AUSTRALIAN
PERFORMANCE OF
MANUFACTURING INDEX

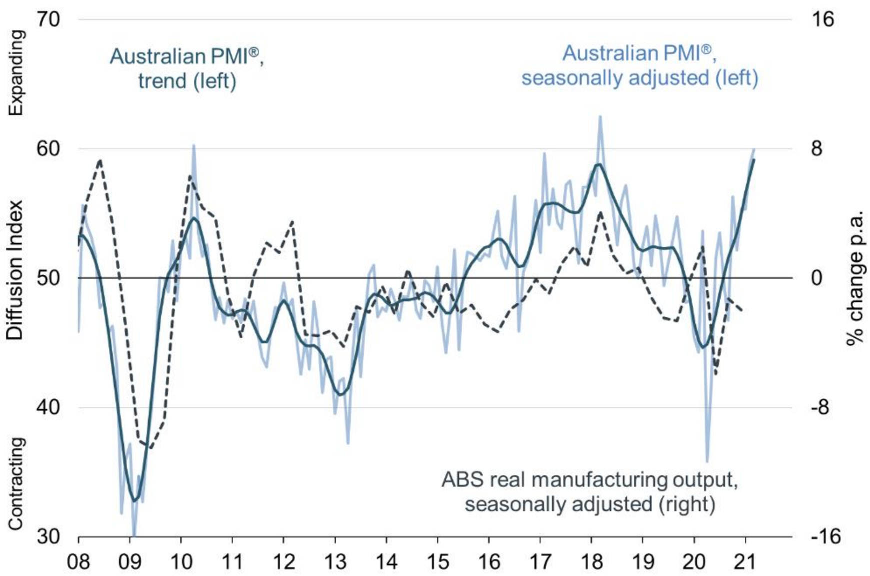
Manufacturing races into Autumn

The Australian Industry Group Australian Performance of Manufacturing Index (**Australian PMI®**) increased by a further 1.1 points to 59.9 points (seasonally adjusted), indicating a stronger pace of expansion in March 2021. This was the highest monthly result for the **Australian PMI®** since March 2018 and a sixth consecutive month of strong recovery, after the severe disruptions of COVID-19 in Q2 of 2020. Results above 50 points indicate expansion, with higher results indicating a faster rate of expansion.

All six manufacturing sectors included in the **Australian PMI®** reported positive trading conditions (results over 50 points, trend) during March, with especially buoyant conditions reported by manufacturers in machinery & equipment and 'textiles clothing, footwear, paper & printing products'.

The production index remained strong in March but eased back after an accelerated recovery in February. The new orders and employment indexes increased further into expansion. The rise in the new orders index indicates another surge in production is likely in the coming months but reports of delivery delays of raw materials raises the prospect of significant production delays in supplying finished goods. Supply chain difficulties including delivery delays, freight pricing and the price of various raw materials continue to be reported by Australian manufacturers across all sectors.

Australian PMI® and ABS real manufacturing output



March 2021

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Australian PMI® ▲ 1.1 points (seasonally adjusted)	**59.9**
Australian PMI® ▲ 1.2 points (trend)	**59.2**
Food & beverages ▲ 0.2 points (trend)	**57.6**
Machinery & equipment ▲ 0.6 points (trend)	**65.0**
Metal products ▲ 0.8 points (trend)	**51.7**
Chemicals ▼ 1.2 points (trend)	**59.1**
Building materials, wood & other ▲ 2.8 points (trend)	**55.8**
TCF, paper & printing ▲ 3.5 points (trend)	**66.1**

Summary

Manufacturing sectors: Five of the six manufacturing sectors in the **Australian PMI®** expanded in March 2021 and at a faster pace than in February. Only the chemicals sector recorded a slower pace of expansion (trend). Especially upbeat trading conditions were reported by manufacturers in machinery & equipment and TCF, paper & printing products.

Manufacturing wages and prices: The input price index eased a little in March, indicating slower increase in input prices, on average, for manufacturers, but it remains above its long-run average (seasonally adjusted). Manufacturers' selling prices jumped to its highest result since 2008, indicating that on average, manufacturers' selling prices rose sharply in March. The **Australian PMI®** average wages index increased further in March, taking it back above its long-run average.

