



Australian Government
Productivity Commission

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Fabricated structural steel safeguards

Interim report



This is an interim report prepared for further public consultation and input. The PC will finalise its report after these processes have taken place.



September 2026

Acknowledgment of Country



The Productivity Commission acknowledges the Traditional Owners of Country throughout Australia and their continuing connection to land, waters and community. We pay our respects to their Cultures, Country and Elders past and present.

About us

The PC is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long-term interest of the Australian community.

The PC's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

For more information visit our website: www.pc.gov.au.

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Opportunity for comment

The Productivity Commission thanks all participants for their contribution to this inquiry and now seeks additional input for the final report.

You are invited to examine this interim report and comment on it by written submissions to the PC, preferably in electronic format, by **30 September 2026**.

Further information on how to provide a submission is included on the website:
www.pc.gov.au/inquiries-and-research/steel-safeguards/.

The PC will prepare the final report after submissions have been received and it will hold further discussions with participants.

Commissioners

For the purposes of this inquiry and interim report, in accordance with section 40 of the *Productivity Commission Act 1998*, the powers of the PC have been exercised by:

Catherine de Fontenay	Commissioner
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Barry Sterland	Commissioner
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Terms of reference

I, the Hon Jim Chalmers, Treasurer, pursuant to parts 2 and 3 of the *Productivity Commission Act 1998*, hereby request that the Productivity Commission (PC) undertake an inquiry into whether safeguard action is warranted against imports of fabricated structural steel products of the Australian Customs Tariff.

Background

The Australian Steel Institute, on behalf of the industry, has lodged an application requesting that the Australian Government apply safeguard measures for fabricated structural steel products. The PC is Australia's competent authority to investigate whether safeguard measures are justified under World Trade Organisation (WTO) rules, on the basis of there being a surge of imports that causes, or threatens to cause, serious injury to a domestic industry.

Scope

The PC is to undertake an inquiry into whether safeguard action is warranted against imports of the following fabricated structural steel products of the Australian Customs Tariff:

- 7308100001 – Bridges and bridge-sections of iron or steel.
- 7308900052 – Columns, pillars, posts, beams, girders, bracing, gantries, brackets, struts, ties and similar structural units, hot rolled, of iron or steel (excl. those of HTISCs 7308100001, 7308200002, 7308300003 and 7308400004).
- 7308900053 – Same as above, roll formed, plated or coated with zinc or aluminium-zinc alloys, less than 1.2mm thick, of iron or steel (excl. hot rolled and HS 730810 to 730840).
- 7308900054 – Same as above, roll formed, plated or coated with zinc or aluminium-zinc alloys, greater than or equal to 1.2mm thick, of iron or steel (excl. hot rolled and HS 730810 to 730840).
- 7308900055 – Same as above, roll formed, of iron or steel (excluding hot rolled; plated or coated with zinc or aluminium-zinc alloys; and HS 730810 to 730840).
- 7308900056 – Same as above, of iron or steel (excluding roll-formed structures and those of HTISCs 7308100001, 7308200002, 7308300003 and 7308400004).
- 7308900057 – Steel grating, stairways and treads (excluding those of HTISCs 7308100001, 7308200002, 7308300003 and 7308400004).
- 7308900060 – Handrails and stanchions, of iron or steel (excluding those of HTISCs 7308100001, 7308200002, 7308300003 and 7308400004).
- 7308900062 – Guard rails and road barriers, of iron or steel, prepared for use on bridges and roads.
- 7308900063 – Sectional components, of iron or steel, prepared for use in towers and lattice masts.
- 7308900064 – Lintels, of iron or steel, prepared for use with doors and windows.
- 7308900065 – Structures and parts of structures and plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures, of iron or steel (excluding those of HTISC 7308100001).

The inquiry is to be undertaken in accordance with the WTO safeguard investigation procedures published in the Gazette of S297 of 25 June 1998, as amended by GN39 of 5 October 2005, and consistent with Australia's relevant free trade agreement obligations. The PC is to report at an industry level, and where feasible, for each tariff line on:

- Whether conditions are such that safeguard measures would be justified under the WTO Agreements, including the General Agreement on Tariffs and Trade 1994 (GATT) and the WTO Agreement on Safeguards.
- If these conditions are met, what measures would be necessary to prevent or remedy serious injury, and the threat thereof, and to facilitate adjustment.
- Whether those measures should be implemented, having regard to the public interest.

The PC is to provide an interim report on whether critical circumstances exist where delay in applying measures would cause damage which it would be difficult to repair. If such circumstances exist, and pursuant to a preliminary determination that there is clear evidence that increased imports have caused or are threatening to cause serious injury, the PC is to recommend what provisional safeguard measures (to apply for no more than 200 days) would be appropriate.

Process

The PC is to provide an interim report to the Government no later than 8 months and a final report within 10 months of receipt of this reference. The reports will be published as soon as practicable.

The PC is to consult widely, hold hearings and invite submissions for the purpose of the inquiry.

The Hon Dr Jim Chalmers MP

Treasurer

[Received 23 January 2026]

Disclosure of interests

The *Productivity Commission Act 1998* (Cth) specifies that where Commissioners have or acquire interests, pecuniary or otherwise, that could conflict with the proper performance of their functions they must disclose those interests.

The Commissioners working on this report have no interests requiring disclosure.

Acknowledgments

In undertaking this inquiry, the PC has benefited from engagement with a wide range of stakeholders across the fabricated structural steel supply chain, as well as Australian and international government agencies and industry bodies. A full list of who we met with is included in appendix A.

BLADE disclaimer notice

The following Disclaimer Notice refers to data and graphs sourced from the Australian Bureau of Statistics (ABS) BLADE (Business Longitudinal Analysis Data Environment) database.

The results of these studies are based, in part, on data supplied to the ABS under the *Taxation Administration Act 1953*, *A New Tax System (Australian Business Number) Act 1999*, *Australian Border Force Act 2015*, *Social Security (Administration) Act 1999*, *A New Tax System (Family Assistance) (Administration) Act 1999*, *Paid Parental Leave Act 2010* and/or the *Student Assistance Act 1973*. Such data may only be used for the purpose of administering the *Census and Statistics Act 1905* or performance of functions of the ABS as set out in section 6 of the *Australian Bureau of Statistics Act 1975*. No individual information collected under the *Census and Statistics Act 1905* is provided back to custodians for administrative or regulatory purposes. Any discussion of data limitations or weaknesses is in the context of using the data for statistical purposes and is not related to the ability of the data to support the Australian Taxation Office, Australian Business Register, Department of Social Services and/or Department of Home Affairs' core operational requirements.

Legislative requirements to ensure privacy and secrecy of these data have been followed. For access to MADIP (Multi-Agency Data Integration Project) and/or BLADE data under section 16A of the *ABS Act 1975* or enabled by section 15 of the *Census and Statistics (Information Release and Access) Determination 2018*, source data are de-identified and so data about specific individuals has not been viewed in conducting this analysis. In accordance with the *Census and Statistics Act 1905*, results have been treated where necessary to ensure that they are not likely to enable identification of a particular person or organisation.

AI transparency statement

This report was prepared using the assistance of AI tools for purposes of general research, note taking, coding and editing. PC staff reviewed all AI-generated outputs for accuracy and quality.

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Overview

Key points

- ✱ **Safeguard measures are for 'extraordinary emergency' situations to temporarily protect a domestic industry.**

 - A safeguard measure is a trade barrier, such as a tariff, quota, or tariff rate quota, on imported goods that can be applied in limited circumstances.
 - Before a measure can be introduced, the evidence must show there has been a recent, sudden, sharp and significant surge in imports that has caused, or threatens to cause, serious harm to the Australian industry that makes like or directly competing goods.
- ✱ **The evidentiary threshold to introduce a safeguard measure is very high and we have drawn on comprehensive data sources to make our assessments.**

 - The Productivity Commission has received and considered extensive data and information from industry in undertaking this inquiry.
 - The PC has also used anonymised data for the whole industry from the ABS to test whether the legal requirements under the Agreement on Safeguards are met.
- ✱ **During the investigation period, imports of fabricated structural steel continued to increase consistent with longer-term trends, but this does not meet the requirements for the introduction of a safeguard measure.**

 - The increase in imports, either absolutely or relative to domestic production is not recent, sudden, sharp and significant enough to meet the thresholds required.
- ✱ **At the aggregate level, the evidence does not show serious injury across the domestic fabricated structural steel industry, or the threat of such injury, that meets the high legal standard for safeguard measures.**

 - Evidence from inquiry participants and administrative data indicate some firms are under pressure, but industry-wide data shows growth in key indicators such as sales and profits over the investigation period, albeit with a weakening in employment in latter years. Similarly, there is not data showing threat of serious injury for the industry as a whole that would meet evidentiary requirements.
- ✱ **This report sets out the PC's interim assessment that definitive safeguard measures are not warranted.**

 - It is the PC's assessment that the conditions for the immediate introduction of provisional safeguard measures (where delay would cause damage which would be difficult to repair) are also not met.
 - Further consultation will be undertaken before making a final determination about definitive measures in November 2026.
- ✱ **As we have not found the necessary conditions have been met to introduce safeguards, the PC has not assessed whether a measure is in the public interest, but has outlined factors and evidence that would need to be considered in such an assessment.**

The PC has been asked to investigate whether safeguard measures are warranted for fabricated structural steel products

The Treasurer has asked the PC to investigate whether safeguard measures should be applied to fabricated structural steel (FSS) products. These products include bridges and bridge sections, gratings, stairways and treads, guardrails and road barriers and a range of other products set out in twelve 10-digit tariff codes that fall under heading 7308 of the Australian Tariff Code. Fabricators cut, shape, hole, weld and bend semi-finished steel, such as beams, plates and coils, to create finished steel products. The PC is the 'competent authority' in Australia for investigating proposed safeguard measures and the inquiry is being conducted in line with Australia's obligations under the World Trade Organization (WTO) Agreement on Safeguards.

A safeguard measure is a trade barrier, such as a tariff, quota, or tariff rate quota, on imported goods that can be applied in limited circumstances to act as a 'safety valve' to allow a domestic industry to adapt to new economic realities. In accordance with the Agreement on Safeguards, the PC has examined whether imports have increased in such volumes, and under such conditions, that they have caused or threaten to cause serious injury to the Australian FSS industry.

The PC has undertaken a formal, evidence-based assessment of imports, injury to domestic producers, and other matters required under the WTO framework. This report presents our interim findings on whether the requirements for the introduction of safeguard measures have been met. The PC will make its final assessment in November 2026, following further input from inquiry participants.

The PC has defined the scope of this inquiry based on industry insights and with reference to WTO requirements:

- The PC has assessed the twelve 10-digit codes in the terms of reference as one product group. It has examined imports for that group and assessed the domestic industry that produces like or directly competing products. These products share a common functional character as FSS components prepared for use in structures and are produced by an identifiable group of firms using the same facilities, inputs, labour and processes.
- 336 Australian Steel Institute (ASI) members and an additional 40 fabricators identified during the course of this inquiry represent a major proportion of domestic production of FSS and are considered by the PC to be the 'conservative' population for the purposes of this inquiry. To test the representativeness of findings, analysis has also been undertaken for an extended group which includes an additional 138 businesses that have been identified as common consumers of key FSS inputs.

The inquiry's terms of reference are silent on what the period of the investigation should be, although the Australian Government's notice of initiation to the WTO references information from ASI as highlighting growth in imports from 2020 to 2024.

Identifying the appropriate start of the investigation period was complicated by potential distortions caused by COVID-19. A 5-year investigation period for this inquiry, over financial years 2020–21 to 2024–25, is long enough to account for these distortions when assessing trends in imports and the health of the domestic industry.

For added context, the PC has analysed evidence about import trends and injury to the industry for earlier periods and, where available, data beyond the investigation period, but we have focused on the 5-year investigation period when determining whether there has been an increase in imports causing serious injury to the domestic industry.

Consistent with the focus on extraordinary circumstances, the evidentiary threshold for a safeguard investigation is very high

The WTO Appellate Body has stressed that a safeguard measure is ‘an extraordinary measure that is applied in extraordinary circumstances’ (*US – Line Pipe*, para. 111).

The legal requirements for introducing safeguard measures are set out in Article XIX of the General Agreement on Tariffs and Trade 1994 (GATT), *Emergency Action on Imports of Particular Products*, and the Agreement on Safeguards. These include a requirement to provide reasoned conclusions on all pertinent issues of fact and law (SA Article 3) and evaluate all relative factors of an objective and quantifiable nature (SA Article 4.2 (a)).

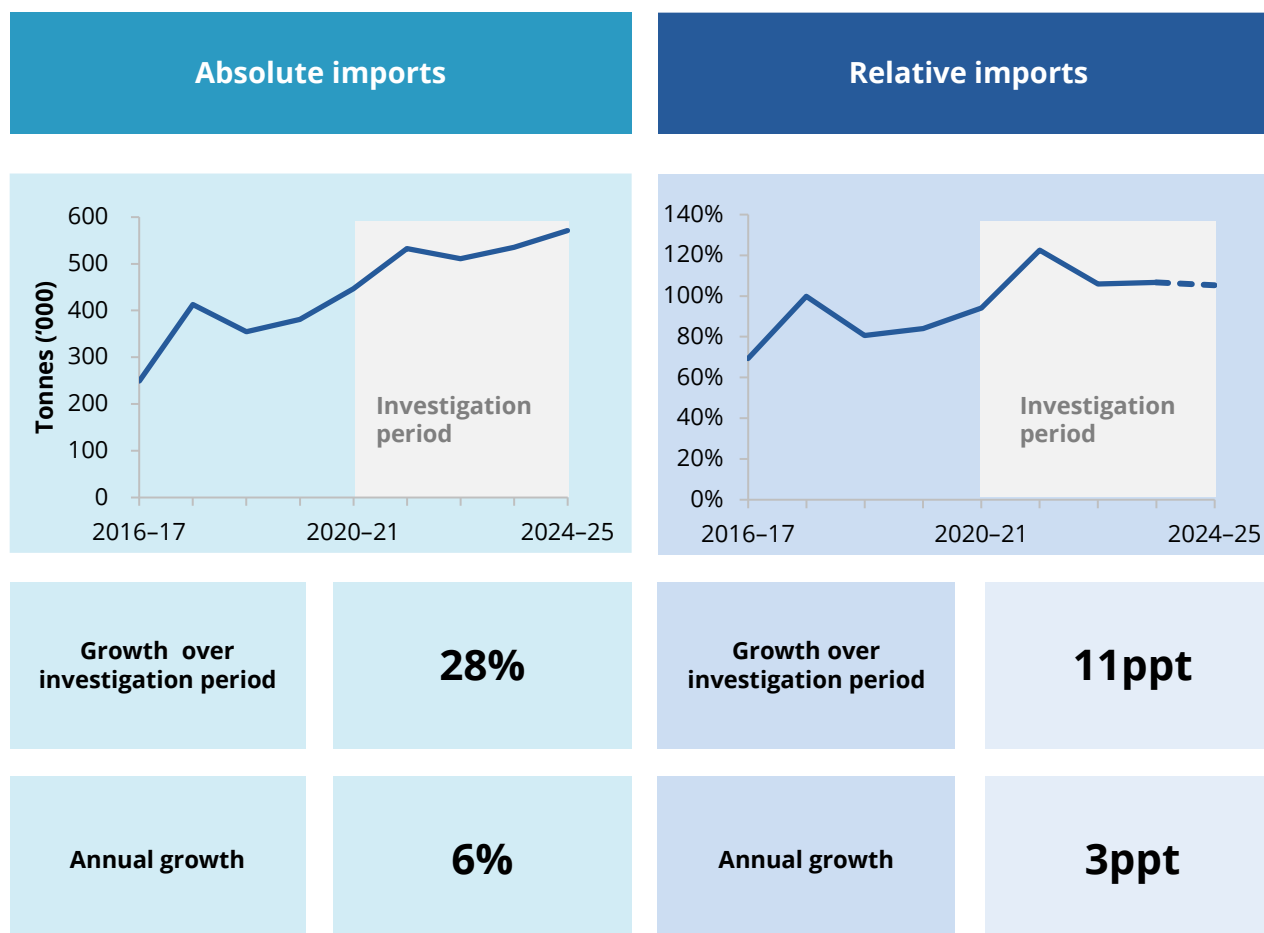
In undertaking this inquiry, the PC has used comprehensive administrative data held by the ABS to examine import trends and the condition of the domestic industry. This includes transaction-level import data, anonymised Business Income Tax (BIT) returns, Business Activity Statements (BAS) and Pay As You Go (PAYG) submissions and other relevant information. Using these administrative datasets reduces the reporting burden on businesses and allows the most accurate assessment possible.

Imports have increased, but there has not been a sudden surge

To justify safeguard measures, there must be an increase in imports that is ‘recent enough, sudden enough, sharp enough, and significant enough, both quantitatively and qualitatively, to cause or threaten to cause “serious injury”’ (*Argentina – Footwear (EC)*, para. 131). The WTO Appellate Body’s report in the *US – Lamb* case (para. 138) ‘affirmed that the real significance of short-term trends in the most recent data should be assessed in the light of long-term trends’.

The ASI’s application requesting the safeguard investigation stated that ‘since CY2022, there has been a clear and sustained surge in import volumes across the consolidated category of key FSS products.’ The PC has examined transaction-level import data sourced from the ABS which captures all imports over the period under investigation. To assess imports relative to domestic production, the PC has estimated domestic production using firm-level ABS data and information provided by industry participants.

This data shows that imports have increased, both in total and relative to domestic production (figure 1). However, growth largely continues a trend that has been ongoing since at least 2016–17, and there has not been a recent, sudden or sharp increase. Annual growth in absolute imports was just over 6% during the investigation period. It was just over 15% from 2016–17 to 2019–20 (before the investigation period).

