



Australia

Country Insights and Commodity Report

Q1 2022



Australia

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Following a strong start to 2021, the return of health restrictions and lockdowns with the outbreak of the Omicron variant impacted, and annual growth stood at 3.5%. According to the February 2022 estimates of the Reserve Bank of Australia (RBA), the economy is forecasted to expand by 4.25% this year, buoyed by increased household spending, an improvement in business investment and robust macroeconomic policies.

Although the tightening of restrictions in some states in Q3 impacted construction, with a temporary suspension of some activity and workforce capacity limits, 2.2% growth was recorded in 2021, buoyed by residential demand stemming from the HomeBuilder programme. This growth is expected to accelerate to 4.7% in 2022. As is the case globally, the current material price inflation being seen, coupled with supply chain challenges, which are being driven by the Russia-Ukraine conflict, is presenting a downside risk to the industry.

As material costs will continue to represent a challenge for the construction industry for the foreseeable future, Linesight will publish quarterly updates to track commodities and provide insights about future projections on movements.



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Lumber

Although domestic lumber prices have not been as volatile as those in other major markets, supply disruptions have resulted in shortages of lumber in recent quarters, impacting progress on construction projects. According to the Australian Forest Products Association (AFPA) CEO, Ross Hampton, there are concerns over the potential for Australia to face a serious shortage of timber for residential construction in future, with the decline in imported timber amid the COVID-19 disruption revealing that Australia has generally been too dependent on imports to fill the building supply gaps.



Concrete and aggregates

Owing to continued high demand from growth in buildings construction, concrete and cement prices are set to face upward pressure in the coming quarters. The residential sector is expected to expand by 4.1% in real terms this year, supported by strong residential demand, accommodative interest rates and various government initiatives. High transportation costs stemming from the jump in global oil prices will also contribute to the relatively high price level.



Concrete blocks and bricks

As is the case with cement and concrete prices, solid demand from the construction industry will ensure that brick prices remain relatively high, with higher production costs also being a key factor behind this trend.



Steel (rebar and structural)

Steel prices had been expected to ease this year following the upward trend in 2021, but global supply disruptions that will ensue in the aftermath of the Russia-Ukraine conflict will likely keep prices elevated in 2022. Domestic demand will also remain solid given the planned increase in public infrastructure construction, with significant increases of expenditure outlined in the FY2021/22 Federal Budget. Further investment of AU\$15.2 billion on new infrastructure works over the next ten years was announced in the budget, increasing the ten-year infrastructure pipeline to AU\$110 billion.



Copper

Copper prices rose sharply throughout 2021, owing to high demand and global shortages. Improvements on the supply side were expected to contain inflationary pressures in 2022, but the Russia-Ukraine conflict has shaken the market, and this resulted in a further jump in prices in March.

Australia - Commodity Report



Materials	Q3 Q4 2021		Q3 Q4 2022 (f)		Q4 - Q1 (e)
	AUS	AUS	2021-22 (f) % change	% change	2022
Copper (AU\$/MT)	13,141.1	14,818.3	12.8% ↑	4.6% ↑ ●	
Steel rebar (AU\$/MT)	999.5	1,166.8	16.7% ↑	2.8% ↑ ●	
Steel flat (AU\$/MT)	1,124.0	1,209.7	7.6% ↑	-0.1% ↓ ■	
Lumber (AU\$/M3)	141.5	135.3	-4.4% ↓	-1.2% ↓ ●	
Asphalt (AU\$/MT)	1,230.4	1,369.5	11.3% ↑	3.9% ↑ ●	
Limestone (AU\$/MT)	51.5	60.3	17.1% ↑	20% ↑ ●	
Cement (AU\$/MT)	486.9	544.9	11.9% ↑	7.1% ↑ ●	
Concrete (AU\$/M3)	320.0	336.9	5.3% ↑	0% → ■	
Welded mesh (AU\$/unit)	98.5	102.4	4% ↑	0% → ■	
Bricks (AU\$/'000 unit)	1,553.0	1,753.6	12.9% ↑	6.7% ↑ ●	
Plasterboard (AU\$/unit)	34.8	35.4	2% ↑	2% ↑ ●	
Diesel (AU\$/litre)	1.4	1.97	41.5% ↑	21.8% ↑ ●	

