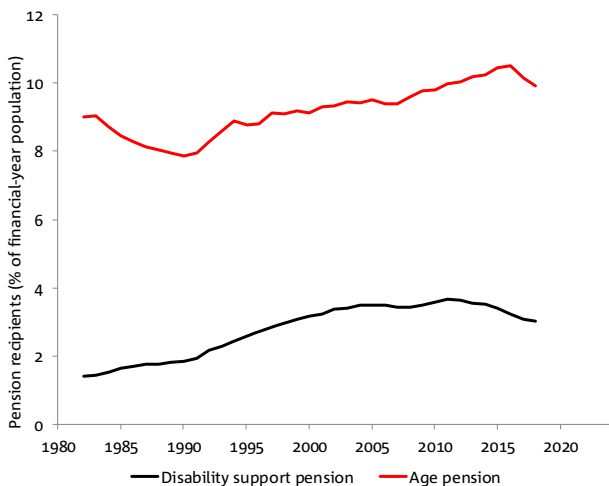
Chart 8: High debt means the household debt-servicing ratio in Australia is near its global financial crisis peak



Note: The other advanced economies are: Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Korea, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom, and United States of America.
Source: Bank for International Settlements, National Australia Bank

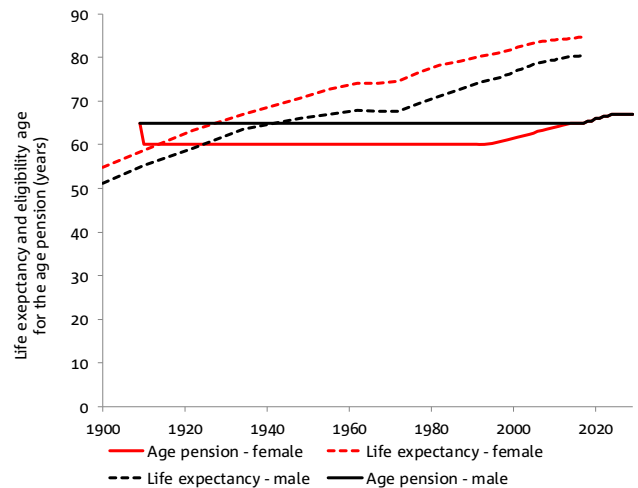
- **Access to government pensions has tightened.** The government has restricted access to the age and disability support pensions, which have fallen as a share of the population for the first time in decades (note that disability is the most common reason for retirement behind reaching retirement or pension/superannuation eligibility age). The government has also legislated to increase the eligibility age for the age pension to 67 years by 2023.

Chart 9: The government has tightened access to the age and disability support pensions ...



Source: Australian Bureau of Statistics, Department of Social Security, National Australia Bank

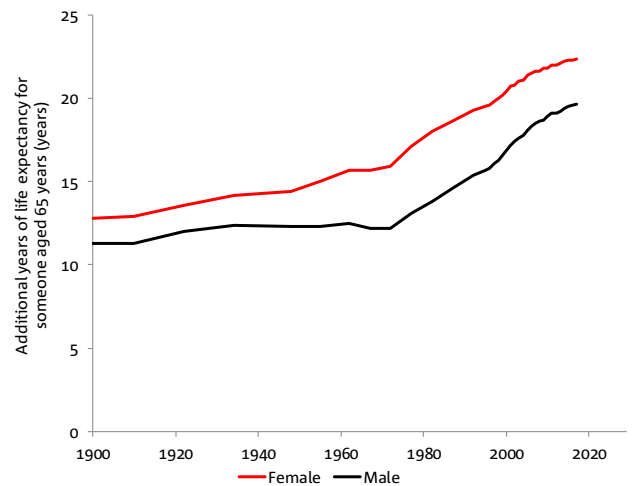
Chart 10: ... and has started to raise the eligibility age for the age pension



Note: The eligibility age for the Commonwealth age pension is legislated to increase to 67 years by 2023. The life expectancy estimates are for an individual at birth and are interpolated in earlier years.
Source: Australian Bureau of Statistics, Australian Institute of Health and Welfare, Department of Social Security, National Australia Bank