Figure 1 – Growth in imports does not meet conditions for the introduction of a measure

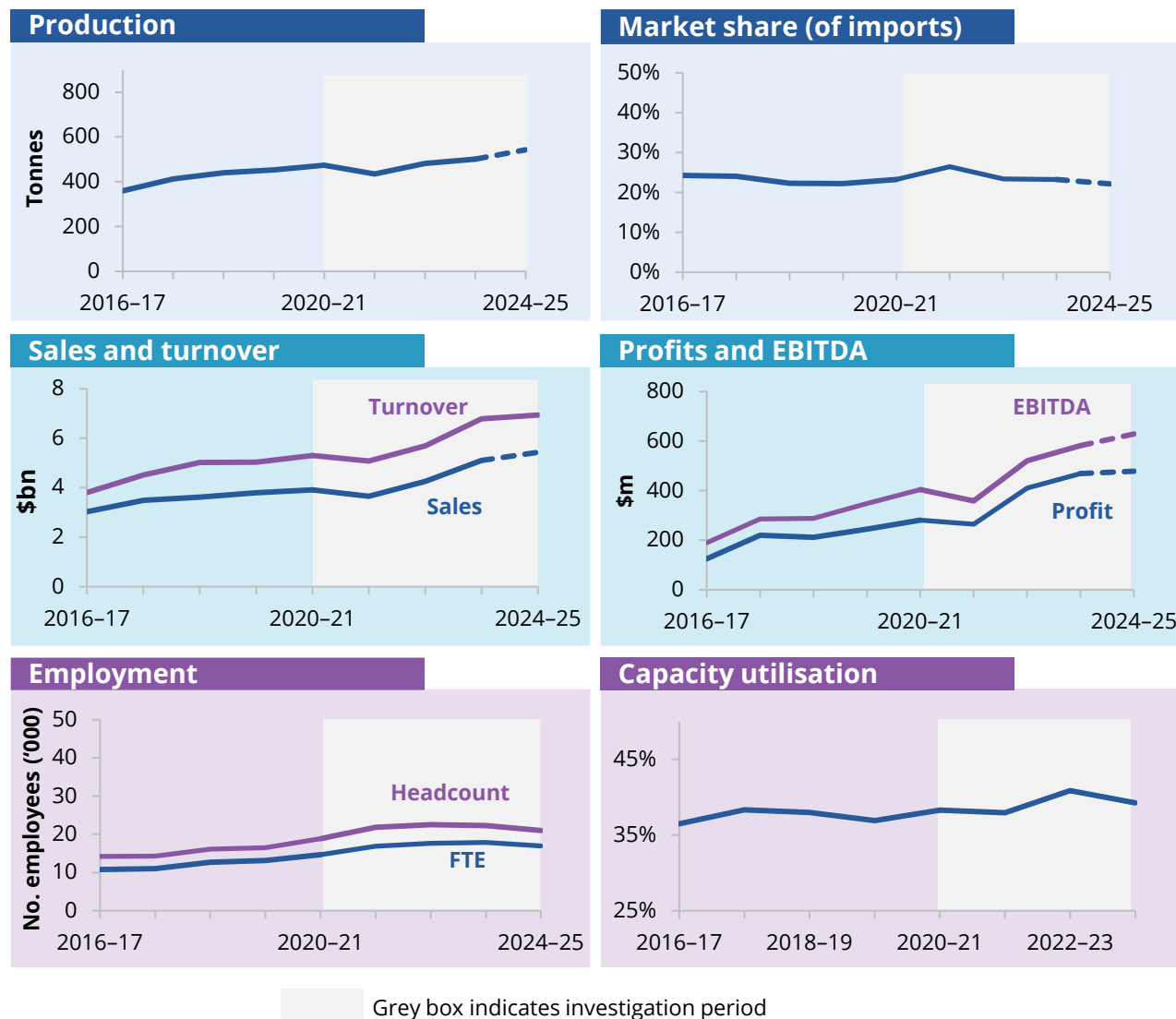
Relative imports for 2024-25 uses an estimate of domestic production based on turnover rather than cost of sales (which is not available for 2024-25).

Inquiry participants identified several international developments that may have contributed to increased FSS imports. These include global steel overcapacity impacting downstream foreign production of goods, upstream trade protection measures (such as anti-dumping actions) increasing the cost of inputs and therefore impacting the competitiveness of local FSS producers, and more competitive overseas FSS manufacturing.

Participants also identified domestic factors that may have contributed to higher FSS imports, for example rising demand consistent with increases in construction, infrastructure, and mining activity, and disruptions in domestic steel production in recent years.

The evidence does not show serious injury across the industry as a whole, but some segments are facing difficult conditions

The data examined by the PC shows that, over the investigation period, the industry recorded growth in sales, profits and production. Employment also grew for most of the period, although it came off its peak in the second-last year of the investigation period. Productivity and capacity utilisation improved overall, despite some moderation in the later years. Import market share remained broadly stable over the period (figure 2).

Figure 2 – Analysis of administrative data does not reveal serious injury for the industry as a whole

Business income tax data is only available to 2023-24, so production, market share, sales, profits and EBITDA are estimated for 2024-25.

The overall weight of evidence does not indicate significant impairment across the domestic industry.

The safeguards test requires the PC to assess the domestic industry as a whole. Where possible, this report presents results broken down by firm size to show how conditions may differ across the industry. The PC notes that the results presented in the data differ from the experiences shared by many industry participants through the course of this inquiry. To test our results, we sought to locate additional fabricating businesses, for example through identifying firms which are common consumers of key FSS inputs. We have confirmed that analysis using this larger industry group (over 500 businesses in total) generates the same conclusion.

While there are uncertainties in the industry outlook, the evidence does not suggest that serious injury is threatened

Analysis of the threat of serious injury must be ‘based on facts and not merely on allegation, conjecture or remote possibility’ (SA Article 4.1(b)). As noted above, recent evidence on imports and industry performance are particularly relevant but short-term movements should be interpreted in the context of long-term trends (*US – Lamb*, paras. 136–138). Hence it is relevant in assessing the threat of serious injury that the most recent data points above do not suggest a severe deterioration at the end of the investigation period.

Preliminary data for the first 3 quarters of 2025–26 suggest the longer-term import trend has continued beyond the period of investigation. Demand for FSS is expected to remain strong further into the future, with Infrastructure Australia forecasting \$1.14 trillion of construction expenditure between 2024–25 and 2028–29 (Infrastructure Australia 2025, p. 20).

Some of the evidence received throughout this inquiry has reported challenges to a range of existing businesses. This included reports of imports priced below profitable levels for domestic businesses. Others were operating at tight margins and were unable to make major investment decisions.

Other evidence provided also suggests that fabricators have started to change their business models. This includes shifting towards more complex and bespoke projects where imported fabricated steel may be less competitive or focusing on government-funded infrastructure, which can include local content requirements. Other participants have noted some shifts within the domestic FSS market, with firms which previously specialised in portal frames – identified as highly exposed to imports – picking up more one-off project work, or firms increasing their activity in engineering and design-and-construction relative to steel fabrication.

Taken at face value, these accounts describe adjustment rather than serious injury as required by the relevant international legal tests.

Whether a measure is in the public interest depends on benefits from supporting the industry outweighing broader economic costs

Because the PC has not found that the threshold for a safeguard measure has been met, it is not required to complete a public interest assessment. However, given this is an interim report, we have outlined some of the considerations that would need to be examined to make such an assessment. These considerations should also be relevant to future decision-making, including in light of the proposed transfer of safeguard functions to the Anti-Dumping Commission (proposed to be renamed the Australian Trade Remedies Commission).

Safeguard measures provide scope to temporarily depart from open approaches to trade in circumstances where an industry is facing serious injury and therefore adjustment pressure. By sustaining demand for domestically produced goods, they can provide temporary breathing space to businesses in the protected industry, their workers and suppliers. However, like all border measures, safeguard measures will generally impose costs for users of the relevant goods and risk impeding adjustment in the industry concerned and movement of resources in the economy to their most productive uses. These costs and risks arise regardless of whether a tariff, quota or tariff rate quota is employed. Therefore, even if the legal conditions are met that allow for a safeguard measure to be imposed, careful assessment of the benefits, costs and overall public interest is warranted.

The first consideration in testing whether such measures are in the public interest is whether they contribute to facilitating a sustainable and efficient industry. Safeguard measures are temporary and must be relaxed over time (SA Article 7). Governments can initially impose measures for no more than 4 years and must progressively liberalise any measure that operates for more than 1 year (for example, by increasing a quota or reducing a tariff rate).

The case for temporary protection may be stronger where:

- without it, an industry faces a near-term risk of losing capabilities that would be difficult or costly to re-establish if conditions later improve. In such cases, the public interest assessment should consider whether the safeguard would materially reduce the risk of that loss and whether preserving the capability would generate an enduring benefit
- the industry is considered to have longer-term strategic importance to the economy, for example contributing to achieving economic resilience or net zero objectives
- the strategic importance of an industry should be established separately to a safeguard measure investigation using established frameworks, such as the National Interest Framework as part of the Future Made in Australia agenda and drawing on rigorous approaches to assessing the case for support such as those outlined in the PC's *Guardrails for modern industry policy* (2025).

Assessing whether a safeguard measure would be in the public interest also requires consideration of other policy options that could address identified problems or achieve the government's objectives more effectively or at lower cost.

A public interest assessment should consider all material benefits and costs of a safeguard measure across the economy, including effects outside the protected industry. This includes economic modelling of the effect of imposing higher prices (than would otherwise be the case) on downstream industries and consumers, and distortions to resource allocation in the economy more broadly.

If a safeguard measure was determined to meet the high evidentiary tests of being justified under international law and also being in the public interest, there are important design considerations to be made to minimise the cost of any measures. Quotas should not be preferred as they impose more uncertain costs to the wider economy, are generally more complex than alternatives to implement, and are less transparent. The PC has concerns about the possible return of quotas or tariff rate quotas to the policy toolkit, because of their propensity to foster lobbying and an uneven playing field between competitors.

1. About the inquiry

Key points

- * **Safeguard measures are for ‘extraordinary emergency’ situations to temporarily protect a domestic industry. They can only be applied if imports have increased in a recent, sudden, sharp and significant way that has caused or threatens to cause serious injury to the domestic industry.**
- * **The Productivity Commission is responsible for conducting safeguard measure investigations in Australia, and it must do so in accordance with Article XIX of the General Agreement on Tariffs and Trade 1994, the Agreement on Safeguards, and the *Productivity Commission Act 1998* (Cth).**
- * **In response to an application from the Australian Steel Institute (ASI), the PC has been asked by the Treasurer to conduct an inquiry into whether safeguard action is warranted on the import of certain fabricated structural steel products.**
- * **This report includes a final finding about whether *provisional* safeguard measures are warranted and an interim finding about whether *definitive* safeguard measures are warranted. The final report will be sent to the Australian Government in November 2026.**
- * **Inquiry participants have been given several opportunities to provide evidence to the PC, including through submissions, visits and at public hearings. We invite further submissions in response to this interim report.**

This inquiry is about whether safeguard measures are warranted for imports of certain fabricated structural steel (FSS) products. A safeguard measure is a trade barrier – such as a tariff, quota, or tariff rate quota – on imported goods that can be applied in limited circumstances to act as a ‘safety valve’ that can allow a domestic industry ‘to adapt to new economic realities’ (Van den Bossche and Zdouc 2022, p. 689). Safeguard measures are an exception to the general direction of the multilateral trading system, which has largely focused on reducing trade barriers and promoting greater openness.

The legal requirements for taking safeguard measures are set out in Article XIX of the GATT (*Emergency Action on Imports of Particular Products*) and the Agreement on Safeguards. The substantive and procedural requirements have been explained and interpreted in decisions of World Trade Organization (WTO) panels and the WTO Appellate Body.

Safeguard measures can only be applied if imports have increased in a recent, sudden, sharp and significant way and have caused or threaten to cause serious injury to the domestic industry (box 1.1).

Box 1.1 – When can safeguard measures be applied?

The WTO Appellate Body has stressed that a safeguard measure is ‘an extraordinary measure that is applied in extraordinary circumstances’ (*US – Line Pipe*, para. 111). Part of the purpose of measures is to enable countries to resort to ‘an effective remedy in an extraordinary emergency situation that, in the judgment of that Member, makes it necessary to protect a domestic industry temporarily’ (*US – Line Pipe*, para. 82).

Safeguard measures can be imposed regardless of whether imports are being ‘dumped’ (sold below normal value) or subsidised. And safeguard measures are generally not targeted at specific countries but instead apply to a product ‘irrespective of its source’ (SA Article 2.2).

There are strict legal criteria for applying safeguard measures. These include:

- Imports of the relevant product must be increasing, in absolute terms or relative to domestic production, and the increase must be the result of unforeseen developments and the effect of Australia’s GATT obligations. The increase must be ‘recent enough, sudden enough, sharp enough, and significant enough, both quantitatively and qualitatively, to cause or threaten to cause “serious injury”’ (*Argentina – Footwear (EC)*, para. 131).
- The domestic industry must be suffering ‘serious injury’, or there must be an imminent threat of serious injury. Serious injury means ‘significant overall impairment’ (SA Article 4.1(a)). The WTO Appellate Body has said this is a ‘very high standard’, ‘much higher’ than the standard of injury for anti-dumping matters (*US – Lamb*, paras. 126, 124). Serious injury must be assessed by considering various injury factors, including the rate and amount of the increase in imports, the share of the domestic market taken by increased imports, sales, production, productivity, capacity utilisation, profits and losses, and employment (SA Article 4.2(a)).
- There must be a ‘genuine and substantial relationship of cause and effect’ between increased imports and injury (*US – Wheat Gluten*, para. 69). Other causal factors must also be identified, to ensure injury caused by these other factors are not attributed to increased imports (SA Article 4.2(b)).

Safeguard measures can only be applied to the extent necessary to prevent or remedy serious injury caused by increased imports and to facilitate adjustment (SA Article 5.1).

Provisional safeguard measures can be introduced before safeguard investigations are completed, for up to 200 days, in ‘critical circumstances where delay would cause damage which it would be difficult to repair’ (SA Article 6). They can only be introduced if there is ‘clear evidence’ that increased imports have caused or are threatening to cause serious injury (SA Article 6).

Definitive safeguard measures lasting up to 4 years (inclusive of the time any provisional measures are applied for) can only be introduced following completion of the competent authority’s investigation. Definitive measures can be extended subject to certain procedural requirements and determinations by the competent authority that they are still necessary to prevent or remedy serious injury, and there is evidence the industry is adjusting (SA Article 7.2).

This inquiry is being conducted in accordance with the WTO safeguard investigation procedures and the Productivity Commission Act.

The PC is currently the 'competent authority' in Australia for investigating proposed safeguard measures but does not initiate safeguard investigations (Commonwealth Gazette, No. S 297, 25 June 1998).¹ The PC conducts inquiries upon receipt of terms of reference from the Australian Government Treasurer.

As the competent authority, the PC's findings regarding whether the conditions for safeguards are met determine whether the Australian Government can introduce safeguards.

The terms of reference for this inquiry ask the PC to provide advice on what measure should be introduced and whether introducing it would be in the public interest (if the conditions for a safeguard are met), but the government is not bound by the PC's views on these matters.

Terms of reference

Terms of reference for this safeguard investigation were received by the PC on 23 January 2026. The Australian Steel Institute (ASI) made an application to the Australian Government requesting safeguard measures in November 2025.

The terms of reference require the PC to provide an interim report by 23 September 2026 and a final report by 23 November 2026.

This interim report makes a final finding about whether a provisional safeguard measure can be applied and an interim finding about whether a definitive measure can be applied.

Public notice

The Australian Government notified the WTO of the investigation on 23 January 2026. The notice is available on the WTO's notification portal. The PC gave public notice of the inquiry on its website on 23 January 2026, in accordance with section 13 of the Productivity Commission Act.

Submissions

We released a call for submissions paper on 24 February 2026. Inquiry participants were invited to make submissions in response by 20 April 2026. Extensions were granted to all participants who requested an extension. Non-confidential submissions were published on the PC's website as late as June 2026.

There are 62 submissions published on the PC website. The PC received 45 confidential submissions or submission attachments (treatment of confidential material is discussed below).

The PC invites submissions in response to this interim report by 30 September 2026. Submissions should address matters relevant to whether definitive measures should be applied.

¹ As of August 2026, there is a bill before the Senate that would rename the Anti-Dumping Commission the Australian Trade Remedies Commission. If passed, the bill will transfer responsibility for future safeguard investigations from the PC to the Australian Trade Remedies Commission. The safeguard investigation into fabricated structural steel will be finalised by the PC.

Consultation

The PC has met with 38 different organisations, and with some of these organisations more than once. We have met with individual domestic FSS producers, steel distributors, steel producers, construction firms, and peak bodies representing these market segments. We have also met with Australian and foreign government organisations, as well as the China Chamber of Commerce of Metals, Minerals and Chemical Importers and Exporters. Staff from the PC toured a steel distribution facility and several steel fabrication workshops in south-east Melbourne to gain a deeper understanding of the FSS industry.

Appendix A lists every organisation the PC has met with.

Public hearings

Public hearings were held from 13 to 15 May 2026. The PC invited participants to express an interest in appearing as a witness at the hearings and through a registration page on the PC's website. Everyone who indicated they wanted to appear as a witness was able to do so.

A complete list of witnesses is at appendix A. Transcripts of the hearings were published on the PC's website on 25 May 2026.

A further opportunity was provided to participants to make submissions after the hearing, by 1 June 2026. These post-hearing submissions were published alongside the transcripts on the PC's website.

Final report

The final report will set out in detail our findings, reasoned conclusions and recommendations, as required by the Agreement on Safeguards and the Productivity Commission Act. The final report must be tabled within 25 parliamentary sitting days, at which point the report will be published on the PC's website.

Following the conclusion of this inquiry, the Australian Government is responsible for providing notifications to the WTO and relevant trading partners. The Australian Government is also responsible for deciding whether to implement safeguard measures if the PC finds they are warranted.

Confidential material

Some inquiry participants sent the PC confidential material. This includes the ASI's original application and attachments, as well as a number of submissions and parts of submissions provided by other participants. Confidential material has been treated as such by the PC.

Consistent with section 16 of the Productivity Commission Act and Article 3.2 of the Agreement on Safeguards, the PC invited participants who provided confidential material to provide non-confidential versions or summaries for publication. Some did so, and this non-confidential material was published on the PC's website.

Because safeguard investigations are conducted as public inquiries, the PC places particular weight on evidence and reasoning that can be disclosed, scrutinised and responded to by interested parties. Our reasoning and findings are supported, as far as practicable, based on material that can be publicly tested through the inquiry process. Where confidential information has informed our analysis, this is clearly indicated.

2. Scope of the safeguard investigation

Key points

- ✳ **The product under investigation is defined by reference to 12 items in the Australian Tariff Code.**
 - The Productivity Commission has chosen to treat these as one product for the purposes of the investigation.
- ✳ **There is a domestic industry making products that are 'like or directly competitive' with these products.**
 - The PC has identified Australian businesses that make the products that are 'like or directly competitive' and drawn on data about those businesses to conduct this investigation.
- ✳ **The period of the investigation is financial years 2020–21 to 2024–25.**
- ✳ **In accordance with Australia's trade agreements, imports from New Zealand and Singapore have been excluded from the investigation.**

2.1 The product and the domestic industry

The product under investigation

The product under investigation is defined in the inquiry's terms of reference by 10-digit codes falling under heading 7308 of the Australian Tariff Code. Code 7308 generally captures:

- iron or steel structures and parts of structures
- iron or steel plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures.

