DEX P

Mild manufacturing rebound in November

The Australian Industry Group Australian Performance of Manufacturing Index (**Australian PMI**®) rose by 4.4 points to 54.8 points, indicating improvement in average activity levels across manufacturing in November (seas. adj). This was the first month of improvement following three months of flat results for the **Australian PMI**®. Results above 50 points indicate expansion, with higher results indicating a faster rate of expansion.

All the activity indexes in the **Australian PMI®** expanded or were stable in November. Deliveries, stocks and exports increased significantly following fairly weak results in October. Forward orders continued to expand at a relatively strong pace, indicating that further recovery is likely following the easing of remaining restrictions. The **Australian PMI®** capacity utilisation index increased following a slight easing in October and remains above its own long-run average.

All sectors in the **Australian PMI**® expanded except for chemicals, which indicated stable conditions in November (seasonally adjusted). Food & beverages rose sharply into growth mostly offsetting a large fall the previous month; metal products also saw a lift from contraction to expansion. Machinery & equipment and building materials reported a slight improvement from the previous month while growth in the 'TCF, paper & printing' sector moderated in November. Easing of restrictions in Victoria and NSW contributed to increased activity and new orders in November as many businesses returned to more normal conditions, despite this some manufacturers remained cautious as the headwinds of supply constraints and potential ongoing effects of COVID-19 tempered enthusiasm.

Australian PMI® and ABS manufacturing output



November 2021

MEDIA CONTACT

Tony Melville Australian Industry Group Tel: 0419 190 347

Australian PMI [®] ▲ 4.4 points (seasonally adjusted)	54.8
Australian PMI [®] ▼ 1.1 points (trend)	50.9
Food & beverages ▲ 19.9 points (seas. adj.)	57.3
Machinery & equipment ▲ 0.4 points (seas. adj.)	55.8
Metal products ▲ 7.8 points (seas. adj.)	56.4
Chemicals ▼ 6.4 points (seas. adj.)	50.6
Building materials, wood & other ▲ 1.3 points (seas. adj.)	56.9
TCF, paper & printing ▼ 1.3 points (seas. adj.)	51.3

Manufacturing sectors: Five of the six manufacturing sectors in the **Australian PMI**® expanded in November (results above 50 points, seasonally adjusted). Food & beverages bounced back as restrictions eased; the metals index rose from contraction to expansion; machinery & equipment and building products expanded. TCF, paper & printing grew but at a slower pace than the previous month, chemicals were stable in November.

Manufacturing wages and prices: The Australian PMI® input price index eased slightly in November to 78.3 points, but remained elevated as it has been since the middle of the year (seasonally adjusted). Manufacturers continued to report high freight costs and difficulties sourcing inputs. The selling prices index reached a series high at 68.1 points (seasonally adjusted) indicating manufacturers are passing on some of their cost increases to their customers. The Australian PMI® average wages index eased but remained elevated in November (seasonally adjusted). Skilled labour shortages, vaccination requirements and staff in isolation have combined to reduce staff availability and increase wages pressures.

Manufacturing activity: Five of the seven activity indexes rose in November, new orders were fairly robust indicating further improvements in coming months. Supplier deliveries and inventories increased as manufacturers build stocks to protect against disruption to supplies of inputs. Exports improved for some respondents with others reporting difficulties with freight costs and availability.

Manufacturing highlights: A return to more normal conditions helped boost sales and forward orders for a range of manufactured products, including demand from food & beverage customers and the construction and agricultural sectors.

Manufacturing concerns: High freight costs and availability continue to have a negative effect on manufacturers across all sectors. Some reported difficulties sourcing inputs and then difficulties exporting finished products. Nationally, respondents continue to report high prices for various metals, raw materials and imported components. Some businesses are still unable to move staff to their own sites and service customer sites due to ongoing border restrictions.