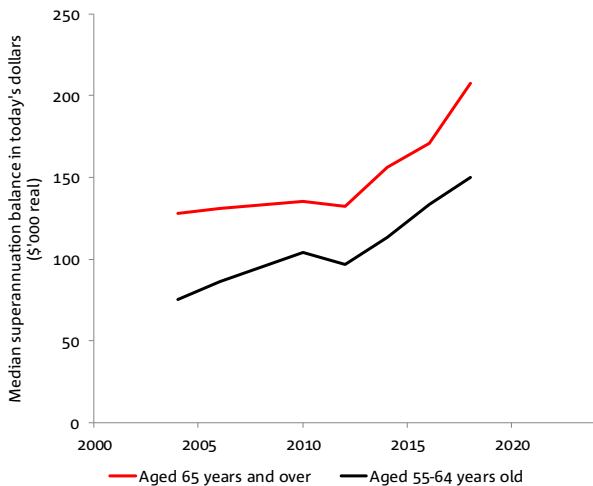
- **Longevity risk continues to increase and superannuation balances are modest.** Longevity risk has trended higher, with a person aged 65 years currently expected to live another 20 years if male or 22 years if female. At the same time, superannuation balances remain relatively modest for those approaching retirement age (the median superannuation balance for someone aged 55-64 years is about \$150,000, or about \$180,000 for males and \$120,000 for females).

Chart 11: The average person aged 65 years usually lives another 20 years or so in retirement



Source: Australian Institute of Health and Welfare, National Australia Bank

Chart 12: Superannuation balances have increased, but remain relatively modest relative to life expectancy



Note: Median superannuation balances are expressed in 2017-18 dollars. There is some Interpolation between some estimates.
 Source: Australian Bureau of Statistics, National Australia Bank

Increased participation by older workers is likely to reduce the NAIRU and flatten the Phillips curve

Unlike the economic factors, which largely reflect the current cycle, the public policy and demographic forces are likely to remain in place. The eligibility age for the age pension is already legislated to increase to 67 years

by 2023 and the government plans to raise it to 70 years by 2035. Life expectancy for people who have reached retirement age is still trending higher and superannuation balances may grow at a slower rate if interest rates stay low for an extended period.

This suggests that the ageing of the population is likely to see more older people stay in the workforce for longer, boosting the supply of labour. International research suggests that increased participation by older workers contributes to:²

- **A lower NAIRU.** Older workers tend to quit their job at a slower rate than other workers, which reduces the frictional unemployment component of the NAIRU.
- **A flatter Phillips curve.** Older workers tend to place more weight on non-wage arrangements, including flexible hours of work.

In turn, this suggests that demographic factors are likely to contribute to inflation and interest rates staying lower for longer, which is something we plan to examine in more detail.

Kieran Davies

² For example, see Luiz da Silva, Enisse Kharoubi, Emanuel Kohlscheen and Benoit Mojon, *The inflation conundrum in*

advanced economies and a way out, Bank for International Settlements, 5 September 2019.

