

ACCI–Westpac Survey of Industrial Trends

Australian Chamber of Commerce and Industry & Westpac Banking Corporation

245th report December 2022 (survey conducted from 5 November to 2 December)

- The Australian Chamber–Westpac Survey of Industrial Trends, Australia’s longest running business survey dating from 1966, provides a timely update on manufacturing and insights into economy-wide trends.
- The Westpac-ACCI Actual Composite index moderated sharply in the December quarter, stepping down from an elevated 64.6 in the September quarter to 49.0. With a reading around the break-even mark of 50, this indicates that conditions are approaching a stalling speed. The survey reported broadly flat new orders, a decline in employment and overtime, and a sharp deceleration in output
- The tone of the survey has shifted dramatically from the upbeat note of three months ago to a sobering end to the year for the manufacturing sector and a challenging outlook.
- The survey finds that the burst of demand enjoyed by the manufacturing sector on the reopening of the economy from delta lockdowns and the omicron disruptions has come to an end. Earlier tailwinds to activity have faded, replaced by the headwinds of rapid interest rate rises by the RBA and high inflation.
- New orders all but stalled in the December quarter, only a net 2% reporting a rise. A net 10% of firms increased output, down from the series high of 43% in Q3, to be well below the decade average of 17%.
- The Expected Composite, which proved to be overly optimistic in the previous update, eased from 60.8 to 54.9 in the December quarter, reflective of the softer demand outlook.
- In addition to ongoing material and labour shortages, surging energy costs have instigated a cost crisis – significantly reducing the competitiveness of the sector and threatening the viability of some businesses.
- In the December quarter, a net 76% of firms reported a rise in average unit costs - well above the net 59% in Q3 and the highest reading since the high inflation days of 1982.
- Both “labour” and “materials” continue to be cited as key constraints to output expansion at levels last seen during the oil shock of 1973/74. Some 43% of respondents cited labour as the single factor most limiting production, broadly unchanged from 44%. Material constraints intensified, with 19% citing this as the single factor most limiting production, up from 15%.
- Against this backdrop, profit expectations have swung from subdued, at a net plus 8%, to deeply negative, with 13% anticipating a deterioration over the upcoming twelve months. Business sentiment has similarly become deeply pessimistic, following an average reading of plus 18%, with a net 19% expecting general business conditions to worsen over the next six months.
- The clear message from this survey, the manufacturing sector is facing into a crisis of competitiveness and consumers should brace for further sharp price increases.

Contents

Key survey results	4
The business cycle & economic outlook	5
Activity & orders	6
Investment & profitability	7
The labour market	8
Prices & inflation	9
Factors limiting production	10
Summary of survey results	11

The Survey of Industrial Trends produced by the Australian Chamber of Commerce and Industry & Westpac Banking Corporation is a quarterly publication.

Enquiries

Economics, Westpac Banking Corporation, ph (61-2) 8254 8720

Eugene Bajkowski OAM, Consulting Economist, Australian Chamber of Commerce and Industry, ph (61-2) 6249 6128

Editors

Andrew Hanlan, Senior Economist, Westpac Banking Corporation

Ryan Wells, Analyst, Westpac Banking Corporation

Eugene Bajkowski OAM, Consulting Economist, Australian Chamber of Commerce and Industry

Miranda Herron, Senior Consultant, Australian Chamber of Commerce and Industry

Email: economics@westpac.com.au

Net response or "balance" is calculated by the proportion of "ups" less "downs" on individual questions, thereby yielding the net balance. A positive balance indicates a net upward or improving trend and a minus balance a net downward or deteriorating trend.

The 245th consecutive survey was closed on 2 December 2022.

A total of **269** responses were received, and provided a reasonable cross-section of Australian manufacturing in respect of industry groups and size of operation.

The next survey will be conducted over February and March 2023.



Start receiving your usual Westpac research and strategy reports from **Westpac IQ**.
<https://www.westpaciq.com.au/subscribe>

Key survey results

Westpac-ACCI Composites (seasonally adjusted)

	Q3 2022	Q4 2022
Actual - composite index	64.6	49.0
Expected - composite index	60.8	54.9

- The Westpac-ACCI Actual Composite moderated in the December survey, down to 49.0 from 64.6
- With a reading around the break-even mark of 50, this indicates that conditions are approaching a stalling speed. The survey reported broadly flat new orders, a decline in employment and overtime, and a sharp deceleration in output.
- The fading of earlier tailwinds and rising interest rates are contributing to a slowing in demand. In addition to the ongoing shortages of materials and labour, surging energy costs have instigated a cost crisis - threatening the viability of some businesses.
- The Expected Composite eased from 60.8 to 54.9 in Q4 on the softer demand outlook.

Westpac-ACCI Labour Market Composite

	Q3 2022	Q4 2022
Composite index	47.3	40.8

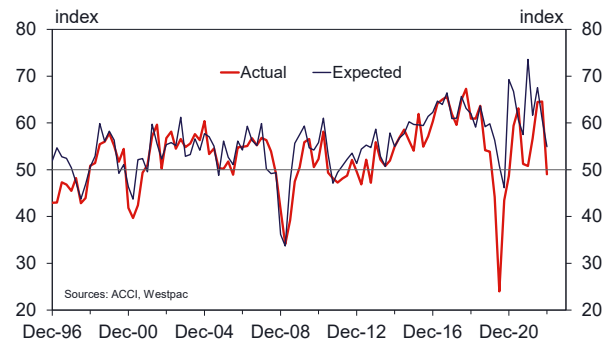
- The survey historically provides insights into economy-wide employment growth. This highlights the key linkages between manufacturing and the labour market.
- In this update, the Labour Market Composite deteriorated materially, from 47.3 to 40.8 in Q4, a weak reading but well above the 2020 low of 30.
- The Composite is currently undershooting nationwide employment trends - this may reflect uneven growth across the economy and that labour shortages appear to be more acute for manufacturers.
- Official figures report annual employment growth at 4.3% in Q3 - likely skewed towards service segments during this phase of reopening.

