NAB Quarterly Business Survey

by NAB Group Economics

Embargoed until: 11:30am Thursday 23 April 2015

March Quarter 2015





For more information contact: Alan Oster, Chief Economist: (03) 8634 2927 or 0414 444 652 Alt. James Glenn, Senior Economist: (03) 9208 8129 Next release: 11 May 2015 (April monthly)

Key Points:

- Business confidence dropped back again in the first quarter of 2015, falling even further below the long run average level. This is consistent with a pull back in confidence in the February monthly survey, although this was completely unwound in March. Conditions were also softer in Q1, but this is in contrast to the monthly survey which showed an improvement late in the quarter. Despite better results in the month of March, firms expectations in the quarterly survey for future activity generally eased.
- There was nothing in the Q1 Survey to suggest a divergence from the 'patchwork' economy of recent years. Service sectors and to some extent construction are continuing to outperform in terms of conditions, although confidence appears to be more varied. Weakness in commodity prices is very evident in the responses of mining firms, while industries like manufacturing and wholesale appear to have received very little support from a more favourable AUD (see below).
- The AUD fell prior to the March survey period then broadly stabilised. Despite the depreciation, a higher proportion of firms reported they were adversely affected by the level of the AUD. It is not clear whether this suggests much more depreciation is needed, or if there is some other underlying driver at play? Nevertheless, retail, transport & utilities and wholesale are the only industries that are more negatively affected by the AUD than 6 months prior when the AUD was much higher than current levels.
- Forward orders were unchanged in the quarter, although the level of orders remains subdued. Other leading indicators in the NAB Survey generally softened. Firms' expectations for conditions in 3 and 12 months time both eased back, while the 'bellwether' wholesale conditions deteriorated as well. Encouragingly, capacity utilisation picked up, suggesting spare capacity is becoming less of a constraint on non-mining investment, although capex expectations for the next 12 months eased a little (unchanged in rounded terms). The most recent ABS Capital Expenditure Survey suggests non-mining investment could continue to contract along with the 'cliff' in mining capex.
- Product price inflation was subdued at an annualised rate of 0.6% (0.2% in the quarter), reflecting both softer labour cost growth and purchase cost inflation. Retail prices accelerated in the survey (in contrast to relatively steady inflation reported by the ABS).

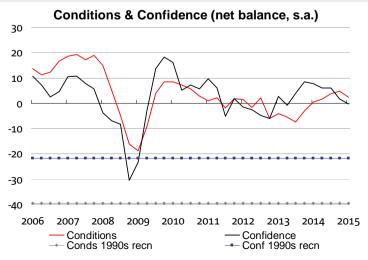
| Key quarterly business statistics* | | | |
|---|---|------------------------------|--------|
| 2014q3 2014q4 2015q1 | 2014 | 4q3 2014q4 | 2015q1 |
| Net balance | | Net balar | ce |
| nfidence 6 2 0 | Trading | 8 9 | 6 |
| nditions | Profitability | 4 6 | 1 |
| 4 5 2 | Employment | 0 0 | 0 |
| onths 13 9 7 | Forward orders | 1 2 | 2 |
| months 25 22 18 | Stocks | 2 1 | 1 |
| s (next 12) 22 21 21 | Exports | 1 1 | 1 |
| % change | | | |
| s 0.5 0.4 0.3 | Retail prices | 0.2 0.1 | 0.3 |
| osts 0.3 0.5 0.4 | | | |
| ts prices 0.2 0.1 0.2 | Capacity utilisation rate 8 | 80.5 | 80.9 |
| onths 13 9 7 months 25 22 18 c (next 12) 22 21 21 % change s 0.5 0.4 0.3 ests 0.3 0.5 0.4 | Forward orders Stocks Exports Retail prices | 1 2 2 1 1 1 0.2 0.1 | |

^{**} All data seasonally adjusted, except purchase costs and exports. Fieldwork for this Survey was conducted from 23 February to 12 March 2015, covering around 930 firms across the non-farm business sector.

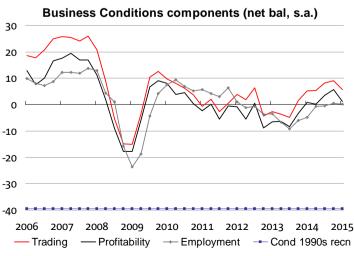
| <u>Contents</u> | |
|----------------------------|----|
| Key points | 2 |
| <u>Analysis</u> | 3 |
| Forward indicators | 4 |
| Implications for forecasts | 6 |
| <u>Labour market</u> | 7 |
| Inflation & labour costs | 9 |
| Business & the AUD | 11 |
| More details | 13 |
| Data appendix | 15 |

