

## NAB Manufacturing Activity Index – Q4 2013

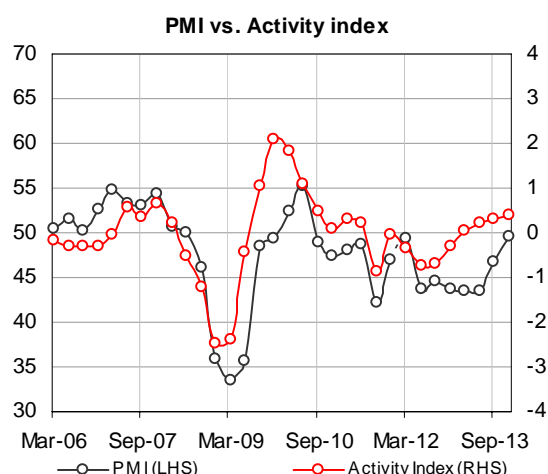
**The Manufacturing Activity Index continued with its slow improvement in Q4, supported by strong business confidence and falling labour costs. The index implies activity in the manufacturing industry expanded by 0.5% in Q4.**

- NAB's Manufacturing Activity Index continued to rise for the sixth consecutive quarter, reaching +0.4 points in Q4 up from +0.3 in Q3 2013. A strong improvement in Business Confidence, also evident in the Quarterly NAB Business Surveys, led the gain, helped by falling Labour Costs. On the other hand, Rising Purchase Costs and falling Final Product Prices have been slowing down the improvement in manufacturing activity.
- The NAB Manufacturing Activity Index implies a +0.5% quarterly growth in the ABS Industry Gross Value Added (GVA) series in Q4 2013. The ABS series has been more volatile than the Activity Index since the GFC however in the past year started to converge towards the Activity Index which shows a slow improvement in the manufacturing industry.
- The performance of the Manufacturing Activity Index compares favourably with other measures of manufacturing performance. In particular, the Activity Index has recorded a closer relationship to GVA than the Performance of Manufacturing Index (PMI) – which has pointed to contractions in the sector over the past two years but has started to converge to neutral levels.
- Among the four components,
  - Business Confidence rose strongly in Q4, to +10 points from +3 points previously, contributing the most to the rise in the Activity Index.
  - Lower Labour Costs in December also contributed to the rise in the Activity Index.
  - Purchase Costs rose slightly in December, offsetting the positive impacts from higher Business Confidence and lower Labour Costs. It is worth noting a sharp increase is expected in Purchase Costs over the next six months, putting large downward pressure on the Activity Index.
  - Finally, the downstream Final Product Prices index also fell across most industries, but the downward trend is expected to be reversed in the coming months.
- While most subsectors continued to improve slowly, *TCF* and *Wood Products* Activity Index fell significantly in Q4, to be the two worst performing subsectors. *Non-metallic minerals* caught up with *Chemicals* to be the strongest performers.
- The extent of the rebound in manufacturing activity follows a period of pronounced weakness and seems inconsistent with talks of further ongoing retrenchments in the sector. It is worth noting the survey was conducted prior to the announcement of the Toyota closure which is likely to impact confidence, albeit after Ford and Holden announced their exits. Therefore it will be important to see whether this rebound will be maintained in the coming months.

### Activity Index continued improving



### Activity Index stronger than PMI



Activity Index	Q2 013	Q3 2013	Q4 013	Activity Index	Q2 013	Q3 013	Q4 013
Manufacturing	0.2	0.3	0.4	Chemicals	2.0	1.3	1.3
Food, Beverage, Tobacco	0.6	0.7	0.8	Printing and Publishing	-1.7	-0.5	-0.2
Machinery and Equipment	-0.6	0.5	0.8	Textile, Clothing, Footwear	0.0	0.8	-1.3
Metal Products	0.0	-0.4	0.2	Wood & Paper	0.9	0.3	-2.0
Non-metallic Minerals	-0.1	0.8	1.4				

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All data is seasonally adjusted. Gross value added (GVA), Purchase costs, Labour costs and Final prices data are percentage changes expressed at a quarterly rate. Business confidence is a net balance index.

## Manufacturing Activity Index: Improved slowly in Q4, indicating modest quarterly growth in the Manufacturing sector

NAB's Manufacturing Activity Index continued with its slow improvement in Q4, rising for the sixth consecutive quarter to reach +0.4 points, from +0.3 in Q3 2013. It was the highest level since Q3 2010.