General business situation

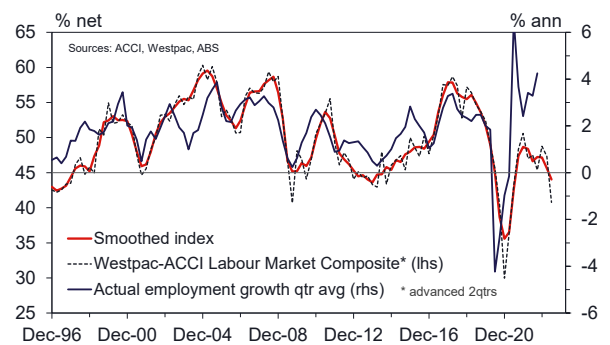
	Q3 2022	Q4 2022
Net balance	18	-19

- Manufacturing sentiment about the general business outlook cooled in the September quarter, returning to around an average level of plus 18%, in line with expectations that the demand burst was set to fade.
- Move forward to the December quarter, sentiment has soured, to be deeply pessimistic. A net 19% of respondents anticipate the general business situation will worsen over the next six months, broadly in line with the mid-2020 low -22%.
- The business mood is being clearly impacted by rising interest rates, a stalling of new orders and the dire cost situation faced by manufacturers, which is greatly reducing competitiveness. With the RBA set to raise interest rates further, the risk is for a further weakening of business sentiment.

Westpac-ACCI Composite indexes Actual & expected, sa

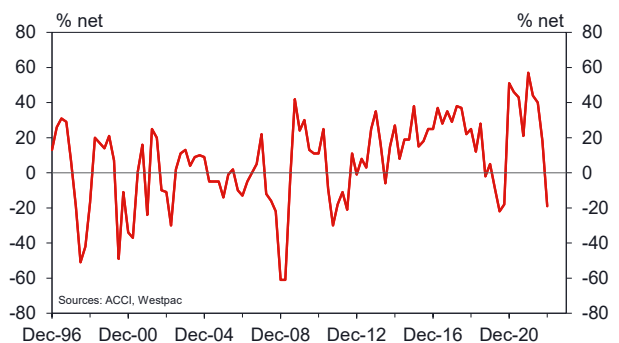


Labour Composite and employment trends



General business situation

Next six months



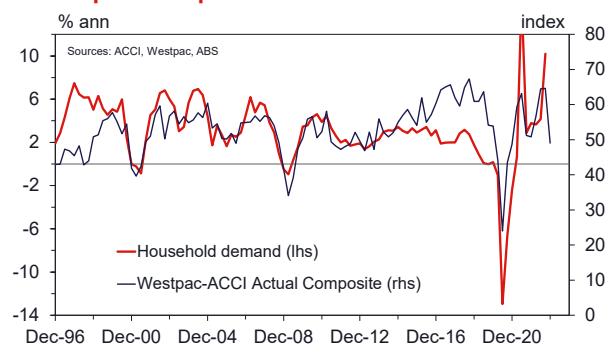
Past performance is not a reliable indicator of future performance. The forecasts given above are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The results ultimately achieved may differ substantially from these forecasts.

The business cycle & economic outlook

Manufacturing & the business cycle

- The Westpac-ACCI Actual Composite index has a solid track record of predicting near-term domestic economic conditions and identifying turning points in the cycle.
- The rebound in activity, associated with the conclusion of lockdowns and tailwinds from earlier policy stimulus, saw a material improvement in economic conditions over most of this year.
- The cycle for manufacturing has since turned, with the fading of the reopening effect, supply headwinds around materials and labour, and surging costs all associated with decelerating economic conditions.
- As interest rates continue to rise and the above headwinds continue to impact, conditions in the manufacturing sector are at risk of slowing further over the period ahead.

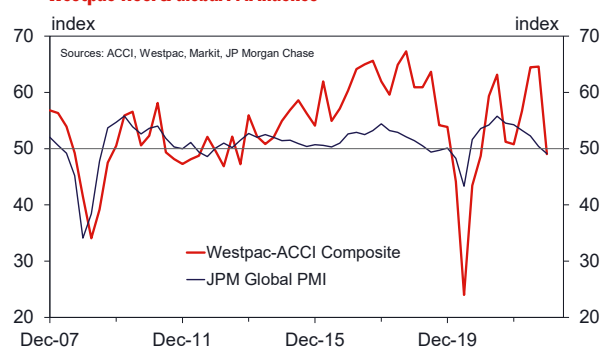
Manufacturing and the business cycle Westpac-ACCI Composite & household demand



Australian & World manufacturing surveys

- Global and Australian manufacturing cycles tend to be synchronised, especially at major turning points. Historically, the Westpac-ACCI Actual Composite has moved broadly in line with global manufacturing conditions.
- Global manufacturing PMIs plummeted in April 2020 at the outset of the pandemic. Subsequently, the sector globally experienced a rapid recovery.
- Moving into the later half of 2022, the manufacturing sector globally has - in aggregate - begun to cool.
- The US manufacturing ISM retreated from its highs earlier this year, now dipping into contractionary territory at 49.0. Eurozone and China manufacturing PMIs are also weak, reflecting a loss of momentum impacted by the Ukraine war and ongoing virus disruptions (47.1 and 49.4 respectively).