Analysis

- Business conditions were down again in the March quarter, easing to +2 points (from +5), although the more timely monthly survey suggests the business environment improved notably late in the quarter (following subdued conditions in previous months). This outcome for the quarter is only slightly above the long run average of +1 index point, suggesting that domestic demand growth in Q1 may have been closer to trend (see p6). By component, trading and profitability were both lower (the later now at particularly subdued levels), while employment was unchanged (but still weak). The survey continues to show a patchwork economy, with much of the strength restricted to a narrow subset of industries service sectors were the only industries to record positive business conditions. Despite the fall in conditions, forward orders were unchanged in the quarter, but are only indicating moderate momentum for business in the near-term. Other leading indicators from the survey generally softened.
- Firms' confidence eased back 2 points (to 0), which is below the long run average levels (+5). The pull back in confidence was not surprising given the more subdued near-term outlook for the economy, although it is inconsistent with more upbeat outcomes in the recent monthly survey. A lower AUD and oil prices, plus the RBA's rate cut in February, seemingly did little to boost confidence in Q1, although other headwinds have been prevalent. Retail confidence rose in Q1 and is now higher than all other industries (up 1 to +4 points). This is a little surprising in light of higher consumer anxiety in Q1, but is consistent with better than expected retail sales recently.







Forward indicators

- Consistent with a downbeat economic outlook for 2015, firms' expectations for activity in their own business eased back again in Q1, further unwinding the positive momentum since 2013/14 both three and twelve-month expectations have eased. This is consistent with softening confidence levels since the start of 2014. Other leading indicators are a little more mixed. Forward orders were unchanged at subdued levels (+2) and expected orders (3 months) pared back, while conditions in the 'bellwether' wholesale industry deteriorated further. Orders are highest in recreation & personal services (+5) and retail (+4), but weakest in mining (-22). Encouragingly, capacity utilisation picked up to 80.9% (see p5).
- Stocks can also be an indicator of near-term activity. Although trading conditions remained positive, the relatively moderate orders index and eroding confidence seems to be discouraging firms from re-stocking more aggressively given limited prospects for stronger demand. Similarly, expectations for stocks (3 months ahead) remained below zero, having steadily improved in 2014.



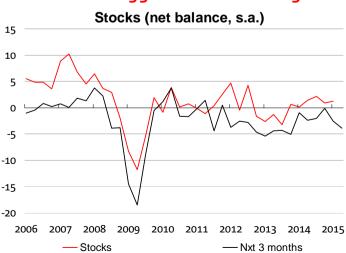
Expectations for 'own business' conditions ebb down

Business conditions & expectations (net balance) 20 10 -10 -20 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 Conditions — Nxt 3 months — Nxt 12 months (n.s.a)

Orders recovery stalls at moderate levels



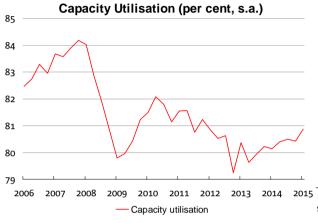
Lacklustre confidence is discouraging more aggressive re-stocking



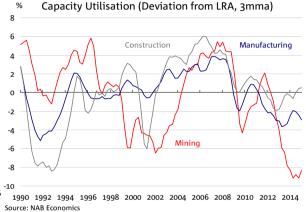
Forward indicators (cont.)

- A lift in capacity utilisation in Q1 is an encouraging sign for future business investment activity. Excess capacity, due to lacklustre demand, has been a major constraint to nonmining investment in recent years. In Q1 2015, the utilisation rate rose 0.5 ppt to 80.9%, which is still well below pre-GFC highs, but above the series long run average since 1989. This trend needs to be maintained in order to fill the gap left in economy from contracting investment in the mining sector. Outcomes also vary across industries, with retail and other service sectors capacity utilisation above long-run average, while other sectors are at or below average (mining is furthest below average).
- According to the NAB survey measure of business capital expenditure, business investment activity has lifted from the lows of recent years, despite easing back a little in Q1 2015. The mining capex index for Q1 was one of the worst performing among the major industries, at -6 points. Construction capex was even worse (-7) which could also be a reflection of the drop in engineering construction activity - offsetting stronger residential construction. In contrast, current capex is highest in transport and utilities (+17), followed by retail (+14). Nevertheless, the NAB capex index suggests growth may lift notably in the next 12 months, even though expectations have flat lined in recent quarters. However, mining investment is under represented in our survey, meaning the degree of offset coming from the mining sector may not be fully captured. Capex expectations 12 months ahead are negative for mining, but positive for all other industries (highest in recreation & personal services).