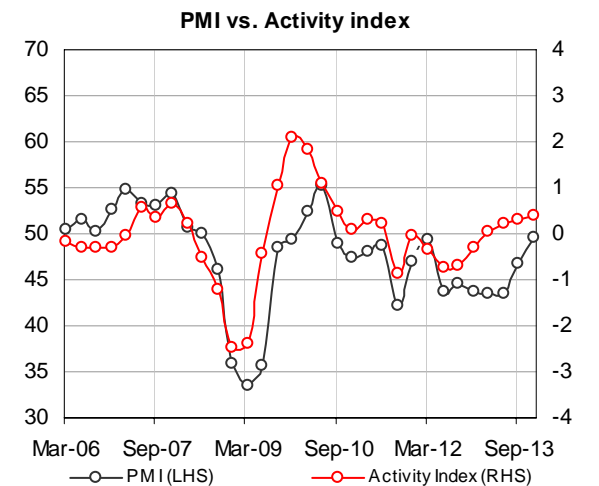
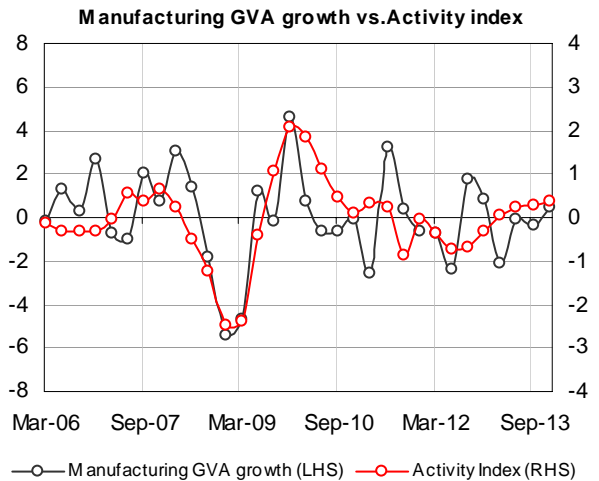
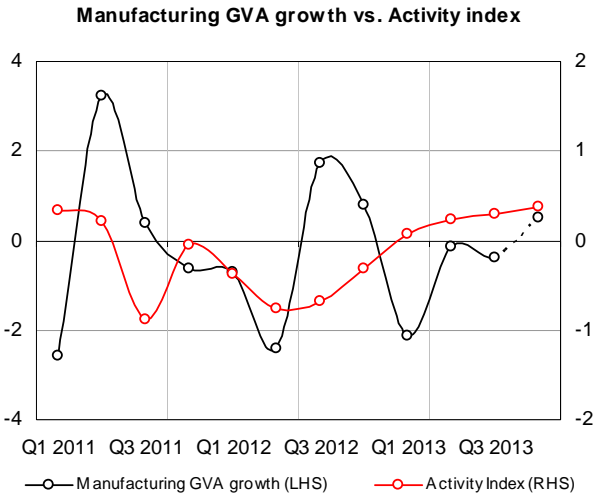
Strong improvement in Business Confidence led the gain, helped by falling Labour Costs. On the other hand, Rising Purchase Costs and falling Final Product Prices have been slowing down the improvement in manufacturing activity.

The Activity Index implies a +0.5% quarterly growth in the ABS Industry Gross Value Added (GVA) series in Q4 2013.

One of the key challenges in attempting to replicate quarterly movements in manufacturing activity is that these estimates are subject to significant revisions over time by the ABS. For example, in the most recent National Accounts, Manufacturing GVA growth for the June quarter was revised down to -0.1% from the initial estimate of 0.1%.

The ABS series has been more volatile than the Activity Index since the Global Financial Crisis however in the past year started to converge towards the Activity Index which shows a slow improvement in the manufacturing industry.

The performance of the Manufacturing Activity Index compares favourably with other measures of manufacturing performance. In particular, the Activity Index has recorded a closer relationship to GVA than the Performance of Manufacturing Index – which has pointed to contractions in the sector over the past two years but has started to converge to neutral levels.



## Activity Index Components: Strong Business Confidence and lower Labour Costs helped drive index higher, offset somewhat by rising Purchase Costs and falling Final Product Prices

**Business Confidence** in the Manufacturing sector continued rising strongly in Q4, contributing the most to the rise in Activity Index. The economy-wide Business Confidence index was also at its highest level in more than two and a half years (see the NAB Quarterly Business Survey) during the post-election 'honeymoon', helped by a better housing sector, higher asset prices and a lower AUD and interest rates.