AUSTRALIAN PMI [®] KEY NUMBERS	Index this month	Change from last month	Long-run average	AUSTRALIAN PMI [®] SECTORS	Index this month	Change from last month	Long-run average
seasonally adjusted				seasonally adjusted			
Australian PMI®	54.8	4.4	50.8	Sectors			
Production	52.5	4.7	51.5	Food & beverages	57.3	19.9	53.8
Employment	50.0	2.0	49.2	Machinery & equipment	55.8	0.4	50.3
New Orders	59.3	1.0	51.6	Metals products	56.4	7.8	47.5
Supplier Deliveries	53.4	12.2	50.9	Petroleum, coal, chemicals			
Finished stocks	58.6	7.0	49.9	& rubber products	50.6	-6.4	51.7
Exports	54.6	8.5	50.1	Building, wood, furniture			
Sales	50.6	0.4	49.5	& other products 56.9 1.3		50.1	
Input Prices	78.3	-3.5	67.9	Textiles, clothing, footwear,			
Selling Prices	68.1	4.2	49.0	paper & printing	51.3	-1.3	47.0
Average Wages	62.4	-1.3	58.8	trend			
Capacity Utilisation (%)	78.5	1.8	74.3	Australian PMI®	50.9	-1.1	50.8

Results above 50 points indicate expansion.

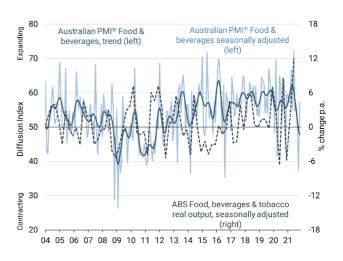
Trend indexes are calculated with a Henderson 13-month filter.

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 Jun 2021	109.9	2.3	1.4	5.6% of total GDP
Nominal sales, \$bn, year to Jun 2021	363.7	1.0	1.0	12.2% of non-farm business sales
Nominal export earnings, \$bn, year to Sep 2021	119.9	2.3	-0.1	24.1% of total export earnings
Nominal company profits (GOP), \$bn, year to Sep 2021	38.4	-0.1	7.4	8.3% of non-farm company profits
Real investment (CAPEX), \$bn, year to Sep 2021	10.1	2.5	10.1	8.0% of non-farm private sector CAPEX
Nominal aggregate wages, \$bn, year to Jun 2021	56.2	1.1	1.1	9.4% of non-farm business wages
Manufacturing employed persons, Aug 2021, million	1.001	10.1	12.8	6.3% of employed persons
Manufacturing businesses with employees, 2019-20	46,733	N/A	-0.5	5.3% of employing businesses

ABS sources: Australian National Accounts; Australian Business Indicators; CAPEX; International Trade; Labour Force Survey, Business Counts.

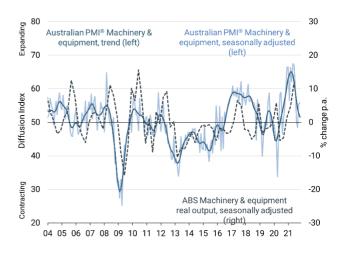
Food & beverages

- The food and beverages (& tobacco) sector produced \$28.1bn in real value-added output in the year to Q2 2021 (26% of manufacturing real value-added output). It employed 247,000 people in August 2021 (27% of manufacturing employment, ABS data). It is Australia's largest manufacturing sector.
- The index for the food and beverages sector rose sharply by 19.9 points to 57.3 points in November, indicating a significant improvement (seasonally adjusted). The easing of restrictions and reopening of businesses led to a boost in activity in November.
- Sales to hospitality businesses resumed and businesses reported Christmas orders being brought forward. Some respondents reported increasing stock levels as well as difficulties planning for freight.