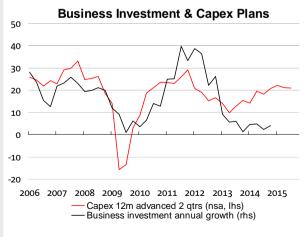
Capacity utilisation rates are trending upward – lowering constraint on capex



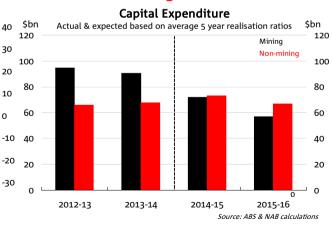
Spare mining capacity rising as investment boom ends



Capex intentions suggests a return of non-mining investment



ABS survey showing further falls in non-mining investment

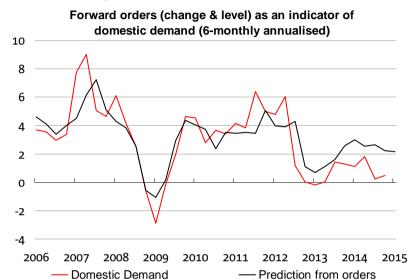


Implications for forecasts For more information see latest Global & Australian Forecasts

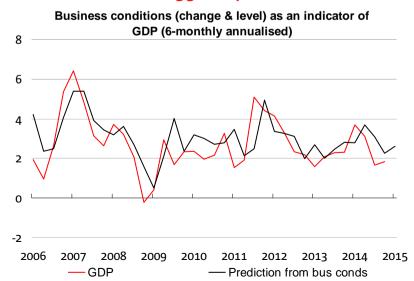
- Our model of 6-monthly annualised demand growth, using forward orders as a predictor, has been suggesting stronger growth than the national accounts in recent quarters.
 Nevertheless, applying forward orders from the Q1 NAB Business Survey (+2) to our model suggests that predicted demand growth will hold steady at previous (subdued) levels.
- Similarly, business conditions over-predicted GDP growth in Q4, although the gap between actual and expectation narrowed.
 Based on business conditions from the Q1 NAB survey, our model implies a slight pick up in predicted GDP growth in Q1.
- Looking at business conditions in bellwether industries such as wholesale and transport suggests that conditions could be somewhat softer than these models suggest. Wholesale conditions are currently -8 points, while transport and utilities are also negative at -5 points.



Orders point to stable domestic demand



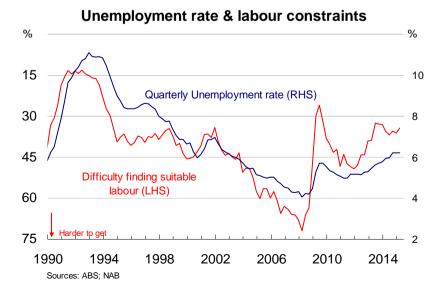
Conditions suggest up-tick in GDP



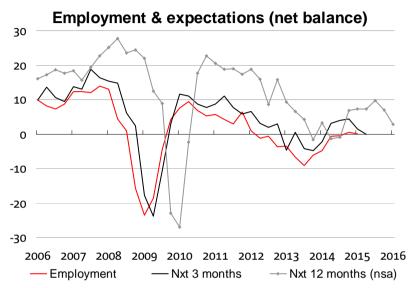
Labour Market

- The employment index was unchanged in the March quarter (at 0 index points), suggesting relatively modest rates of employment growth. These levels are consistent with some additional slack in the labour market that will see the unemployment rate lift a little further from its current level, which at 6.1% in March, was a little better than expected. Consistent with a soft labour market, average hours worked dropped to 39.7 hours (from 40 hours) in Q1 2015; in contrast, average hours work were up slightly according to the ABS.
- Near-term employment expectations eased back to a soft 0 index points. Longer-term expectations also weakened. These outcomes are somewhat consistent with our forecast for the labour market to deteriorate further due to weak domestic demand, but is counter to recent trends in ABS statistics. Official labour force data suggest recent improvements in employment has stabilised the unemployment rate although question marks remain over the reliability of these data. The unemployment rate eased to 6.1% in March after hitting 6.3% in January.
- Firms continue to report relative ease finding suitable labour.

Labour still relatively easy to find

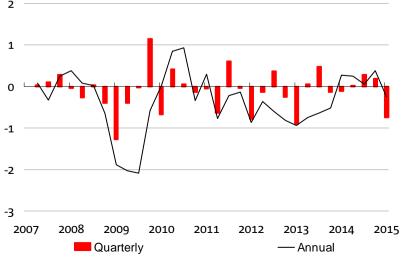


Longer-term employment expectations ease



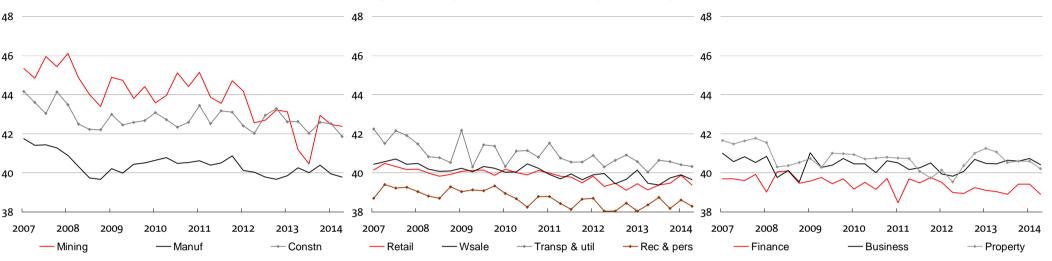
Average hours marginally higher

Change in average hours worked (nsa)