Manufacturing activity: All seven activity indexes expanded in March. The indexes for production, sales, and exports eased back slightly from elevated levels in February, but remained in expansion. Employment, new orders, supplier deliveries and inventories all increased in March, with the new orders index suggesting further strong production in the coming months.

Manufacturing highlights: Australian manufacturing continues to recover from the lows of Q2 and Q3 in 2020, with the **Australian PMI®** recording its strongest pace of expansion since March 2018. The **Australian PMI®** capacity utilisation index moved to its second higest level on record (since 2007), which suggest employment and/or investment may need to step up in order to facilitate further growth from here. However, the current climate of heightened uncertainty and risk means that businesses may want to run closer to their existing 'full capacity' before investing in new capacity (that is, new buildings, plant and equipment). The employment index is also high, with many manufacturers wanting to increase hours or staff levels before (or as well as) investing in new capacity. Other businesses report they intend to invest in automation in 2021.

Manufacturing concerns: The new orders index remained elevated in March, but delivery delays of raw materials are causing significant production delays in supplying finished products across many sectors. Supply chain difficulties including delivery delays, high freight pricing and higher prices for various raw materials and imported components continue to hamper manufacturers. Some respondents noted more caution among customers again, resulting in a lack of enquiries.

AUSTRALIAN PMI® KEY NUMBERS	Index this month	Change from last month	Long-run average	AUSTRALIAN PMI® SECTORS (TREND)	Index this month	Change from last month	Long-run average
seasonally adjusted				*trend*			
Australian PMI®	**59.9**	**1.1**	**50.6**	**Australian PMI®**	**59.2**	**1.2**	**50.6**
Production	57.2	-8.6	51.4	Food & beverages	57.6	0.2	53.7
Employment	66.0	8.2	49.0	Machinery & equipment	65.0	0.6	50.0
New Orders	63.5	3.6	51.2	Metals products	51.7	0.8	47.3
Supplier Deliveries	54.1	0.9	50.9	Petroleum, coal, chemicals			
Finished stocks	52.7	4.7	49.6	& rubber products	59.1	-1.2	51.4
Exports	51.3	-2.8	50.0	Building, wood, furniture			
Sales	58.8	-3.4	49.2	& other products	55.8	2.8	49.8
Input Prices	71.3	-2.8	67.5	Textiles, clothing, footwear,			
Selling Prices	59.7	8.5	48.3	paper & printing	66.1	3.5	46.7
Average Wages	63.8	5.6	58.6				
Capacity Utilisation (%)	82.6	4.8	74.0				

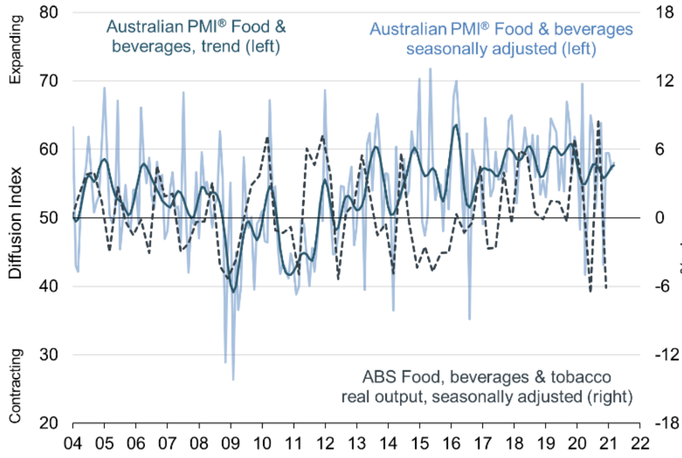
Results above 50 points indicate expansion. All indexes for sectors in the Australia PMI® are reported in trend terms (Henderson 13-month filter).

