



SUPPLY CHAIN AND CONSTRUCTION COSTS

SNAPSHOT REPORT

August 2022.

Purpose of this report.

The purpose of this report is for the Institute to officially recognise that, in mid-2022, the construction sector continues to experience supply chain shortages and price rises which in turn impacts the construction and building projects in which Architects are engaged. This information may be useful for Institute members to pass on to their clients.

Shortages – general comment

Shortages may include processed or manufactured construction materials such as structural and finishing timbers, insulation, dry-walling (e.g. plaster board), bricks and other cladding material. Shortages can also include manufactured fittings and pre-fabricated building elements.

Supply chain shortages may result from difficulties in sourcing the input raw materials, component materials or parts. These shortages may originate locally or overseas. Delays and/or shortages may result from the specific industries responsible for accessing, processing, manufacturing, fabricating or assembling.

Shortages may also arise from logistics steps in packaging, warehousing, transport, containerising, international cargo, customs, and distribution both overseas and in Australia.

A further dimension to shortages includes labour supply, especially qualified tradespersons and skilled occupations who either construct buildings, undertake specific works, as well as fit or install fittings or service systems.

We note that climate change related events such as the Queensland and New South Wales floods and the 2021 Victorian storms also create additional demand for complete rebuilding or major repairs to large numbers of residential dwellings and other building classes such as retail and commercial buildings, schools, aged and healthcare and community infrastructure.

The Covid-19 pandemic of the past two and a half years has led to marked reduced in migration inflows of various classes of skilled construction sector workers and professionals into Australia. Locally as the 2022 Covid winter peak creates some of the largest daily incidence and prevalence of cases seen in Australia since the start of the pandemic, the construction sector and related manufacturing and supply workforces are equally impacted as the rest of the population by the immediate illness impacts and /or the isolation measures required across the states and territories.

Indicators of shortages.

Indicators of shortages can include direct measures such as unfilled orders, delays in filling orders, as well as second- and third-degree measures such as the volume of orders and price increases.

This can then result in delayed completions. Other indicators can include the resulting impact on building prices. Drivers for demand for materials and labour may be evident in building permits, commencements and loans data.

Impacts for Architects.

The shortages may have impacts including:

Delaying building projects. This is of particular importance when Architects are also administering a building contract and extension of time or cost claims clauses may become activated.

Needing to source alternative materials. Notwithstanding the original principal's project requirements brief, materials shortages may also require Architects to work with the client and/or contractor to seek appropriate substitutions that comply with:

- the National Construction Code,
- Australian Standards,
- Statutory Codes or Regulations,
- Local Government by-laws, or
- other locally defined or implemented planning provisions, standards or conditions of permit.

Business impacts. Price increases to total construction costs as well as increased time spent in aforementioned contract administration and sourcing alternatives may have impacts on financial performance of an Architect's practice. Longer term stagnation in construction, as so-called rebound effect in an over-stimulated economy where demand is greatly in excess of supply and there are inflationary impacts may lead to a situation of stagnation where potential developers or owners delay projects.

The Australian Bureau of Statistics Construction Input Index.

The Australian Institute of Architects does not create its own data about construction prices as Architectural Practices are not a primary reference point for construction costs. Considerable resources are required to undertake sampling reliably at scale that is both valid and reliable.

Moreover the Australian Bureau of Statistics maintains long term authoritative data created through robust sampling methodology that industry and the general population can all readily access.