Q3 Q4 2021: Average **Q3 Q4 2022 (f):** Forecasted average
2021-22 % change: % change from Q3 Q4 2021 average to Q3 Q4 2022 average
● Q4 to Q1 2022 % change greater than estimation in our Q4 report
■ Q4 to Q1 2022 % change less than estimation in our Q4 report

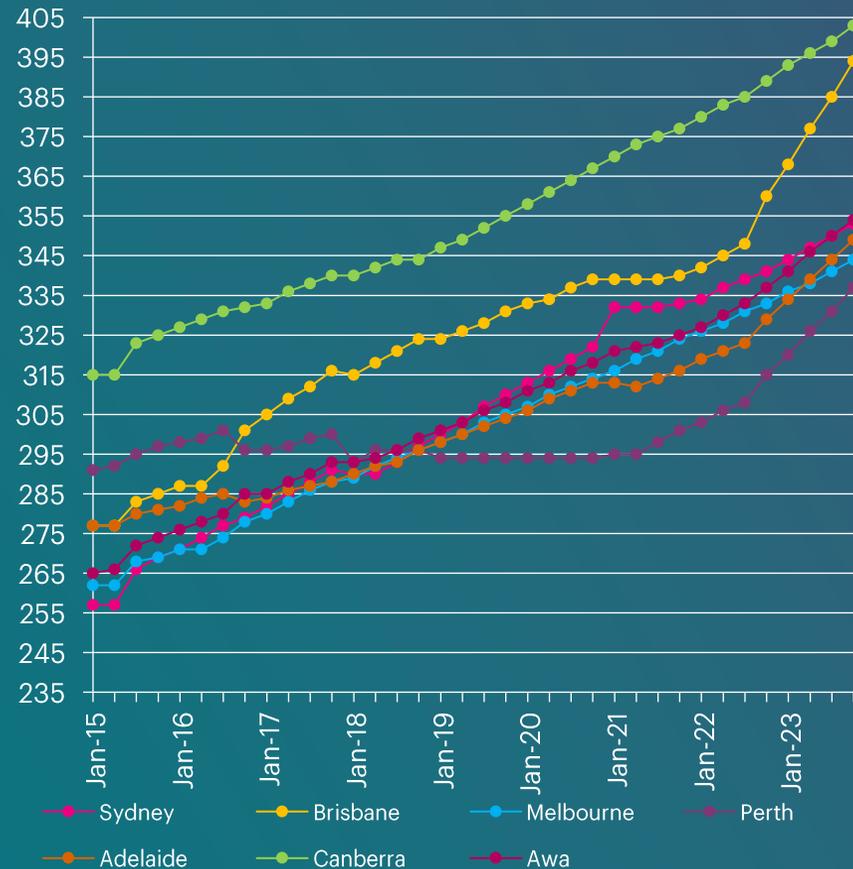
Material	% change Q1 – Q2 2022 (f)	Level of impact of pricing on construction procurement and supply chain *
 Metal prices - Copper - Steel rebar - Flat steel	+3% ↑ +6% ↑ +6% ↑	 High Although domestic price pressures can be contained, given that Australia is a leading producer of copper and has significant reserves, prices have been rising sharply pushed up by stronger global demand and reduced copper production. Price pressures had been expected to ease in 2022, primarily driven by an increase in the production globally and China, but the Russia-Ukraine conflict has created concerns over supply disruption as and increased the risk premium. Having fallen from a high level in October last year, steel prices have been rising steadily since November. Prices were expected to be heading downwards this year, but in the wake of the current conflict, the outlook has changed, with disruptions in supplies from Russia and Ukraine expected to impact global flows, and therefore, contribute to further upwards pressure. Additionally, higher energy costs will prevent prices from falling from current lows in the coming quarters.
 Cement Concrete	+2.2% ↑ +2.2% ↑	 Moderate Demand for concrete and cement will remain high as construction output continues to rise, driven by significant expansion in public infrastructure construction works, as well as residential building. Although domestic supply is expected to improve, higher energy costs will push up production costs.
 Asphalt	+1.5% ↑	 High Domestic demand, which is primarily met through imports, has been improving amid the expansion in construction activity in road infrastructure, and combined with a rise in international crude oil prices, asphalt prices were relatively high in 2021. Given the further jump in crude prices expected in 2022, asphalt prices are to stabilise, asphalt prices will be marginally weaker in the coming quarters.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.