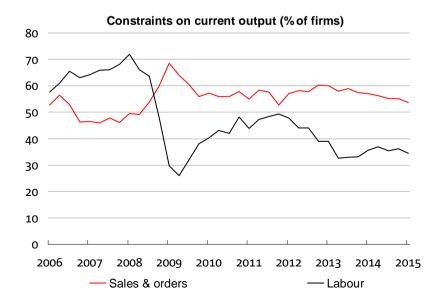


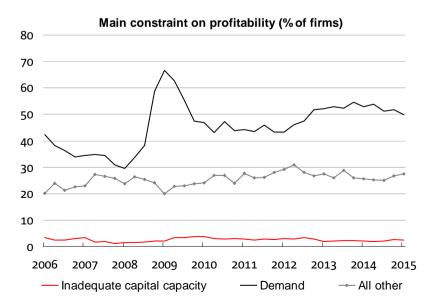
Labour Market (cont.)

Average weekly hours worked by industry (nsa)



Major constraints on firm output & profits

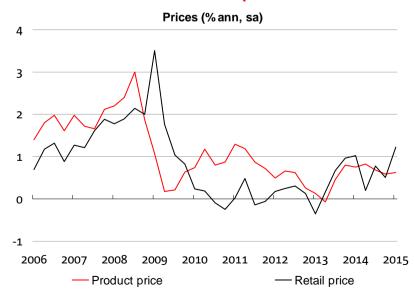




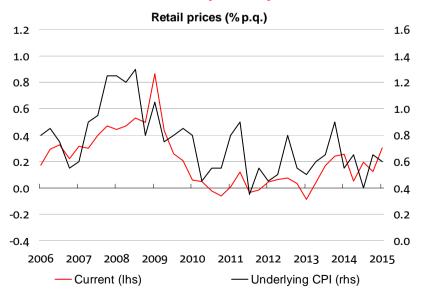
Inflation pressures

- With capital utilisation rates on the rise, the potential for inflation pressures to emerge rises as well. However, the survey continues to suggest fairly subdued price pressures in the economy. Soft wages growth and lower oil prices are likely contributing to the low inflation environment. Final product prices growth remained at a modest 0.6% annualised. Both purchase cost and labour cost inflation were barely changed from last quarters modest rate.
- Retail and recreation & personal services price inflation accelerated in the quarter, while transport & utilities and finance/ property/ business service inflation decelerated. Mining prices continued to fall, but by less that firms reported last quarter (from -1.6% to -1.2% at a quarterly rate) deflation is consistent with falling commodity prices. Quarterly prices growth was strongest in recreation & personal services and wholesale (0.4% in the quarter).
- Labour and purchase costs have continued to outstrip growth in firms' final product prices, although the spread to both purchase costs and labour costs narrowed in the quarter yet this did not help the survey's already very weak profit margins index, which fell to its lowest level since late 2013. Purchase cost again outstripped labour costs in Q1. Slack in the labour market is keeping labour costs very subdued, while depreciation of the AUD may be contributing to firms' purchase costs with some offset likely coming from lower oil prices. With the AUD expected to continue on a downward track over 2015, importing firms are likely to experience renewed pressure from purchase costs. However, lower oil prices (as well as already soft global inflation pressures) will eventually have flow on effects for imported goods, which should providing some relief for firms and households.

Price growth broadly steady, although retail inflation up



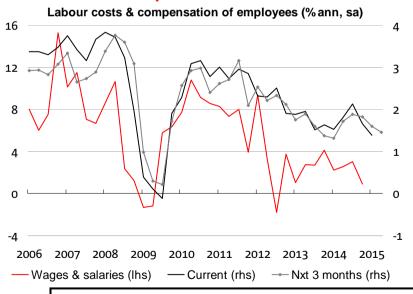
Retail price growth up, but ABS core CPI relatively steady