The 12 codes in our terms of reference are:

- 7308100001 – Bridges and bridge-sections of iron or steel
- 7308900052 – Columns, pillars, posts, beams, girders, bracing, gantries, brackets, struts, ties and similar structural units, hot rolled, of iron or steel (excl. those of HTISCs 7308100001, 7308200002, 7308300003 and 7308400004)
- 7308900053 – Same as above, roll formed, plated or coated with zinc or aluminium-zinc alloys, less than 1.2mm thick, of iron or steel (excl. hot rolled and HS 730810 to 730840)
- 7308900054 – Same as above, roll formed, plated or coated with zinc or aluminium-zinc alloys, greater than or equal to 1.2mm thick, of iron or steel (excl. hot rolled and HS 730810 to 730840)

- 7308900055 – Same as above, roll formed, of iron or steel (excluding hot rolled; plated or coated with zinc or aluminium-zinc alloys; and HS 730810 to 730840)
- 7308900056 – Same as above, of iron or steel (excluding roll-formed structures and those of HTISCs 7308100001, 7308200002, 7308300003 and 7308400004)
- 7308900057 – Steel grating, stairways and treads (excluding those of HTISCs 7308100001, 7308200002, 7308300003 and 7308400004)
- 7308900060 – Handrails and stanchions, of iron or steel (excluding those of HTISCs 7308100001, 7308200002, 7308300003 and 7308400004)
- 7308900062 – Guard rails and road barriers, of iron or steel, prepared for use on bridges and roads
- 7308900063 – Sectional components, of iron or steel, prepared for use in towers and lattice masts
- 7308900064 – Lintels, of iron or steel, prepared for use with doors and windows
- 7308900065 – Structures and parts of structures and plates, rods, angles, shapes, sections, tubes and the like, prepared for use in structures, of iron or steel (excluding those of HTISC 7308100001).

This investigation captures some but not all of the codes within the 10-digit 7308.90.00 subheading. At the public hearings, it was stated that any safeguard measure would need to be implemented at the 6- or 8-digit level, not at the 10-digit level used to define the scope of this investigation (Moulis Legal representing the China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters, transcript 14 May, p. 9). This is correct. In order to apply safeguard measures targeting the in-scope products, the 10-digit codes that form the basis of this investigation would need to be ‘elevated’ to the 8-digit level, because the *Customs Tariff Act 1995* (Cth) sets duty rates for 8-digit tariff subheadings.

One submission noted that the 10-digit codes in the terms of reference capture ‘a substantial range of unrelated steel products forming part of ordinary Australian distribution and import supply chains’ (name withheld, sub. 59, p. 6). However, the Agreement on Safeguards (SA) does ‘not set out rules for selecting the product under investigation, and for example they do not prevent a Member from including a range of products in a single investigation’ (*EU – Certain Steel Products* (Panel), para. 7.34).

The PC has analysed the in-scope 10-digit codes together

In *EU – Certain Steel Products*, the Panel held that Article XIX of the General Agreement on Tariffs and Trade 1994 and the Agreement on Safeguards ‘do not constrain the choice of product(s) under investigation’ and investigating bodies ‘can investigate and apply a safeguard on a range of products taken together’ (para. 7.53). Another Panel rejected the argument that grouped products must be like or directly competitive with each other (*Dominican Republic – Safeguard Measures* (Panel), para. 7.181).

However, the conditions for applying a safeguard measure must be established in relation to the product as defined: the authority must demonstrate increased imports of that product, serious injury or threat of serious injury to the domestic industry producing the corresponding like or directly competitive products, and a causal link between the increased imports and that injury.

Consistent with these requirements, the PC has treated the twelve 10-digit codes in the terms of reference as a single product grouping, assessed import trends by reference to this product grouping, and assessed the condition of the domestic industry identified as producing the corresponding like or directly competitive products.

The products covered by the in-scope 10-digit codes share a common functional character as fabricated structural steel components prepared for use in structures. While they vary in their form and end use and are not generally substitutable from the perspective of buyers, they are produced by an identifiable group of firms using the same facilities, inputs, labour and processes. These features mean that analysing the products together reflects the organisation and production activities of the domestic

industry and provides an appropriate basis for assessing the overall effects of imports on the domestic industry. Identification of the domestic industry producing 'like or directly competitive' products is discussed in more detail below.

The way imports are recorded provides an additional rationale for grouping the in-scope 10-digit codes. The terms of reference include a residual 'other' category (7308.90.00.65) which accounted for between 72% and 83% of the volume of in-scope imports over the investigation period (PC analysis of ABS data). This category likely includes products that could reasonably be included within the more specific codes. At the public hearings, the ASI said that the 'other' category 'is somewhat of a catch-all. If people weren't sure how to classify something when they're importing, or just weren't very careful, they use that' (transcript, 13 May, p. 7).

As a result, the distribution of imports across the 10-digit codes can be influenced by classification practices rather than substantive variation in the imports themselves. Analysing each tariff code in isolation could produce unstable or misleading results. For example, the PC has heard that import penetration has been greatest in the portal frames segment (ASI, post-hearing submission, p. 22) but the code that most naturally captures these products (7308.90.00.52) only accounts for around 1% of the in-scope products in volume terms (PC analysis of ABS data). And while total imports of the in-scope 10-digit codes increased over the investigation period, imports in half of the codes actually declined; this outcome is driven by significant growth in the 'other' code (PC analysis of ABS data). Given the overlap in the facilities, inputs, labour and processes used to produce products across the codes, these divergent trends seem more likely to reflect classification practices than substantive differences in import competition across the codes.

This all suggests that relevant imports are often recorded under the 'other' category 7308.90.00.65, which is consistent with the ASI's view. Analysing the codes together provides a more reliable basis for assessing the evolution of imports of fabricated structural steel and outcomes for the industry producing like or directly competitive products.

The domestic industry

The PC is required to identify the domestic industry producing products that are 'like or directly competitive' with the relevant imported product (SA Article 2.1).

Asked about whether its members make the products defined in the terms of reference, the ASI said that:

most of our members can make at least some, if not all, of those products covered in those different tariff codes. ... they are reasonably flexible in terms of the type of work that they can take on. That's not defined so much by the nature of the work, but what equipment they have and what level of specialisation they have by way of equipment. ... Within the sort of things we've talked about, there isn't a fundamental difference between a portal frame structure and a really complex thing like a large naval ship, for example. (transcript, 13 May, pp. 6–7)

This aligns with what the PC has heard through engagement and submissions from fabricators, many of whom indicate they compete with imports across a range of the codes specified in the terms of reference.²

One submission suggested that some in-scope products, including gratings, handrails and stanchions 'are not fabricated by the structural fabricators the safeguard inquiry is purportedly seeking to protect'

² For example: Brezac Constructions (sub. 38, p. 2); EDCON Steel (sub. 22, p. 2); First Line Engineering (sub. 34, p. 1); Gonzales Steel (sub. 43, p. 1); HF Hand Constructors (sub. 25, p. 1); name withheld (sub. 44, p. 1; sub. 58, p. 1); Prince Engineering (sub. 3, p. 1); Sencova Steel Fabricators (sub. 26, p. 1); Westys Steel Fabrication (sub. 27, p. 1).

(name withheld, sub. 59, p. 6). These products are captured within the in-scope codes 7308.90.00.57 and 7308.90.00.60. However, a number of submissions from fabricators indicate that they do produce products within these codes.³

In light of these considerations, the PC is satisfied there is a domestic industry producing products that are like or directly competitive with the relevant imported products.

The PC has identified specific businesses comprising the domestic industry

Some inquiry participants have suggested that heterogeneity across the 10-digit codes included in this investigation is a barrier to identifying the relevant domestic industry (Ministry of Commerce of the People's Republic of China, sub. 50, p. 3; China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters, sub. 55, p. 4). If the domestic industry cannot be identified it would not be possible to analyse whether it is injured.

The PC has taken steps to identify a sufficiently large and representative group of businesses to undertake this safeguard investigation. The ASI provided the PC with a list of 336 fabricator members that make the relevant products, and they estimate that their fabricator members represent 70% of industry capacity (ASI 2026, pp. 9–10). In addition, the PC invited fabricator businesses that are not ASI members to register with the PC, but only 6 did so. A number of other fabricators have been directly identified through the course of this inquiry, including some that have closed in recent years (these businesses have been identified through direct engagement or have been named by people we have engaged with). The PC also sought and received information from a number of key industry participants on businesses that purchase the major steel inputs used by fabricators.

The PC's findings are based on aggregated data associated with 376 businesses the PC believes represent a major proportion of the total domestic production of FSS. This group includes the 336 ASI members and 40 fabricators directly identified through the course of this inquiry. As a robustness check, the PC also analysed an expanded industry group which included 138 businesses that were common consumers of key fabricated structural steel inputs. Data on production and injury for this expanded population is also presented where appropriate. The PC has analysed the performance of domestic fabricators using data in the Business Longitudinal Analysis Data Environment (BLADE) in the ABS DataLab (box 2.1). Additional detail on the quantitative methods used by the PC is included in appendix B.

The PC is satisfied that it has a sufficiently large and representative sample of the relevant businesses to determine whether the domestic industry is suffering serious injury or is at threat of serious injury.

There is no requirement that the domestic industry analysed produces *only* like or directly competitive products. However, consistent with Article 4.1(c) of the Agreement on Safeguards, the domestic industry must be defined by reference to producers of the like or directly competitive products, and the PC has included firms in its analysis on the basis of their production of those products. Across 14 submissions that provide quantitative evidence on what percentage of their revenue is exposed to direct import competition, the median response was 80%.⁴

³ The following submitters indicated they produce products within 7308.90.00.57 and 7308.90.00.60: Brezac Constructions (sub. 38, p. 2); Gonzales Steel (sub. 43, p. 1); name withheld (sub. 58, p. 1); Weldlok Industries (sub. 36, p. 1). HF Hand Constructors (sub. 25, p. 1) indicated they produce products within 7308.90.00.57. First Line Engineering (sub. 34, p. 1) indicated they produce products within 7308.90.00.60.

⁴ AMARCON (sub. 16, p. 1); Brezac Constructions (sub. 38, p. 2); CSF Industries (sub. 17, p. 1); EDCON (sub. 22, p. 3); First Line Engineering (sub. 34, p. 1); Gonzalez Steel (sub. 43, p. 1); Kyst Engineering (sub. 18, p. 1), name withheld

Box 2.1 – What are DataLab and BLADE?

DataLab is a secure ABS research environment that allows authorised researchers to analyse detailed data for approved statistical and research purposes. Access is subject to strict confidentiality requirements and projects must have a public benefit.

DataLab is designed to protect the confidentiality of businesses and individuals. Researchers work with de-identified data and do not have access to identifying information such as business names or ABNs. Researchers are legally prohibited from attempting to identify any business or person. The information is protected by the *Census and Statistics Act 1905* (Cth), and the ABS is also subject to the *Privacy Act 1988* (Cth) and the Australian Privacy Principles.

BLADE, the Business Longitudinal Analysis Data Environment, is an integrated business dataset available through DataLab. It brings together administrative and survey information from sources including Business Income Tax (BIT), Business Activity Statements (BAS) and Pay As You Go (PAYG) data.

For this inquiry, the PC used only the information required to construct industry-level measures. The analysis was undertaken on de-identified records and is reported in aggregate. The PC supplied the ABS with a list of ABNs identifying the businesses to be included in the analysis, but the data made available to the PC did not contain business names or original ABNs. Results cannot be accessed outside DataLab until they have been checked and cleared by the ABS in accordance with its confidentiality requirements.

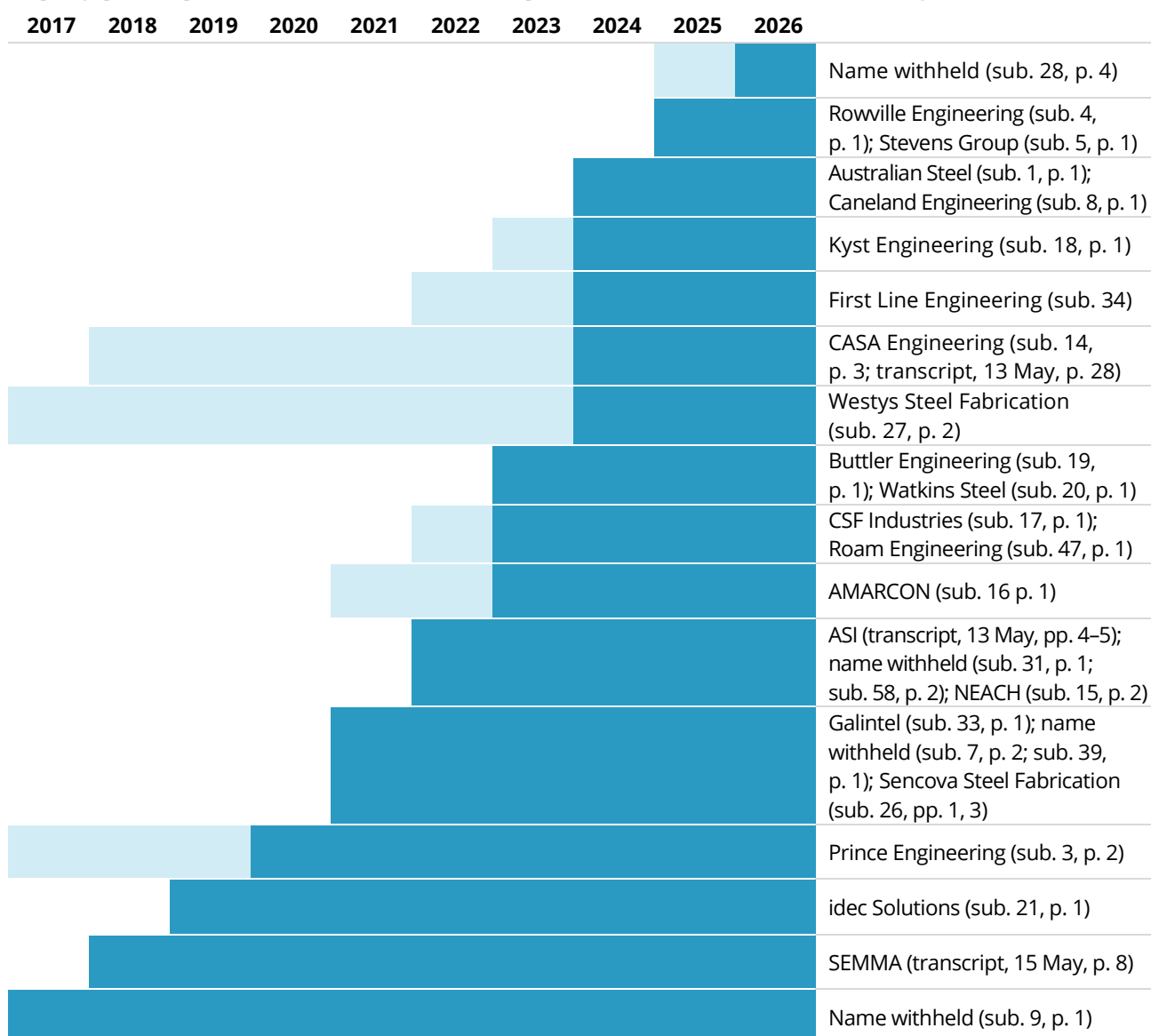
This has allowed the PC to analyse changes in the industry over time without accessing or reporting the identity of individual firms.

2.2 The period of investigation

The inquiry's terms of reference are silent on what the period of the investigation should be, although the Australian Government's notice of initiation to the WTO references information from the ASI as highlighting growth in imports from 2020 to 2024 (WTO 2026, p. 2).

Identifying the appropriate start of the investigation period was complicated by potential distortions caused by COVID-19. A 5-year investigation period for this inquiry is long enough to account for these distortions when assessing trends in imports and the health of the domestic industry. While some participants commented on earlier trends in import competition, most focused on the last 5 years (figure 2.1).

(sub. 7, p. 1; sub. 9, p. 1; sub. 31, p. 1; sub. 58, p. 1); Prince Engineering (sub. 3, p. 1); Stevens Group (sub. 5, p. 1); Westys Steel Fabrication (sub. 27, p. 1). Where submissions have estimated a range for the share of revenue exposure to direct import competition (for example, '50–70%') we have used the midpoint of this range for calculating the median across all submissions.

Figure 2.1 – Views on when imports increased are mixed**Inquiry participant indications of when imports of FSS increased, calendar year basis**

Dark shading is used if the source indicated high confidence in this being a period of strong or growing import competition.

Light shading is used if the source indicated uncertainty over timing or mild import competition.

Much of the data underpinning this figure is based on information from fabricators provided in response to a questionnaire circulated by the ASI which asked 'Have you observed increased import penetration in your product category?' and 'Over what period?' Where people indicated a range ('3-5 years', for example) we have taken the mid-point of the range. The data underpinning the figure is often presented in calendar year terms, so the figure is presented on calendar year terms (though the period of investigation is defined in financial year terms). Some of the cited submissions indicated import competition started even earlier. For example, Prince Engineering said it had observed sustained growth in import penetration 'over approximately the last 5-7 years, with the most pronounced acceleration occurring in the renewable energy and large infrastructure sector since 2012' (sub. 3, p. 2).

Concerning the end of the investigation period, some participants submitted that the period of investigation should include 2025, a more recent period of time than is covered in the ASI application (2026, p. 19). The PC agrees. At the public hearings the ASI said it believed a surge in imports has ‘continued into 2025 and 2026’ (transcript, 13 May, p. 5). The WTO Appellate Body has emphasised that to apply safeguard measures, the increase in imports must have been ‘recent’ and the investigation period should therefore capture the recent past (*Argentina – Footwear (EC)*, para. 130).

2024–25 is the most recent financial year for which enough data is available to analyse imports and injury. Data on absolute imports is available for all of 2024–25 (and the PC has been given access to preliminary imports data for the first 3 quarters of 2025–26). Data on some injury factors is available up to 2024–25. The PC has undertaken quantitative analysis to estimate values for 2024–25 data that is not available. In the final report, we will include analysis drawing on data on turnover for the first 2 quarters of 2025–26. Data is discussed further in chapter 3 and 4 and appendix B.

Five-year investigation periods capturing the recent past have been used in many other safeguard measure investigations, including those conducted by the PC. In light of all these matters, the PC has determined that the investigation period will be financial years 2020–21 to 2024–25.

The PC has included information on imports and injury for periods earlier than 2020–21, and preliminary imports data for the first 3 quarters of 2025–26. This information provides useful context for understanding trends observed during the investigation period and developments immediately thereafter. However, the PC’s analysis of imports and actual injury are based on what has occurred during the investigation period.

2.3 Excluded countries

As a general rule, if safeguard measures are applied they should apply to the product being imported ‘irrespective of its source’ (SA Article 2.2).

There are some exceptions to this ‘non-discrimination’ principle, including under certain trade agreements.

Australia’s trade agreements with Singapore and New Zealand preclude Australia from imposing safeguard measures that would apply to these countries.⁵ The ‘principle of parallelism’ requires that there must be symmetry between the products investigated and the products on which any safeguard measure is later applied, so Singapore and New Zealand have been excluded from the investigation (*US – Steel Safeguards*, section VII). In any event, Australia imports very little FSS from these countries.