CALENDAR OF ECONOMIC RELEASES

| Country | Economic Indicator | Period | Forecast | Consensus | Actual | Previous | GMT | AEST |
|--|-------------------------------------|--------|----------|-----------|--------|----------|-------|------------|
| Monday, 16 September 2019 | | | | | | | | |
| US | Empire Manufacturing | Sep | | 4 | | 4.8 | 12.30 | 22.30 |
| Tuesday 17 September 2019 | | | | | | | | |
| NZ | Westpac Consumer Confidence | 3Q | | -- | | 103.5 | 21.00 | 7.00 |
| AU | RBA Board minutes | Sep | | | | | 1.30 | 11.30 |
| AU | House Price Index QoQ | 2Q | | -1.1 | | -3 | 1.30 | 11.30 |
| GE | ZEW Survey Current Situation | Sep | | -- | | -13.5 | 9.00 | 19.00 |
| GE | ZEW Survey Expectations | Sep | | -36 | | -44.1 | 9.00 | 19.00 |
| US | Industrial Production MoM | Aug | | 0.2 | | -0.2 | 13.15 | 23.15 |
| Wednesday 18 September 2019 | | | | | | | | |
| NZ | Dairy Auction Avg. Winning Price MT | Sep 17 | | -- | | 3202 | | early am |
| NZ | BoP Current Account Balance (% GDP) | 2Q | -3.3 | -3.3 | | -3.6 | 22.45 | 8.45 |
| AU | Westpac Leading Index MoM | Aug | | -- | | 0.14 | 0.30 | 10.30 |
| UK | CPI MoM | Aug | | 0.4 | | 0 | 8.30 | 18.30 |
| UK | CPI YoY | Aug | | 1.8 | | 2.1 | 8.30 | 18.30 |
| UK | CPI Core YoY | Aug | | 1.8 | | 1.9 | 8.30 | 18.30 |
| EC | CPI Core YoY | Aug F | | 0.9 | | 0.9 | 9.00 | 19.00 |
| EC | CPI MoM | Aug | | -- | | -0.5 | 9.00 | 19.00 |
| EC | CPI YoY | Aug F | | 1 | | 1 | 9.00 | 19.00 |
| US | Housing Starts | Aug | | 1250 | | 1191 | 12.30 | 22.30 |
| CA | CPI NSA MoM | Aug | | -- | | 0.5 | 12.30 | 22.30 |
| CA | CPI YoY | Aug | | -- | | 2 | 12.30 | 22.30 |
| CA | CPI Core- Common YoY% | Aug | | -- | | 1.9 | 12.30 | 22.30 |
| US | FOMC Rate Decision (Upper Bound) | Sep 18 | 2 | 2 | | 2.25 | 18.00 | 4.00 |
| US | Interest Rate on Excess Reserves | Sep 19 | | -- | | 2.1 | 18.00 | 4.00 |
| Thursday 19 September 2019 | | | | | | | | |
| NZ | GDP SA QoQ | 2Q | 0.3 | 0.4 | | 0.6 | 22.45 | 8.45 |
| NZ | GDP YoY | 2Q | 1.9 | 2.0 | | 2.5 | 22.45 | 8.45 |
| AU | Employment Change | Aug | 17 | 20 | | 41.1 | 1.30 | 11.30 |
| AU | Unemployment Rate | Aug | 5.3 | 5.2 | | 5.2 | 1.30 | 11.30 |
| AU | Participation Rate | Aug | na | 66 | | 66.1 | 1.30 | 11.30 |
| JN | BOJ Policy Balance Rate | Sep 19 | | -- | | -0.1 | | around 2pm |
| JN | All Industry Activity Index MoM | Jul | | -- | | -0.8 | 4.30 | 14.30 |
| UK | Retail Sales Inc Auto Fuel MoM | Aug | | -0.3 | | 0.2 | 8.30 | 18.30 |
| UK | Retail Sales Inc Auto Fuel YoY | Aug | | 2.6 | | 3.3 | 8.30 | 18.30 |
| UK | Bank of England Bank Rate | Sep 19 | 0.75 | 0.75 | | 0.75 | 11.00 | 21.00 |
| UK | BOE Asset Purchase Target | Sep | | 435 | | 435 | 11.00 | 21.00 |
| US | Philadelphia Fed Business Outlook | Sep | | 11.5 | | 16.8 | 12.30 | 22.30 |
| JN | Natl CPI YoY | Aug | | 0.2 | | 0.5 | 23.30 | 9.30 |
| JN | Natl CPI Ex Fresh Food YoY | Aug | | 0.5 | | 0.6 | 23.30 | 9.30 |
| Friday 20 September 2019 | | | | | | | | |
| NZ | Credit Card Spending YoY | Aug | | -- | | 5 | 3.00 | 13.00 |
| CA | Retail Sales MoM | Jul | | -- | | 0 | 12.30 | 22.30 |
| EC | Consumer Confidence | Sep A | | -- | | -7.1 | 14.00 | 0.00 |
| Upcoming Central Bank Interest Rate Announcements | | | | | | | | |
| Europe, ECB | | Oct-24 | -0.5 | -0.5 | | -0.5 | | |
| US, Federal Reserve | | Sep 18 | 1.75/2 | 1.75/2 | | 2/2.25 | | |
| UK, BOE | | Sep 19 | 0.75 | 0.75 | | 0.75 | | |
| New Zealand, RBNZ | | Sep 25 | 1 | 1 | | 1 | | |
| Australia, RBA | | Oct 1 | 1 | 1 | | 1 | | |