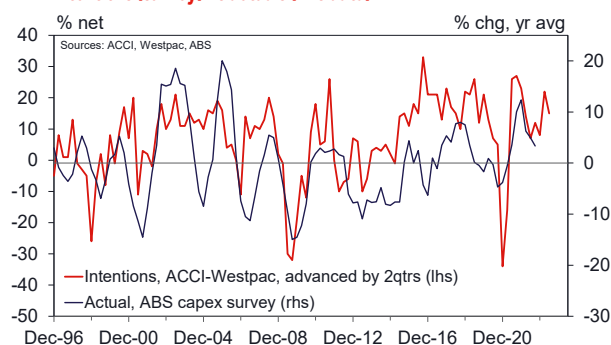
Australian & World manufacturing surveys Westpac-ACCI & Global PMI indexes



Manufacturing & business investment

- The ACCI-Westpac survey has a solid track record of tracking trends in equipment investment across the manufacturing sector.
- The survey finds that manufacturers' investment intentions remain positive, albeit having weakened in the December quarter. A net 15% of respondents intend to increase equipment spending over the next 12 months, down from 22% in September.
- Official ABS data confirm ongoing momentum in equipment spending by the sector and with likely further upside in the near-term.
- The ABS reports that the manufacturing sector expanded equipment spending in the September quarter, to be about 5% higher than levels a year earlier and well up on pre-covid levels.

Manufacturing equipment investment Intentions (survey) vs actuals (ABS data)



Activity & orders

Output (seasonally adjusted)

	Q3 2022	Q4 2022
Actual - net balance	43	10
Expected - net balance	23	14

- The survey indicates the momentum in output growth slowed appreciably in December.
- A net 10% of firms increased output over Q4, down from the series high of 43% in Q3 to be well below the decade-average of 17%.
- The economy is in transition as earlier tailwinds, which supported a period of robust expansion this year, continues to fade, and rising interest rates and elevated costs begin to impact.
- Expectations have continued to ease materially. A net 14% of manufacturers expect output to rise over the next quarter, down from a net 46% and 23% in Q2 and Q3 respectively.

New orders (seasonally adjusted)

	Q3 2022	Q4 2022
Actual - net balance	45	2
Expected - net balance	30	7

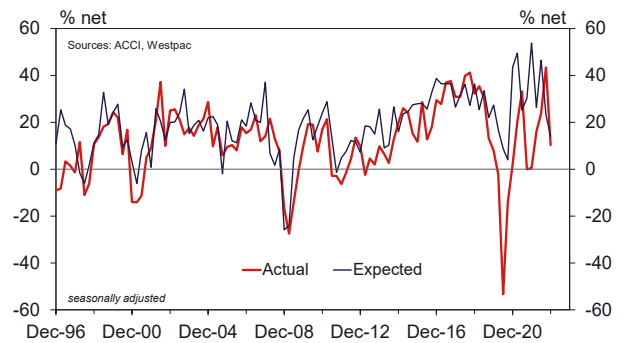
- New orders all but stalled in the December quarter, with only a net 2% of respondents reporting a rise.
- Having fallen from the series high of 45% in Q3, growth in new orders is the softest since Q3 2013, besides the pandemic-related slump over the course of 2020.
- With the strong burst in demand over mid-year now drying up, prospects for new orders have weakened materially.
- The survey reports expectations, which were overly optimistic in the previous update, moderated to a subdued level. A net 7% of firms expect new orders to rise in the next three months, down from 30% three months ago.

Exports

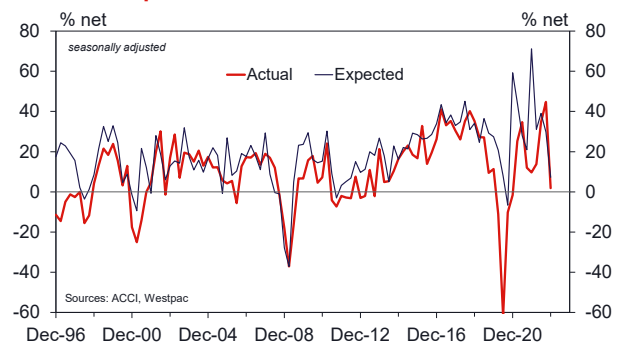
	Q3 2022	Q4 2022
Actual - net balance	4	6
Expected - net balance	3	2

- Exports conditions remain supportive, the survey reports.
- Exports rose over the December quarter, with a net 6% of firms reporting an increase. This marks a continued improvement from Q3, after a run of negative readings on exports since March 2020.
- Headwinds around freight costs and shipping availability have continued to ease, so too domestic disruptions, lending some support to export deliveries.
- Expectations remained positive but subdued in Q4, with a net 2% of respondents anticipating an increase in exports over the next three months.

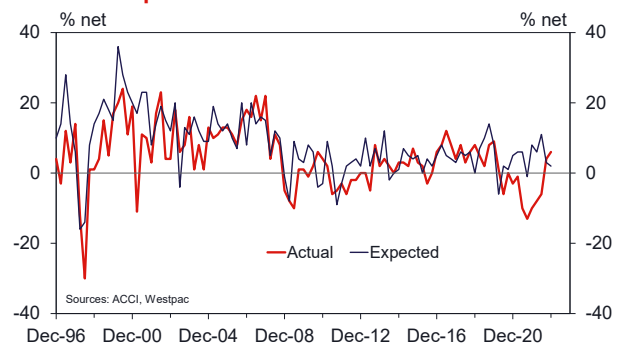
Output growth Actual & expected



New orders Actual & expected



Export deliveries Actual & expected



Investment & profitability

Investment intentions

	Q3 2022	Q4 2022
Plant & Equipment - net balance	22	15
Building - net balance	0	-2

- Investment intentions moderated in the December survey, holding at a positive level.
- Firms are still looking to invest with a greater degree of confidence compared to late 2021, early 2022. Whether firms can meet these expectations given the gloomy outlook is a key question.
- A net 15% of firms are intending to increase plant and equipment investment over the next 12 months, down from the net 22% in Q3 and similar to the net 12% just after the 'delta' outbreak in Q1.
- Building projections for the year ahead remain broadly unchanged and soft, with a net 2% planning a decrease.