Australia also has bilateral or plurilateral free trade agreements with a number of countries that export FSS to Australia, including the People’s Republic of China, Vietnam, Malaysia, Indonesia and the United States of America. These agreements do not preclude Australia from imposing safeguard measures that would apply to these countries. These countries have not been excluded from the scope of this inquiry.

There is also an exception to the general ‘non-discrimination’ principle for developing countries in Article 9.1 of the Agreement on Safeguards. If measures were to be applied, certain countries may be excluded from the application of the measures under this provision. This will be considered more closely if the PC finds in the final report that safeguard measures are warranted. Even if some developing countries are excluded from the *application* of measures, this does not mean they must be excluded from the investigation (for example, they do not need to be excluded when calculating levels of imports of the product under investigation).

⁵ See article 17 of the Australia–New Zealand Closer Economic Relations Trade Agreement and article 15 of the Singapore–Australia Free Trade Agreement.

3. Imports

Key points

- ✳ **Imports of fabricated structural steel (FSS) have increased during the investigation period but the increase does not meet the high legal standard for safeguard measures.**
 - Growth in imports was relatively consistent and in line with longer-term trends when considering the investigation period as a whole.
 - Within the investigation period, there was a sudden and sharp increase in imports in 2021–22. However, this event was not recent, and imports subsequently fell and then returned to trend.
- ✳ **Inquiry participants have identified developments which may have affected imports of the products under investigation.**
 - These developments include global steel overcapacity, trade measures imposed on steel, improvements in the quality of imported FSS products, disruptions in upstream domestic steel production and trends in FSS end-user industry demand.

Safeguard measures can only be applied if a product is being imported ‘in such increased quantities, absolute or relative to domestic production, and under such conditions as to cause or threaten to cause serious injury to the domestic industry’ (Agreement on Safeguards (SA) Article 2.1). WTO jurisprudence has interpreted the Agreement on Safeguards as requiring that the increase in imports is recent, sudden, sharp and significant (*Argentina – Footwear (EC)*, para. 131). In addition, the increase in imports must be the result of ‘unforeseen developments’ and the effect of the obligations Australia incurred under the General Agreement on Tariffs and Trade (GATT, Article XIX, para. 1(a)). ‘Unforeseen’ means unforeseen when the relevant GATT obligations were introduced in 1994 (Zhou and Fang 2023, pp. 544, 551).

3.1 How have imports changed?

Regarding absolute imports, the ASI’s application states that:

Since CY2022, there has been a clear and sustained surge in import volumes across the consolidated category of key FSS products. Total imports have expanded markedly year-on-year, reflecting the import growth in modular and prefabricated steel solutions. (2026, p. 19)

The application includes similar comments regarding relative imports:

The period from CY2022 to CY2024 witnessed a significant surge in FSS imports into Australia that substantially exceeded domestic production output. This surge has fundamentally disrupted the competitive balance between imported and domestically produced FSS, with

import volumes and pricing creating market conditions that have severely impacted the viability of local production. (ASI 2026, p. 21)

For this investigation, the Productivity Commission has undertaken detailed analysis of in-scope FSS imports. The analysis drew on the ABS Merchandise Trade Imports module, which is based on data collected by the Australian Border Force. This dataset includes data on all import transactions. To calculate relative imports, domestic production has been estimated using ABS firm-level microdata and information from members of the steel industry. We also reviewed submissions from inquiry participants. Appendix B details how the PC estimated domestic production.

Absolute imports

Over the 5-year investigation period from 2020–21 to 2024–25, annual imports increased by 124,600 tonnes or 27.9% (table 3.1). This is an average annual increase of just over 6.3% and largely continues a trend that has been ongoing since at least 2016–17 (figure 3.1). During the investigation period, the largest annual increase occurred in 2021–22 when imports increased by 85,900 tonnes, or 19.2%. This was followed by a 4.1% decline in imports in 2022–23, then increases of 4.8% and 6.8% for 2023–24 and 2024–25.

The PC considers the average annual growth of 6.3% during the investigation period to be recent and significant in size, though neither sudden nor sharp. From 2016–17 to 2019–20 imports grew at an annualised average rate of 15.2%. Further, while the increase in 2021–22 was sudden and sharp, because imports decreased the following year (thereby returning to the longer-term trend), the increase was not significant. In addition, 2021–22 was 4 years ago at the time of this investigation and, therefore, may not be considered recent.

The growth in imports before and during the investigation period is also evident in quarterly data (figure 3.2). Preliminary data for the first three quarters of 2025–26 suggests imports have continued to grow after the investigation period. This is discussed further in chapter 4 in the context of whether there is threat of serious injury.

Table 3.1 – Absolute imports

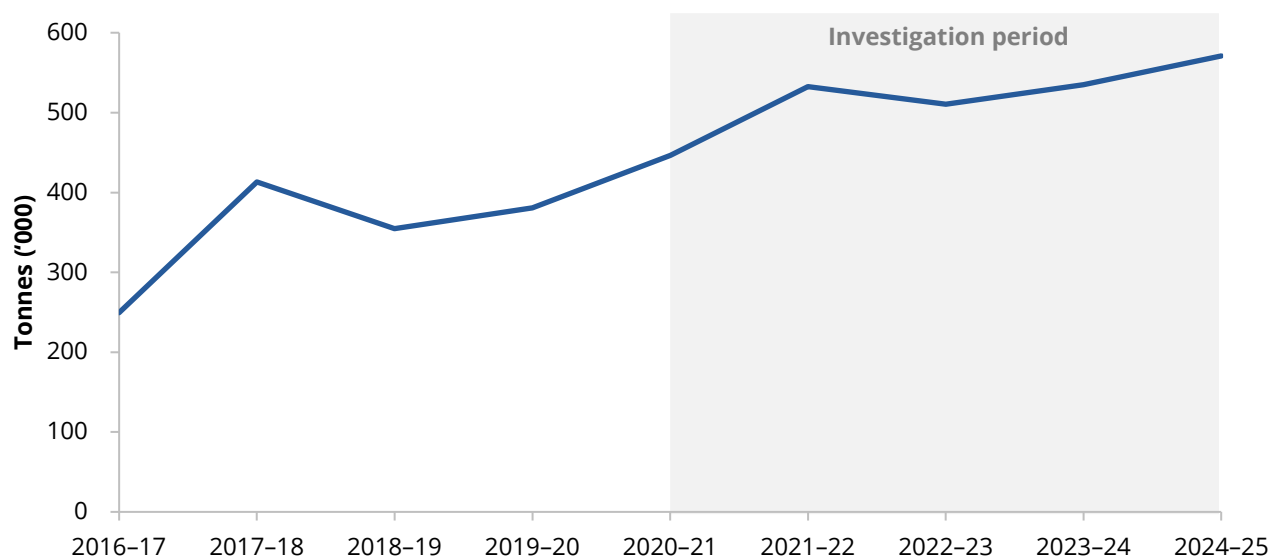
Annual imports of in-scope FSS over the investigation period

	Imports (tonnes)	Absolute change relative to previous year (tonnes)	Percentage change relative to previous year	Index
2020–21	446,600			100.0
2021–22	532,600	+85,900	+19.2%	119.2
2022–23	510,600	-21,900	-4.1%	114.3
2023–24	535,000	+24,300	+4.8%	119.8
2024–25	571,200	+36,200	+6.8%	127.9

Imports and absolute change in imports have been rounded to the nearest 100 tonnes. Percentage change and index figures are based on actual numbers. Inconsistencies are due to rounding.

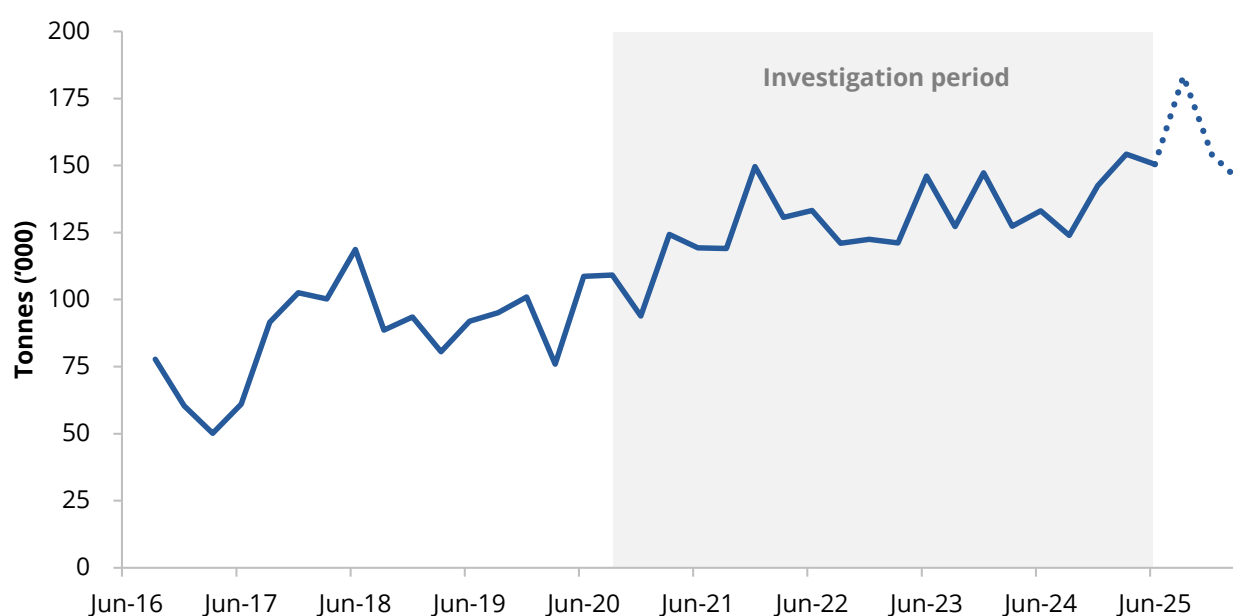
Source: PC analysis using ABS data.

Figure 3.1 – Absolute imports (financial year basis)
Annual imports of in-scope fabricated structural steel



Source: PC analysis using ABS data.

Figure 3.2 – Absolute imports (quarterly basis)
Quarterly imports of in-scope fabricated structural steel



Data for the first 3 quarters of 2025-26 are preliminary and subject to revision.

Source: PC analysis using ABS data.

Relative imports

The increased imports requirement for safeguard measures can be met if there is an increase in imports 'relative to domestic production' (SA Article 2.1). As with absolute imports, the relative increase must be recent, sudden, sharp and significant.

Calculating relative imports (the ratio of imports to domestic production) requires data on domestic FSS production. The PC estimated domestic production based on administrative data held by the ABS and information from members of the FSS industry.⁶

Two series for relative imports are presented, each based on a different estimate of domestic production.

- First, domestic production has been estimated based on a conservatively estimated population of domestic firms. This includes firms on the ASI fabricator member list as well as firms identified directly through the course of this inquiry, amounting to 376 businesses at the most (the list includes some businesses known to have ceased operating so the number of firms included in the estimates can vary from year to year).
- Second, domestic production has been estimated using an expanded population that also includes businesses not otherwise identified but which we expect to be FSS producers based on information shared by key industry stakeholders. This group includes up to 514 businesses. Additional detail on industry identification is included in appendix B.

The PC considers that estimates based on the conservative population are sufficient for making findings about whether relative imports have increased in a way that satisfies the requirements for a safeguard measure. The ASI has estimated that its fabricator members represent 70% of domestic capacity (ASI 2026, pp. 9–10). However, the estimates for the expanded population are included because the PC considers they are likely a more accurate representation of the level of domestic production (and so relative imports).

Based on the conservative population, PC analysis indicates that relative imports increased from 94.1% to 105.3%⁷ over the investigation period, an increase of 11.2 percentage points (table 3.2; figure 3.3). Relative imports increased by 28.4 percentage points in 2021–22, driven both by reduced domestic production and the biggest annual increase in imports in the investigation period. This was followed by a 16.7 percentage point decrease in 2022–23, a 0.9 percentage point increase in 2023–24 and a 1.5 percentage point decrease in 2024–25.

Based on the expanded population, PC analysis indicates that relative imports increased from 63.5% to 75.3% over the investigation period, an increase of 11.7 percentage points (table 3.2; figure 3.3). These figures are significantly lower than those estimated based on the conservative population because the expanded population includes a larger set of businesses. This also drives some variation in the pattern of increases and decreases in relative imports over the investigation period.

⁶ Domestic production was estimated by multiplying the FSS population's cost of sales (drawn from administrative data) by the estimated share spent on steel inputs. This figure was then divided by the estimated weighted average steel inputs price based on data from key industry stakeholders, then adjusted for offcuts and wastage. Additional detail is included in appendix B.

⁷ Figures of over 100% are possible because what is being calculated is imports divided by estimated domestic production: this will be greater than 100% if imports are greater than estimated domestic production.

The PC considers that relative imports have not increased in a way that is recent, sudden, sharp and significant, whether using the conservative or expanded populations. The sharp and significant increase in 2021–22 was neither recent nor significant in the context of longer-term trends.

Table 3.2 – Relative imports

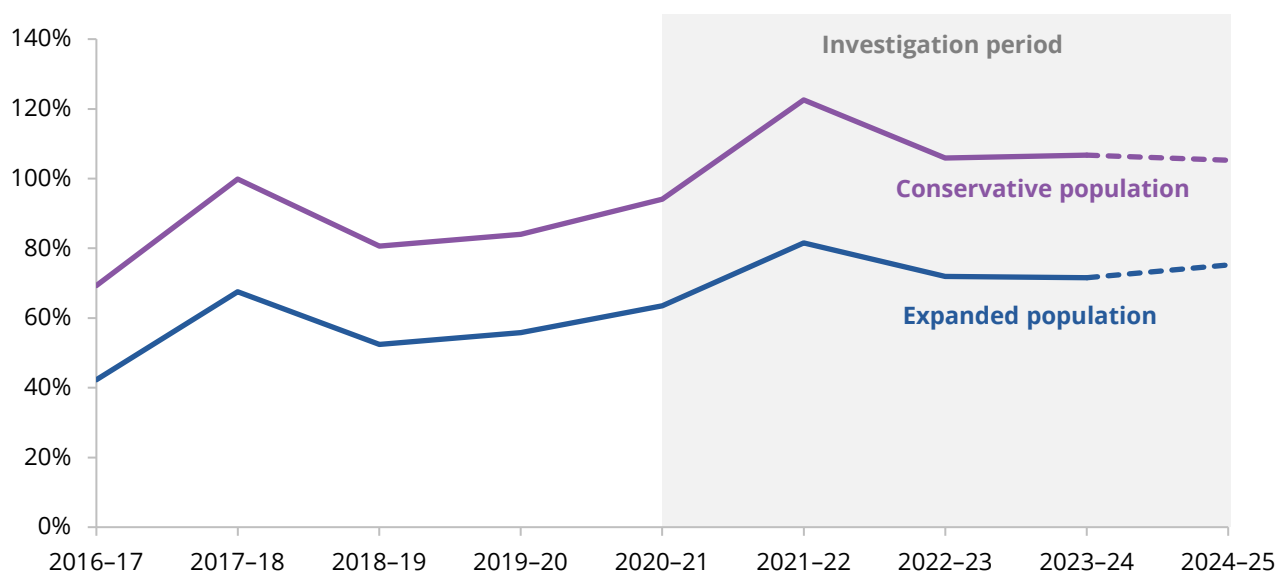
	Conservative population		Expanded population	
	Relative imports	Year-on-year change	Relative imports	Year-on-year change
2020–21	94.1%		63.5%	
2021–22	122.5%	+28.4 pp	81.5%	+18.0 pp
2022–23	105.9%	-16.7 pp	71.9%	-9.6 pp
2023–24	106.8%	+0.9 pp	71.6%	-0.3 pp
2024–25	105.3%	-1.5 pp	75.3%	+3.7 pp

Cost of sales data used to estimate domestic production (and so relative imports) is not available for 2024–25, so 2024–25 domestic production is estimated based on the historical relationship between cost of sales and turnover, which is available for 2024–25. The approach to estimating domestic production and values for 2024–25 are discussed in appendix B. Figures for relative imports and year-on-year change are inconsistent due to rounding.

Source: PC analysis using ABS data and confidential information from key industry stakeholders.

Figure 3.3 – Imports relative to domestic production

Annual relative imports of in-scope fabricated structural steel



Cost of sales data used to estimate domestic production (and so relative imports) is not available for 2024–25, so 2024–25 domestic production is estimated based on the historical relationship between cost of sales and turnover, which is available for 2024–25. The approach to estimating domestic production and values for 2024–25 is discussed in appendix B.

Source: PC analysis using ABS data and confidential information from key industry stakeholders.

**Finding 3.1****The increase in imports does not meet the standards required**

The evidence indicates that growth in imports, in absolute terms or relative to domestic production, does not meet the standard required by the WTO Agreement on Safeguards.

3.2 Unforeseen developments and GATT obligations

To apply safeguard measures, the recent, sudden, sharp and significant increase in imports must be the result of ‘unforeseen developments’ and the effect of the obligations Australia incurred under GATT in 1994 (Article XIX, para. 1(a)).⁸ ‘Unforeseen’ means unforeseen when the relevant GATT obligations were introduced in 1994 (Zhou and Fang 2023, pp. 544, 551).

The PC’s interim finding is that the increase in imports does not meet the legal standard for introducing definitive safeguard measures (chapter 5). This means it is not necessary to consider the ‘unforeseen developments’ test in detail. Nevertheless, as this is an interim report, we briefly outline evidence and views on the causes of growth in FSS imports and the extent to which these might be considered unforeseen in the context of GATT obligations.

Steelmaking overcapacity and trade protection measures

The ASI has argued that growth in imports of FSS has been driven by global overcapacity in steelmaking, a collapse in domestic demand for FSS in China and the use of trade protection measures for steel (ASI 2026, pp. 24–34).

OECD analysis suggests that there has been longstanding overcapacity in steelmaking globally, increasing in recent years (OECD 2026, p. 11). The OECD has noted that when output ‘cannot be absorbed in national markets, the steel is typically exported to foreign markets at low prices, or in the form of steel-intensive downstream products, at the expense of producers elsewhere’ (OECD 2026, p. 8). This has been particularly relevant in the case of China, where a weak domestic market has contributed to record steel exports in 2025 (OECD 2026, p. 8). China’s role as a major exporter could be considered unforeseen; when GATT was negotiated in 1994, China was a net importer of steel (OECD 1998, p. 43).

In response to global steelmaking overcapacity, several countries have introduced trade protection measures against raw steel imports. In 2025 there were 395 active anti-dumping or countervailing duty measures on steel, and 75 new investigations were launched (OECD 2026, p. 64). Australia ranks third globally as a user of trade protection measures against raw steel (OECD 2026, p. 64).