Australia - Commodity Report



Building cost index by capital city



Knoema World Data Atlas

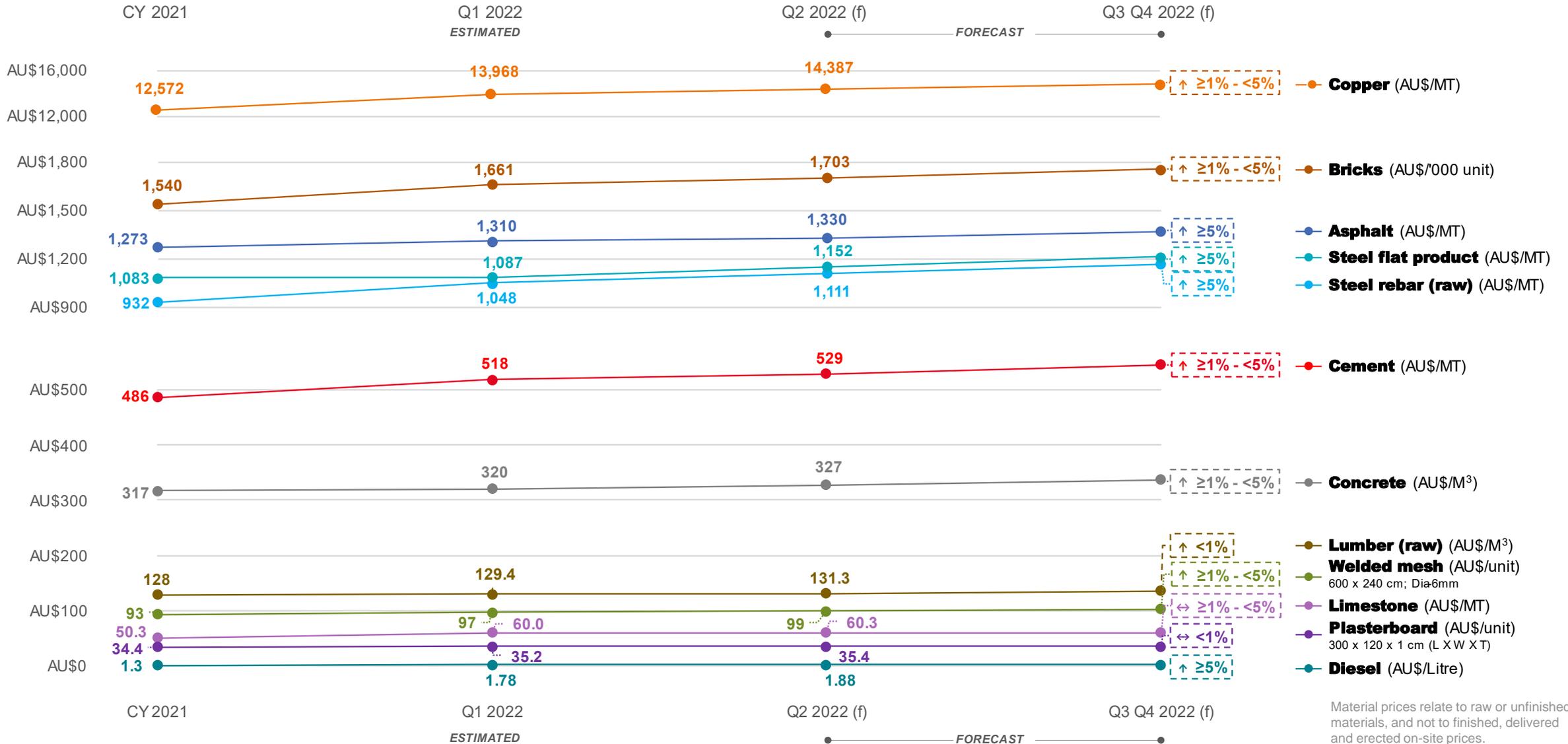
Index of economic freedom **82.40 out of 100**

