PMI

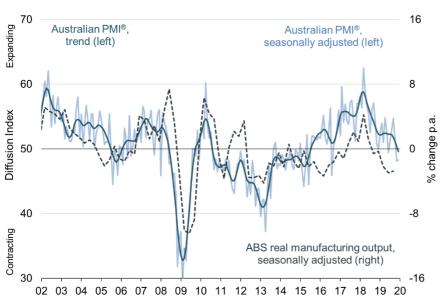
Manufacturing ends 2019 at a slower pace

The Australian Industry Group Australian Performance of Manufacturing Index (Australian PMI®) increased by 0.2 points to 48.3 points, indicating that Australian manufacturing contracted at a slightly slower rate in December than in November (seasonally adjusted). Results below 50 points indicate contraction with lower results indicating a faster contraction in the month. This marks two consecutive months of contraction in the Australian PMI®, for the first time since mid-2015. The Australian PMI® is now just under 50 points in trend terms, indicating stable to mildly contractionary conditions on average for Australian manufacturers.

Across Australia's manufacturing sectors, the food & beverages sector continues to report strong positive conditions, but in all other sectors the end of 2019 looked more challenging for Australian manufacturers.

Looking ahead, the new orders index in the Australian PMI[®] is below 50 points and indicating a mild contraction. It has been trending down since March 2019, suggesting the current weak conditions for manufacturers are likely to continue into the New Year. Finished stocks (inventories) are also being wound down by manufacturers as they move into the next decade.

Australian PMI® (seasonally adjusted and trend)



DECEMBER 2019

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Australian PMI [®] ▲ 0.2 points (seasonally adjusted)	48.3
Australian PMI [®] ▼ 0.8 points (trend)	49.6
Food & beverages ▲ 0.6 points (trend)	61.8
Machinery & equipment ▼ 1.0 points (trend)	50.4
Metal products ▲ 0.6 points (trend)	45.0
Chemicals ▼ 0.9 points (trend)	49.3
Building materials, wood & other ▼ 3.4 points (trend)	38.1
TCF, paper & printing ▼ 0.1 points (trend)	41.6



Manufacturing sectors: The food & beverages sector showed the best rate of expansion in December 2019 and on average over the year. Machinery & equipment and the chemicals sector were broadly stable, while the 'metals', 'building materials, wood & other manufacturing' and 'TCF, paper and printing' sectors all contracted again in December (trend).

Manufacturing wages and prices: Rises in input prices slowed in December with its index recording the lowest result since April 2016. Respondents reported that input price rises were elevated in the metals and machinery & equipment sectors in December but were weaker across other manufacturing sectors. The selling price index fell back in contraction in December, indicates that manufacturers' selling prices fell, on average, in December. The average wages index eased further in December, which indicates that a lower proportion of businesses are facing upward wage pressures as they move into 2020.

Manufacturing activity: Four of the seven activity indices contracted in December, one was stable and two indicated an expansion. The employment index in the Australian PMI® fell further into contraction in December, indicating the number of filled manufacturing jobs probably fell in Q4 2019, after recovering earlier in 2019. More positively, the exports index rose into expansion in December, indicating more growth in exports across the manufacturing sector.

Manufacturing highlights: The large food & beverages sector continued to report firmly positive condtions in December, driven by rising production for Christmas. There are bright spots across other sectors including those who are exporting or selling manufactured goods to the commercial construction, defence and resources sectors.

Manufacturing concerns: With the exception of the food & beverages sector, the end of 2019 proved challenging for Australian manufacturing. All other sectors were either stable or contracted again in December. Drought and adverse weather conditions continues to detract from demand for manufacturing businesses in rural areas, particularly those selling metal products or machinery & equipment to the agricultural sector. Those selling products to the construction sector are also reporting reduced demand, a result of the downturn in residential construction activity and weather-related disruption.