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 Dec 2020	107.5	-0.5	-1.8	5.6% of total GDP
Nominal sales, $bn, year to Dec 2020	354.8	1.0	1.0	12.6% of non-farm business sales
Nominal export earnings, $bn, year to Jan 2021	118.0	-0.6	-6.6	27.2% of total export earnings
Nominal company profits (GOP), $bn, year to Dec 2020	37.1	3.6	19.6	8.5% of non-farm company profits
Real investment (CAPEX), $bn, year to Dec 2020	9.2	0.8	-2.6	7.8% of non-farm private sector CAPEX
Nominal aggregate wages, $bn, year to Dec 2020	55.6	-0.2	1.5	9.6% of non-farm business wages
Manufacturing filled jobs, Dec 2020	911.5	2.6	-1.1	6.4% of filled jobs
Employing manufacturing businesses, 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.*

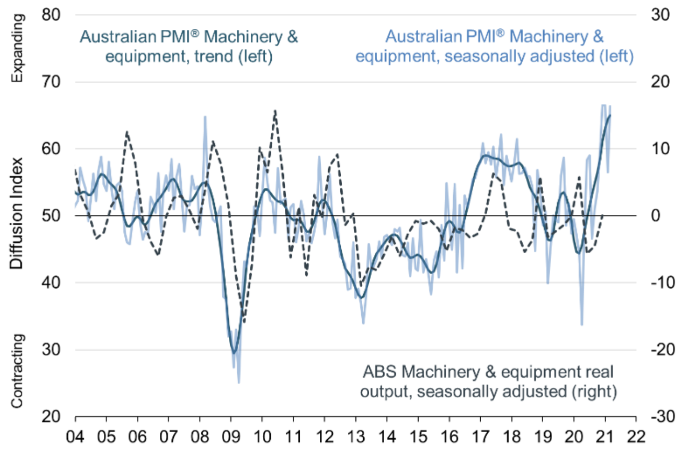
Food & beverages

- The food and beverages (& tobacco) sector produced $27.2bn in real value-added output in the year to Q4 2020 (25% of manufacturing real value-added output). It employed 223,000 people in February 2021 (26% of manufacturing employment, ABS data).
- The index for food and beverages edged 0.2 points higher to 57.6 points in March, indicating another strong month of expansion for Australia's largest manufacturing sector (trend).
- March is typically a slower month for food & beverage manufacturers, but this year respondents report they are very busy and are considering investments to increase capacity. Some respondents noted a return to more 'normal' demand patterns from their customers.



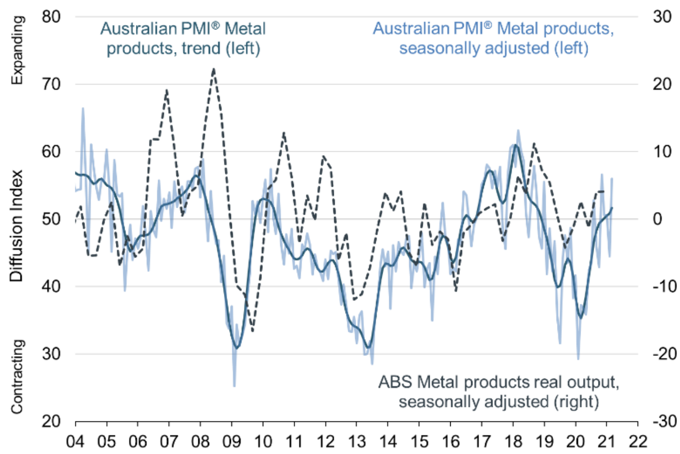
Machinery & Equipment

- The machinery & equipment sector produced $22.2bn in real value-added output in the year to Q4 2020 (21% of manufacturing real value-added output). It employed 176,000 people in February 2021 (20% of manufacturing employment, ABS data).
- The index for the machinery & equipment sector improved by another 0.6 points to 65.0 points in March, indicating that conditions expanded at a faster pace than in February (trend).
- Machinery and equipment respondents noted improved conditions from industrial, mining and agricultural customers, with some respondents adding shifts to meet strong demand. However, disrupted deliveries of raw materials and imported components are causing significant production delays for specialist equipment.