Material	% change Q1 – Q2 2022 (f)	Level of impact of pricing on construction procurement and supply chain *	
Limestone	+0.5% ↑	Low	There has been a steep increase in limestone prices in the past quarter, but with balanced demand in the market, prices will remain relatively stable in the coming quarters.
Lumber	+1.5% ↑	High	Strong domestic demand and disruptions in supply chains are major factors in keeping lumber prices relatively high. Residential construction will be bolstered by federal and state government initiatives to underpin new housing demand.
Welded mesh	+2.5% ↑	High	The price of welded mesh is heavily impacted by steel rebar prices. Prices are expected to show a moderate upward trend in Q2 2022.
Bricks	+2.5% ↑	High	The positive outlook for residential construction will keep brick prices at relatively high levels, with further pressure on prices stemming from higher production costs, driven up by increased energy costs.
Plasterboard	+0.7% ↑	Low	Plasterboard prices will remain elevated, due to the positive outlook in the residential sector, and spurred on by higher production costs due to the surge in energy prices.
Diesel	+5.6% ↑	High	Australia's diesel price, which is benchmarked against Singapore's price, continued on a steady upward trend in Jan-Feb 2022, before rising sharply in March amid the impact of the Russia-Ukraine conflict on global crude oil prices. Prices will remain high in 2022, significantly above levels in recent years.

* Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

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Australia - Construction Materials Pricing (2021-2022)



Material prices relate to raw or unfinished materials, and not to finished, delivered and erected on-site prices.

Australia - Macroeconomic overview



Economic indicators



4.25%

GDP growth in 2022 (f) and 3.54% in 2021



2.09% inflation rate for 2022 (f), and 2.50% for 2021



13.22M people employed in 2022 (f) and 13.02M in 2021



4.81% Unemployment rate in 2022 (f) and 5.23% in 2021



119.4

Consumer Price Index in 2022 (f) and 116.1 in 2021

Weather conditions



6°C to 26°C

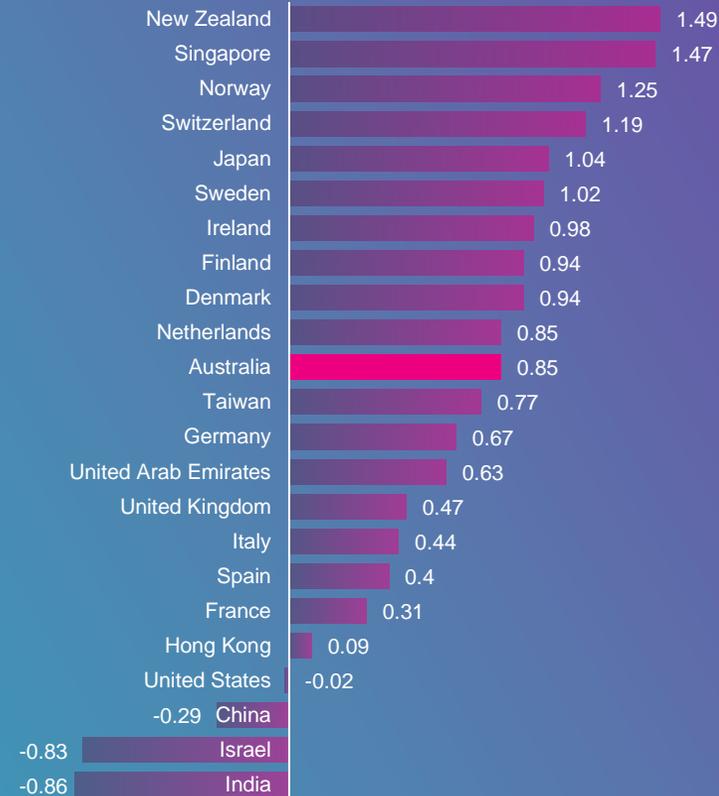
Typical temperature range throughout the year



531mm

Average annual rainfall in Melbourne.