Capacity utilisation

	Q3 2022	Q4 2022
Net balance	20	-11

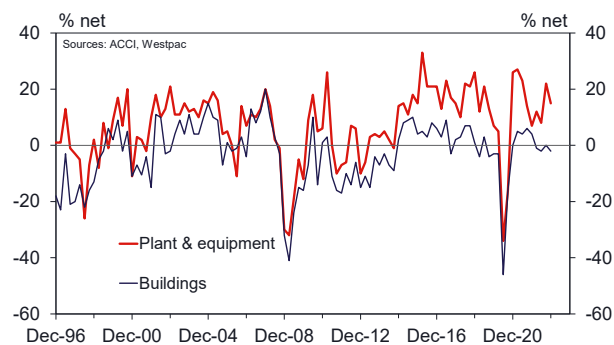
- The surge in demand over the September quarter saw firms operating well beyond normal capacity levels for the first time since 2008.
- In the December quarter, substantially more firms operated at below average capacity - up from 11% to 34%. There were also fewer firms operating at above average capacity - falling from 31% to 23%.
- Overall, a net 11% of manufacturers reported underutilisation, a retreat from the net 20% that reported overutilisation in Q4 - a rare occurrence.
- Ongoing significant supply headwinds - including ongoing material and labour shortages - are impacting the ability of some firms to operate at capacity.

Profit expectations

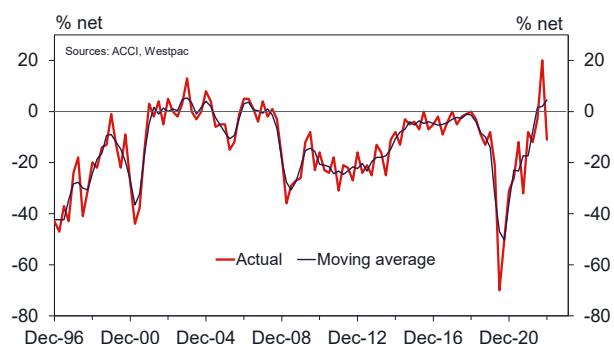
	Q3 2022	Q4 2022
Net balance	8	-13

- The profitability of the manufacturing sector faltered under the weight of intense cost pressures in the September quarter, cooling to a subdued net plus 8%.
- In this update, profit expectations have turned deeply negative. A net 13% of firms anticipate that profits will decline in the coming year. Similar results can only be found in major economic disruptions such as the pandemic, the GFC and the early-90s recession.
- Margins in the manufacturing sector are under intense pressure and the competitiveness of some firms is being significantly eroded, hit by an unprecedented cost crisis, as energy costs spike, and the limited ability to pass on those higher costs.
- Expectations of subdued turnover in the period ahead provides little upside.

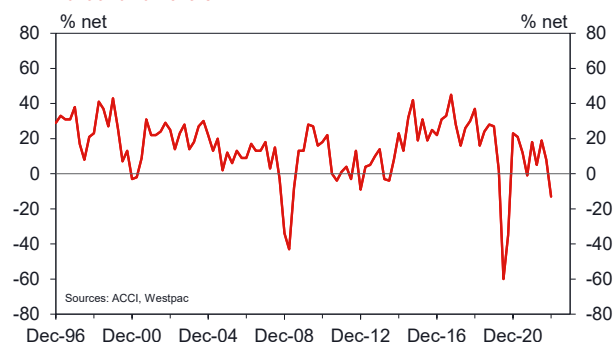
Investment intentions Next twelve months



Capacity utilisation



Profit expectations Next twelve months



Past performance is not a reliable indicator of future performance. The forecasts given above are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The results ultimately achieved may differ substantially from these forecasts.

The labour market

Numbers employed (seasonally adjusted)

	Q3 2022	Q4 2022
Actual - net balance	-1	-12
Expected - net balance	31	16

- The December survey indicates that employment dynamics in the manufacturing sector declined in the period. A net 12% of firms decreased employment in the quarter, more than the net 1% in Q3.
- Firms are continuing to find it difficult to source labour, citing it as the single factor most limiting production at historically elevated levels.
- The collapse in new orders also provides less of an incentive for firms to grow their workforce.
- While employment expectations are positive, at a net 16%, outcomes have fallen well short of expectations for the six quarters since September 2021.

Overtime worked (seasonally adjusted)

	Q3 2022	Q4 2022
Actual - net balance	16	-6
Expected - net balance	16	-1

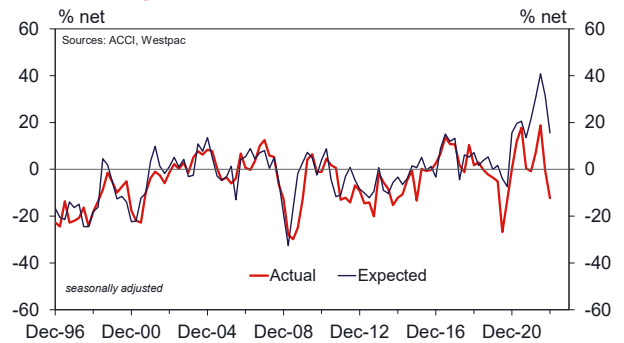
- Consistent with slowing output growth and subdued new orders, the use of overtime saw a further and sizeable decline in the December quarter.
- The survey reports that a net 6% of firms decreased overtime, down from a net 16% that increased overtime in Q3. This matches the levels seen during the onset of the 'delta' outbreak in Q3/Q4 2021.
- Given the gloomy outlook for demand, the use of overtime will likely continue to fall.
- Overtime expectations deteriorated in December, with a net 1% of respondents foreseeing a decrease in overtime in the coming months.