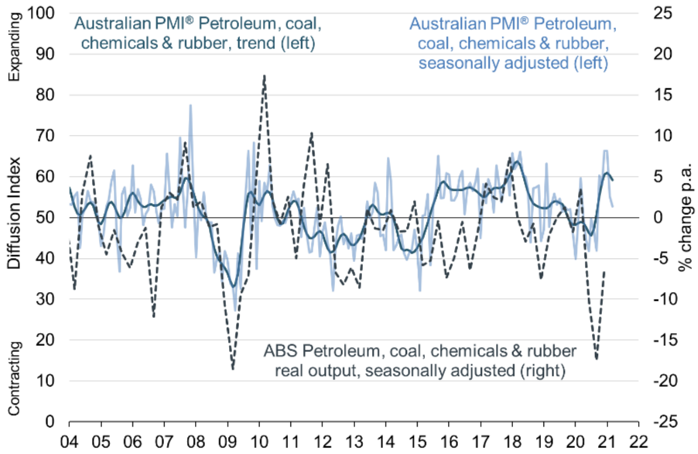
Metal Products

- The metal products sector produced $17.7bn in real value-added output in the year to Q4 2020 (17% of manufacturing real value-added output). It employed 136,000 people in February 2021 (16% of manufacturing employment, ABS data).
- The metal products index rose by 0.8 points to 51.7 points, indicating expansion in March (trend).
- Employment, exports and new orders were elevated in this sector in March. Respondents noted an increase in client demand from a broad range of sectors and particularly from infrastructure projects. Some metal products manufacturers said they intend to increase investment in automation.



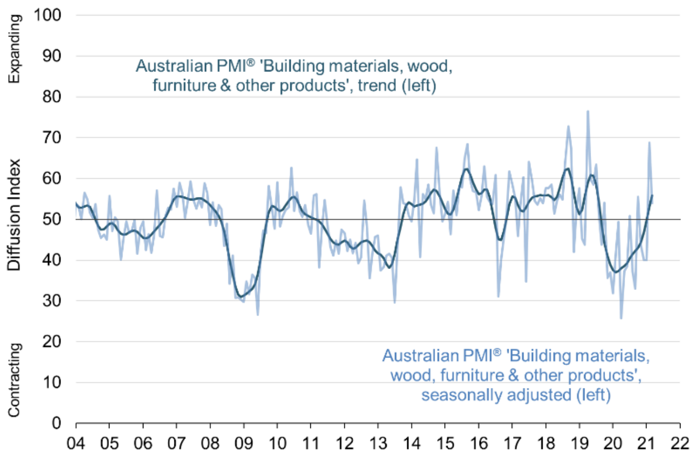
Petroleum, coal, chemicals & rubber

- The petroleum, coal, chemicals & rubber sector produced $18.3bn in real value-added output in the year to Q4 2020 (17% of manufacturing real value-added output). It employed 97,000 people in February 2021 (11% of manufacturing employment, ABS data).
- The chemicals sector's index declined by 1.2 points to 59.1 points in March, indicating a slower (but still reasonable) pace of expansion in the month (trend).
- Production and inventories were down but new orders were elevated in March. Some respondents reported higher local sales because competitors were unable to obtain imported materials, while others are reporting delayed shipments and an increase in freight costs.



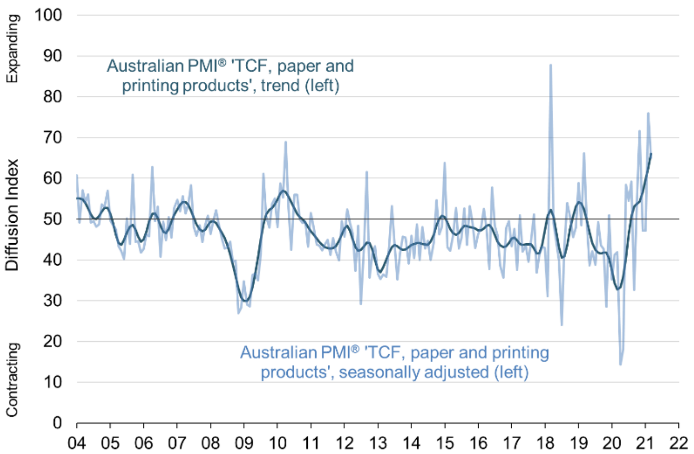
Building materials, wood, furniture & other manufacturing products

- The building materials, wood, furniture & other products sector employed 146,000 people in February 2021 (17% 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 sector increased by a further 2.8 points to 55.8 points in March (trend).
- Respondents noted strong customer demand and sales into residential construction and engineering projects due to government infrastructure stimulus spending and the HomeBuilder subsidy program for renovations.