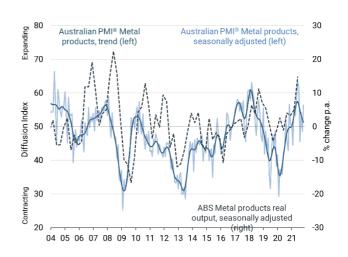
Machinery & Equipment

- The machinery & equipment sector produced \$23.2bn in real value-added output in the year to Q2 2021 (21% of manufacturing real value-added output). It employed 188,000 people in August 2021 (21% of manufacturing employment, ABS data).
- The index for the machinery & equipment sector rose by 0.4 points to 55.8 points in November, indicating modest lift in activity compared to October (seas. adj.).
- Demand from the agricultural and construction sectors was strong, but the impact of supply chain disruptions remain a significant concern. State border restrictions inhibited staff travel for some respondents.



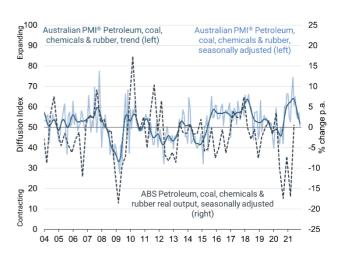
Metal Products

- The metal products sector produced \$18.6bn in real value-added output in the year to Q2 2021 (17% of manufacturing real value-added output). It employed 143,000 people in August 2021 (16% of manufacturing employment, ABS data).
- The metal products index rose from contraction into expansion lifting 7.8 points to 56.4 points in November (seas. adj.).
- Easing restrictions combined with customers sourcing local product boosted demand in November. Increased prices for inputs, lower export orders and supply chain disruption were a concern for some manufacturers.



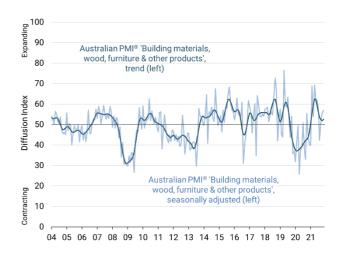
Petroleum, coal, chemicals & rubber

- The petroleum, coal, chemicals & rubber sector produced \$17.5bn in real value-added output in the year to Q2 2021 (16% of manufacturing real value-added output). It employed 95,000 people in August 2021 (11% of manufacturing employment, ABS data). This diverse sector produces chemicals, fertilisers, toiletries, pharmaceuticals, health supplements and rubber items, as well as paints, adhesives and surface treatments.
- The chemicals sector's index fell by 6.4 points to 50.6 to be broadly stable in November (seas. adj.).
- Customers seeking local suppliers due to difficulties receiving products from overseas led to an increase in new orders in November. Delays in imported raw materials and increased material costs were concerns for chemical manufacturers.



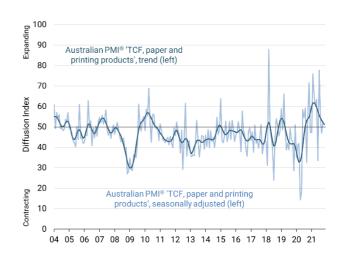
Building materials, wood, furniture & other manufacturing products

- The building materials, wood, furniture & other products sector employed 143,000 people in August 2021 (16% of manufacturing employment, ABS data).
- This sector includes building-related products such as glass, bricks, cement, tiles, porcelain, timber, furniture, furnishings and other household products.
- The index for the building materials, furniture and other manufacturing products rose by 1.3 points to 56.9 points in November (seas. adj.).
- Respondents noted improved customer demand across the month but also concerns around supply deliveries and building inventories to manage supply uncertainty.



TCF, paper and printing products

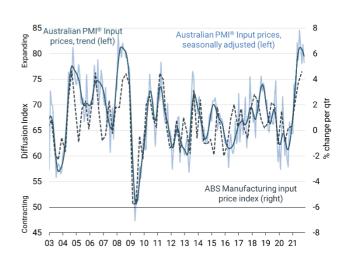
- The textiles, clothing, footwear (TCF), paper & printing products sector employed 85,000 people in August 2021 (9% of manufacturing employment, ABS data).
- This sector makes textiles, clothing, footwear, paper, cardboard, packaging, printed and recorded products.
- The index for this sector dropped by 1.3 points to 51.3 points in November, indicating mildly expansionary conditions (seas. adj).
- Respondents in this sector reported some improvement in conditions as restrictions eased, but also reported difficulties sourcing inputs from overseas where suppliers were facing activity restrictions.