Labour costs (details) and market expectations

- Annualised labour costs growth eased down to 1.4% in the quarter, which is well below the series average of around 3.0% since 1989.
 The subdued pace of growth is consistent with soft employment conditions, with the ABS labour force survey posting an elevated unemployment rate 6.1% (following a decade high of 6.3% in January). Wage pressures are likely to remain fairly benign, with wage increases under EBAs expected to average just 2.6% over the next year, or 1.6% after allowing for productivity offsets.
- On average, businesses revised down their expectation for short-term interest rates, anticipating a cut of around 13 bp the lowest since mid-2013. This is broadly consistent with the RBA's apparent easing bias (having cut in February) and market expectations for additional rate cuts although the market has priced-in a higher probability of this occurring. Exchange rate expectations (6-months-ahead) eased in the quarter to US\$0.77, from US\$0.85, with firms apparently not anticipating much additional depreciation from level seen during the survey period.
- Medium-term inflation expectations remained soft, with 60% of respondents expecting inflation to remain below 3% (up slightly from the previous quarter) a third expecting inflation of 3-4% (was 35%). Only 3% of firms believe inflation is a serious problem (although up slightly from last quarter), while 29% believe it is a minor problem (27% previously).

Soft labour market restrain labour cost pressures



Labour cost expectations easing

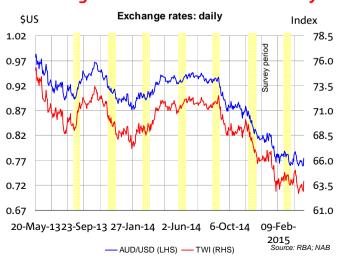


| | | | | | | | Rec. & | Fin. prop. | |
|---------------------|--------|-------|-------|--------|-------|-------|--------|------------|-------|
| | Mining | Manuf | Const | Retail | Wsale | Trans | pers. | & bus. | Aust. |
| Expected EBA growth | 1.8 | 2.5 | 2.8 | 2.2 | 2.2 | 3.1 | 2.7 | 2.6 | 2.6 |
| Productivity offset | 1.6 | 8.0 | 8.0 | 0.8 | 1.6 | 0.8 | 1.0 | 0.7 | 0.9 |
| Net EBA growth | 0.3 | 1.7 | 2.0 | 1.4 | 0.6 | 2.3 | 1.7 | 1.9 | 1.6 |

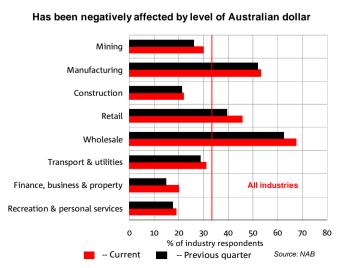
Business & the AUD

- In NAB's Quarterly Business Survey, we have asked businesses how they have been affected by the level of the Australian dollar, and what strategies they have been using to mitigate the negative impacts. The interviews for this question were conducted between 23 February and 12 March, when the exchange rate averaged \$US 0.78 and 64.2 on a TWI basis. These levels are well down from the December survey period (\$US 0.84 and 67.9 on a TWI basis) and similar to current rates (around \$US 0.77).
- According to the survey, more than 30% of non-farm businesses reported an adverse impact from the AUD (up slightly from Q4 2014), which is a little surprising given the ongoing depreciation of the AUD since the last survey. It is not clear whether this suggests much more depreciation is needed, or if there is some other underlying driver at play? A majority of industries recorded more negative impacts from the AUD in the quarter, although some industries continue to see the AUD as more favourable than 6 months prior when AUD was valued around \$US 0.93. Retail, transport & utilities and wholesale are the only industries that are more negatively affected by the AUD than 6 months prior.
- Unsurprisingly, the implications for import costs is having a negative impact on wholesale, with flow on effects to retailers despite
 helping competitiveness against overseas online retailers. Retail is the industry where firms are most uncertain over how to manage
 their currency risk (p3). Despite a jump in retail, it is still wholesale and manufacturing that are most adversely affected by the AUD,
 while service sectors appear to be most insulated from the AUD, possibly reflecting less import competition and few foreign input costs.
- In terms of how businesses are responding to the negative effects, hedging remains the most common strategy used by affected firms (despite easing back), especially in wholesale, manufacturing and retail, although the strategies employed by these industries are quite diverse. Although a lower AUD should make Australian exports more competitive, firms have indicated that they are looking to focus more on the domestic market as imports become less attractive to consumers. Fewer firms employed cost reduction strategies, although this remains the main strategy in mining.

Exchange rate stabilised over survey

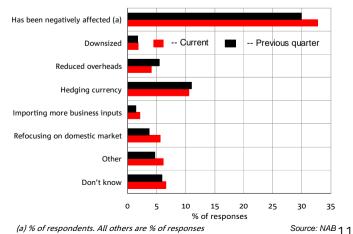


Most industries more affected



Hedging is most popular, but more focussing on domestic market

Responses to negative effects of level of Australian dollar

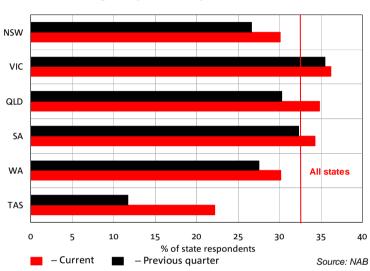


Business & the AUD (cont.)