Confidence measures rose for all manufacturing sub-sectors except *Food & Beverages* and *Wood Product* where confidence remained high at +8 and +11 points respectively. The highest reading of +18 points was recorded in the *Machinery & Equipment* sub-sector. Not surprisingly, *TCF* had the lowest confidence reading of +4 points.

**Final Product Prices** continued its decline, more rapidly than that for the overall economy, to be the biggest detractor on Activity Index growth in Q4. However the downward trend might be reversed when Final Product prices are expected to start rising in the next six months.

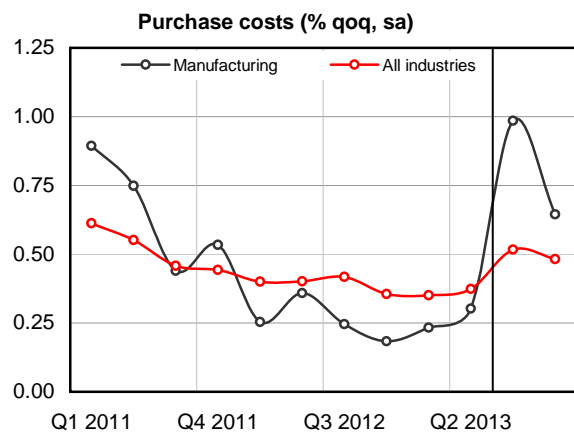
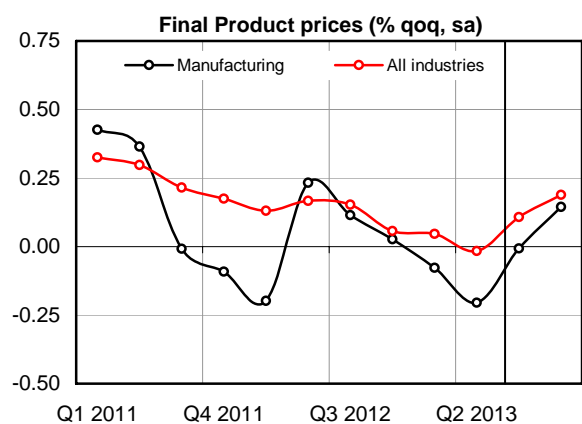
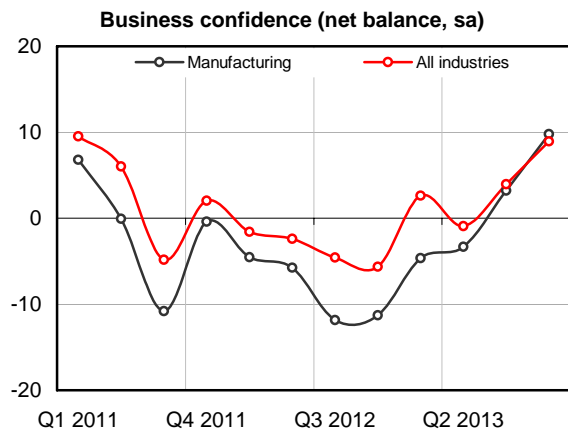
By subsector, the negative trend was most evident in *Wood Products* and *Metal Products* while *Printing*, *Machinery & Equipment* and *TCF* were also weak.

**Purchase Costs** rose slightly in Q4, slowing down the improvement in the Activity Index. It is worth noting that a sharp rise in Purchase Costs is expected over the next quarter, which will suppress activity even further. This spike coincided with the decline in the dollar – which likely increased the costs of imported inputs. Then Purchase Costs are expected to increase at a less rapid rate, having a less negative effect on the overall Manufacturing Activity Index over the next six months.