Political stability



Political stability index (-2.5 weak; 2.5 strong)

The index of Political Stability and Absence of Violence/ Terrorism measures perceptions of the likelihood that the government will be destabilised or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.

National holidays

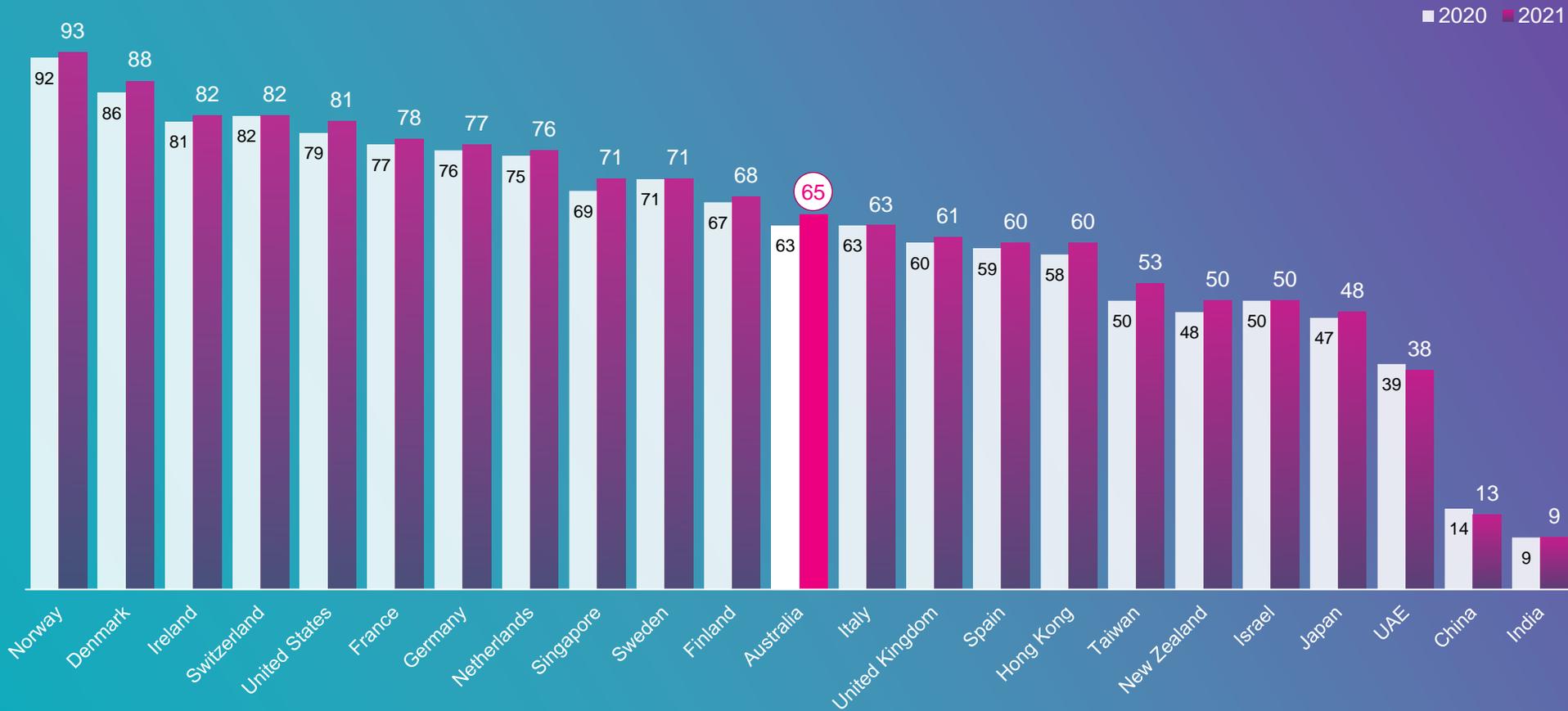


7 public holidays in Australia each year. Most holidays are taken during December. 10 days for Christmas period (from 23rd December to 3rd January).

Australia - Macroeconomic overview



Labour productivity



Labour productivity per hour worked in 2020 international dollars, converted using Purchasing Power Parities

Labour costs

AUD33

is the average hourly earnings or

AUD69,367

average construction worker gross salary in Australia.