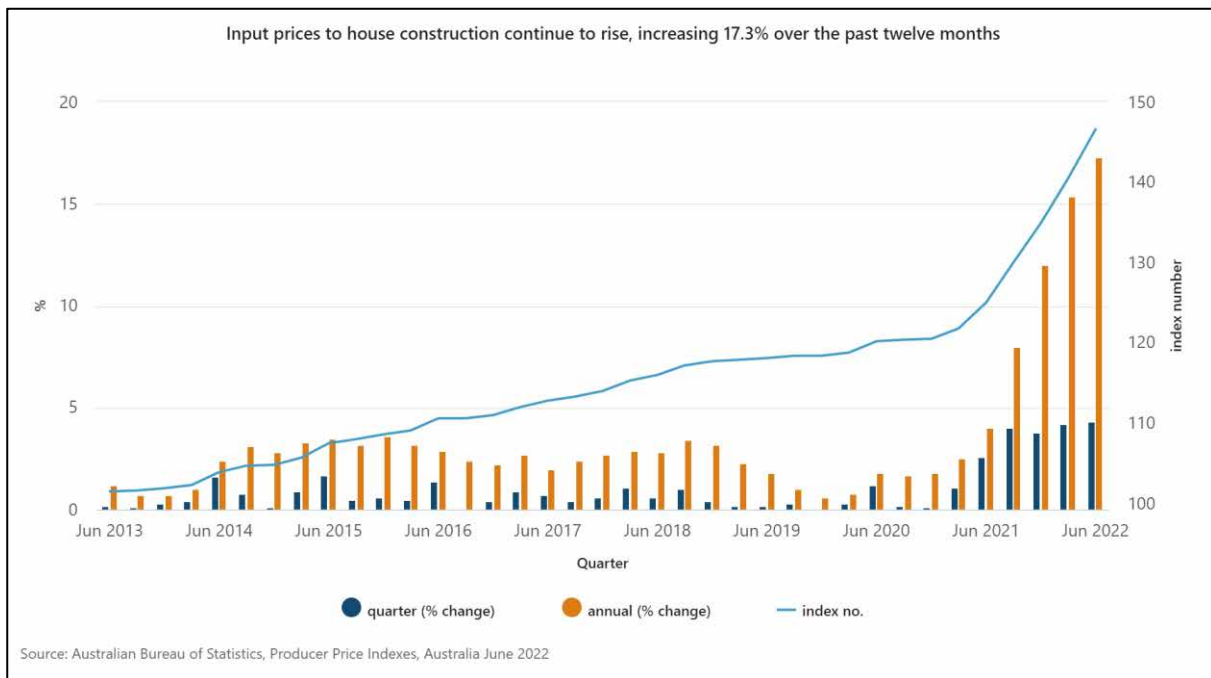
The following data below are excerpts from Producer Price Indexes, Australia released on 29 July 2022 for the June 2022 reference period. This report can be found at

<https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/producer-price-indexes-australia/latest-release>

1. April - June 2022 quarter input prices to the house construction industry rose 4.3%

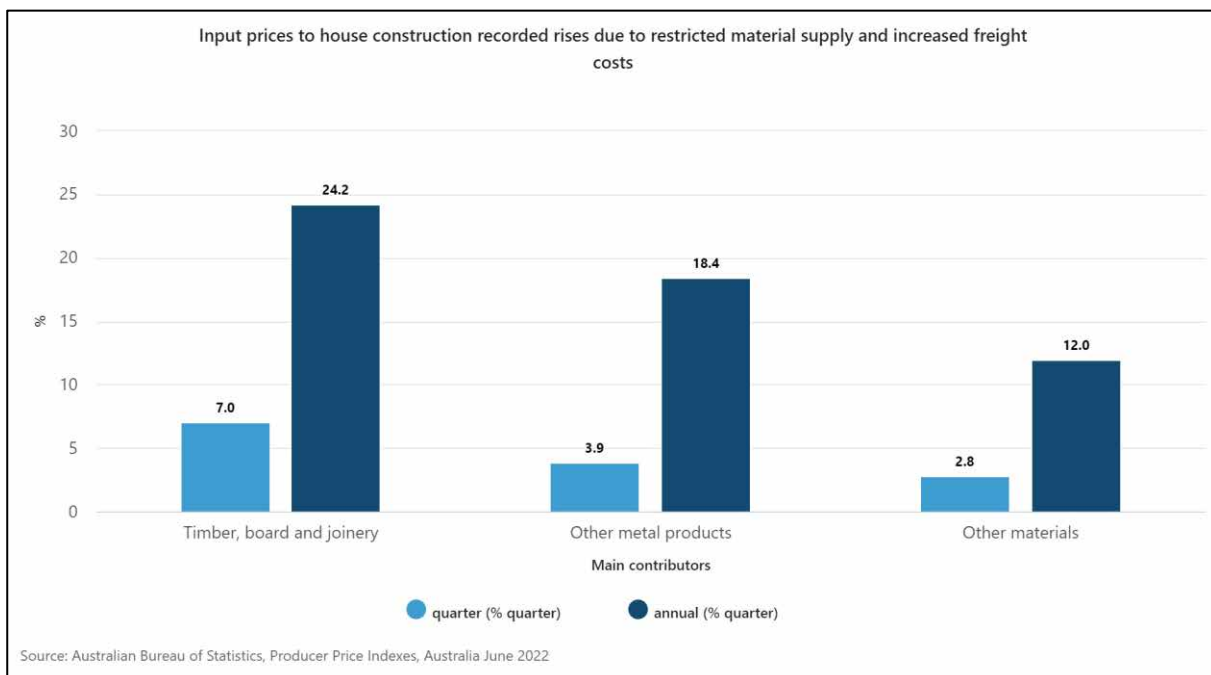
Input prices to house construction rose 4.3% this quarter, primarily due to timber and other metals, driven by supply shortages and strong demand. Suppliers are passing through more of the price increases as ongoing supply constraints of building materials is unable to meet demand across house construction.