GMT: Greenwich Mean Time; AEST: Australian Eastern Standard Time

FORECASTS

| Economic Forecasts | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|-----------------|------|------|------|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Annual % change | | | | Quarterly % change | | | | | | | | | | | | | | | | |
| | 2018 | 2019 | 2020 | 2021 | 2018 | | | | 2019 | | | | 2020 | | | | 2021 | | | | |
| Australia Forecasts | 2018 | 2019 | 2020 | 2021 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | |
| Household Consumption | 2.6 | 1.4 | 1.7 | 2.3 | 0.5 | 0.8 | 0.3 | 0.4 | 0.3 | 0.4 | 0.3 | 0.3 | 0.4 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Underlying Business Investment | 1.2 | -2.1 | 0.2 | 1.9 | 0.7 | -0.8 | -2.1 | 0.1 | -0.2 | -0.6 | -0.3 | -0.5 | 0.1 | 0.1 | 1.1 | 0.5 | 0.4 | 0.4 | 0.2 | 0.4 | 0.4 |
| Residential Construction | 4.8 | -8.6 | -8.1 | -0.9 | 3.3 | 2.8 | 0.1 | -2.8 | -2.2 | -4.4 | -2.7 | -2.4 | -2.1 | -1.3 | -1.7 | -0.5 | 0.1 | 0.2 | 0.5 | 0.8 | 0.8 |
| Underlying Public Spending | 4.3 | 4.2 | 3.8 | 3.6 | 1.4 | -0.1 | 2.1 | 0.8 | 1.1 | 1.4 | 0.4 | 0.8 | 1.1 | 1.1 | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 |
| Net Exports (a) | 0.8 | 1.6 | -0.1 | -0.2 | 0.6 | 0.0 | 0.4 | -0.2 | 0.4 | 0.6 | 0.3 | 0.3 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 |
| Inventories (a) | 0.1 | -0.4 | 0.1 | 0.1 | 0.0 | 0.2 | -0.3 | 0.2 | -0.1 | -0.5 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Domestic Demand (q/q %) | - | - | - | - | 0.9 | 0.5 | 0.4 | 0.2 | 0.1 | 0.3 | 0.2 | 0.2 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| Dom Demand (y/y %) | 2.8 | 0.9 | 1.7 | 2.6 | 3.5 | 3.3 | 2.5 | 2.0 | 1.2 | 1.0 | 0.8 | 0.8 | 1.2 | 1.4 | 1.9 | 2.2 | 2.5 | 2.6 | 2.7 | 2.8 | 2.8 |
| Real GDP (q/q %) | - | - | - | - | 1.0 | 0.7 | 0.3 | 0.1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 |
| Real GDP (y/y %) | 2.7 | 1.7 | 2.2 | 2.5 | 3.1 | 3.1 | 2.6 | 2.2 | 1.7 | 1.4 | 1.6 | 2.0 | 2.1 | 2.1 | 2.3 | 2.4 | 2.4 | 2.6 | 2.5 | 2.6 | 2.6 |
| CPI headline (q/q %) | - | - | - | - | 0.4 | 0.4 | 0.4 | 0.5 | 0.0 | 0.6 | 0.4 | 0.6 | 0.4 | 0.4 | 0.5 | 0.7 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 |
| CPI headline (y/y %) | 1.9 | 1.5 | 1.8 | 2.2 | 1.9 | 2.1 | 1.9 | 1.8 | 1.3 | 1.6 | 1.6 | 1.6 | 2.0 | 1.7 | 1.8 | 1.9 | 2.0 | 2.1 | 2.3 | 2.3 | 2.3 |
| CPI underlying (q/q %) | - | - | - | - | 0.5 | 0.5 | 0.4 | 0.4 | 0.2 | 0.4 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| CPI underlying (y/y %) | 1.9 | 1.4 | 1.5 | 1.9 | 1.9 | 1.9 | 1.8 | 1.8 | 1.5 | 1.4 | 1.4 | 1.3 | 1.5 | 1.5 | 1.5 | 1.6 | 1.7 | 1.9 | 2.0 | 2.0 | 2.0 |
| Private wages (q/q %) | - | - | - | - | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| Private wages (y/y %) | 2.1 | 2.3 | 2.5 | 2.8 | 1.9 | 2.1 | 2.1 | 2.3 | 2.4 | 2.3 | 2.3 | 2.3 | 2.4 | 2.5 | 2.6 | 2.6 | 2.7 | 2.7 | 2.8 | 2.8 | 2.8 |
| Unemployment Rate (%) | 5.3 | 5.2 | 5.4 | 5.5 | 5.5 | 5.6 | 5.1 | 5.0 | 5.0 | 5.2 | 5.2 | 5.3 | 5.3 | 5.4 | 5.5 | 5.5 | 5.5 | 5.4 | 5.5 | 5.4 | 5.5 |
| Terms of trade | 2.0 | 3.2 | -7.9 | 1.8 | 3.3 | -1.3 | 1.1 | 3.0 | 3.1 | 1.5 | -4.4 | -4.7 | -2.6 | -0.6 | 0.9 | -0.2 | 1.2 | 0.6 | -0.1 | -0.1 | -0.1 |
| Current Account (% GDP) | -2.1 | 0.3 | -1.0 | -0.8 | -2.2 | -2.7 | -2.2 | -1.4 | -0.2 | 1.2 | 0.5 | -0.3 | -0.9 | -1.1 | -1.0 | -1.0 | -0.8 | -0.7 | -0.8 | -0.9 | -0.9 |