While an entry level construction worker (1-3 years of experience) earns an average salary of **AUD51,740**, a senior level construction worker (8+ years of experience) earns an average salary of **AUD84,254**.

\$65

is the labour productivity per hour worked in 2021 international dollars, and \$63 in 2020 (converted using Purchasing Power Parities)

Australia - Construction overview



Output 2021 and 2022(f) (in millions)

Sector	Total 2021	Total 2022 (f)	% change
 Commercial	AU\$ 32,775.14	AU\$ 34,509.80	5.3%
 Energy and utilities	AU\$ 40,456.91	AU\$ 42,860.73	5.9%
 Industrial	AU\$ 15,152.40	AU\$ 15,652.51	3.3%
 Infrastructure	AU\$ 33,860.51	AU\$ 35,554.87	5%
 Institutional	AU\$ 1,278.02	AU\$ 1,301.62	1.8%
 Residential	AU\$ 76,400.11	AU\$ 79,565.97	4.1%
Total output	AU\$ 214,867.52	AU\$ 224,950.63	4.7%

Long-lead equipment (LLE) – time risks

Long-lead equipment (LLE) lead times have changed drastically since the start of 2022. Suppliers have seen the implications of material shortages, delays and price hikes throughout the supply chain which is leading to extended lead times and reduced commitment from suppliers for new projects. The key areas in focus are:

- Demand:** The demand for long lead equipment in the data sector has increased exponentially with the IT boom. More and more data centre and crypto mining providers are joining the market and this new demand far outweighs the capacity of the supply chain. Entry onto the production line has become a significant challenge with suppliers reporting fully booked capacity until Q1 2023. Opportunities exist for the development of Tier 2 and Tier 3 suppliers to Tier 1 status however that will take time to develop an extended supply chain.
- Material shortage:** The end of Q1 2022 saw a significant drop in the availability of raw materials used for LLE production. Global factors such as the conflict in Ukraine and the resurgence of COVID19 has halted production which is at its lowest levels in recent years. The ethical approach, which is to manoeuvre away from the use of Russian gas and oil, has reduced production levels and added longer lead times within the supply chain – even for APAC, as the European impact is felt. The raw material shortages are expected to continue into Q2 2022, whilst there is uncertainty for the security of the supply chain.
- Freight durations and costs:** Heightened by the increase in fuel costs and compounded by the shortage of labour and low supply of shipping containers, freight durations have soared as suppliers look for ways to mitigate these challenges. The demand for freight services has grown across all markets in recent years and the competition amongst industries has had a negative effect on availability and durations. As clients consider alternative solutions, it almost becomes cost prohibitive to use quicker forms of transport such as air freight due to increasing fuel costs.

Construction health & safety practices and culture



The Australian Work Health and Safety Strategy 2012–2022 identified the construction industry as a priority, as a result of the high number and rate of work-related fatalities, as well as serious injuries.



1.5
fatalities per 100,000
workers in Australia.



3.1
fatalities per 100,000
workers in construction
industry.

Australia – Average construction costs



Building type	Cost range (low-high)		
Commercial offices			
Suburban, naturally ventilated			
Shell and core (2 storey)	\$1,638	\$1,741	per sq.m.
Developer standard	\$1,828	\$1,941	per sq.m.
Extra for air conditioning	\$309	\$361	per sq.m.
City centre, air conditioned			
Shell and core (7-20 Storey)	\$3,599	\$3,881	per sq.m.
Developer standard (CAT A)	\$3,866	\$4,168	per sq.m.
Office fit-out			
95% open-plan, no catering	\$686	\$753	per sq.m.
75% open-plan, limited catering	\$1,106	\$1,173	per sq.m.
60% open-plan, full catering	\$2,427	\$2,606	per sq.m.
Corporate HQ	\$3,584	\$4,096	per sq.m.
High-tech industrial			
Shell and core	\$835	\$896	per sq.m.
Fit-out	\$2,542	\$2,743	per sq.m.