- Negative exchange rate effects rose for all mainland states in the quarter, but most still see the AUD as more favourable than 6 months earlier. Negative impacts are most prevalent in Victoria despite showing the least deterioration in the quarter. Tasmania reported the biggest increase in the share of firms negatively affected by the AUD, but the overall proportion is still smallest of the states.
- Surprisingly, Queensland overtook South Australia as second most affected state, despite the benefits for the commodities sector, as well as other currency sensitive industries like tourism.
- Similarly, the deterioration in WA is not consistent with the expected implications for the mining industry.
- Hedging was important for wholesalers, manufacturers and retailers.
 Downsizing and cost reduction is very prevalent in wholesale and mining, although still only employed by a relatively small proportion of firms. Nevertheless, cost reduction is the preferred strategy of mining firms.

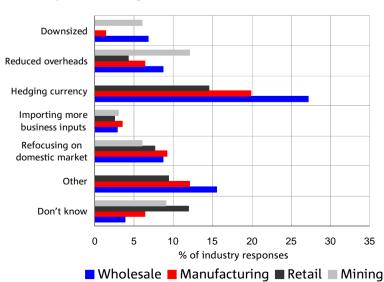
Impact of \$A mixed across states

Has been negatively affected by level of Australian dollar

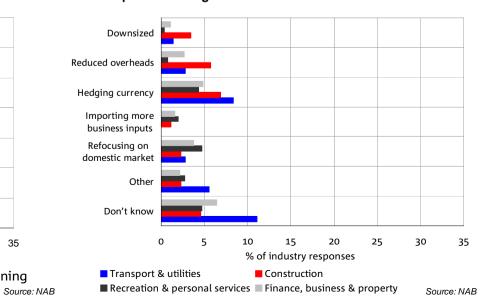


Hedging preferred in wholesale and manufacturing

Responses to negative effects of level of Australian dollar

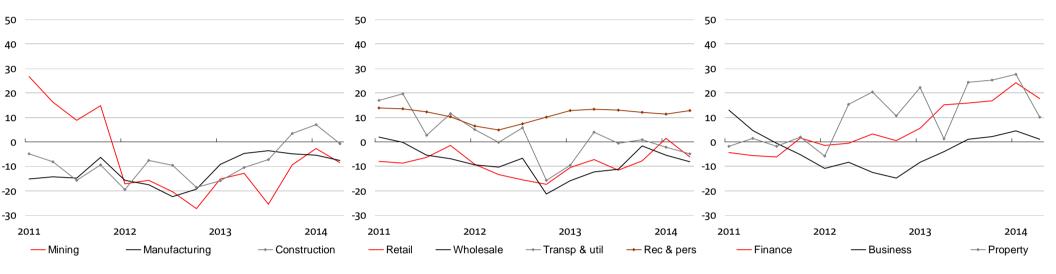


Responses to negative effects of level of Australian dollar

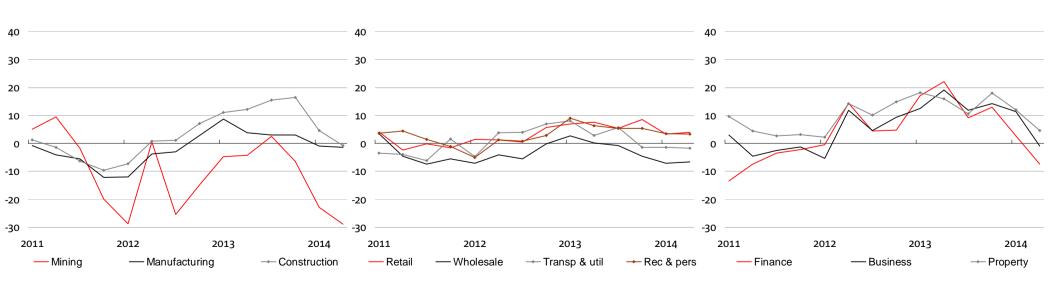


More details on industries

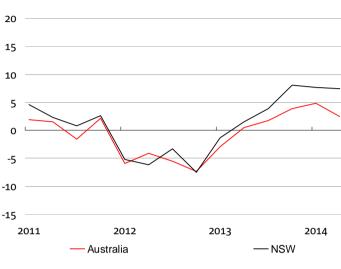
Business conditions by industry (net balance)



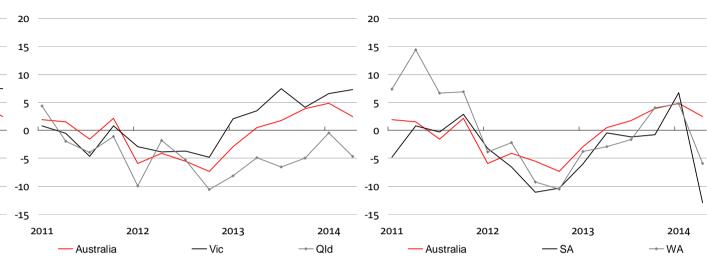
Business confidence by industry (net balance)