Source: NAB Group Economics; (a) Contributions to GDP growth

| Exchange Rate Forecasts | | | | | | |
|-------------------------|--------|--------|--------|--------|--------|--------|
| | 16-Sep | Dec-19 | Mar-20 | Jun-20 | Sep-20 | Dec-20 |
| Majors | | | | | | |
| AUD/USD | 0.688 | 0.65 | 0.66 | 0.67 | 0.69 | 0.70 |
| NZD/USD | 0.64 | 0.62 | 0.62 | 0.63 | 0.65 | 0.65 |
| USD/JPY | 107.9 | 104 | 104 | 105 | 106 | 106 |
| EUR/USD | 1.11 | 1.12 | 1.11 | 1.13 | 1.14 | 1.15 |
| GBP/USD | 1.25 | 1.20 | 1.18 | 1.20 | 1.22 | 1.24 |
| USD/CNY | 7.07 | 7.40 | 7.40 | 7.30 | 7.20 | 7.10 |
| USD/CAD | 1.33 | 1.36 | 1.38 | 1.38 | 1.36 | 1.35 |
| USD/CHF | 0.99 | 0.97 | 0.95 | 0.96 | 0.96 | 0.96 |

| Australian Cross Rates | | | | | | |
|------------------------|--------|--------|--------|--------|--------|--------|
| | 16-Sep | Dec-19 | Mar-20 | Jun-20 | Sep-20 | Dec-20 |
| AUD/NZD | 1.08 | 1.05 | 1.06 | 1.06 | 1.06 | 1.08 |
| AUD/JPY | 74.2 | 68 | 69 | 70 | 73 | 74 |
| AUD/EUR | 0.62 | 0.58 | 0.59 | 0.59 | 0.61 | 0.61 |
| AUD/GBP | 0.55 | 0.54 | 0.56 | 0.56 | 0.57 | 0.56 |
| AUD/CNY | 4.86 | 4.81 | 4.88 | 4.89 | 4.97 | 4.97 |
| AUD/CAD | 0.91 | 0.88 | 0.91 | 0.92 | 0.94 | 0.95 |
| AUD/CHF | 0.68 | 0.63 | 0.63 | 0.64 | 0.66 | 0.67 |