Building type	Cost range (low-high)		
Residential			
Estate house (approx. 100sq.m.)	\$1,313	\$1,416	per sq.m.
Purpose-built student accommodation (incl. FF&E)	\$3,477	\$3,748	per sq.m.
Apartments - suburban/city edge, air conditioned			
BTR - 3 storey (incl. FF&E)	\$2,422	\$2,610	per sq.m.
BTS - 3 storey	\$2,243	\$2,417	
Apartments - urban			
BTR - 5-8 storey (incl. FF&E)	\$2,665	\$2,781	per sq.m.
BTR - 12-15 storey (incl. FF&E)	\$3,465	\$3,616	per sq.m.
BTS - 5-8 storey	\$2,468	\$2,575	per sq.m.
BTS - 12-15 storey	\$3,208	\$3,348	per sq.m.
Co-living	\$2,381	\$2,565	per sq.m.
Shopping centres			
Anchor unit	\$1,440	\$1,500	per sq.m.
Unit shops	\$1,869	\$2,017	per sq.m.
Mall	\$3,069	\$3,312	per sq.m.
Retail fit-out	\$228	\$228	per sq.m.

Australia – Average construction costs



Building type	Cost range (low-high)		
Warehouses			
Without offices	\$824	\$891	per sq.m.
With 10% offices	\$942	\$1,015	per sq.m.
Healthcare			
Tertiary care (District - 60 Bed)	\$4,265	\$4,598	per sq.m.
General hospital	\$6,963	\$7,504	per sq.m.
Nursing home	\$2,427	\$2,616	per sq.m.
Car park			
Surface	\$3,021	\$3,246	per space
Multistorey	\$24,658	\$26,604	per space
Undercroft	\$701	\$758	per space
Single-level basement	\$37,800	\$42,100	per space
Double-level basement	\$42,550	\$47,230	per space
Basement (no car parking)			
Shower and changing facilities	\$2,483	\$2,678	

Building type	Cost range (low-high)		
Education			
Primary-level	\$1,700	\$1,833	per sq.m.
Second-level	\$2,222	\$2,396	per sq.m.
Third-level (Lecture Theatre)	\$3,948	\$4,255	per sq.m.
Leisure			
Hotel building 3-4* (incl. FF&E)	\$4,347	\$4,687	per sq.m.
Hotel building 5* (incl. FF&E)	\$6,263	\$6,752	per sq.m.
Aparthotels (Includes fitout)	\$3,838	\$4,138	per sq.m.
Cinema (suburban)	\$8,929	\$9,626	per sq.m.
Cinema (inner city)	\$12,944	\$13,957	per sq.m.
Sports hall	\$1,459	\$1,572	per sq.m.
Municipal			
Fire station	\$2,473	\$2,668	per sq.m.
Courthouse (Law Courts)	\$6,088	\$6,564	per sq.m.
Courthouse (Magistrates Court Suburban)	\$2,790	\$3,006	per sq.m.

Notes:

- Costs are based on March 2022 prices and based on gross floor area. Average costs as indicated should not be used for insurance valuation purposes. The costs are representative of typical valuations for each type of project. Unique designs or challenging sites may not be within the cost range shown. The rates shown are average construction build only and do not include taxes, professional fees, any other soft costs, or allow for future inflation.
- The building costs noted above for the various building types are exclusive of site development costs and external works, which can vary significantly based on the specific site.
- The costs associated with brownfield sites can vary significantly and the building costs above exclude abnormal contamination.
- The basic building costs above exclude basement construction costs. Should a basement be required, this should be costed separately.
- Costs per car parking space assume a large, efficient car park layout. Note that this relates to pure car parking areas, and additional basement spaces such as bicycle parking, plant rooms, shower and changing facilities are not accounted for, and should be costed separately.
- Costs exclude further market-driven forces associated with COVID-19, and the Russia-Ukraine conflict.

Australia - Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices. The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications. A more comprehensive list of sources is included below.

Definitions

- Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – Australia

For Australia, sources for this report include, but are not limited to:

- IMF
- Economy.com
- The Global Economy
- Weather Spark
- ABS
- AIQS
- Safe Work Australia
- GlobalData's Construction Intelligence Center (CIC)
- Conference-board.org

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