TCF, paper and printing products

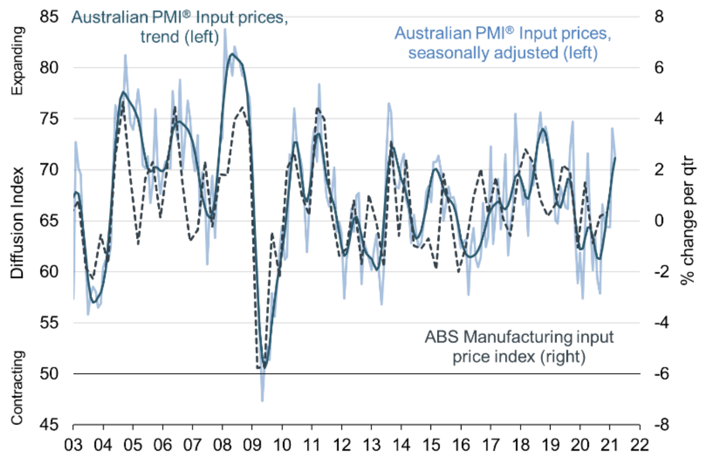
- The textiles, clothing, footwear (TCF), paper & printing products sector employed 82,000 people in February 2021 (10% of manufacturing employment, ABS data).
- This sector makes textiles, clothing, footwear, paper, cardboard, packaging, printed products and recorded media.
- The index for this sector increased by 3.5 points to 66.1 points, indicating a faster expansion in March (trend).
- Respondents in this sector noted increased business confidence and greater activity from existing customers (e.g. textiles, paper and printed packaging products).



Wages and prices

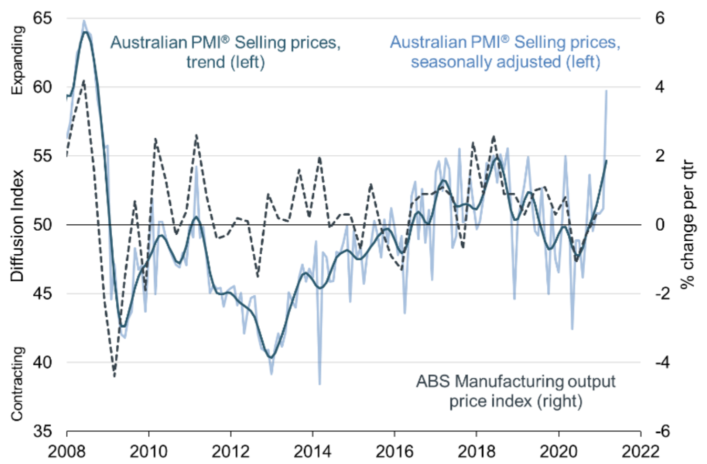
Input prices

- Manufacturers' input prices rose by an average of 0.3% over the quarter but decreased by 1.1% over the year in Q4 2020 (ABS *Producer Price Index*).
- The **Australian PMI®** input price index fell by 2.8 points to 71.3 points in March (seasonally adjusted), indicating slower (but still sizeable) price increases, on average, for manufacturers in March compared to February.
- This result remains above the long-run average of 67.5 points for this index. This index was extremely volatile through 2020 with large fluctuations in prices for raw materials and for imported inputs and components due to supply chain disruptions and rising freight prices.
- Respondents reported that compared to earlier in 2021, input prices fell in March in the metal products and building material sector but rose in all the other sectors.



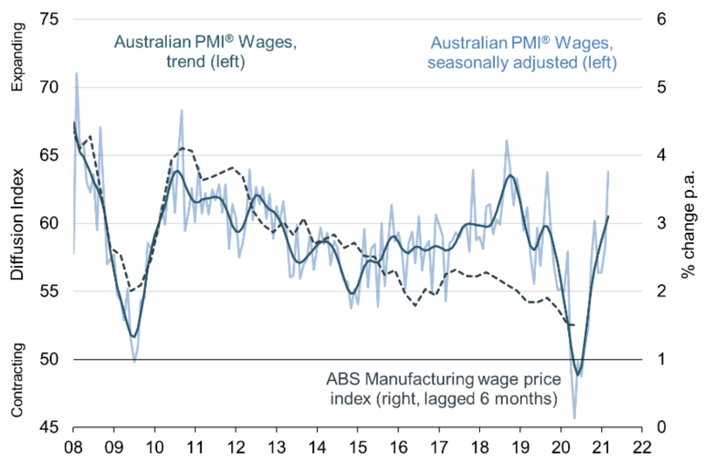
Selling prices

- Manufacturers' output (selling) prices rose by an average of 0.3% over the quarter but fell by 0.3% over the year in Q4 2020 (ABS *Producer Price Index*).
- The selling price index jumped 8.5 points higher to 59.7 points in March (seasonally adjusted). This indicates that manufacturers' selling prices, on average, increased in March and at a faster pace than in February.
- This index is well above its own long-run average of 48.3 points (since 2003). Input prices have been elevated in recent months, so the higher selling price index suggests many manufacturers are passing on these higher costs.
- Respondents reported higher selling prices in chemicals, building materials and TCF, paper and printing products.