| Interest Rate Forecasts | | | | | | |
|------------------------------|--------|--------|--------|--------|--------|--------|
| | 16-Sep | Dec-19 | Mar-20 | Jun-20 | Sep-20 | Dec-20 |
| Australian Rates | | | | | | |
| RBA cash rate | 1.00 | 0.75 | 0.50 | 0.50 | 0.50 | 0.50 |
| 3 month bill rate | 1.04 | 0.85 | 0.60 | 0.60 | 0.60 | 0.60 |
| 3 Year Swap Rate | 0.94 | 0.70 | 0.70 | 0.85 | 0.95 | 1.00 |
| 10 Year Swap Rate | 1.34 | 1.05 | 1.05 | 1.20 | 1.35 | 1.45 |
| Offshore Policy Rates | | | | | | |
| US Fed funds | 2.25 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 |
| ECB deposit rate | -0.50 | -0.60 | -0.60 | -0.60 | -0.60 | -0.50 |
| BoE repo rate | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 1.00 |
| BoJ excess reserves rate | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 |
| RBNZ OCR | 1.00 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| China 1yr lending rate | 4.35 | 4.10 | 4.10 | 4.10 | 4.10 | 4.10 |
| China Reserve Ratio | 13.0 | 12.50 | 12.00 | 12.00 | 12.00 | 12.00 |
| 10-year Bond Yields | | | | | | |
| Australia | 1.19 | 0.90 | 0.90 | 1.00 | 1.10 | 1.20 |
| United States | 1.90 | 1.50 | 1.50 | 1.60 | 1.70 | 1.80 |
| New Zealand | 1.33 | 0.95 | 0.95 | 1.05 | 1.10 | 1.30 |

Sources: NAB Global Markets Research; Bloomberg; ABS

| Global GDP | | | | |
|----------------|------|------|------|------|
| | 2018 | 2019 | 2020 | 2021 |
| Australia | 2.7 | 1.7 | 2.2 | 2.5 |
| United States | 2.9 | 2.2 | 1.6 | 1.8 |
| Eurozone | 1.9 | 1.1 | 1.1 | 1.4 |
| United Kingdom | 1.4 | 1.2 | 1.2 | 1.5 |
| Japan | 0.8 | 1.0 | 0.2 | 0.9 |
| China | 6.6 | 6.3 | 6.0 | 5.8 |
| India | 6.8 | 5.7 | 6.8 | 7.1 |
| New Zealand | 2.9 | 2.1 | 2.4 | 2.0 |
| World | 3.6 | 3.1 | 3.2 | 3.5 |

| Commodity prices (\$US) | | | | | |
|-------------------------|--------|--------|--------|--------|--------|
| | 16-Sep | Dec-19 | Mar-20 | Jun-20 | Sep-20 |
| Brent oil | 65.4 | 70 | 70 | 75 | 75 |
| Gold | 1504 | 1450 | 1483 | 1518 | 1547 |
| Iron ore | na | 76 | 72 | 68 | 71 |
| Hard coking coal* | 148 | 170 | 165 | 160 | 155 |
| Thermal coal | 66 | 90 | 93 | 90 | 88 |
| Copper | 5949 | 6300 | 6225 | 6150 | 6125 |
| Aus LNG** | 10 | 12 | 12 | 12 | 12 |

* FOB quarterly contract prices (thermal coal is JFY contract)

** Implied Australian LNG export prices

CONTACT DETAILS

Market Economics

Kieran Davies
+61 2 9237 1406
kieran.davies@nab.com.au

Tapas Strickland
Senior Economist
+61 2 9237 1980
tapas.strickland@nab.com.au

Kaixin Owyong
Economist, Markets
+61 2 9237 1980
kaixin.owyong@nab.com.au

Markets Research

Ivan Colhoun
Global Head of Research
+61 2 9237 1836
ivan.colhoun@nab.com.au

Group Economics

Alan Oster
Chief Economist
+61 3 8634 2927
alan.oster@nab.com.au

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.