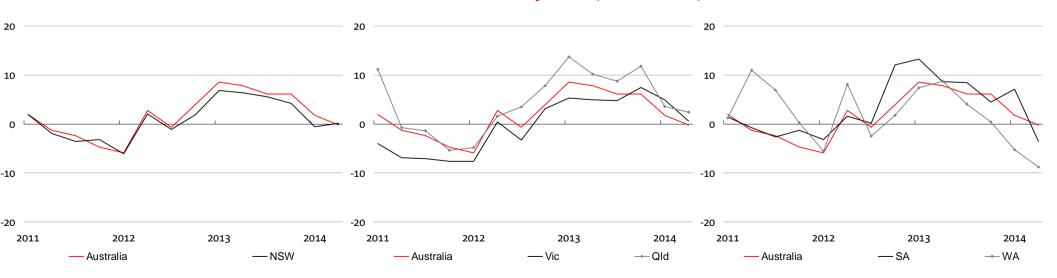
More details on states



Business conditions by state (net balance)



Business confidence by state (net balance)



Data appendix

| | | | Quarterly | | | Monthly | | | | |
|------------|--------|--------|-----------|--------|--------|---------|---------|---------|---------|---------|
| | 2014q1 | 2014q2 | 2014q3 | 2014q4 | 2015q1 | 2014m11 | 2014m12 | 2015m01 | 2015m02 | 2015m03 |
| Confidence | 8 | 6 | 6 | 2 | 0 | 2 | 2 | 3 | 0 | 3 |
| Conditions | 1 | 2 | 4 | 5 | 2 | 6 | 3 | 2 | 2 | 6 |

| | | | Quarterly | | Monthly | | | | | |
|---------------|--------|--------|-----------|--------|---------|---------|---------|---------|---------|---------|
| | 2014q1 | 2014q2 | 2014q3 | 2014q4 | 2015q1 | 2014m11 | 2014m12 | 2015m01 | 2015m02 | 2015m03 |
| Trading | 5 | 5 | 8 | 9 | 6 | 12 | 9 | 6 | 5 | 10 |
| Profitability | 1 | 0 | 4 | 6 | 1 | 6 | 2 | 2 | 2 | 8 |
| Employment | -5 | -1 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | 0 |

| | | Quai | rterly ^(a) | | Monthly | | | | | | |
|------------------------|---|--------|-----------------------|--------|---------|---------|---------|---------|---------|---------|--|
| | 2014q4 | 2015q1 | 2015q2 | 2015q4 | 2016q1 | 2014m11 | 2014m12 | 2015m01 | 2015m02 | 2015m03 | |
| Conditions | 5 | 2 | | | | 6 | 3 | 2 | 2 | 6 | |
| Conds. next 3m | 13 | 9 | 7 | | | | | | | | |
| Conds. nxt 12m | 24 | 24 | 24 | 22 | 18 | | | | | | |
| Orders | 2 | 2 | | | | 6 | -1 | 1 | 1 | 0 | |
| Orders next 3m | 10 | 7 | 5 | | | | | | | | |
| (a) Quarter to which e | (a) Quarter to which expectation applies. Business conditions next 12 months not seasonally adjusted. | | | | | | | | | | |

| | | (| Quarterly ^{(a} | a) | | Monthly | | | | |
|------------------------|----------------|-----------------|-------------------------|--------|--------|---------|---------|---------|---------|---------|
| | 2014q1 | 2014q2 | 2014q3 | 2014q4 | 2015q1 | 2014m11 | 2014m12 | 2015m01 | 2015m02 | 2015m03 |
| Capacity utilis. | 80.4 | 80.5 | 80.4 | 80.9 | | 80.4 | 80.6 | 80.0 | 80.4 | 80.5 |
| Stocks current | 1 | 2 | 1 | 1 | | 2 | 2 | 0 | 1 | 1 |
| Stocks next 3m | -2 | -2 | 0 | -3 | -4 | | | | | |
| (a) Quarter to which e | expectation ap | pplies. All dat | a are seasor | d. | | | | | | |

| | 2014q1 | 2014q4 | 2015q1 | _ | 2014q1 | 2014q4 | 2015q1 | | |
|---------------------|-------------------|--------|--------|---|--------|--------|--------|--|--|
| Constraints on outp | out (% of firms)* | | | Main constraints on profitability (% of firms)* | | | | | |
| Sales & orders | 55.1 | 55.2 | 53.7 | Interest rates | 2.3 | 2.8 | 3.1 | | |
| Labour | 35.3 | 36.1 | 34.4 | Wage costs | 14.6 | 9.7 | 11.8 | | |
| Premises & plant | 18.2 | 19.3 | 18.9 | Labour | 4.8 | 6.3 | 5.3 | | |
| Materials | 8.7 | 9.8 | 8.7 | Capital | 2.1 | 2.6 | 2.5 | | |
| | | | | Demand | 51.3 | 51.8 | 49.9 | | |
| * not s.a. | | | | All other | 25.0 | 26.8 | 27.4 | | |