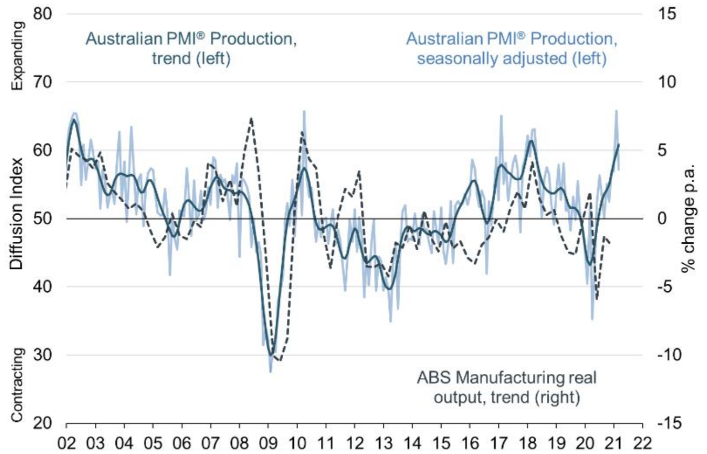
Average wages

- Private sector wages across the manufacturing industry rose by an average of 0.4% over the quarter and 1.5% p.a. in Q4 2020 (ABS *Wage Price Index*).
- The Australian PMI® average wages index increased by 5.6 points to 63.8 points in March (seasonally adjusted), indicating a faster increase in wages across the manufacturing sector, on average, compared to February.
- This index is back above its own long-run average of 58.6 points. It has increased to more typical levels in 2021 (compared to its own long-run history) after dropping sharply in 2020 due to COVID-19.



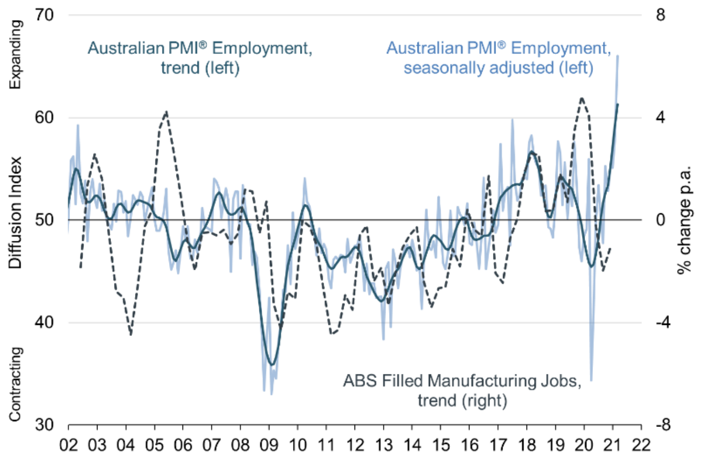
Production

- The manufacturing industry produced $107.5bn in real value-added output in the year to Q4 2020 (5.6% of Gross Domestic Product, GDP). Manufacturers' value-added output fell by 0.5% through the quarter and was down by 1.8% through the year to Q4 2020 (ABS data).
- The Australian PMI® production index declined by 8.6 points to 57.2 points in March, indicating strong production growth but at a slower pace than in February. This slower pace comes after an extremely elevated period for manufacturing production recovery in late 2020 and early 2021 (seasonally adjusted).