Global overcapacity in steelmaking combined with trade protection measures introduced by the Australian Government may have contributed to growth in FSS imports. If overcapacity pushes down

⁸ Under GATT, Australia agreed not to impose tariffs on the relevant products above bound rates of 7.7% or 10%, depending on their tariff classification (WTO 1994, p. 202). Australia generally applies tariffs of no more than 5% to these products (Australian Border Force 2024). Provided the goods satisfy applicable rules of origin, imports from several countries Australia imports FSS from enter tariff free, including China and Vietnam (Australian Border Force 2025b, schedules 12 and 8).

raw steel prices for foreign fabricators, but Australian fabricators cannot access steel at those cheaper prices due to trade measures introduced by the Australian Government, domestic fabricators will be at a disadvantage relative to foreign fabricators. This will occur even if there is not global overcapacity: trade measures that increase costs for domestic producers of traded goods make imports relatively cheaper. This has been discussed previously by the PC (2010, pp. 38–39)⁹ and was raised in this inquiry (CS Traders, sub. 23, pp. 2–4; Steel Builder Australia, sub. 42, p. 28).

The Australian Government has introduced trade measures that are likely increasing the prices domestic fabricators pay for steel. There have been anti-dumping measures in place for hot rolled structural steel sections imported from Japan, Korea, Thailand, and Taiwan since 2014 (ADC 2026). These and other measures are catalogued in appendix B of Technoweld's post-hearing submission. Anti-dumping measures on hot rolled coil introduced in May 2026 were noted by Galintel (sub. 33, p. 1) and Weldlok Industries, who submitted that 'Australian manufacturers bear input cost pressures from trade-remedy-affected [hot rolled coil] while simultaneously competing against imported finished goods that are not subject to equivalent measures' (sub. 36, p. 6).

Additional analysis would be needed to estimate the impact of raw steel overcapacity and trade measures on imports of fabricated structural steel. This would include analysis of pricing differences between imported and domestically produced fabricated structural steel. Many inquiry participants have indicated that imported FSS is cheaper than domestic production:

- The ASI's suggestion that prices of imported FSS are 15–50% lower than domestically produced equivalent products aligns broadly with what the PC has heard from other inquiry participants (ASI, transcript, 13 May, p. 5). Roam Engineering submitted that 'a significant portion of the cost gap between local and imported fabricated steel reflects scale. Overseas suppliers typically operate at volumes that Australian fabricators cannot match under current market conditions' (sub. 47, p. 2).
- Submissions often indicate that pricing pressure from imports has always existed, or at least existed long before the investigation period, but has intensified in recent years.¹⁰

Competition with lower-priced imports was raised in the ASI's submission to a 2016 Senate inquiry into the future of Australia's steel industry (2016, pp. 49–99). The average price of within-scope imports has not varied significantly over time (appendix B, figure B.2).

Other potential drivers of increased imports

Inquiry participants have said the tradability, quality and acceptance of imported FSS has increased. For example, CASA Engineering said at the public hearings that:

[FSS used to be imported as] break bulk, and when it was break bulk, we were still competitive because break bulk was more expensive shipping. Now a container box costs \$3,000 US. You break that down, you can work out how many tonnes you can put in there, and they are getting very, very efficient at how much they can slide into a container. ... If you

⁹ The PC noted a case in which anti-dumping measures on a key input used to manufacture mobile garbage bins were followed by anti-dumping measures on imported garbage bins themselves (2009, p. 39). The example illustrates how measures applied to an input can increase pressure from imports of more processed products.

¹⁰ For example: name withheld (sub. 7, p. 4; sub. 44, p. 2), Prince Engineering (sub. 3, p. 3), Westys Steel Fabrication (sub. 27, p. 2).

can get it in a container, it can be imported. It is just that simple. ... the design has evolved to suit overseas. ...

The big change for us now is the acceptance of imported steel. Previously, everybody thought it was a risk to bring imported steel in this country because there were so many issues with it technically. All that has evolved. The technical part of imported steel is now being removed. The risk is minimal. The risk is now about how soon your ship will arrive or not. (CASA Engineering, transcript, 13 May, p. 27)

Another development raised by some inquiry participants is shutdowns at the Whyalla Steelworks and related uncertainty over supply of the steel inputs used by the FSS industry. Whyalla Steelworks has faced production issues since an initial failed restart following planned maintenance in 2024, and some inquiry participants suggested that this has contributed to buyers of FSS in Australia testing and becoming more comfortable with imports (CS Traders, sub. 23, pp. 3–4; Steel Builder Australia, sub. 42, p. 29).

Others have countered that distributors are able to flex domestic and import channels and hold significant quantities of inventories to shield against market shocks such as Whyalla shutdowns, minimising any impact on domestic FSS firms' ability to supply the market (ASI, post-hearing submission, p. 12). Overall, there was conflicting evidence from inquiry participants on the significance and relevance of Whyalla Steelworks' shutdowns for the FSS industry.

Finally, imports of FSS are affected by the downstream industries which demand these products. In particular, demand for FSS rises and falls with construction, infrastructure and mining activity, so fluctuations in these downstream industries will directly impact demand facing the domestic industry and imports. Inquiry participants provided conflicting evidence as to whether industry trends over the investigation period are reflective of changing downstream domestic demand versus a substitution toward imports and away from domestic production (BlueScope Steel, sub. 48, p. 8; CASA Engineering, sub. 14, p. 6; Instant Steel Solutions, sub. 46, p. 2; Master Builders Australia, sub. 49, p. 4; Sencova Steel Fabricators, sub. 26, p. 1; Steel Builder Australia, sub. 42, p. 28). Regardless, the cyclical performance of industries downstream to the FSS industry would be unlikely to meet the threshold of unforeseen circumstances.

While useful contextual information, as the PC has not found evidence of an increase in imports that meets the requirements for safeguard measures, the implications of industry trends and other developments do not require further analysis at this stage.

4. Injury

Key points

- ✳ **To apply safeguard measures, an increase in imports must be demonstrably causing serious injury or there must be a threat of serious injury.**
 - ‘Serious injury’ means ‘significant overall impairment’ to the industry as a whole. The Agreement on Safeguards requires that the investigation of injury is based on objective and quantifiable evidence, including a number of specific ‘injury factors’.
 - ‘Threat of serious injury’ means serious injury that is ‘clearly imminent’. The Agreement on Safeguards requires the investigation of threat to be based on facts, ‘not merely on allegation, conjecture or remote possibility’.
 - A recent, sudden, sharp and significant increase in imports must be shown to be causally responsible for both serious injury or threat thereof if a safeguard measure is to be introduced.
- ✳ **Over the investigation period, the domestic industry expanded.**
 - Sales, profits, production, productivity, capacity utilisation, and employment all increased over the investigation period, while import market share declined marginally (in value terms).
 - Evidence from inquiry participants and administrative data indicate variation in the performance of different parts of the industry, but the safeguard investigation must be based on the condition of the industry as a whole.
- ✳ **Based on the weight of evidence available, the Productivity Commission finds that the Australian fabricated structural steel (FSS) industry as a whole is not suffering serious injury and there is not a threat of serious injury.**
 - The health of all injury factors increased over the investigation period, despite some weakening off peaks for a few factors in the most recent years.
 - Submissions indicate challenging tendering conditions and pressure in some segments, but there is insufficient evidence that significant industry-wide impairment is clearly imminent.

4.1 Assessing injury

Safeguard measures can only be applied if a recent, sudden, sharp and significant increase in imports has caused, or threatens to cause, serious injury to the domestic industry producing like or directly competitive products (SA Article 2). 'Serious injury' means 'a significant overall impairment in the position' of the domestic industry and 'threat of serious injury' means 'serious injury that is clearly imminent' (SA Article 4). If both these conditions are met, it must then be established that the serious injury or threat thereof is causally linked to the increase in imports and not due to unrelated factors (*Argentina – Footwear (EC)*, para. 8.267; SA Article 4.2(b)).

To assess whether Australia's FSS industry is experiencing serious injury, the PC must evaluate 'all relevant factors of an objective and quantifiable nature having a bearing on the situation of that industry', including at a minimum those set out in Article 4 of the Agreement on Safeguards:

- changes in sales
- changes in profits and losses
- changes in employment
- changes in productivity
- changes in capacity utilisation
- changes in production
- the rate and amount of the increase in imports in absolute and relative terms
- the share of the domestic market taken by increased imports.

Not every factor needs to indicate serious injury: the PC must consider all factors and decide whether they indicate the industry is suffering 'significant overall impairment'. The WTO Appellate Body has emphasised that serious injury is a 'very high' and 'exacting' standard, higher than the material injury threshold used for anti-dumping and countervailing measures (*US – Lamb*, para. 124).

The PC has used administrative data to provide a complete and unbiased picture of the FSS industry

To analyse whether the Australian FSS industry is experiencing significant overall impairment, the PC has drawn on firm-level anonymised administrative data held by the ABS. The data is based on individual firms' Business Income Tax (BIT) returns, Business Activity Statements (BAS) and Pay As You Go (PAYG) submissions. BIT data is derived from business tax returns and provides the most comprehensive insight on business performance, so the PC has relied on BIT for assessing most injury factors in most years (McMillan and Burns 2021, p. 3).

For most of the injury factors, the estimates are based on the performance of ASI fabricator members and fabricators directly identified during the course of this inquiry. This is referred to as the conservative population, and likely produces estimates that understate the total size of the Australian FSS industry. For some injury factors, estimates for an expanded industry group are also presented to test the robustness of the results based on the conservative population. This expanded population adds firms that were identified as purchasers of key FSS inputs through multiple sources. Population identification is discussed further in chapter 2 and appendix B. The PC's analysis and findings hold regardless of which set of firms are assessed.

Administrative data gives a comprehensive and accurate view of industry activity

The PC considers administrative data to be the best available source for assessing overall industry performance. It provides broad coverage, uses information firms have already reported to the ATO (subject to the legislative definitions, reporting requirements and quality assurance standards of the Australian tax system) and reduces the burden on industry.

Administrative data also helps reduce selection bias. Unlike a survey, it is less likely to over-represent firms that are still operating, or firms experiencing particular difficulties. This makes it a more reliable basis for assessing the condition of the industry as a whole.

There are some limitations in using administrative data. One disadvantage of using administrative data is that it is only generated with a lag and not every firm consistently provides data on every variable. The BIT data used for some injury factors is only available up to 2023–24, so the PC has estimated several 2024–25 injury factors using more recent BAS and PAYG data. More information about the methodology is at appendix B.

A further limitation is that administrative data is collected for tax and reporting purposes, not specifically for this inquiry. This limits the PC's ability to distinguish between different activities undertaken by firms identified as part of the FSS industry. In particular, the data does not identify the share of businesses' income unrelated to the production of FSS (for example, income earned through engineering services, design or installation). Accordingly, some of the activity captured in the administrative data may reflect diversification into other activities rather than domestic fabrication. Across 14 submissions that provide quantitative evidence on what percentage of their revenue is exposed to direct import competition, the median response was 80%.¹¹

However, as discussed in chapter 2, there is no requirement under the Agreement on Safeguards that the firms making up the domestic industry produce only goods that are like or directly competitive with the in-scope imports. Income earned from the sale of other goods and services may mitigate against injury caused by increased imports of in-scope products.

4.2 Is there serious injury?

Inquiry participants generally indicated declining performance

The accounts provided by domestic FSS industry participants in public hearings and submissions largely suggested they have been negatively impacted by increasing import competition. 34 domestic FSS firms made public submissions and nearly all said they have observed growth in imports and reduced market share (table 4.1).

¹¹ AMARCON (sub. 16, p. 1); Brezac Constructions (sub. 38, p. 2); CSF Industries Pty Ltd (sub. 17, p. 1); EDCON Steel (sub. 22, p. 3); First Line Engineering (sub. 34, p. 1); Gonzalez Steel Pty Ltd (sub. 43, p. 1); Kyst Engineering (sub. 18, p. 1); name withheld (sub. 7, p. 1; sub. 9, p. 1; sub. 31, p. 1; sub. 58, p. 1); Prince Engineering (sub. 3, p. 1); Stevens Group (sub. 5, p. 1); Westys Steel Fabrication (sub. 27, p. 1). Where submissions have estimated a range for the share of revenue exposure to direct import competition (for example, '50–70%') we have used the midpoint of this range for calculating the median across all submissions.

Table 4.1 – Inquiry participants reported a decline in business performance across injury factors
Reported injury-factor impacts experienced by FSS firms during investigation period

Injury factor	Improved	Worsened	Neutral	Not addressed
Sales/revenue	2	12	4	16
Employment (headcount)	0	14	6	14
Profit	0	19	1	14
Production (tonnes)	0	12	3	19
Productivity	0	1	0	33
Capacity utilisation (%)	0	13	1	20
Market share	0	29	0	5
Imports	0	30	0	4
Capex/investment	0	21	0	13

Cells are shaded according to the proportion of firms that reported a particular impact for each factor, with darker shading indicating a higher proportion and lighter shading indicating a lower proportion. A factor is recorded as improved or worsened where this was stated or could reasonably be inferred as relating to the investigation period (2020–21 to 2024–25); where it was evident that a reported change related to a period outside the investigation period, or reflected only a very recent shift, this was instead recorded as not addressed. For imports and market share, worsened means an increase in imports or in the share of the market held by imports.

Source: PC analysis of inquiry submissions.

Where fabricators provided information on specific injury factors, they mostly indicated deteriorating performance. The most commonly reported injury factors were sales, profit, production, utilisation and employment. On profit, there was a common narrative linking increased competition from lower-priced imported goods in competitive tendering processes to domestic fabricators being forced to significantly lower their quoted prices, reducing profit margins and, in turn, investment. This issue is discussed further in the context of whether there is a threat of serious injury (section 4.3).

Very few firms reported an improvement in any of the injury factors. NEACH, a fabricator in southeast Queensland, reported an increase in revenue due to securing contracts for major government infrastructure projects (sub. 15, p. 4).

Of the 34 firms that made submissions, very few provided full time-series data for injury factors.¹² Their evidence does not reveal a clear or consistent pattern. One fabricator, for example, reported a sharp increase in sales, profit, production, and utilisation in 2021–22, followed by a decline in 2023–24 and a year-to-date recovery in 2024–25.¹³ By contrast, a second fabricator reported only a small peak in sales

¹² It is unclear whether these firms overlap with the six fabricators included in the ASI survey.

¹³ Name withheld (sub. 7, pp. 5–7) provided evidence of fluctuating profit (earnings before interest and tax) between 2020–21 and 2023–24, then a 21% decrease in 2024–25 and a recovery in profit to date in 2025–26. Sales hovered around \$12 million in 2019–20 and 2020–21, spiked to \$17 million 2021–22 and dropped to \$4 million in 2023–2024, before returning to trend at \$13 million in 2024–25 YTD. Employment, in contrast, has only partially recovered, dropping to 16 in 2023–24 from between 45–50 in earlier periods, recovering to 36 in 2024–25 YTD.

in 2023–24 and otherwise relatively stable performance over the 2022–23 to 2024–25 period.¹⁴ A third fabricator reported a sharp deterioration in sales and capacity utilisation from 2021–22 to 2024–25, while employment remained broadly stable or increased slightly over the same period (though hours worked decreased) (name withheld, sub. 44, p. 3). The project-based nature of structural steel fabrication may contribute to variations in the timing of firms' reporting of injury.

The results from an ASI survey of 6 fabricators indicate broadly stable performance from 2021–22 to 2023–24 across most injury factors, followed by a sharp decline in 2024–25 (ASI 2026, p. 37). Production, sales and capacity utilisation were broadly stable until declining to about 50% of their 2021–22 levels. In both 2022–23 and 2023–24 profits were approximately double their 2021–22 level, before falling to 36% of their 2021–22 level in 2024–25. Employment was stable or increasing before declining to 90% of its 2021–22 level in 2024–25 (ASI 2026, p. 39).

Other sources indicate similar trends in the injury factors as the ASI survey. Unpublished modelling commissioned by the ASI suggests that Australian FSS production increased in 2023 before falling sharply in 2024 (Oxford Economics Australia 2025).¹⁵

The IBISWorld report cited by the Australian Workers' Union suggests declines in profit and employment over the period of the investigation (sub. 53, pp. 5–7). However, the IBISWorld estimates relate to the Structural Steel Fabricating industry (ANZSIC 2221), which does not align closely with the PC's identified FSS population. Classification of firms at the 4-digit ANZSIC code level can be inaccurate. For instance, of the 367 firms active during the investigation period, 24.5% remained classified under ANZSIC 2221 throughout the period, while a further 7.9% moved into or out of the classification during the period. The remaining 67.6% were classified under other ANZSIC codes throughout.

Two Australian steel distributors, InfraBuild and BlueScope Steel, reported that their sales to the FSS industry declined during the investigation period. InfraBuild pointed to dips in domestic FSS production in 2022 and 2024, with some recovery in 2025 (sub. 40, p. 12). BlueScope reported 'weakening demand for, and sales of, Australian-made steel inputs into the domestic fabrication segment' (sub. 48, p. 11).

Data on overall industry performance does not show serious injury

In each section below, the PC presents evidence relating to the injury factors specified in the Agreement on Safeguards.

Overall, the data does not demonstrate that the industry as a whole has experienced serious injury. The health of all injury indicators increased from the start to the end of the investigation period, although some moderated from earlier peaks towards the end of the period. The data does demonstrate variation in performance within different parts of the industry.

Sales

The PC assessed income derived from the sale of goods and services over the investigation period. Sales increased over the investigation period by an average of 8.5% per year.¹⁶ Sales declined 6.5% to \$3.7 billion in the second year of the investigation period (2021–22) before growing in the rest of the

¹⁴ Kyst Engineering (sub. 18, p. 1) only provides turnover figures.

¹⁵ Referenced by ASI (2026, p. 22).

¹⁶ Excluding 2024–25, which is a PC estimate, total industry sales increased by an average of 9.3% per year over 2020–21 to 2023–24.

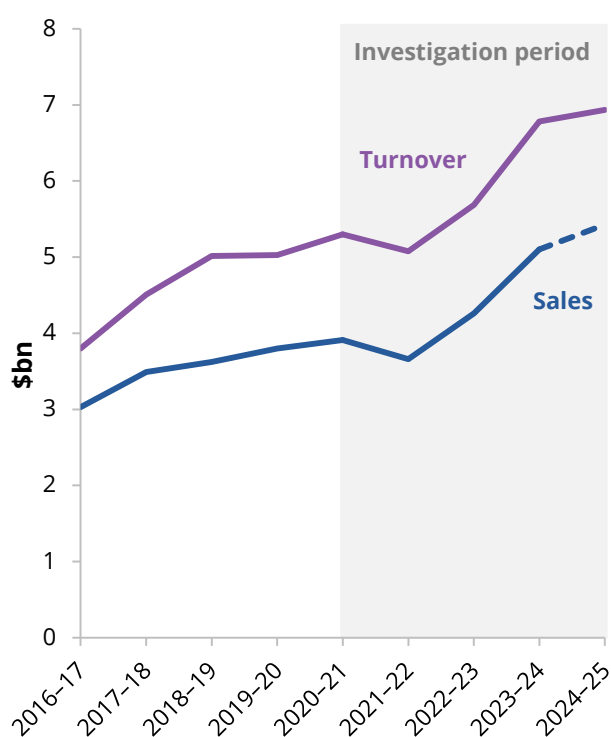
investigation period, reaching \$5.1 billion by 2023–24 (figure 4.1). The PC estimates that sales income grew again in 2024–25, reaching \$5.4 billion in line with growth in turnover.