Difficulty of finding labour (seasonally adjusted)

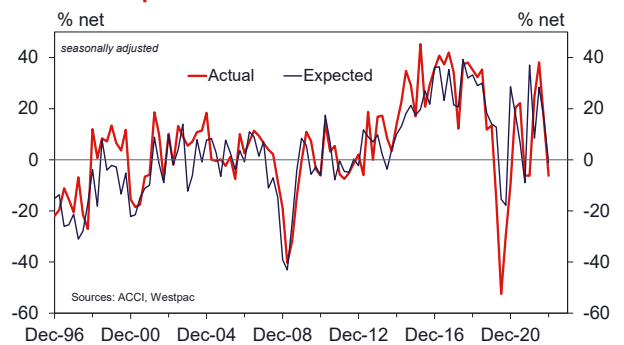
	Q3 2022	Q4 2022
Net balance	67.5	55.4

- The survey provides insights into the tone of the overall labour market. Firms' views on the difficulty of finding labour broadly tracks shifts in the unemployment rate for the Australian economy.
- In this update, it is clear that manufacturers are still facing an intense shortage of labour supply.
- A net 55.4% of respondents indicated that labour was "harder to find", a modest easing from 67.5% last quarter, which is the series high dating back to 1974.
- A critical undersupply of labour, fuelled by illness-related absences and a lack of skilled migrants, has the unemployment rate at 3.4% - the lowest since 1974. With the labour market set to remain tight, firms will likely continue to find difficulty in sourcing labour.

Numbers employed Actual & expected



Overtime worked Actual & expected



Labour market tightness



Past performance is not a reliable indicator of future performance. The forecasts given above are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The results ultimately achieved may differ substantially from these forecasts.

Prices & inflation

Average unit costs

	Q3 2022	Q4 2022
Actual - net balance	59	76
Expected - net balance	31	48

- The survey finds that manufacturers are facing into a cost crisis and a significant loss of competitiveness.
- In the December quarter, a net 76% of firms reported a rise in average unit costs - above the net 59% in Q3 and the highest reading since 1982.
- Both "labour" and "materials" continue to be cited as key constraints to output expansion at historically elevated levels. Surging gas and energy costs are compounding the challenges faced by the sector, eroding profitability through sharply rising costs.
- A net 48% of firms expect average costs to rise in the period ahead. That is up from a net 31% in September - a view which proved to be too optimistic.

Average selling prices

	Q3 2022	Q4 2022
Actual - net balance	27	40
Expected - net balance	25	27

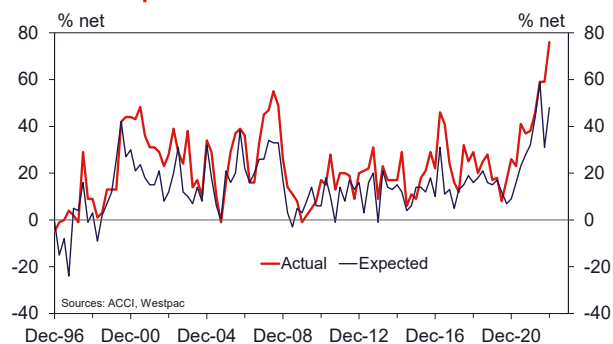
- Margins are being squeezed with only a partial pass through of spiralling costs to consumers. Selling price increases continue to trail the rise in average costs.
- This dynamic was evident again in the December survey and will likely continue. The proportion of firms reporting an increase in selling prices was a sizeable 40% in the period, up from 27% in the last quarter. That is however significantly below the net 76% reporting a rise in average unit costs over the same period.
- A net 27% of respondents expect selling prices will rise over the next three months as intense cost pressures continue - which will see margins squeezed further.

Manufacturing wages

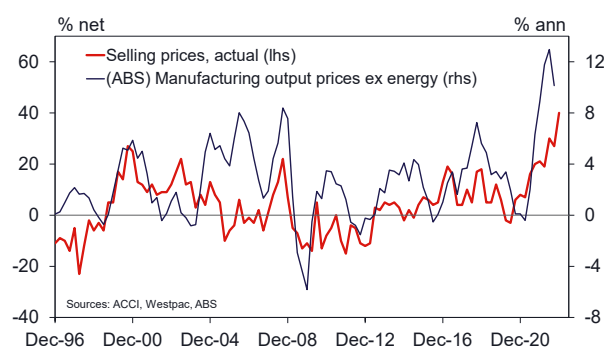
	Q3 2022	Q4 2022
Net balance	26	25

- Wage pressures are building as the labour market tightens further, the survey finds. Respondents expect further upward pressure in future enterprise bargaining agreements.
- In the December quarter, a net 25% of respondents anticipate that their next enterprise wage agreement will deliver an outcome above their last. That is in line with the Q3 reading and up from 15% a year earlier.
- The tone of the survey is broadly consistent with official data on wage trends in the sector. The ABS reports that manufacturing wages are accelerating sharply, with annual growth climbing to around 3.7% - the strongest outcome in a decade.