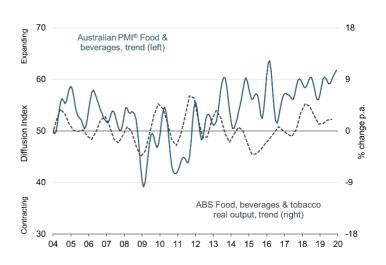
AUSTRALIAN PMI® KEY NUMBERS	Index this month	Change from last month	Long-run average		Index this month	Change from last month	Long-run average
seasonally adjusted				trend			
Australian PMI®	48.3	0.2	50.6	Australian PMI®	49.6	-0.8	50.6
Production	48.7	-1.0	51.4	Food & beverages	61.8	0.6	53.5
Employment	46.0	-1.3	48.8	Machinery & equipment 50.4		-1.0	49.7
New Orders	48.8	1.6	51.3	Metals products	45.0	0.6	47.5
Supplier Deliveries	52.1	6.8	51.0	Petroleum, coal, chemicals			
Finished stocks	44.4	-8.2	49.6	& rubber products	49.3	-0.9	51.4
Exports	54.0	4.2	50.1	Building, wood, furniture			
Sales	50.2	1.0	49.3	& other products	38.1	-3.4	50.3
Input Prices	58.9	-5.1	67.7	Textiles, clothing, footwear,			
Selling Prices	47.5	-3.7	48.1	paper & printing	41.6	-0.1	46.6
Average Wages	55.1	-1.7	59.1				
Capacity Utilisation (%)	78.1	3.5	73.7				

Results above 50 points indicate expansion. All indexes for sectors in the Australia PMI® are reported in trend terms (Henderson 13-month filter).

MANUFACTURING REPORT CARD: Latest ABS data	Level	change q/q	change y/y	Share of total			
Latest ABS data, seasonally adjusted	\$bn	%	%	%			
Real value-added output, \$bn, year to Sep 2019	104.5	-0.7	-2.0	5.5% of total GDP			
Nominal sales, \$bn, year to Sep 2019	354.7	1.0	1.0	12.1% of non-farm business sales			
Nominal export earnings, \$bn, year to Oct 2019 (original)	125.5	1.7	8.5	25.7% of total export earnings			
Nominal company profits (GOP), \$bn, year to Sep 2019	31.0	-1.4	-6.1	8.2% of non-farm company profits (GOP)			
Nominal investment (CAPEX), \$bn, year to Sep 2019	9.4	0.8	-2.0	7.9% of non-farm private sector CAPEX			
Nominal aggregate wages, \$bn, year to Sep 2019	54.1	0.5	2.6	9.5% of non-farm business wages			
Number of filled manufacturing jobs, '000, Sep Qtr 2019	904.8	1.1	3.1	6.3% of total filled jobs			
ABS data sources: Australian National Accounts; Australian Business Indicators; CAPEX; International Trade; Labour Account.							

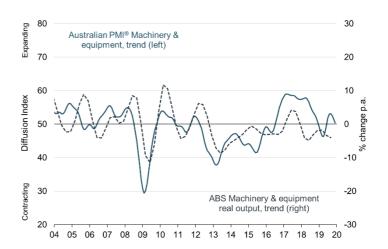
Food and beverages

- The food, beverages & tobacco sector produced \$25.8bn in real value-added output in the year to Q3 2019 (25% of manufacturing real value-added output).
- It employed 237,000 people in August 2019 (27% of manufacturing employment).
- The index for food & beverages increased by 0.6 points to 61.8 points, indicating an accelerating rate of expansion in December (trend).
- The index for this sector has been expanding since 2012 and remains above its own long-run average (53.5 points since 2003).
- Respondents in this largest manufacturing sector reported an increase in production in the lead up to Christmas.



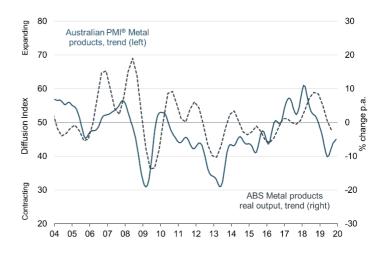
Machinery & Equipment

- The machinery & equipment sector produced \$20.2bn in real value-added output in the year to Q3 2019 (19% of manufacturing real value-added output).
- It employed 178,000 people in August 2019 (20% of manufacturing employment).
- The index for machinery & equipment eased by 1.0 point to 50.4 points, indicating stable conditions in December after several months of mild expansion in 2019 (trend).
- Respondents noted strong demand from commercial construction customers in December while others noted drought and a lack of CAPEX were reducing demand.



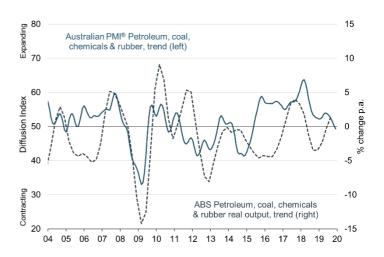
Metal Products

- The metal products sector produced \$17.8bn in real value-added output in the year to Q3 2019 (17% of manufacturing real value-added output).
- It employed 136,000 people in August 2019 (15% of manufacturing employment).
- The metals products index edged up by 0.6 points to 45.0 points, indicating a slowing rate of contraction in December (trend). This sector has contracted throughout
- Respondents noted a continued reduction in new orders in December, with reduced demand from the construction industry and particularly from residential construction projects.