The PC examined turnover for Australian FSS businesses which is collected through BAS and is available for the entire investigation period to 2024–25. Turnover is a broader measure of income than sales and includes revenue from all sources. For businesses analysed, income from sales and turnover track closely, with income from sales consistently accounting for the bulk of turnover.

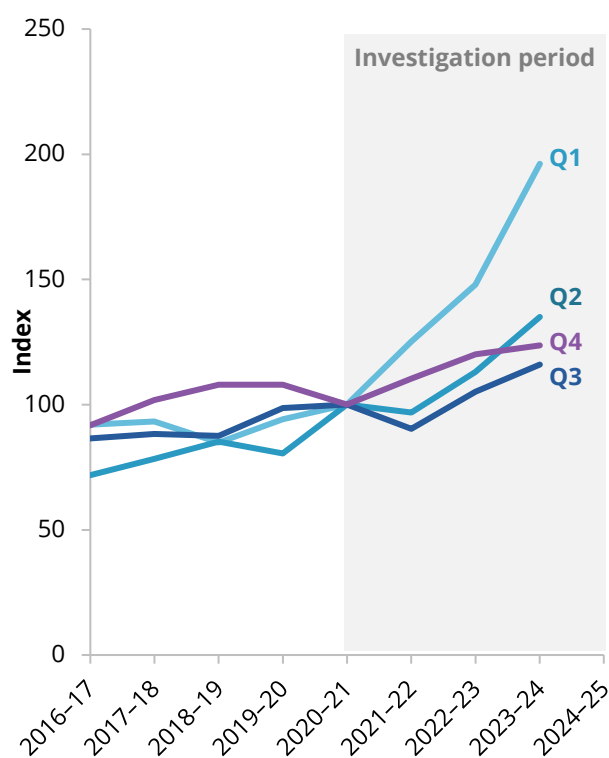
Turnover increased over the investigation period by an average 7.0% per year. Turnover follows a similar trend to sales, declining more in 2021–22 and growing less thereafter. Turnover declined 4.2% in 2021–22 before increasing 28.0% above 2020–21 levels by 2023–24 and increased to 30.8% above 2020–21 levels by 2024–25 (figure 4.1).

Figure 4.1 – An initial decrease in sales was followed by strong growth

a. Australian FSS industry sales (\$b, 2024–25 dollars)



b. Australian FSS industry median sales by FTE quartile (relative to 2020–21, 2024–25 dollars)



Quartiles divide the population into 4 groups, each with an equal number of members. In this case, the population has been divided into groups based on the number of FTE employees.

Source: PC analysis of ABS data, deflated using Producer Price Index (PPI) for industry code 2221.

Median sales increased across all firm-size quartiles between 2020–21 and 2023–24 (figure 4.1). Sales are expressed in constant 2024–25 prices, with the figure indexed to 2020–21 (equal to 100) to show changes over time. Firms are grouped by full-time equivalent (FTE) employment in the first year of the investigation (2020–21), with Q4 comprising the largest firms. Unlike our industry-wide analysis, in the quartile analysis only firms with positive FTE employment in every year are included, to ensure that the population of each quartile is consistent across time. As a result, the quartile analysis uses a fixed population and excludes entrants and exits.

The variation across quartiles does not indicate a consistent relationship between firm size and sales growth. The median firm in Q1 recorded the strongest growth, with sales increasing by 96% between 2020–21 and 2023–24. Median sales increased by 35% in Q2, 16% in Q3 and 23% in Q4 over the same period. The stronger growth in median sales for Q1 may partly reflect the construction of the quartiles. Firms are assigned based on their FTE employment in 2020–21, so Q1 includes firms that were relatively small at the start of the period and may have had greater scope to grow. The fixed population also excludes later entrants and firms that subsequently exited.

Profits and losses

The PC assessed the pre-tax profit of Australian FSS businesses using information submitted through business income tax returns. Profit increased over the investigation period by an average of 14.3% per year.¹⁷ Profit followed a similar trend to sales, increasing 70.4% over the period of investigation despite a small decline in 2021–22 (figure 4.2). Profit declined 5.5% to \$265 million in 2021–22 before growing in later years and reaching \$469 million in 2023–24. The PC estimates that industry profit increased a further 1.8% to \$478 million in 2024–25.

In the pre-investigation period and early years of the investigation period, the Australian Government introduced multiple accelerated depreciation incentive schemes which, if utilised, would artificially reduce reported profit. Rather than adjusting reported profit, the PC also examined EBITDA (earnings before interest, tax, depreciation and amortisation) which is robust to these incentives.¹⁸ EBITDA increased over the investigation period by an average 11.6% per year.¹⁹ EBITDA shows a similar overall pattern to profit, although the decline in 2021–22 is sharper.

Median EBITDA increased across all firm-size quartiles between 2020–21 and 2023–24 (figure 4.2), although the path of growth varied. All quartiles recorded a decline in 2021–22, followed by a broad recovery in 2022–23. Q4 experienced the largest initial decline and the strongest subsequent rebound, before EBITDA declined slightly in 2023–24. By contrast, Q1 recorded more sustained growth over the final two years and had the largest overall increase. Q2 and Q3 also recovered steadily after their 2021–22 declines.²⁰

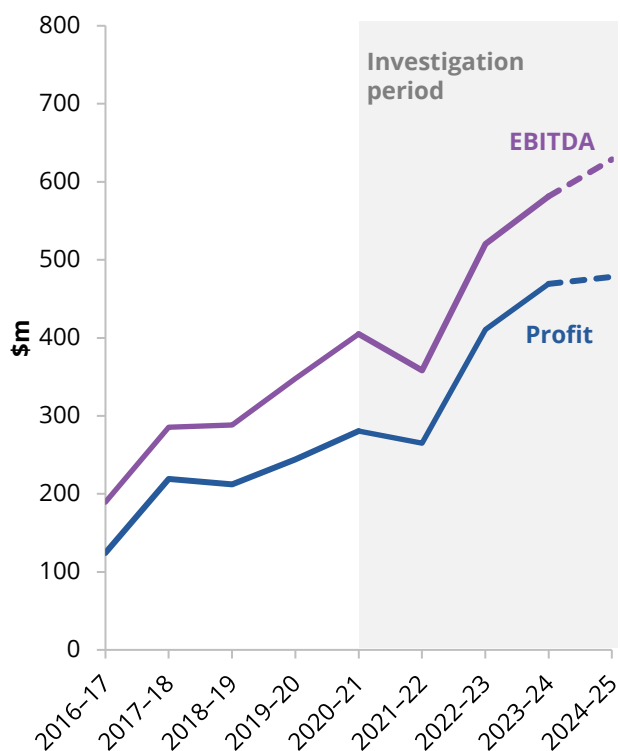
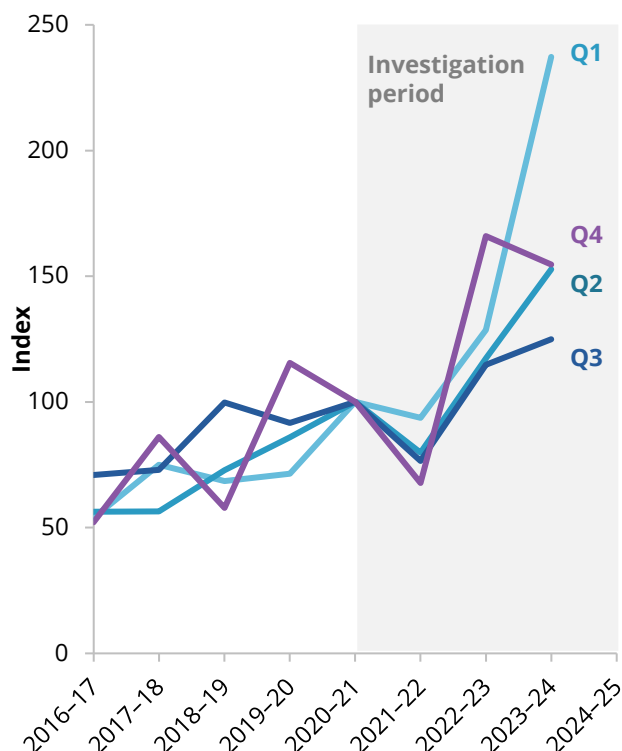
By 2023–24, median EBITDA was around 137% above its 2020–21 level in Q1, 53% higher in Q2, 25% higher in Q3 and 55% higher in Q4. Overall, the results show a common pattern of weaker profitability in 2021–22 followed by recovery, but no consistent relationship between firm size and the extent of EBITDA growth.

¹⁷ As in [16], profit increased by 18.7% per year.

¹⁸ Profit is directly from BIT, while EBITDA is calculated from variables in BIT. Appendix B provides more information.

¹⁹ As in [16], EBITDA increased by 12.8% per year.

²⁰ Firms are assigned to quartiles based on their full-time equivalent employment in 2020–21 and remain in those quartiles throughout the analysis.

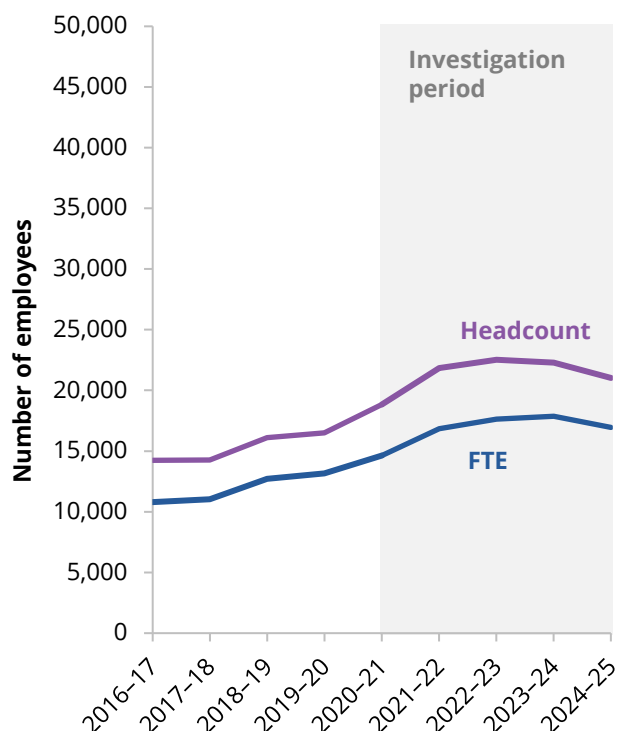
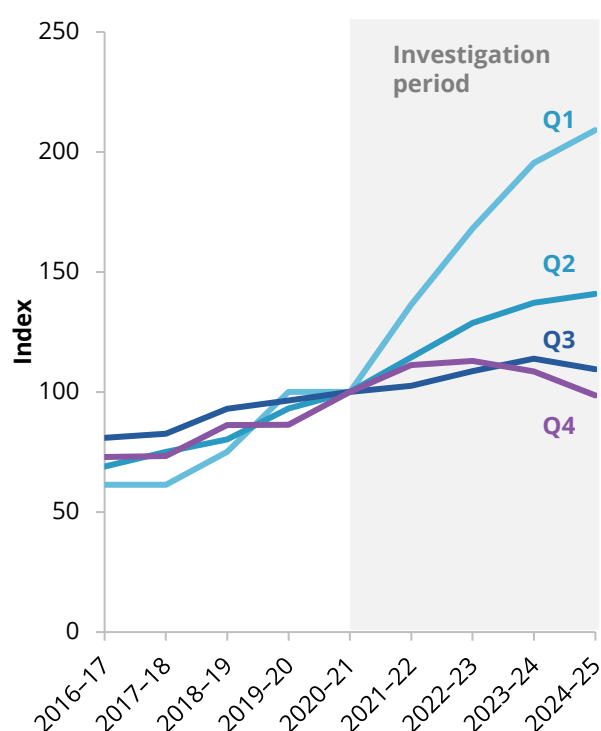
Figure 4.2 – Industry profits and EBITDA have grown strongly in recent years**a. Australian FSS industry profits and EBITDA (\$m, 2024–25 dollars)****b. Domestic industry median EBITDA by quartile (relative to 2020–21, 2024–25 dollars)**

Source: PC analysis of ABS data, deflated using PPI for industry code 2221.

Employment

The PC assessed employment for the industry using two measures: FTE and headcount. These are sourced from PAYG data. One fabricator highlights that the two measures provide differing insights (name withheld, sub. 44, p. 3). FTE reflects the number of hours worked, while headcount measures the number of people employed. A decline in FTEs and stable headcount means that no employees have been laid off but hours worked per worker has been reduced.

Overall, employment increased over the investigation period and although both measures declined from earlier peaks towards the end of the period they remained above their starting levels (figure 4.3). Industry FTEs and headcount increased over the investigation period by an average of 3.7% and 2.8% per year, respectively. Between 2020–21 and 2024–25, FTE increased by 15.8% and headcount by 11.6%. Both measures increased strongly over the first three years of the investigation period. In 2023–24, FTE increased a further 1.2% to 17,858, while headcount declined 1.1% to 22,289. In 2024–25, both measures declined, with FTE down 5.1% to 16,941 and headcount down 5.7% to 21,020. The divergence in 2023–24 indicates that average FTE employment per employee increased, before both the number of employees and FTE employment fell in 2024–25.

Figure 4.3 – Employment has started to decline recently**a. Australian FSS industry employment (FTE and headcount)****b. FTE employment sum by quartile of domestic structural steel fabricators**

Source: PC analysis of ABS data.

When disaggregated by firm size, employment outcomes varied substantially across quartiles (figure 4.3). Between 2023–24 and 2024–25, FTE increased by 7.0% in Q1 and 2.8% in Q2, but declined by 3.8% in Q3 and 9.2% in Q4. The recent decline was therefore concentrated among larger firms, particularly Q4. Relative to 2020–21, FTE grew most strongly in Q1, while Q4 ended slightly below its starting level. Because quartiles are fixed using 2020–21 employment, some Q1 growth reflects firms that were small at the start of the period and subsequently expanded.

Productivity and capacity utilisation

The Agreement on Safeguards identifies productivity as one of the factors that must be evaluated during a safeguard investigation. However, neither the Agreement, legal literature nor WTO case law provide an explicit definition of productivity. Rather than relying on a measure that focuses on a single input (e.g. labour), the PC considers total factor productivity (TFP) the most appropriate measure.

TFP compares firm output or value added with the labour and capital used to produce it. In other words, it provides an indication of how efficiently firms are turning inputs into output. It is estimated on the same administrative data used to measure the above injury factors. However, while the formulas to

calculate value added and labour expenses are simple, capital stock is not directly observed, and therefore TFP relies in part on an estimated measure of firms' capital stock.²¹

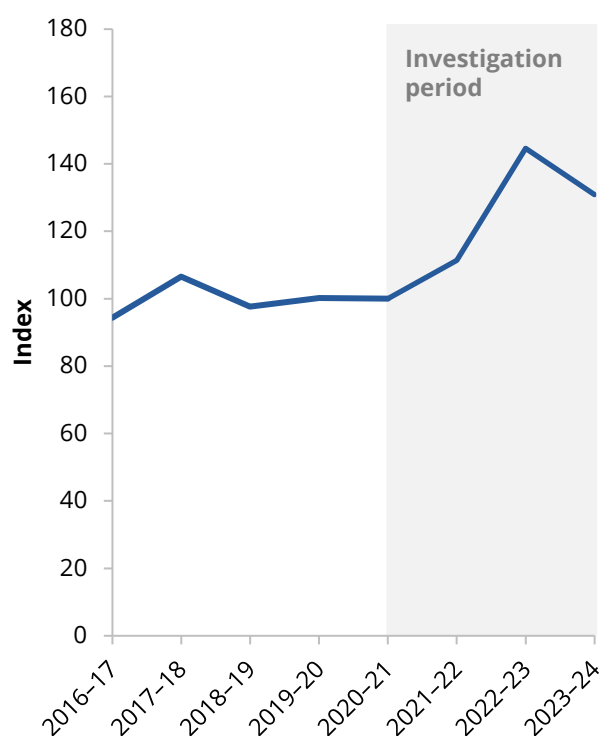
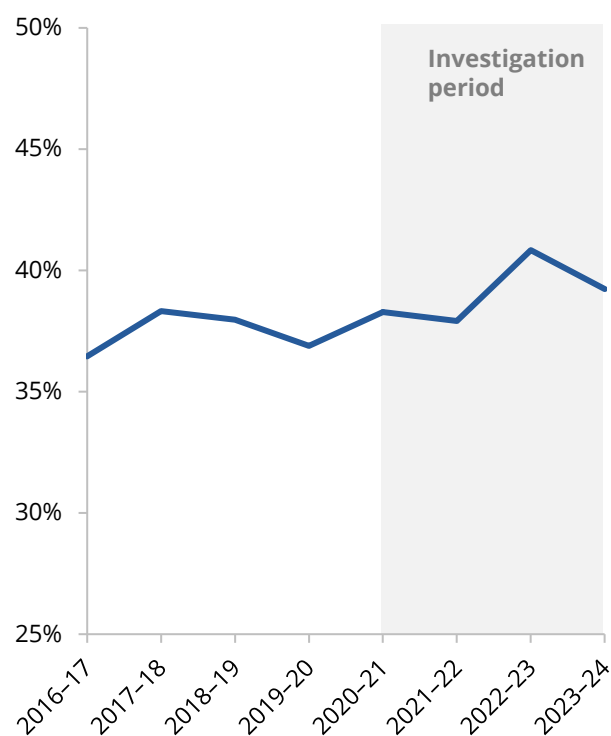
Productivity increased substantially over the period for which estimates are available, despite easing from its peak in the most recent year. Productivity increased over the investigation period by an average 9.4% per year from 2020–21 to 2023–24. The PC provides no estimate for productivity for 2024–25 due to a high degree of uncertainty. Between 2020–21 and 2022–23, productivity increased by 44.6%, before declining by 9.5% in 2023–24 (figure 4.4). It therefore remained 30.9% above its level at the start of the period.

Capacity utilisation, like productivity, does not have an explicit definition in the context of a safeguard investigation. For the purposes of this investigation, the PC defines capacity utilisation as a firm's productivity (TFP) in a given year relative to the productivity frontier for the industry (defined as the average TFP of the top 10% of the most productive firms). The measure indicates how close a firm is to the estimated industry productivity frontier and how that changes over the investigation period. This measure is also estimated and depends on assumptions about firms' capital stock and the productivity frontier. The PC therefore treats it as supporting evidence rather than placing excessive weight on the precise level of the estimate.