Wages and prices

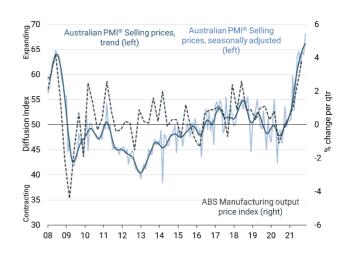
Input prices

- Manufacturers' input prices rose by an average of 4.6% over the quarter and 11.2% over the year to Q3 of 2021 (ABS, Producer Price Index).
- The Australian PMI® input price index fell by 3.5 points to 78.3 points in November (seasonally adjusted) but remained elevated marking six months of above average input prices.
- Manufacturers reported significant price increases for raw materials in November. Input prices were elevated in all manufacturing sectors - they were particularly high for machinery & equipment and metals products – both sectors have had elevated prices for most of this year. Respondents noted delivery delays and shortages of imported and Australian-sourced materials. Record-high international freight costs continue to contribute to cost increases for many manufacturers.



Selling prices

- Manufacturers' output (selling) prices rose by an average of 3.9% over the quarter and 7.8% over the year to Q3 of 2021 (ABS *Producer Price Index*).
- The selling price index rose by 4.2 points to 68.1 points in November (seasonally adjusted) to reach a series high. Selling prices were flat in January 2021 but have expanded every month since.
- The elevated selling price index indicates that many manufacturers have passed on some of their higher costs to their customers, however some have also reported losing sales and new orders due to selling price increases.



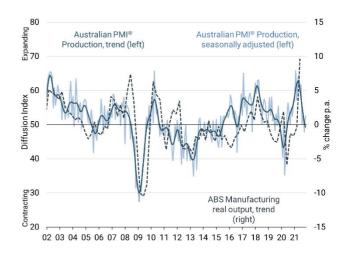
Average wages

- Private sector wages across the manufacturing industry rose by an average of 0.7% over the quarter and 2.0% p.a. in Q3 of 2021 (ABS, Wage Price Index).
- The Australian PMI® average wages index fell by 1.3 points to 62.4 points in November, following a steep rise in October (seasonally adjusted). Average wages continued to sit above the long-run average of 58.8 points for this index.
- Average wages expanded in all sectors in November, but the rate of growth eased slightly compared to the previous month. They remain elevated as operating restrictions ease across the manufacturing industry and staff shortages are apparent.



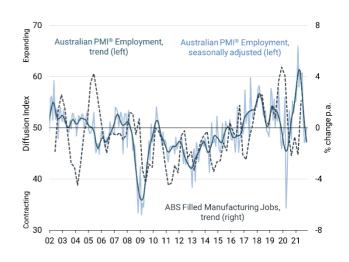
Production

- The manufacturing industry produced \$109.9bn in real value-added output in the year to Q2 2021 (5.6% of Gross Domestic Product, GDP). Manufacturers' valueadded output rose by 2.3% q/q and 1.4% y/y to Q2 2021 (ABS data).
- The Australian PMI® production index rose by 4.7 points to 52.5 points in November (seasonally adjusted), indicating a mild expansion in production output.
- The production index rose in line with activity restrictions easing in Victoria and NSW as businesses returned to more normal conditions, however the inability to move staff across borders to other sites and supply disruptions dampened production for some manufacturers.