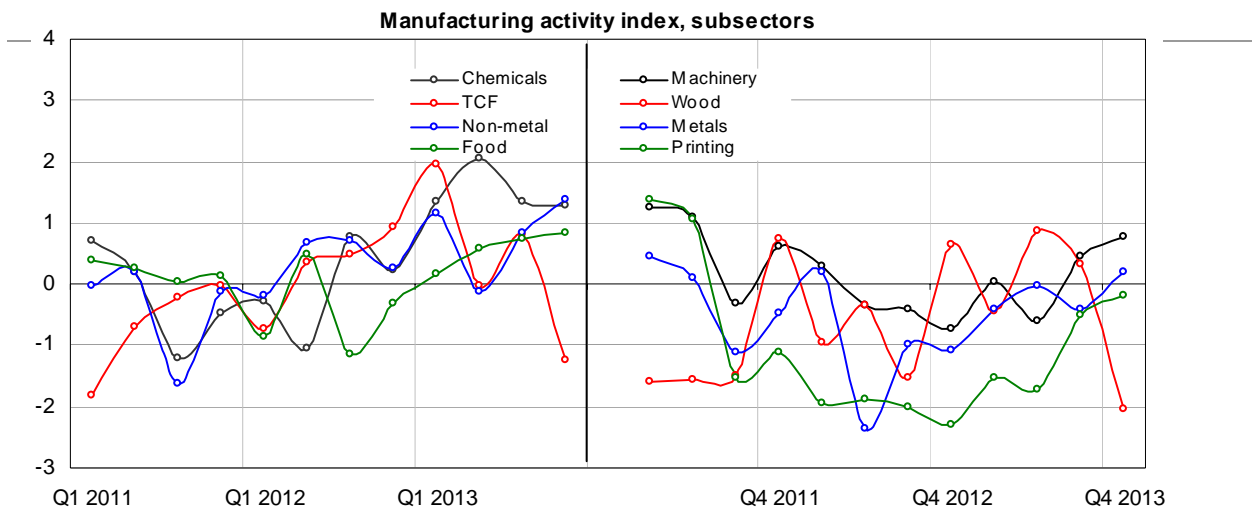
The rising trend in purchase costs is expected across all subsectors of manufacturing, with the biggest increases expected in *Chemicals*, *TCF*, *Metal Products* and *Non-metallic minerals*.

Lower **Labour Costs** in Q4 also contributed to the rise in the Activity Index. This measure has been declining in recent years and is expected to remain subdued with weak labour market conditions nationally.

All sub-sectors were expecting lower labour costs except *TCF* and *Wood Products*.



## Subsector Analysis: Substantial falls in *TCF* and *Wood Products* while other subsectors slowly improving



While most subsectors continued to improve slowly, *TCF* and *Wood Products* Activity Index fell significantly in Q4, to be the two worst performing subsectors. Non-metallic minerals caught up with Chemicals to be the strongest performers.

The **Food & Beverage** activity index strengthened a little further in Q4, up to +0.8 points. Improvements in Final Product Price, combined with lower Labour Costs and Purchase Costs, offset a small decline in Business Confidence to drive the overall subsector activity higher.

The **Chemicals** activity index was largely unchanged in the December quarter. Business Confidence continued improving strongly, with expected rises in Final Product Price. Offsetting those positive impacts are expected rises in Labour Costs and Purchase Prices in the coming six months.

The **Printing and Publishing** activity index continued rising in Q4 but remained negative to be the third worst performing subsector. Most of the improvement came from a rise in Business Confidence and less negative Final Product Price growth expectation.

The **Textiles, Clothing & Footwear** activity index declined sharply in Q4, to be at -1.3 points, despite a strong improvement in Business Confidence. The decline was largely driven by a significant increase in Purchase Prices, assisted by higher Labour Costs. The cost pressure from labour costs is likely to dissipate in the coming months, as expected by survey respondents.

**Wood Product** recorded the largest fall in the activity index in Q4, down to -2.3 points from -0.1. All four components worsened, with weaker Business Confidence, lower Final Product Prices and higher input costs (Labour Costs and Purchase Costs) putting downward pressure on activity.

The **Machinery & Equipment** activity index improved slightly, to +0.8 points from +0.5 in Q3. Business Confidence was significantly stronger, helped by lower Labour Costs, but was offset to some extent by higher Purchase Costs.

The **Metal Product** activity index moved into expansionary territory, up to +0.2 points from -0.4. Similar to other subsectors, the improvement was largely due to a boost in Business Confidence.

The **Non-metallic minerals** activity index continued rising on the back of stronger Business Confidence and lower input costs (Labour Costs and Purchase Costs), offset by a weaker Final Product Price.

### About the NAB Manufacturing Activity Index

The NAB Manufacturing Activity Index has been constructed to replicate quarterly movements in the manufacturing sector. It was developed by NAB Group Economics and is based on responses from the NAB Business Survey.

The Activity Index is calculated as a weighted sum of four components, Business Confidence (current quarter, positive weight), Final Product Price Expectation (from two quarters ago, positive weight), Labour Costs Expectation (from two quarters ago, negative weight) and Purchase Costs Expectation (from two quarters ago, negative weight) plus a constant estimated by regression method using historical data.

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