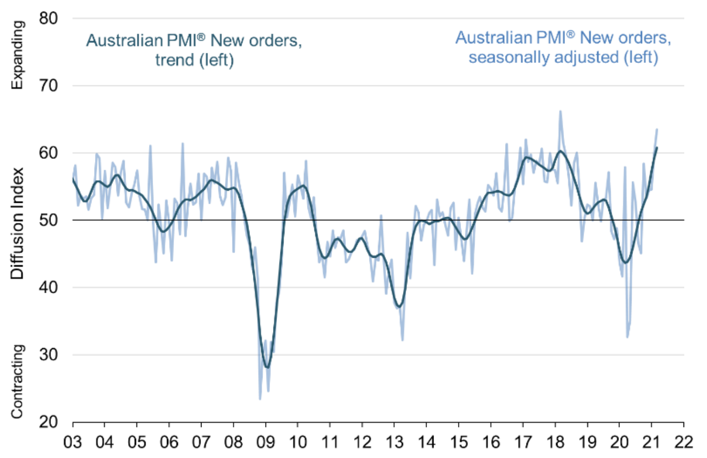
Employment

- There were 911,500 filled jobs in manufacturing in Q4 of 2020 (6.4% of all filled jobs in Australia). The number of filled jobs in manufacturing increased by 2.6% q/q but fell by 1.1% over the year to Q4 2020 (ABS *Labour Account*).
- The more volatile ABS *Labour Force Survey* identified 902,000 people working in manufacturing in February of 2021, up by 6.5% since November 2020 but 2.3% lower over the year to February 2021 (seasonally adjusted).
- The Australian PMI® employment index jumped up by 8.2 points to 66.0 points – a record high - in March (seasonally adjusted). This indicated a very strong recovery in manufacturing employment after a period of job shedding during 2020. Employment growth was particularly strong in the machinery & equipment sector.
- Respondents said they are looking for additional staff to keep up with demand and/or are adding overtime hours.



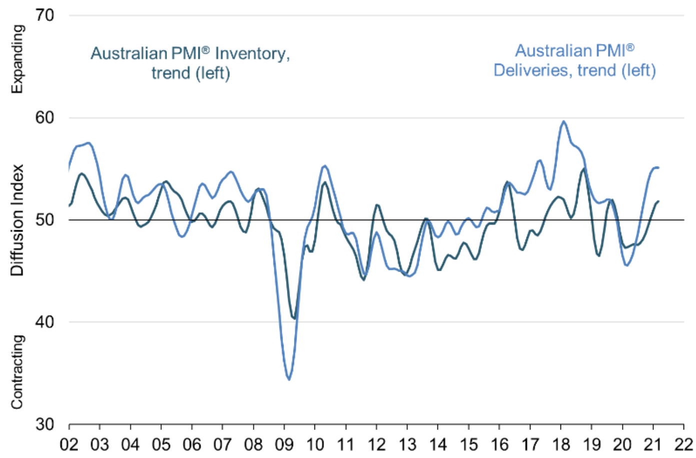
New orders

- The new orders index increased by 3.6 points to 63.5 points in March. This was its highest level since 2018 and indicated strengthening new orders across the manufacturing sector (seasonally adjusted).
- This acceleration in new orders for Australian manufacturers suggests higher production and sales growth is likely through the next few months of 2021.
- New orders expanded strongly in all manufacturing sectors, but growth was particularly strong in the food & beverage, machinery & equipment, and chemicals sectors.



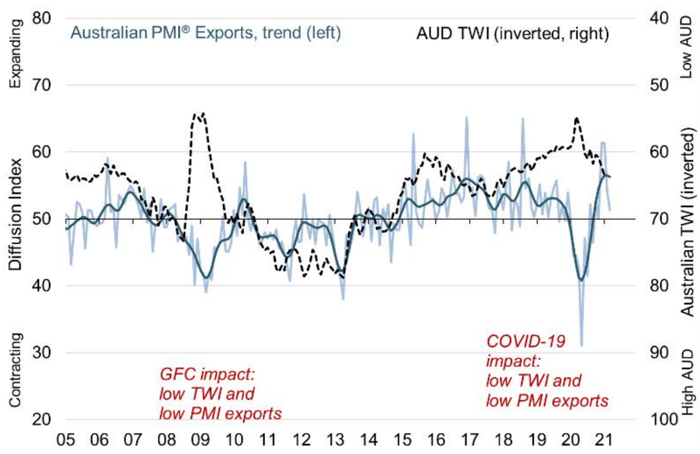
Supplier deliveries & finished stocks

- The supplier deliveries index rose by 0.9 points to 54.1 points in March, indicating an increase in the supply of raw materials ordered by manufacturers and at a faster rate of growth than in February (seasonally adjusted).
- The stocks (inventories) index increased by 4.7 points and back into expansion at 52.7 points in March. This indicates an increase in stock levels held by businesses across the manufacturing sectors (seasonally adjusted). Inventories rose strongly in the machinery & equipment and the building materials sectors but were depleted in the food & beverages and chemicals sectors.