Mean capacity utilisation increased over the investigation period by an average of 0.8% per year. Capacity utilisation declined by 0.4 percentage points in 2021–22, increased by 2.9 percentage points in 2022–23, then declined by 1.6 percentage points in 2023–24 (figure 4.4). The PC provides no estimate for capacity utilisation for 2024–25 due to a high degree of uncertainty. By 2023–24, capacity utilisation was 0.9 percentage points above its level at the start of the investigation period. These estimated measures are broadly consistent with the more directly observed injury indicators, such as sales, employment, and profit, which also show variation over the period without any notable overall decline.

The PC's approach to calculating TFP and capacity utilisation is detailed in appendix B.

²¹ For this industry, the labour expenses are over 10 times higher than the equivalent capital measure per year – this has little impact.

Figure 4.4 – Productivity and capacity utilisation increased overall, but eased in 2023–24**a. Australian FSS industry Total Factor Productivity (relative to 2020–21)****b. Australian FSS industry capacity utilisation**

Source: PC analysis of ABS data. Capacity utilisation is shown as the mean across firms, rather than the sum or indexed sum used elsewhere, as it is a percentage and cannot meaningfully be summed.

Production

Evaluating changes in domestic production of FSS is a critical component in the assessment of overall injury to the domestic industry.

However, there is no centralised official or widely accepted measure of domestic FSS production. The ASI engaged Oxford Economics Australia to estimate domestic production from calendar year 2022 to 2024, but these estimates have not been published, and nor has the methodology used.

To address this gap, the PC has estimated production using administrative data and information collected through the inquiry. The estimates are based on:

- cost of sales data submitted through business income tax returns
- share of cost of sales spent on raw steel provided by a sample of fabricators
- average price per tonne of raw steel provided by industry participants
- proportion of steel wastage during fabrication provided by a sample of fabricators.²²

The method starts with observed administrative data and makes adjustments for the share, price and wastage of raw steel to convert expenditure into an estimated volume of FSS production. The PC considers this provides the most robust available estimate of domestic production.

²² Appendix B provides further information.

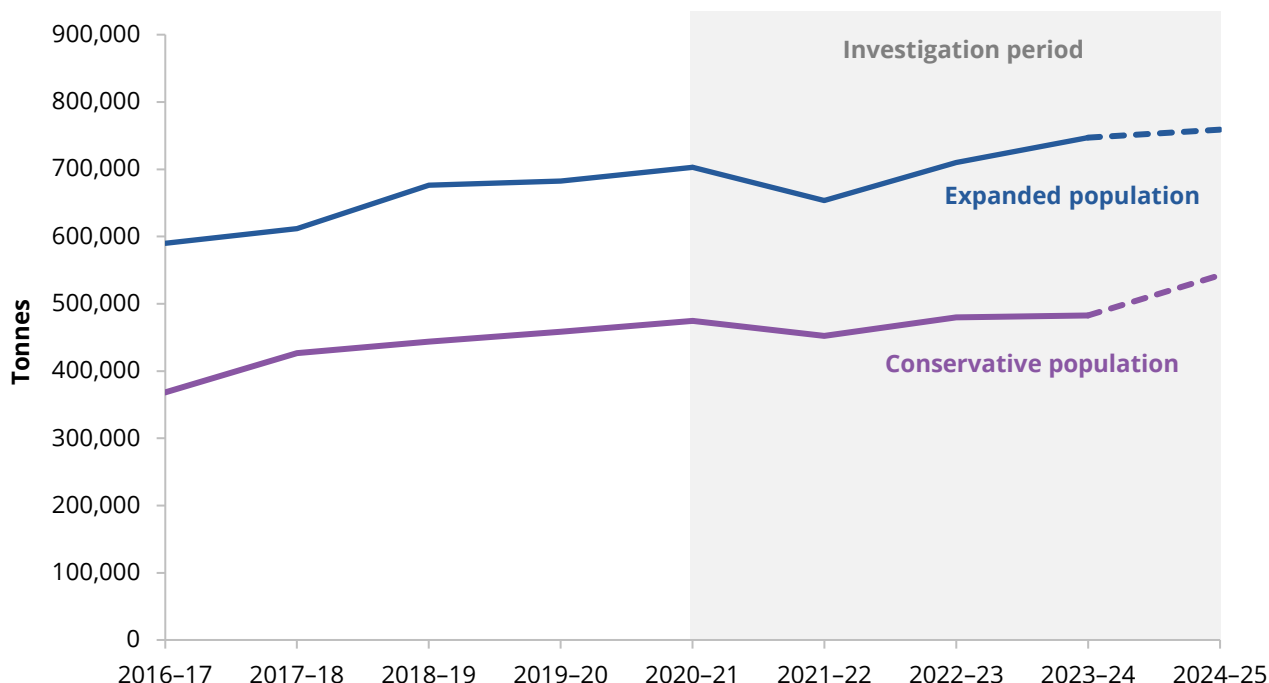
Two series for domestic production have been estimated.

- First, domestic production has been estimated based on a conservatively estimated population of domestic firms. This includes firms on the ASI fabricator member list as well as firms identified directly through the course of this inquiry, amounting to 376 businesses at the most (the list includes some businesses known to have ceased operating so the number of firms included in the estimates can vary from year to year).
- Second, domestic production has been estimated using an expanded population that also includes businesses not otherwise identified but which we expect to be FSS producers based on their procurement behaviour. This group includes up to 514 businesses. Additional detail on industry identification is included in appendix B.

Based on the conservative, smaller, population, the PC estimates that domestic production decreased by 8.4% in 2021–22 but grew in subsequent years, reaching 501,000 tonnes in 2023–24. Based on the expanded population, it is estimated that domestic production decreased by 7.1% in 2021–22 but grew in subsequent years, reaching 747,000 tonnes in 2023–24. The conservative and expanded series move similarly but vary due to differences in the performance of the firms included in each (figure 4.5).

Estimates for 2024–25 are tentative. Cost of sales data is not available in this year, so the estimates are based on the historical relationship between cost of sales and turnover, which is available for 2024–25. The approach to estimating 2024–25 values is described in more detail in appendix B.

Figure 4.5 – An initial decline in domestic production was followed by steady growth
Australian FSS industry production



Source: PC analysis of ABS data and data from key industry stakeholders.

Rate and amount of the increase in imports

The Agreement on Safeguards lists the rate and amount of the increase in imports as one of the factors that must be considered as part of the injury analysis.

Absolute imports increased by 27.9% over the investigation period from 446,600 tonnes in 2020–21 to 571,200 tonnes in 2024–25. Relative imports (imports divided by domestic production), increased from 94.1% to 105.3% over the investigation period when analysed using the conservative population, or from 63.5% to 75.3% based on the expanded population. These estimates are discussed in more detail in chapter 3.

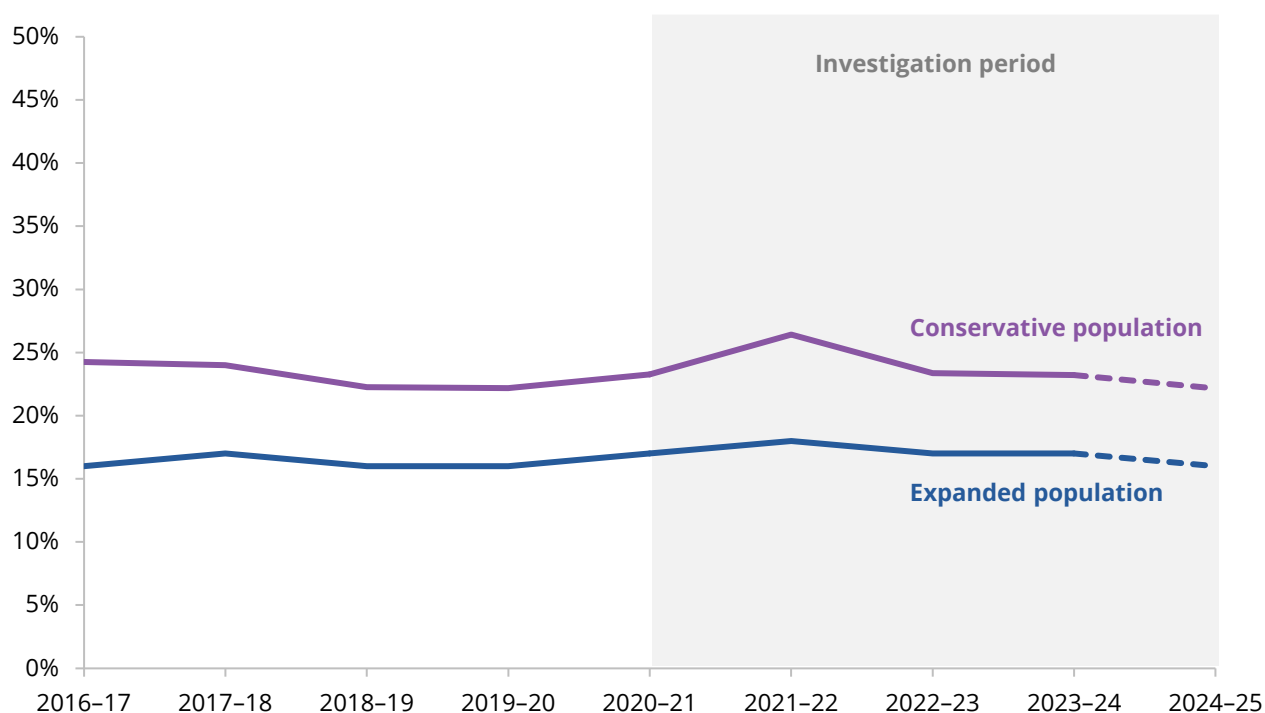
Share of the domestic market

Import market share is a separate measure. It shows the share of total FSS supplied to the domestic market that is accounted for by imports, measured in dollar terms.

Import market share rose early in the investigation period before declining gradually. It increased from 23.3% to 26.4% in 2021–22, then fell to 23.4% in 2023–24 and an estimated 22.2% in 2024–25 (figure 4.6). Overall, import market share ended the period slightly below its starting level.

Figure 4.6 – Import market share in dollar value is similar at the start and end of the investigation period

Market share of imported FSS steel in the Australian market



Source: PC analysis of ABS data and import data.

The market share of imports is relatively stable in value terms because the value of domestic FSS firms' sales and the value of imports have grown at similar rates. However, the volume of imports increased by 130% over the last decade, while the estimated volume of domestic production increased by around 50% (so relative imports have increased over the long term, figure 3.3). At the same time, the imputed

price of imported FSS has remained relatively flat in nominal terms, while the imputed price of domestically produced FSS has increased by around 50%.²³

Summary

Over the investigation period, all indicators of the domestic industry's condition increased overall, although employment, productivity and capacity utilisation declined from earlier peaks towards the end of the period. These recent declines do not demonstrate a significant overall impairment in the position of the industry. The submissions establish that some firms and market segments are under substantial pressure, and we find some evidence for this. However, the performance of direct measures, across a range of populations, do not suggest this is the case for the industry as a whole. The PC therefore finds that the domestic industry is not currently suffering serious injury.

4.3 Is there a threat of serious injury?

A 'threat of serious injury' exists only where serious injury is 'clearly imminent' (SA Article 4.1(b)). This means that the anticipated serious injury 'must be on the very verge of occurring', that 'there must be a high degree of likelihood' that it will materialise in the very near future (*US – Lamb*, para. 125). The standard of injury is the same for both actual and threatened injury (*US – Lamb*, para. 126).

Recent evidence on imports and industry performance is particularly relevant but short-term movements should be interpreted in the context of long-term trends (*US – Lamb*, paras. 136–138).

The evidentiary standards for assessing serious injury also apply to the threat assessment, alongside additional requirements. Analysis of the threat of serious injury must be 'based on facts and not merely on allegation, conjecture or remote possibility' (SA Article 4.1(b)).

What does the most recent evidence show?

The most recent data does not show severe deterioration across injury factors

Most factors relating to the performance of the industry moved positively in 2023–24 (table 4.2).

In 2024–25, the injury factors for which direct data are available provide a mixed picture of performance. Turnover increased by 2.2% but headcount declined by 5.7% and FTEs by 5.1% following highs in previous years. Absolute imports increased by 6.8%.

The 2024–25 estimates for other injury factors are imputed from the movement in turnover or employment data, so also provide a mixed picture (for example, estimated 2024–25 growth in sales is estimated based on the close historical relationship between turnover and sales).

In the final report, we will be able to analyse data on turnover for the first 2 quarters of 2025–26.

²³ Imputed prices are calculated by dividing a value figure by a volume figure. As discussed in chapter 3, the PC has had to estimate the volume of domestic production. And the value of sales may include income from sources other than the sale of FSS (which would lead to imputed prices being higher than actual prices).

Table 4.2 – The evidence does not suggest there is imminent threat of serious injury
Injury factor data for 2023–24 and 2024–25

	2023–24	2024–25
Sales: Sales	+19.8%	+6.4%*
Sales: Turnover	+19.3%	+2.2%
Profit: Profit (net)	+14.3%	+1.8%*
Profit: EBITDA	+11.7%	+8.2%*
Employment: headcount	-1.1%	-5.7%
Employment: FTEs	+1.2%	-5.1%
Productivity (TFP)	-9.5%	–
Capacity utilisation	-1.6%	–
Production	+3.9%	+8.3%*
Absolute imports (tonnes)	+4.8%	+6.8%
Relative imports (tonnes)	+0.9 pp	-1.5 pp*
Imports share of the domestic market (dollar value)	-0.1 pp	-1.1 pp*

* indicates the data point is imputed. Appendix B provides further detail on imputation methods.

Source: PC analysis of ABS data and other supplementary sources as described in appendix B.

Several factors may influence industry performance in future years but not with enough certainty to change the assessment

The project-based nature of the industry means that the business outcomes observed in the data reflect previous work won. Throughout the course of this inquiry participants have highlighted several factors which may impact industry performance, both contemporaneously to this inquiry and in future periods:

- Domestic fabricators may be winning work in unsustainable ways. The ASI's application suggests that 'Where the Australian industry has secured projects, project margins have been materially eroded' (2026, p. 3) and the Australian Industry Group submitted that some firms were accepting contracts at low or negative margins to retain staff and maintain throughput (sub. 32, p. 4). A number of fabricators have flagged that while they continue to operate, their business is not sustainable in the face of ongoing import competition.²⁴
- Investment is being held back, impacting future competitiveness. Stevens Group (sub. 5, p. 3) stated that investment was being held back to preserve cash flow, including upgrades to fabrication technology and operational efficiency. A number of other inquiry participants made similar comments.²⁵ Investment recorded in the administrative data for the population analysed above declined by 6.3% in 2024–25, after increasing by an average of 5.8 percentage points per year over the first 4 years of the investigation period.²⁶

²⁴ CASA Engineering (sub. 14, p. 5); First Line Engineering (sub. 34, p. 1); Galintel Pty Ltd (sub. 33, pp. 1 and 4); NEACH (sub. 15, pp. 4–5); Prince Engineering (sub. 3, pp. 8–10).

²⁵ For example: CASA Engineering (sub. 14, p. 5); idec Solutions (sub. 21, p. 3).

²⁶ PC analysis using ABS data, deflated using PPI for industry code 2221.

However, when considered in the context of the most recent data, the factors set out above do not meet the required evidentiary threshold for an assessment of threat of serious injury.

Demand for FSS including imports is likely to remain firm

Demand for FSS is expected to remain strong into the future, with Infrastructure Australia forecasting \$1.14 trillion of construction expenditure between 2024–25 and 2028–29 (Infrastructure Australia 2025, p. 20).

Imports have trended upward since 2016–17 and preliminary data for the first 3 quarters of 2025–26 suggest this has continued beyond the period of investigation (chapter 3).

Ongoing growth in imports does not necessarily indicate the industry as a whole will experience serious injury. Historically, the relationship between import growth and industry performance has not been straightforward. Growth in imports observed during the investigation period was accompanied by improvement in the indicators of most injury factors for most of the investigation period.

The available evidence does not establish that serious injury of the domestic industry is clearly imminent.

4.4 Assessment of overall impairment and threat thereof



Finding 4.1

The Australian fabricated structural steel industry as a whole is not suffering serious injury and there is not a threat of serious injury

During the investigation period the industry experienced an increase in production, sales, profit and employment. The available evidence does not establish that there is threat of serious injury.

5. Are the conditions for safeguard measures met?

Key points

✱ **The conditions for definitive safeguard measures are not met.**

- There are Australian fabricated structural steel producers facing pressure due to competition with imports. However, as chapters 3 and 4 detail, the nature of the growth in imports and overall evidence on the health of the domestic industry does not satisfy the conditions needed to justify safeguard measures.
- This is an interim finding and will be settled in the final report.

✱ **The conditions for provisional safeguard measures are not met.**

- Provisional measures can only be implemented if there is 'clear evidence that increased imports have caused or are threatening to cause serious injury' (Agreement on Safeguards, Article 6). In light of the evidence on imports and injury, there is not 'clear evidence' that increased imports have caused or are threatening to cause serious injury.
- This concludes the Productivity Commission investigation regarding provisional measures – the final report will focus solely on definitive measures.

✱ **Import competition is a structural feature of the Australian FSS market.**

- Import competition has been a feature for a long period of time. Submissions have highlighted some of the ways that domestic fabricators have responded to import competition.

5.1 The conditions for safeguard measures are not met

Definitive measures

Imports of fabricated structural steel (FSS) have increased but the evidence does not demonstrate the extraordinary circumstances required for the imposition of safeguard measures. There has not been a recent, sudden, sharp and significant increase in either absolute or relative imports (chapter 3). Moreover, while there are domestic fabricators experiencing pressure, the industry as a whole is not experiencing serious injury and the evidentiary requirements for demonstrating threat of serious injury are not met (chapter 4).

Based on this evidence, the Productivity Commission's interim finding is that the necessary conditions for imposing definitive safeguard measures are not met.

The PC welcomes submissions and further engagement on this and any other relevant evidence, particularly verifiable, quantitative evidence that bears on these conclusions. To prepare the final report we will draw on this evidence and our own ongoing data analysis (including peer review from independent analysts cleared to examine the datasets used).

Because neither the growth in imports nor the evidence on injury satisfies the conditions needed to justify safeguard measures, the PC has not assessed the causal link between imports and injury. This would be required under Article 4.2 of the Agreement on Safeguards.

If the PC did need to assess the causal link between imports and injury, we would do this using statistical techniques designed to isolate the impact of imports from other confounding factors. One such technique is two-stage least squares regression (often referred to as instrumental variable analysis). Relevant instruments include total fabricated steel exports to countries other than Australia or a weighted index of appreciation in the currencies of these countries.