Data appendix (cont.)

| | 2014q4 | Q <i>uar</i> 2015q1 | terly ^(a) 2015q2 | 2014m11 | 2014m12 | Monthly 2015m01 | 2015m02 | 2015m03 | | |
|---|--------|------------------------|--|---------|---------|------------------------|---------|---------|----|---|
| Empl current | 0 | 0 | <u>, </u> | , | , | 0 | -1 | -1 | -1 | 0 |
| Empl next 3m | 4 | 1 | 0 | | | | | | | |
| Empl nxt 12m | 7 | 7 | 7 | 7 | 3 | | | | | |
| (a) Quarter to which expectation applies. Employment conditions next 12 months not seasonally adjusted. | | | | | | | | | | |

| | | | | | | | Rec. & | Fin. prop. | |
|---------------------|--------|-------|-------|--------|-------|-------|--------|------------|-------|
| | Mining | Manuf | Const | Retail | Wsale | Trans | pers. | & bus. | Aust. |
| Expected EBA growth | 1.8 | 2.5 | 2.8 | 2.2 | 2.2 | 3.1 | 2.7 | 2.6 | 2.6 |
| Productivity offset | 1.6 | 8.0 | 8.0 | 0.8 | 1.6 | 0.8 | 1.0 | 0.7 | 0.9 |
| Net EBA growth | 0.3 | 1.7 | 2.0 | 1.4 | 0.6 | 2.3 | 1.7 | 1.9 | 1.6 |

State Tables

| | | | Quarterly | | Monthly | | | | | |
|--------------------|--------|--------|-----------|--------|---------|---------|---------|---------|---------|---------|
| | 2014q1 | 2014q2 | 2014q3 | 2014q4 | 2015q1 | 2014m11 | 2014m12 | 2015m01 | 2015m02 | 2015m03 |
| Business condition | ons | | | | | | | | | |
| NSW | 2 | 4 | 8 | 8 | 7 | 6 | 4 | 5 | 7 | 9 |
| VIC | 4 | 7 | 4 | 7 | 7 | 6 | 8 | 6 | 7 | 15 |
| QLD | -5 | -7 | -5 | 0 | -5 | 1 | -1 | 2 | -7 | -4 |
| SA | 0 | -1 | -1 | 7 | -13 | 9 | -3 | -24 | -15 | 0 |
| WA | -3 | -2 | 4 | 5 | -6 | 9 | 3 | -2 | -3 | 4 |

| | | | Quarterly | | | Monthly | | | | |
|-----------------|--------|--------|-----------|--------|--------|---------|---------|---------|---------|---------|
| | 2014q1 | 2014q2 | 2014q3 | 2014q4 | 2015q1 | 2014m11 | 2014m12 | 2015m01 | 2015m02 | 2015m03 |
| Business confid | dence | | | | | | | | | |
| NSW | 6 | 6 | 4 | -1 | 0 | 2 | 3 | 3 | 1 | 4 |
| VIC | 5 | 5 | 7 | 5 | 1 | 7 | 3 | 4 | 1 | 3 |
| QLD | 10 | 9 | 12 | 4 | 2 | 3 | 4 | 6 | 5 | 4 |
| SA | 9 | 8 | 4 | 7 | -4 | 1 | 4 | 2 | -10 | -7 |
| WA | 9 | 4 | 0 | -5 | -9 | 0 | -3 | -4 | -15 | -1 |

Author details

Economic Research

Alan Oster Chief Economist +61 3 8634 2927 James Glenn
Senior Economist –
Australia &
Commodities
+61 3 9208 8129

Group Economics

Alan Öster Group Chief Economist +61 3 8634 2927

Jacqui Brand Personal Assistant +61 3 8634 2181

Australian Economics and Commodities

Vacant Head of Australian Economics

James Glenn Senior Economist – Australia +(61 3) 9208 8129

Phin Ziebell Economist – Agribusiness +(61 3) 8634 0198

Karla Bulauan Economist – Australia +(61 3) 86414028

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

Amy Li Economist — Industry Analysis +(61 3) 8634 1563

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

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

Simon Fletcher Senior Credit Analyst – FI +61 29237 1076

Eauities

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

Tom Vosa Head of Market Economics +44 207710 1573

Simon Ballard Senior Credit Strategist +44 207 710 2917

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.