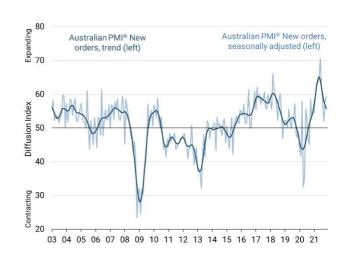
Employment

- There were 907,900 filled jobs in manufacturing in Q2 of 2021 accounting for 6.3% of all filled jobs in Australia (ABS Labour Account).
- The more timely (but more volatile) ABS Labour Force Survey identified 1,001,700 people working in manufacturing in August 2021, up by 10.1% from May 2021 and 12.8% from August 2020 (seas. Adj.).
- The Australian PMI® employment index rose 2.0 points higher to 50.0 points in November (seasonally adjusted), indicating broad stability in employment. Results were mixed across the sectors, businesses facing difficulties sourcing supplies were less likely to increase employment, while those facing improvements from easing restrictions were more likely to increase staff numbers.



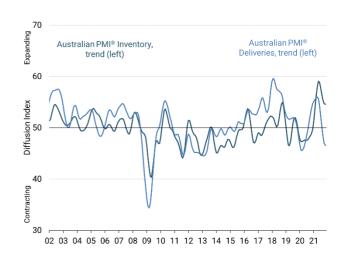
New orders

- The new orders index increased by 1.0 point, indicating expansion at 59.3 points in November (seasonally adjusted), marking 14 months of expansion for the index.
- The new orders index expanded in all sectors, with a stronger result for the building materials sector in November. The strength in new orders for Australian manufacturers suggests positive production and sales results in the months ahead.
- Some manufacturers reported increased orders due to customers looking for local suppliers, building inventories, product substitution and a general upturn as business returns to more normal conditions.



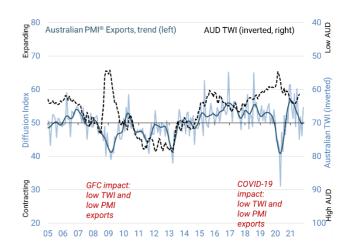
Supplier deliveries & finished stocks

- The supplier deliveries index rose by 12.0 points to 53.4 points in November, indicating expansion in the supply of raw materials ordered by manufacturers (seasonally adjusted). This was the first month of positive results following three months of contraction. Many manufacturers have increased the size of their orders in response to global supply chain disruptions.
- The stocks (inventories) index rose by 7.0 points to 58.6 points in November, indicating an increase in stock levels held by manufacturers (seasonally adjusted). Manufacturers continued to build inventory to meet future demand and to hedge against delayed deliveries as well as future shortages and disruptions.



Exports

- Export earnings for Australian manufactured goods were worth \$119.5bn in the year to August 2021 (25% of total annual export earnings, ABS data).
- The Australian PMI® exports rose by 8.5 points to 54.6 points in November (seasonally adjusted).
- Exports expanded for food & beverage and machinery & equipment in November but were relatively weak across the other sectors.
- Easing of restrictions and subsequent increases in production, along with improved orders from overseas drove the increase in exports in November.



Sales

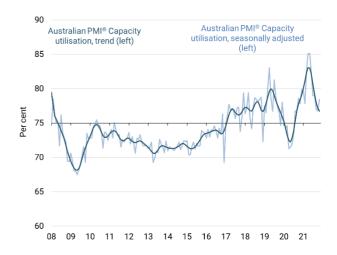
- The sales index edged 0.4 points higher to 50.6 points in November (seasonally adjusted), indicating broadly stable results for manufacturing sales on average across all sectors.
- Sales expanded for most manufacturing sectors in November except machinery & equipment and building products. Sales picked up in NSW and Victoria in November, as manufacturers were able to increase operating capacity.
- This month's result is similar to the long-term average of 49.5 points for this index (since 2009).



Activity and data definitions

Capacity utilisation

- Australia's manufacturers invested \$10.1bn in capital expenditure (CAPEX) over the year to Q3 2021 (real dollars).
- The Australian PMI® capacity utilisation index increased to 78.5% of capacity being utilised in November (seasonally adjusted). Capacity utilisation was elevated in all sectors in November.
- More respondents reported decisions to invest in new capacity (buildings, plant and equipment) as part of their recovery plans, as business conditions returned to more normal settings.



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).
- 2. 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 www.aigroup.com.au/resourcecentre/economics.

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