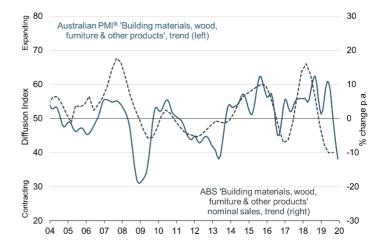
Petroleum, coal, chemicals & rubber

- The petroleum, coal, chemicals & rubber sector produced \$20.3bn in real value-added output in the year to Q3 2019 (19% of manufacturing real value-added output).
- It employed 93,000 people in August 2019 (11% of manufacturing employment).
- The index for the chemicals sector eased by 0.9 points to 49.3 points, indicating broadly stable conditions in December(trend), after an extended period of recovery.
- The index for this sector is below its own long-run average of 51.4 points (since 2003).
- Some respondents noted a marked preference for imported products and a lack of construction activity.



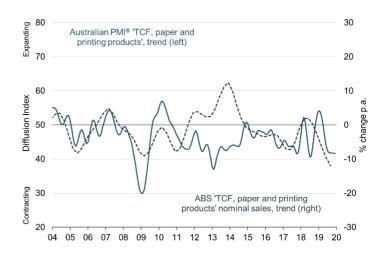
Building materials, wood, furniture & other manufacturing products

- The building materials, wood, furniture & other manufacturing products sector employed 155,000 people in August 2019 (18% of manufacturing employment).
- This sector includes building-related products such as glass, bricks, cement, tiles, porcelain, timber, furniture, furnishings and other household products.
- The index for this diverse (but mainly housing-related) sector fell by a further 3.4 points to 38.1 points, indicating a faster rate of contraction in December (trend).



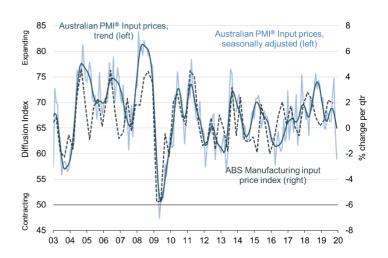
TCF, paper and printing products

- The textiles, clothing, footwear (TCF), paper & printing products sector employed 81,000 people in August 2019 (9% of manufacturing employment).
- This sector makes textiles, clothing, footwear, paper, cardboard, packaging, printed products and recorded media.
- The index for textiles, clothing, footwear (TCF), paper & printing products eased by a further 0.1 point to 41.6 points in December (trend), after dropping sharply through the middle of 2019.
- The index for this sector is below its own long-run average of 46.6 points (since 2003).
- Many respondents noted an increase in seasonal work in December, but others noted lower demand due to poor retail sales and reduced demand for printing services.



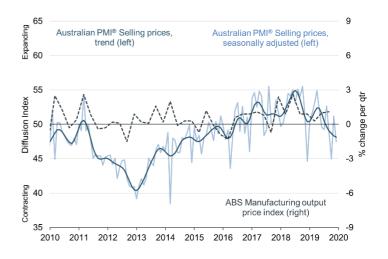
Input prices

- Manufacturers' input prices rose by an average of 2.0% over the quarter and 5.0% over the year in Q3 2019, according to the ABS Producer Price Index.
- The Australian PMI® input price index fell by a further 5.1 points to 58.9 points in December (seasonally adjusted).
 This indicates that manufacturing input price increases slowed markedly in December.
- This result is below the long-run average for this index of 67.7 points (since 2003). It is the lowest result since April 2016.
- Respondents reported that input price rises were elevated in the metals and machinery & equipment sectors in December but were weaker across other manufacturing sectors.



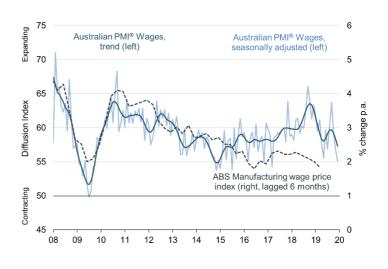
Selling prices

- Manufacturers' output (selling) prices rose by an average of 1.1% over the quarter and 3.3% over the year in Q3 2019, according to the ABS Producer Price Index (PPI).
- The selling price index fell by 3.7 points to 47.5 points in December (seasonally adjusted). This indicates that manufacturers' selling prices fell, on average, in December.
- This result is below the long-run average for this index of 48.1 points (since 2007).
- Respondents in the chemicals and TCF, paper and printing sectors noted fierce global competition is reducing their ability to increase their selling prices.