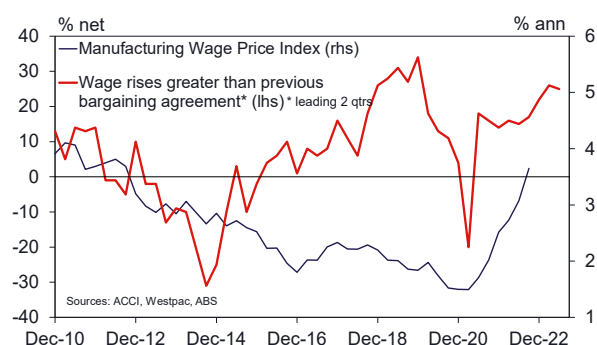
Average unit costs Actual & expected



Manufacturing upstream price pressures



Manufacturing wage growth



Factors limiting production

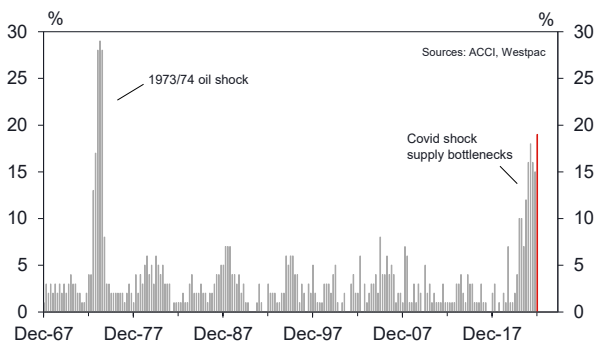
Factors limiting production

- The latest survey confirms that the manufacturing sector is facing ongoing significant supply headwinds.
- Material constraints, emerging from late 2021, intensified in the December quarter, with 19% citing this as the single factor most limiting production - the most acute since the 1973/74 oil shock.
- In line with the dire unavailability of labour, 43% of manufacturers cite "labour" as the single factor most limiting production. This matches the Q3 reading (of 44%), and is broadly in line with the series high in Q2/Q3 1973, associated with the oil shock.
- Firms identifying "other" factors moderated further, from 7% to 1%, as COVID-19 related disruptions continued to fade.
- Respondents citing "orders" as the single factor most limiting production held steady at 26%, well below the long run average of 63%.

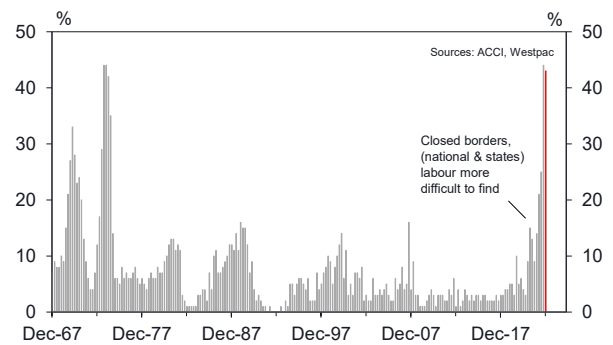
Factors limiting production

	Q2 2022	Q3 2022	Q4 2022
Orders (%)	41	26	26
Capacity (%)	2	6	9
Labour (%)	25	44	43
Finance (%)	2	0	1
Materials (%)	16	15	19
Other (%)	14	7	1
None (%)	0	2	1

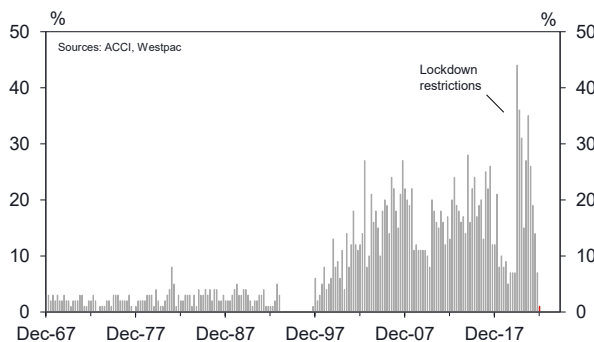
Materials: "single factor" most limiting production



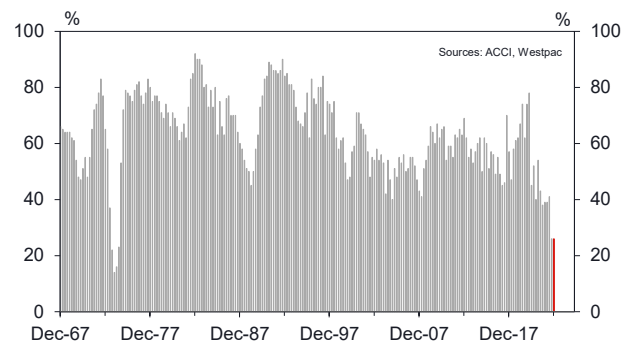
Labour: "single factor" most limiting production



"Other": single factor most limiting production



Orders: "single factor" most limiting production



Past performance is not a reliable indicator of future performance. The forecasts given above are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The results ultimately achieved may differ substantially from these forecasts.

Summary of results (not seasonally adjusted)

1. Do you consider that the general business situation in Australia will improve, remain the same, or deteriorate in the next six months?

Net balance	Improve	Same	Deteriorate
-19	13	55	32

2. At what level of capacity utilisation are you working?

Net balance	Above Normal	Normal	Below Normal
-11	23	43	34

3. What single factor is most limiting your ability to increase production?

None	1	Orders	26
Materials	19	Finance	1
Labour	43	Capacity	9
Other	1		

4. Do you find it is now harder, easier, or the same as it was three months ago to get:

	Net balance	Harder	Same	Easier
(a) labour?	58	59	40	1
(b) finance?	28	30	68	2

5. Do you expect your company's capital expenditure during the next twelve month to be greater, the same, or less than the past year:

	Net balance	Greater	Same	Less
(a) on buildings?	-2	14	70	16
(b) on plant & machinery?	15	24	67	9

Excluding normal seasonal changes, what has been your company's experience over the past three months & what changes do you expect during the next three months in respect of:

	<i>Change in position in the last 3 months</i>				<i>Expected change during the next 3 months</i>			
	Net balance	Improve	Same	Down	Net balance	Improve	Same	Down
6. Numbers employed	-9	17	57	26	16	23	70	7
7. Overtime worked	8	22	64	14	-7	6	81	13
8. All new orders received	17	30	57	13	-1	10	79	11
9. Orders accepted but not yet delivered	-1	9	81	10	-10	1	88	11
10. Output	23	38	47	15	12	19	74	7
11. Average costs per unit of output	76	76	24	0	48	50	48	2
12. Average selling prices	40	42	56	2	27	29	69	2
13. Export deliveries	6	10	86	4	2	5	92	3
14. Stock of raw materials	2	9	84	7	-6	3	88	9
15. Stocks of finished goods	-1	7	85	8	-7	3	87	10

Summary of results (not seasonally adjusted)

16. Over the next twelve months do you expect your firm's profitability to:

(a) Improve?	10
(b) Remain unchanged?	67
(c) Decline?	23
Net balance	-13

17. Do you expect your firm's next wage enterprise deal will produce annual rises which vis-a-vis the previous deal are:

(a) Greater?	25
(b) Same?	75
(c) Less?	0
Net balance	25

A. Industry profile of survey:

	(% of respondents)
Food, beverages, tobacco	34
Textiles, fabrics, floor coverings, felt, canvas, rope	1
Clothing, footwear	1
Wood, wood products, furniture	4
Paper, paper products, printing	4
Chemicals, paints, pharmaceuticals, soaps, cosmetics petroleum & coal products	17
Non-metallic mineral products: glass, pottery, cement bricks	8
Basic metal products: processing, smelting, refining, pipes & tubes	2
Fabricated metal products: structural & sheet metal, coating & finishing, wire, springs, hand tools	6
Transport equipment: motor vehicles & parts, excluding repairs, rail, ships, aircraft, including repairs	2
Other machinery & equipment: electrical, industrial scientific, photographic	15
Miscellaneous: including manufacturers of leather, plastic & rubber, sporting equipment, jewellery	6

B. How many employees are covered by this return?

1-100	101-200	201-1000	Over 1000
33	10	20	37

C. In which state is the main production to which this return relates?

WA	SA	VIC	NSW/ACT	QLD	TAS
13	13	23	30	16	5

The Westpac-ACCI Composite Indices

The Westpac-ACCI Actual and Expected Composite indices are weighted averages of the activity measures in the survey. The weights are as follows: employment 20%; new orders 30%; output 25%; orders accepted but not delivered 15%; overtime 10%.

The Westpac-ACCI Labour Market Composite is a function of actual employment, with a weight of almost 50%, as well as: expected employment; expected overtime; new orders; order backlog; and expected order backlog.



© Copyright 2022 Westpac Banking Corporation

Things you should know.

Westpac Institutional Bank is a division of Westpac Banking Corporation ABN 33 007 457 141 ('Westpac').

Disclaimer

This material contains general commentary only and is not intended to constitute or be relied upon as personal financial advice. To the extent that this material contains any general advice, it has been prepared without taking into account your objectives, financial situation or needs, and because of this, you should, before acting on it, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs, and, the disclosure documents (including any product disclosure statement) of any financial product you may consider. Certain types of transactions, including those involving futures, options and high yield securities give rise to substantial risk and are not suitable for all investors. We recommend that you seek your own independent legal or financial advice before proceeding with any investment decision. This material may contain material provided by third parties. While such material is published with the necessary permission none of Westpac or its related entities accepts any responsibility for the accuracy or completeness of any such material. Although we have made every effort to ensure the information is free from error, none of Westpac or its related entities warrants the accuracy, adequacy or completeness of the information, or otherwise endorses it in any way. Except where contrary to law, Westpac and its related entities intend by this notice to exclude liability for the information. The information is subject to change without notice and none of Westpac or its related entities is under any obligation to update the information or correct any inaccuracy which may become apparent at a later date. The information contained in this material does not constitute an offer, a solicitation of an offer, or an inducement to subscribe for, purchase or sell any financial instrument or to enter a legally binding contract. Past performance is not a reliable indicator of future performance. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The ultimate outcomes may differ substantially from these forecasts.

Country disclosures

Australia: Westpac holds an Australian Financial Services Licence (No. 233714). This material is provided to you solely for your own use and in your capacity as a client of Westpac.

For XYLO Foreign Exchange clients: This information is provided to you solely for your own use and is not to be distributed to any third parties. XYLO Foreign Exchange is a division of Westpac Banking Corporation ABN 33 007 457 141 and Australian credit licence 233714. Information is current as at date shown on the publication. This information has been prepared without taking account of your objectives, financial situation or needs. Because of this you should, before acting on this information, consider its appropriateness, having regard to your objectives, financial situation or needs. XYLO Foreign Exchange's combined Financial Services Guide and Product Disclosure Statement can be obtained by calling XYLO Foreign Exchange on 1300 995 639, or by emailing customer-care@xylo.com.au.

New Zealand: In New Zealand, Westpac Institutional Bank refers to the brand under which products and services are provided by either Westpac or Westpac New Zealand Limited ("WNZL"). Any product or service made available by WNZL does not represent an offer from Westpac or any of its subsidiaries (other than WNZL). Neither Westpac nor its other subsidiaries guarantee or otherwise support the performance of WNZL in respect of any such product. The current disclosure statements for the New Zealand branch of Westpac and WNZL can be obtained at the internet address www.westpac.co.nz. For further information please refer to the Product Disclosure Statement (available from your Relationship Manager) for any product for which a Product Disclosure Statement is required, or applicable customer agreement. Download the Westpac NZ QFE Group Financial Advisers Act 2008 Disclosure Statement at www.westpac.co.nz.