2. Over the past twelve months, input prices to house construction rose 17.3%, due to; Timber, board and joinery (+24.2%) and other metal products (+18.4%).



3. Input prices to house construction rose in line with rising costs and increased demand for building materials. The main contributors were:

- *Timber, board and joinery (+7.0%), driven by timber windows (+14.7%), due to ongoing supply constraints for timber, and strong freight prices.*
- *Other metal products (+3.9%), driven by aluminium windows and doors (+4.9%), due to increased raw material prices, tight supply and strong global demand.*
- *Other materials (+2.8%), driven by insulation (+8.4%), due to price rises for insulation materials, global production disruptions and strong freight prices.*

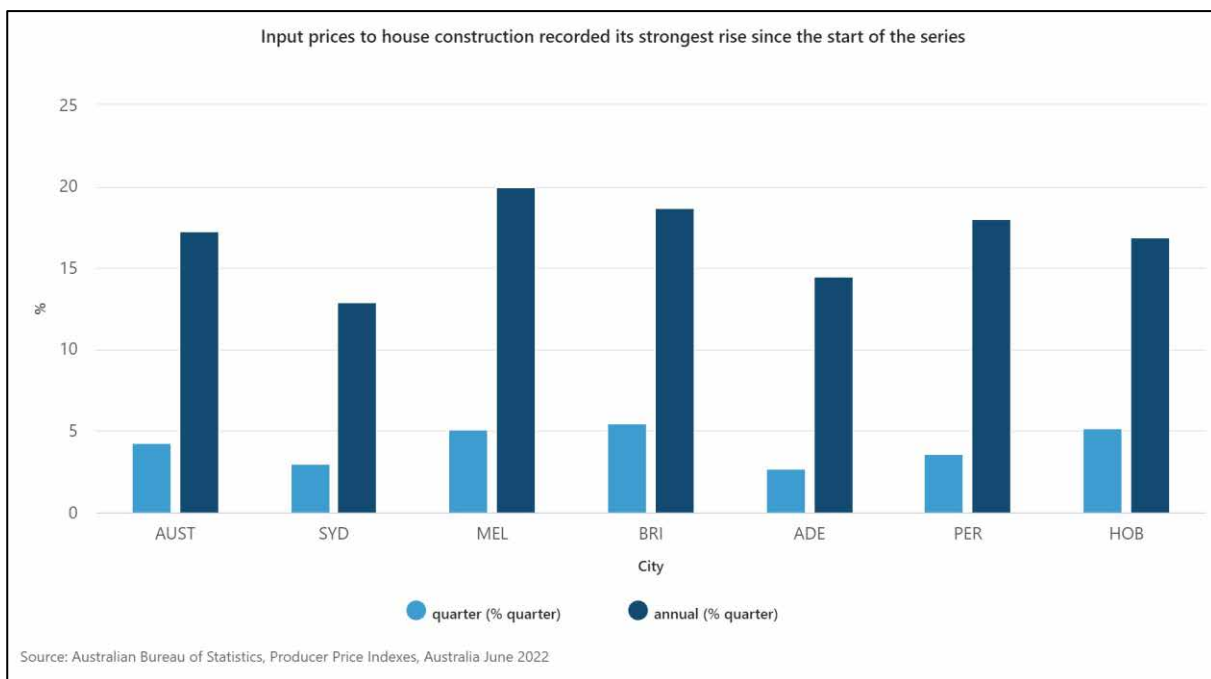


4. There were strong state capital city price movements (territories' prices are not sampled).

Quarterly rises were:

- Sydney (+3.0%), driven by Timber, board and joinery (+3.1%).
- Melbourne (+5.1%), driven by Timber, board and joinery (+9.2%).
- Brisbane (+5.5%), driven by Timber, board and joinery (+10.4%).
- Adelaide (+2.7%), driven by Timber, board and joinery (+3.8%).
- Perth (+3.6%), driven by Other materials (+3.3%).
- Hobart (+5.2%), driven by Other metal products (+14.2%).

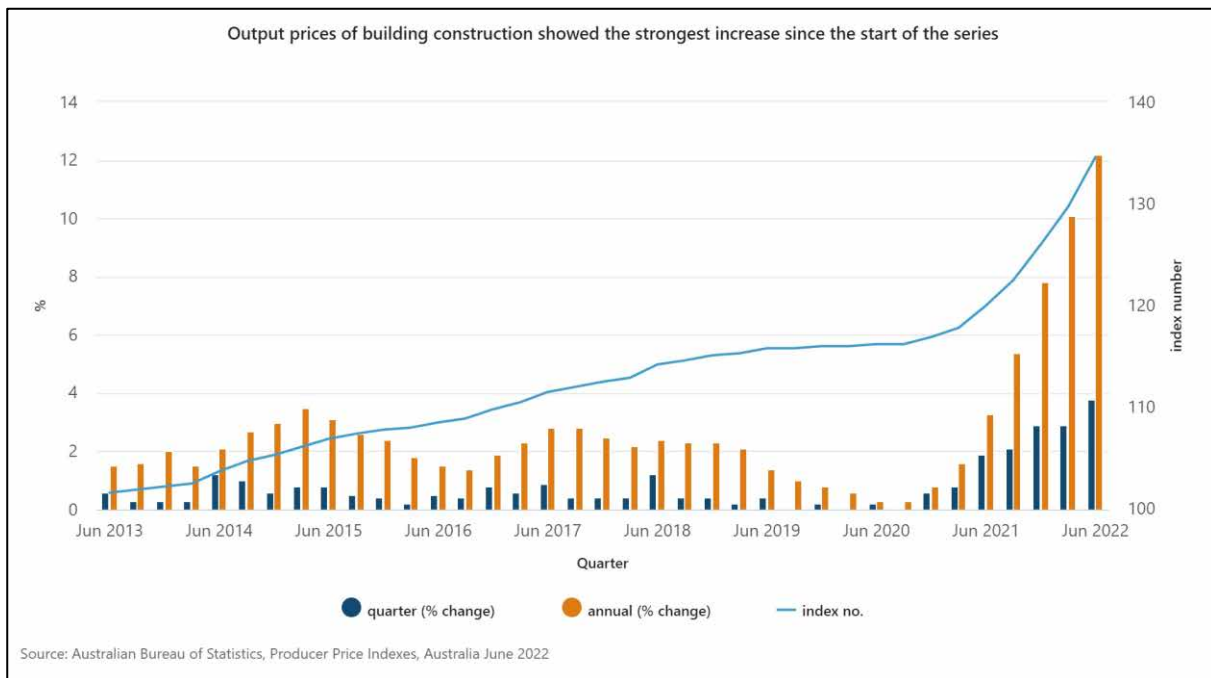
As the graph below shows, the ABS reports the largest ever increase to construction input prices since the commencement of the series in 1996.