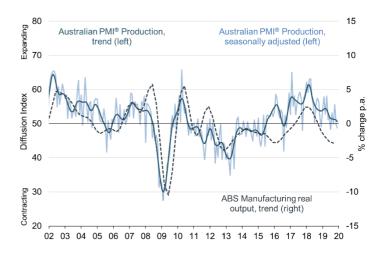
Average wages

- Private sector wages across the manufacturing industry rose by an average of 0.7% over the quarter and 1.8% over the year in Q3 2019, according to the ABS Wage Price Index (WPI).
- The Australian PMI® average wages index decreased by 1.7 points to 55.1 points in December, indicating manufacturing wages rose at a slower pace than in November (seasonally adjusted).
- The average wages index has been trending down since reaching a recent peak in mid-2018.
- This latest result was below the long-run average for this index of 59.1 points (since 2007) and is the lowest monthly result since March 2017.



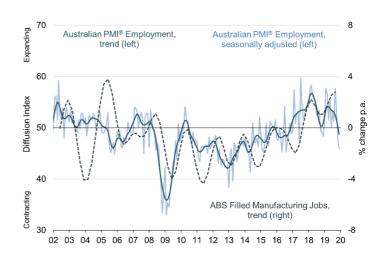
Production

- The manufacturing industry produced \$104.5bn in real value-added output in the year to Q3 2019 (5.5% of Gross Domestic Product, GDP). Manufacturers' annual value-added output fell by 0.7% through the quarter and by 2.0% over the year to Q3 2019.
- The Australian PMI® production index fell by a further 1.0 point to 48.7 points, indicating contracting production levels in December (seasonally adjusted).
- This result is below the long-run average for this index of 51.4 points (since 2001).
- Production levels were reported to be especially low in December for the 'building materials, wood, furniture & other manufacturing' and 'metals' sectors.



Employment

- There were 904,800 filled jobs in manufacturing in Q3 2019 (6.3% of filled jobs in Australia), according to the ABS Labour Account. The number of filled manufacturing jobs increased by 1.1% in the quarter and 3.1% over the year to Q3 2019.
- The Australian PMI® employment index decreased a further 1.3 points to 46.0 points in December, indicating a sharper pace of contraction in manufacturing employment (seasonally adjusted).
- This result is below the long-run average for this index (48.8 points since 2001) and was the lowest reading since August 2016.
- The employment index fell sharply at the end of 2019 which suggests the number of manufacturing filled jobs dropped in Q4 2019, after recovering through 2018-19.



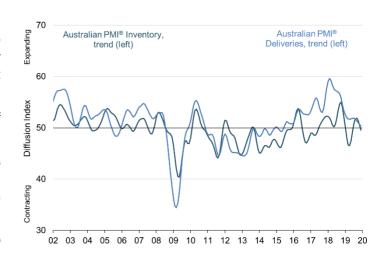
New orders

- The Australian PMI® new orders index increased by 1.6
 points to 48.8 points in December, indicating a mild
 contraction in new orders (seasonally adjusted).
- This result is below the long-run average for this index of 51.3 points (since 2001).
- This index is volatile from month to month, but has been trending down since March 2019. This suggests tougher conditions ahead for manufacturers in some sectors.
- Respondents reported that new orders growth was strong in food & beverages in December but it was especially weak in the metal products sector.



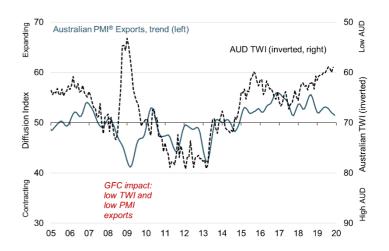
Supplier deliveries and finished stocks

- The supplier deliveries index jumped by 6.8 points to 52.1 points in December, indicating an expanding supply of raw materials ordered by manufacturers to meet forward production (seasonally adjusted).
- This result is above long-run average for this index of 51.0 points (since 2001).
- The finished stocks (inventories) index fell by 8.2 points to 44.4 points in December (seasonally adjusted), indicating a decrease in finished stock levels, on average, across the manufacturing sector.
- Inventory levels were drawn down in the lead-up to Christmas, particularly in the food & beverages sector.