China, Hong Kong, Singapore and India: This material has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (as defined in the applicable Singapore laws and regulations) only. Recipients in Singapore of this material should contact Westpac Singapore Branch in respect of any matters arising from, or in connection with, this material. Westpac Singapore Branch holds a wholesale banking licence and is subject to supervision by the Monetary Authority of Singapore. Westpac Hong Kong Branch holds a banking licence and is subject to supervision by the Hong Kong Monetary Authority. Westpac Hong Kong branch also holds a license issued by the Hong Kong Securities and Futures Commission (SFC) for Type 1 and Type 4 regulated activities. This material is intended only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance. Westpac Shanghai and Beijing Branches hold banking licenses and are subject to supervision by the China Banking and Insurance Regulatory Commission (CBIRC). Westpac Mumbai Branch holds a banking license from Reserve Bank of India (RBI) and subject to regulation and supervision by the RBI.

UK: The contents of this communication, which have been prepared by and are the sole responsibility of Westpac Banking Corporation London and Westpac Europe Limited. Westpac (a) has its principal place of business in the United Kingdom at Camomile Court, 23 Camomile Street, London EC3A 7LL, and is registered at Cardiff in the UK (as Branch No. BR00106), and (b) authorised and regulated by the Australian Prudential Regulation Authority in Australia. Westpac is authorised in the United Kingdom by the Prudential Regulation Authority. Westpac is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. Westpac Europe Limited is a company registered in England (number 05660023) and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

This communication is being made only to and is directed at (a) persons who have professional experience in matters relating to investments who fall within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (b) high net worth entities, and other persons to whom it may otherwise lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). Any person who is not a relevant person should not act or rely on this communication or any of its contents.

Disclaimer continued overleaf

Disclaimer continued

The investments to which this communication relates are only available to and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such investments will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely upon this communication or any of its contents. In the same way, the information contained in this communication is intended for “eligible counterparties” and “professional clients” as defined by the rules of the Financial Conduct Authority and is not intended for “retail clients”. With this in mind, Westpac expressly prohibits you from passing on the information in this communication to any third party. In particular this communication and, in each case, any copies thereof may not be taken, transmitted or distributed, directly or indirectly into any restricted jurisdiction. This communication is made in compliance with the Market Abuse Regulation (Regulation(EU) 596/2014).

Investment Recommendations Disclosure

The material may contain investment recommendations, including information recommending an investment strategy. Reasonable steps have been taken to ensure that the material is presented in a clear, accurate and objective manner. Investment Recommendations for Financial Instruments covered by MAR are made in compliance with Article 20 MAR. Westpac does not apply MAR Investment Recommendation requirements to Spot Foreign Exchange which is out of scope for MAR.

Unless otherwise indicated, there are no planned updates to this Investment Recommendation at the time of publication. Westpac has no obligation to update, modify or amend this Investment Recommendation or to notify the recipients of this Investment Recommendation should any information, including opinion, forecast or estimate set out in this Investment Recommendation change or subsequently become inaccurate.

Westpac will from time to time dispose of and acquire financial instruments of companies covered in this Investment Recommendation as principal and act as a market maker or liquidity provider in such financial instruments.

Westpac does not have any proprietary positions in equity shares of issuers that are the subject of an investment recommendation.

Westpac may have provided investment banking services to the issuer in the course of the past 12 months.

Westpac does not permit any issuer to see or comment on any investment recommendation prior to its completion and distribution.

Individuals who produce investment recommendations are not permitted to undertake any transactions in any financial instruments or derivatives in relation to the issuers covered by the investment recommendations they produce.

Westpac has implemented policies and procedures, which are designed to ensure conflicts of interests are managed consistently and appropriately, and to treat clients fairly.

The following arrangements have been adopted for the avoidance and prevention of conflicts in interests associated with the provision of investment recommendations.

- I. Chinese Wall/Cell arrangements;
- II. physical separation of various Business/Support Units;
- III. Strict and well defined wall/cell crossing procedures;
- IV. a “need to know” policy;
- V. documented and well defined procedures for dealing with conflicts of interest;
- VI. reasonable steps by Compliance to ensure that the Chinese Wall/Cell arrangements remain effective and that such arrangements are adequately monitored.

U.S.: Westpac operates in the United States of America as a federally licensed branch, regulated by the Office of the Comptroller of the Currency. Westpac is also registered with the US Commodity Futures Trading Commission (“CFTC”) as a Swap Dealer, but is neither registered as, or affiliated with, a Futures Commission Merchant registered with the US CFTC. Westpac Capital Markets, LLC (“WCM”), a wholly-owned subsidiary of Westpac, is a broker-dealer registered under the U.S. Securities Exchange Act of 1934 (“the Exchange Act”) and member of the Financial Industry Regulatory Authority (“FINRA”). This communication is provided for distribution to U.S. institutional investors in reliance on the exemption from registration provided by Rule 15a-6 under the Exchange Act and is not subject to all of the independence and disclosure standards applicable to debt research reports prepared for retail investors in the United States. WCM is the U.S. distributor of this communication and accepts responsibility for the contents of this communication. All disclaimers set out with respect to Westpac apply equally to WCM. If you would like to speak to someone regarding any security mentioned herein, please contact WCM on +1 212 389 1269. All disclaimers set out with respect to Westpac apply equally to WCM.

Investing in any non-U.S. securities or related financial instruments mentioned in this communication may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the SEC in the United States. Information on such non-U.S. securities or related financial instruments may be limited. Non-U.S. companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect in the United States. The value of any investment or income from any securities or related derivative instruments denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related derivative instruments.

The author of this communication is employed by Westpac and is not registered or qualified as a research analyst, representative, or associated person under the rules of FINRA, any other U.S. self-regulatory organisation, or the laws, rules or regulations of any State. Unless otherwise specifically stated, the views expressed herein are solely those of the author and may differ from the information, views or analysis expressed by Westpac and/or its affiliates.