5. In terms of output prices, building construction prices rose 3.8% this quarter and 12.2% over the past twelve months. This is both the largest quarterly and annual increase since the series began.

Supply chain instability and high shipping costs, coupled with ongoing skilled labour shortages is continuing to drive up construction costs this quarter. Strong levels of activity across all construction sectors has enabled builders to pass through cost increases to buyers. The quarterly price movements by class were:

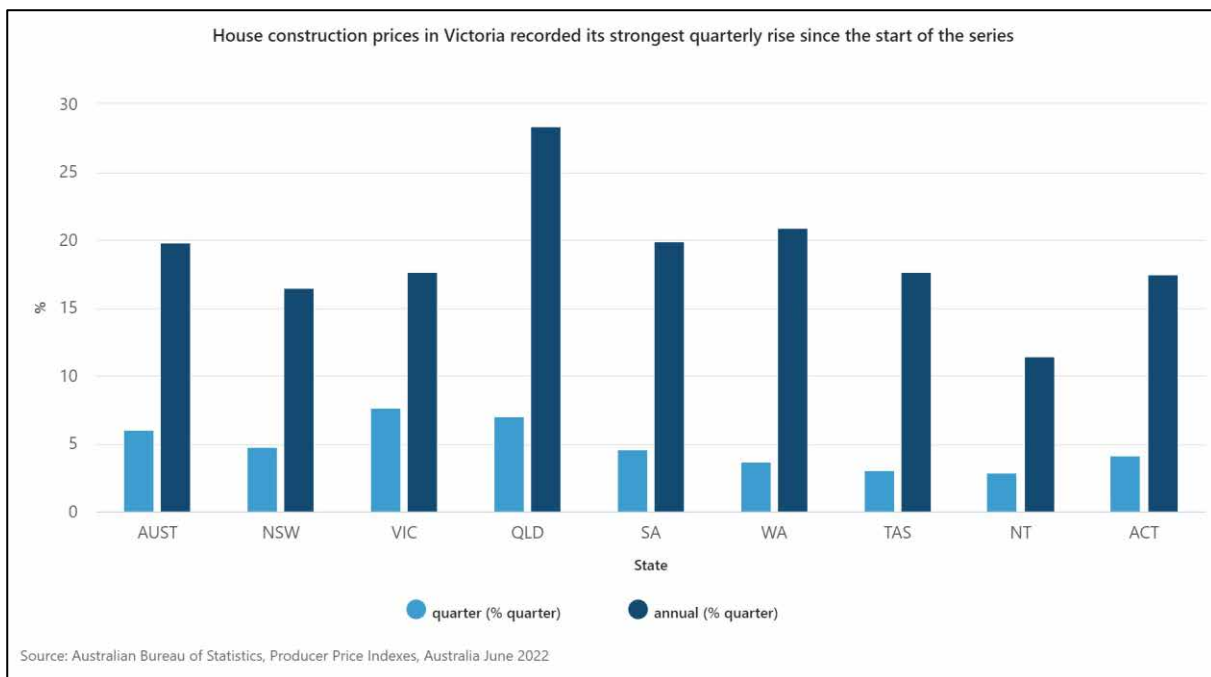
- House construction (+6.0%).
- Other residential building construction (+2.4%).
- Non-residential construction (+2.7%).



6. House construction prices rose 6.0%

House construction prices rose 6.0% this quarter, recording the strongest rise since the start of the series in 1996. Increases in prices of building materials were driven by rising freight costs while tightened supply for timber and metals is causing project delays. Shortages for skilled trades is placing further pressure on labour costs. Victoria recorded its strongest rise since the start of the series as builders continue to reduce bonus offers and raise base prices.

7. Over the past twelve months House construction prices rose 19.8%.



(prepared by the Policy and Advocacy Team 5-8-2022)