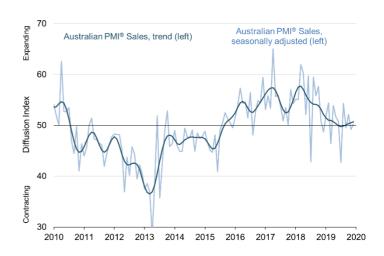
Exports

- Export earnings for Australian manufactured goods were worth \$125.5bn in the year to September 2019 (26% of total annual export earnings).
- The Australian PMI® exports index increased by 4.2 points to 54.0 in December, indicating a further expansion in manufacturing exports in December after a brief pause in November (seasonally adjusted).
- The trade weighted index (TWI) the Australian dollar weighted against trading partner currencies has fallen since 2017. A lower TWI tends to help Australia's export competitiveness. In 2019 however, the Australian PMI® exports index has not increased to the extent that would normally be expected from a drop in the TWI. This suggests that global demand factors other than price (the TWI) are weighing on goods exports growth at present.



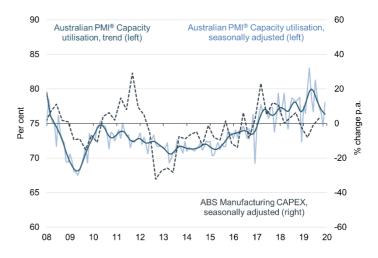
Sales

- The sales index improved by 1.0 points to 50.2 points in December, indicating broadly stable sales levels after a mild drop in November (seasonally adjusted).
- This result is above the long-run average for this index of 49.3 points (since 2009).
- Respondents reported that sales levels were elevated for 'food & beverage' and 'TCF, paper and printing' sectors in the lead-up to Christmas, but were low for the 'building materials, wood, furniture & other' sector due to reduced sales to the construction sector.



Capacity utilisation

- Australia manufacturers invested \$9.4bn in capital expenditure (CAPEX) in the year to Q3 2019, according to the latest ABS CAPEX data.
- The Australian PMI® capacity utilisation indicator increased by 3.5 percentage points to 78.1% of available capacity in December (seasonally adjusted).
- This result remains above the long-run average for this index of 73.7% (since 2007). The average level of capacity utilisation has been higher in recent years than the level of CAPEX expenditure that is usually associated with this rate of capacity utilisation. This could indicate that manufacturers are waiting longer to invest (possibly because of increased uncertainty regarding future demand) and/or changing their mode of operation.



Australian PMI® data definitions

The Australian PMI classifies each business according to their single main activity, using the industry data codes and definitions set out in the ANZSIC 2006. These classifications are comparable with all ABS data that use these same codes. For manufacturing in the Australian PMI, the definitions of the six sectors are:

- 1. Food & beverage products (ANZSIC codes 11 and 121).
- Machinery & equipment manufacturing including motor vehicles, other transport equipment, professional and scientific equipment, electrical
 and electronic equipment, computers, domestic appliances, pumps, compressors, heating, cooling, ventilation, specialist equipment (ANZSIC
 codes 23 and 24).
- 3. Metal products including basic ferrous, non-ferrous, fabricated iron and steel, structural metals, metal containers, sheet metal and other metal products (ANZSIC codes 21 and 22).
- 4. Petroleum and coal-based products, basic chemicals, chemical products, fertilisers, pesticides, pharmaceuticals and medicinal products, cleaning compounds, toiletries, polymers and rubber products (ANZSIC codes 17, 18 and 19).
- 5. Building materials, wood, furniture & other manufacturing products including glass, ceramic, cement, lime, plaster, concrete, wood, logs, timber, furniture & other manufacturing products (ANZSIC codes 14, 20, 25).
- 6. TCF, paper and printing products including textiles, leather, clothing, footwear, pulp, paper, paperboard, converted paper products printing and the reproduction of recorded media (ANZSIC codes 13, 15, 16).



What is the Australian PMI®? The Australian Industry Group Australian Performance of Manufacturing Index (Australian PMI®) is a national composite index based on the diffusion indices for production, new orders, deliveries, inventories and employment with varying weights. An Australian PMI® reading above 50 points indicates that manufacturing is generally expanding; below 50, that it is declining. The distance from 50 indicates the strength of the expansion or decline. Australian PMI® results are based on responses from a national sample of manufacturers. The Australian PMI® uses the ANZSIC industry classifications for manufacturing sectors and sector weights derived from ABS industry output data. Seasonal adjustment and trend calculations follow ABS methodology. For further economic

analysis and information from the Australian Industry Group, visit http://www.aigroup.com.au/policy-and-research/economics/economicindicators/.

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