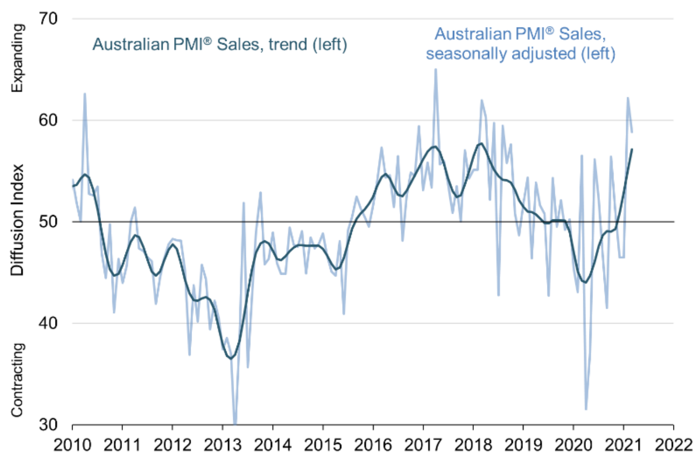
Exports

- Export earnings for Australian manufactured goods were worth $118.0 bn in the year to January 2021 (27% of total annual export earnings, ABS data).
- The **Australian PMI®** exports index fell by 2.8 points to 51.3 points in March, indicating expanding exports for Australian manufacturers but at a slower pace than in February (seasonally adjusted).
- The trade-weighted index (TWI, weighted against trading partner currencies) was at relatively low levels in 2020. Manufacturing exports contracted in most months of 2020 due to the COVID-19 pandemic and related trade disruptions, despite the low TWI. In early 2021, the exports index is moving back towards its historical relationship with the TWI, possibly suggesting that export disruptions are becoming less severe.



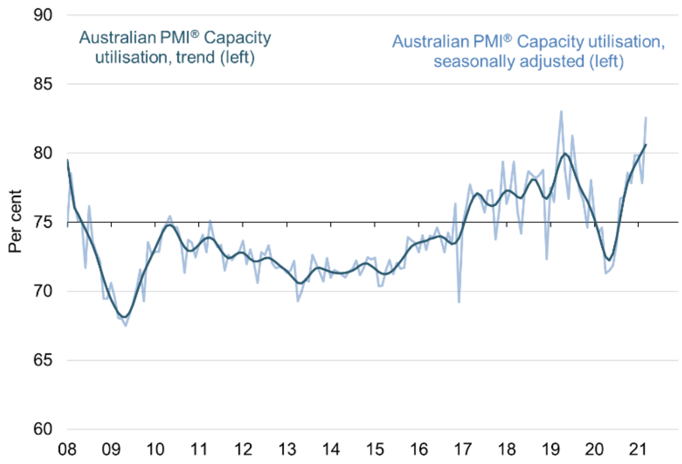
Sales

- The sales index decreased by 3.4 points to 58.8 points in March (seasonally adjusted), indicating expanding manufacturing sales but at a slower pace than in February
- This result is well above the long-term average of 49.3 points for this index (since 2009).
- Sales have recovered across all manufacturing sectors in 2021 but are particularly strong in the metal products sector. Some respondents noted their regular customers were placing larger orders in recent months, possibly because of better optimism regarding the economic outlook, or conversely, a desire to hold more stock themselves in case of further shut-downs or disruptions.



Capacity utilisation

- Australia's manufacturers invested $9.2bn in capital expenditure (CAPEX) through the year to Q4 2020 (real dollars).
- The Australian PMI® capacity utilisation index rose by 4.8 percentage points to 82.6% of available capacity being utilised in March (seasonally adjusted). This is above the long-run average for this index of 74.0% (since 2007). The current climate of heightened uncertainty and risk aversion might mean that businesses want to run closer to their existing 'full capacity' before investing in new capacity (buildings, plant and equipment). Some businesses reported they intend to invest in automation in 2021, in response to the disruptions of 2020.



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.