Provisional measures

The PC was asked to address whether provisional measures can be introduced. The Agreement on Safeguards provides for the use of provisional safeguards:

In critical circumstances where delay would cause damage which it would be difficult to repair, a Member may take a provisional safeguard measure pursuant to a preliminary determination that there is clear evidence that increased imports have caused or are threatening to cause serious injury. (Article 6)

The Australian Steel Institute application seeks the introduction of a provisional safeguard measure (ASI 2026, p. 3). So does their submission, which states that 'Once lost, domestic capacity will not easily be recovered' (sub. 30, p. 4). A number of other inquiry participants have made similar claims and advocated for the use of a provisional measure to improve the prospects of Australia's FSS industry in the near term.²⁷

The 'clear evidence' requirement sets a higher evidentiary threshold for imposing provisional safeguard measures than applies to definitive measures. The evidence does not show that the required increase in imports or serious injury is occurring.



Finding 5.1

The conditions for definitive safeguard measures are not met

There has been an increase in fabricated structural steel imports but it does not meet the standards required for safeguard measures, and the evidence indicates that the industry as a whole is not experiencing serious injury. Nor does the evidence indicate that there is a threat of serious injury.

²⁷ For example: BlueScope Steel (sub. 48, pp. 14–16); CASA Engineering (sub. 14, p. 6); InfraBuild (sub. 40, pp. 2, 14); OneSteel Manufacturing (sub. 45, p. 3); Weld Australia (sub. 24, pp. 7, 9).

**Finding 5.2****The conditions for provisional measures are not met**

There is not 'clear evidence that increased imports have caused or are threatening to cause serious injury', which is required for provisional safeguard measures to be justified (Article 6).

The matter of provisional measures will not be revisited in the final report.

5.2 FSS imports are a long-term feature of the Australian market

Imports of FSS have grown considerably over time and concerns about the viability of the domestic FSS industry are longstanding. A decade ago, a Senate inquiry into the future of Australia's steel industry heard evidence about rising import competition (Senate Economics References Committee 2017, pp. 15–16). A number of fabricators submitted that they had recently reduced their workforce 'mainly due to the lack of domestic demand for steel products and the large increase in cheap imported steel products mainly from Asia' (ASI 2016, p. 49, for example). In a submission to the current inquiry, EDCON Steel reported that losing import-exposed projects in 2011 and 2014 led them to withdraw from tenders where they expected there to be import competition (sub. 22, p. 4). Participants offered a range of views on when import competition intensified but often indicated it started long before this inquiry's period of investigation (chapter 2, figure 2.1). Instant Steel Solutions, which imports FSS, submitted that 'Imports are now a core component of supply rather than a temporary disruption' (sub. 46, p. 3).

Import competition has changed the mix of work undertaken by some domestic fabricators (ASI, post-hearing submission, p. 17). Participants consistently identified portal frames, warehouses and other relatively standardised work as highly exposed to imports.²⁸ idec Solutions said its project portfolio had shifted towards more complex, bespoke and risky work: 'gone are the days of fabricating and erecting portal frame warehouses around Australia profitably' (sub. 21, p. 1). Similarly, the Australian Industry Group submitted that warehouses and distribution centres are particularly exposed to bulk offshore procurement, while specialised one-off projects 'depend on the precision and responsiveness of local fabricators' (sub. 32, p. 4).

Some firms have also diversified beyond fabrication. CSF Industries reported that in the last 3-5 years structural steel fabrication has fallen from 95% to 70% of its revenue, while design and construction services has grown from zero to 22% (sub. 17, p. 3). Roam Engineering submitted that:

On supply-only scopes, we lose almost every head-to-head contest against an imported option on price. We continue to win work, but mainly in segments where imports cannot effectively compete: turnkey projects that bundle construction scope, customers whose evaluation explicitly values local manufacture, engineering consultancy, and smaller-scale work for which importing is uneconomic. We have, in effect, been pushed out of the pure-supply market for our primary products. (sub. 47, p. 1)

²⁸ For example: AMARCON (sub. 16, p. 1); CASA Engineering (sub. 14, p. 3); idec Solutions (sub. 21, p. 1); name withheld (sub. 7, p. 9; sub. 31, p. 1); Stevens Group (sub. 5, p. 1).

Changes in the work undertaken by domestic firms help reconcile some participants' experiences with the industry-wide data. Roam Engineering submitted that many fabricators had 'kept revenue steady by changing what they do, shifting into segments where imports cannot compete effectively, or by picking up one-off project work' (sub. 47, p. 2). NEACH submitted that its revenue had grown over the past 3-5 years, but is now concentrated 'in higher-end infrastructure work where limited local content provisions provide some protection' (sub. 15, p. 6). These examples suggest that adjustment by some firms may help explain why pressure from imports in particular market segments is not reflected in declining activity or financial performance across the industry as a whole.

6. Public interest assessment and measure design considerations

Key points

- ✳ **As we have found that the conditions for introducing a safeguard measure are not met, we have not assessed whether a measure is in the public interest. However, given this is an interim report, we have included a high-level discussion of relevant issues.**
 - The matters in this chapter will be relevant to future safeguard investigations, which, should a proposed bill pass parliament, would be done by the Australian Trade Remedies Commission (the proposed new name for the Anti-Dumping Commission (ADC)).
 - The bill sets out relevant public interest issues for consideration. We have unpacked these with reference to issues that have emerged in this inquiry.
- ✳ **The purpose of safeguard measures is to prevent or remedy injury and facilitate adjustment in the protected industry – the extent to which a measure would create these benefits must be assessed.**
 - Safeguard measures are most likely to deliver lasting benefits where they provide an otherwise viable industry with temporary relief from a disruption, or time to undertake adjustment.
 - The case for temporary protection may be stronger where, without it, an industry faces a near-term risk of losing capabilities that would be difficult or costly to re-establish if conditions later improve.
- ✳ **Assessing the economic significance of the protected industry to the wider economy could include considerations relating to national resilience or the achievement of net zero goals.**
 - These matters should be assessed rigorously using established frameworks, such as the National Interest Framework established under the *Future Made in Australia Act 2024* (Cth).
- ✳ **A public interest assessment should consider all material benefits and costs of a safeguard measure across the economy, including effects outside the protected industry. This includes economic modelling of the effect of imposing higher prices (than would otherwise be the case) on downstream industries and consumers, and distortions to resource allocation in the economy.**
- ✳ **Governments should compare a safeguard measure with other policies that could address the identified problem more directly, more effectively, or at lower cost.**
- ✳ **Safeguard measure design needs to consider the distribution of benefits and costs and minimise unanticipated impacts.**
 - If a safeguard measure will be used, quotas should be avoided due to their hidden costs.

Because the Productivity Commission has not found that the conditions for introducing a safeguard measure are met in this inquiry, we have not undertaken a public interest assessment. However, given this is an interim report, we have included a high-level discussion of relevant considerations. For similar reasons, this chapter addresses safeguard measure design.

The matters covered in this chapter will be relevant to future safeguard investigations, which, should a proposed bill pass parliament, would be done by the Australian Trade Remedies Commission.

6.1 Public interest assessment

In the case of safeguards, consideration of public interest only occurs once an investigation by the competent authority has determined that the stringent tests around an imports surge and domestic industry injury have been met.

Economic analysis generally indicates that trade protection imposes costs once effects across the economy are accounted for, including effects on downstream industries and consumers (for example: Dixon et al. 2007; Grossman et al. 2024; PC 2000). This is likely to hold for safeguard measures and is relevant for considerations of public interest.

There may be benefits associated with reducing exposure to supply disruptions in an essential industry, or preserving skills and capital equipment that create a likely comparative advantage in future industries. It is critical to carefully weigh any benefits against the cost to consumers and others and consider whether alternative policy responses would achieve desired outcomes at lower cost.

These matters are reflected in the bill that would, if passed, transfer responsibility for safeguards to the Australian Trade Remedies Commission. If the Minister asks the Commissioner to make a recommendation on whether safeguard measures should be introduced, under the bill they would have to 'have regard to whether the recommendation is in the public interest' (Customs Amendment (Safeguard Inquiries) Bill 2026, para 269ZHGC(5)(b)). This would include consideration of:

- the benefits to the like Australian industry for the goods to which the matter relates in removing that serious injury
- the economic significance of industries in Australia affected by the importation of goods to which the matter relates
- the likely impact of the recommendation on the Australian economy, downstream industries, and consumers (subclause 269ZHGD(8)).

These matters are discussed below, as well as the generally applicable point that government interventions should include consideration of multiple options.

Benefits to the protected industry

Safeguards are temporary and focused on adjustment

If the conditions for safeguards are met, they can only be introduced 'to the extent necessary to prevent or remedy serious injury and to facilitate adjustment' (Agreement on Safeguards (SA), Article 5.1). The extent to which the measure can produce these benefits needs to be considered in any public interest assessment.

Safeguard measures are temporary and must be relaxed over time (SA Article 7). Governments can initially impose measures for no more than 4 years and must progressively liberalise any measure that

operates for more than 1 year (for example, by increasing a quota or reducing a tariff rate). They can be extended to last up to 8 years in total if a review finds that the measure remains necessary to prevent or remedy serious injury and there is evidence the domestic industry is adjusting.

Adjustment is a fundamental aspect of the safeguards regime. The preamble to the Agreement on Safeguards recognises ‘the importance of structural adjustment’ and Article 5 provides that safeguard measures can only be applied ‘to the extent necessary to prevent or remedy serious injury and to facilitate adjustment’. The Agreement on Safeguards therefore contemplates that the domestic industry will use the period of temporary and progressively diminishing protection to adapt to import competition.

Safeguard measures are most likely to deliver lasting benefits where they provide an otherwise viable industry with temporary relief from a disruption, or time to undertake adjustment that improves its capacity to compete once the measure is removed. The relevant consideration is not whether protection can sustain an industry while it remains in place, but whether the industry is likely to remain viable after it ends.

The case for temporary protection may be stronger where, without it, an industry faces a near-term risk of losing capabilities that would be difficult or costly to re-establish if conditions later improve. In such cases, the public interest assessment should consider whether the safeguard would materially reduce the risk of that loss and whether preserving the capability would generate an enduring benefit.

In this inquiry, some participants said a safeguard measure would help the fabricated structural steel (FSS) industry withstand short-term pressures (CASA Engineering, transcript, 13 May, p. 29; name withheld, sub. 7, p. 8). The Australian Steel Institute (ASI) noted, ‘Multiple fabricators in their submissions alluded to how they could / or have planned to improve their businesses to be more productive if they had the breathing space’ (post-hearings submission, p. 23).²⁹

However, inquiry participants mostly characterised import competition as an enduring feature of the market and a number of inquiry participants expressed doubt about whether a temporary safeguard measure would improve fabricators’ prospects in the long run.³⁰ It is not clear how effective the safeguard measure would be in improving the long-term competitiveness of the industry.

Economic significance of industries affected by imports

‘Economic significance’ is not defined in the bill that would transfer the safeguard investigation function or related materials but can be interpreted to have a more expansive meaning than employment, value added or other measures of economic contribution or size. The bill separately provides that a public interest test must consider ‘the likely impact of the recommendation on the Australian economy, downstream industries, and consumers’ (subs 269ZHGD(8)).

‘Economic significance’ could include considerations relating to critical infrastructure, economic resilience or the net zero transformation. Recent government initiatives, including the National Interest Framework established under the *Future Made in Australia Act 2024* (Cth), reflect the view that some industries may generate benefits that extend beyond those captured by conventional measures of

²⁹ For example: AMARCON (sub. 16, p. 2); Brezac Constructions (post-hearings submission, p. 5); CSF Industries (sub. 17, p. 6); idec Solutions (sub. 21, p. 4); name withheld (sub. 31, p. 3; sub. 58, p. 5); NEACH (sub. 15, p. 5); Prince Engineering (sub. 3, p. 10); Roam Engineering (sub. 47, p. 4); SEMMA (transcript, 15 May, p. 11); Watkins Steel (sub. 20, p. 3).

³⁰ For example: ASI (transcript, 13 May, p. 11), Gonzales Steel (sub. 43, p. 8), Rowville Engineering (transcript, 13 May, pp. 22–23), Westys Steel Fabrication (sub. 27, p. 6).

economic activity. The PC's *Guardrails for modern industry policy* (2025) also sets out guidance to help policy makers determine whether an industry does or does not warrant support in pursuit of these broader objectives.

Sovereign capability claims require careful scrutiny

Introducing a safeguard measure could potentially generate benefits by helping to maintain domestic capability and reducing exposure to supply disruptions. Whether those benefits would arise, and their significance, would need to be carefully assessed.

A public interest assessment would need to identify the supply disruption that is of concern, the likelihood of it occurring, its duration and the consequences for the Australian community. The assessment should consider whether supply is genuinely essential, whether alternative products or suppliers would remain available and whether businesses can adequately manage the risk themselves through diversification, inventories, contractual arrangements or other forms of adaptation (PC 2025, pp. 9–27).

In the context of a safeguard investigation, it would be necessary to assess how temporary protection would preserve the relevant domestic capability and reduce the identified supply risk. This may not always be straightforward as sovereign capability and resilience often relate to maintaining capabilities over the long term. Any capability supported by a safeguard measure may therefore remain at risk once the measure ends.

In this inquiry, several inquiry participants argued that Australia's domestic FSS capacity reduces Australia's exposure to global supply chain disruptions.³¹ The potential benefit of avoiding any such exposure would need to be assessed taking into account the number and distribution of FSS suppliers globally (and therefore the risk of disruption) together with the capacity for Australian domestic fabricators to increase production to meet any shortfall, and the cost to the Australian economy if FSS supply were disrupted.³² Some inquiry participants highlighted how the domestic FSS industry is a source of demand for upstream steel producers; similar questions apply to upstream steel.³³

Economy-wide impacts

Protection benefits some but increases costs for others

An effective safeguard measure benefits the protected industry by increasing demand for domestically produced goods and increasing the price of those goods relative to what they otherwise would be. Some benefits may also flow to the industry's workers and suppliers. But the higher prices of the protected goods are an additional cost to businesses and consumers that use those goods, relative to what the market would supply. Those users may reduce their use of the protected goods, including through substituting to alternatives where possible.

Evidence heard through this inquiry illustrates the potential flow-on effects of a safeguard measure. A tariff, quota or tariff rate quota on imported FSS would support demand for domestically fabricated steel and benefit Australian steel fabricators, workers and suppliers. But it would also raise costs for

³¹ For example: AMARCON (sub. 16, p. 3); ASI (sub. 30, p. 4); CSF Industries (sub. 17, p. 7); First Line Engineering (sub. 34, p. 2); HVAC Australia (sub. 13, p. 4); idec Solutions (sub. 21, p. 3); name withheld (sub. 28, pp. 6, 7); SEMMA (sub. 6, p. 3).

³² The PC's 2021 report on vulnerable supply chains found that disruptions to the supply of capital goods are unlikely to affect wellbeing in the short term (PC 2021, p. 64).

³³ Australian Workers Union (sub. 53, p. 7), BlueScope Steel (sub. 48, p. 2), OneSteel Manufacturing (sub. 45).

construction, infrastructure, manufacturing and other activities that use FSS. As Master Builders Australia submitted:

In mining, engineering and civil construction, structural steel use is intensive and few viable substitutes exist. Increases in structural steel costs in these sectors would raise output prices, potentially reduce project viability, compress project scale, or extend construction timeframes as participants manage exposure to the steel price cycle.

Higher steel costs would similarly affect parts of the residential and commercial building market, with high rise and high-density projects most vulnerable given the intensity of structural steel use in those building types.

Smaller projects, including detached houses, have greater scope to substitute timber for steel in some applications. However, increased demand for timber as a result of such substitution would likely push timber prices higher, with flow-on costs for all users of timber products across the economy. (sub. 49, p. 7)

Where possible, public interest assessments of safeguard measures should include computable general equilibrium modelling that captures these economy-wide effects.

The ASI's application indicates it has modelled the effects of introducing a safeguard measure that keeps imports no higher than their 2025 level (ASI 2026, pp. 47–48). The application notes that under the modelled scenario output and employment increase in the FSS industry, and that overall employment in the Australian economy 'would also remain high'. The modelling results have not been published, but the PC notes that economy-wide modelling generally finds that import protection imposes net costs (for example: Dixon et al. 2007; Grossman et al. 2024; PC 2000).

Australian exporters could lose market access

In addition to these more direct domestic economic costs, an assessment of the full economic impact should take account of potential trade responses.

Introducing safeguard measures could lead to Australian exporters losing market access through the rebalancing arrangements provided for in the Agreement on Safeguards. A country proposing a safeguard measure must seek to maintain substantially equivalent trade concessions with affected exporting countries; if countries cannot agree on how to do this, affected exporting countries can suspend substantially equivalent concessions or other obligations under GATT 1994 (SA Article 8). This could involve tariffs or other restrictions on Australian exports. Affected exporting countries cannot suspend concessions during the first 3 years of a safeguard measure based on an absolute increase in imports.

A safeguard measure could also affect Australia's trading relationships in ways that extend beyond the formal suspension of concessions permitted under the Agreement on Safeguards.

A public interest assessment should consider the likelihood, timing and possible scale of any suspension of concessions in response to the measure. The assessment should estimate the resulting costs to Australian exporters, including from lower export volumes and prices or the need to redirect exports to other markets. Where precise estimates are not possible, plausible scenarios could illustrate the potential range of costs.

Safeguards should always be compared with alternative policy options

Introducing a safeguard measure is one of multiple options a government could take if an industry is experiencing injury due to import competition. Consistent with the *Australian Government Impact*

Analysis Framework, the assessment should include comparison with a 'status quo' option that shows what would happen if market adjustment continued without further intervention (DPMC 2026, p. 14). The assessment should also include any other relevant policy options that would address the identified problem or achieve the government's objectives more effectively or at lower cost. Whether safeguards should be used depends on the nature of the problem government is seeking to address and the role temporary protection could play in addressing that problem.

Clearly identifying the issue the government wants to address, and its objectives in taking action, will help determine which policy options should be compared to a safeguard measure or the status quo. Border measures such as safeguard measures are necessarily blunt, and can have wide impacts and risks, so should only be considered where they address the identified issue more efficiently than more targeted approaches.

Identified issues might include unemployment scarring of workers in businesses that cannot compete with imports, flow-on effects where the domestic industry is geographically concentrated, or the loss of specialised skills or production capacity that would be costly to rebuild and is expected to remain economically or strategically important.

If the concern is unemployment scarring, government should consider policies targeting employment and retraining. If the concern is flow-on effects in specific locations, government should consider place-based assistance supporting affected workers and businesses. If the concern is the loss of specialised skills or production capacity to achieve critical national interest objectives, government should consider policies directed specifically at retaining them. Targeted policies can better avoid raising prices for consumers throughout the economy.

Governments should always consider whether policy, regulatory or administrative barriers are unnecessarily increasing costs or constraining adjustment in the affected industry. Reducing such barriers is a 'no regrets' way to improve the performance of the domestic industry regardless of whether a safeguard measure is introduced and avoids imposing additional costs on downstream users.

In this inquiry, concerns raised about the quality and compliance of imported FSS illustrate how problem identification affects what policy options should be considered. Some participants raised concerns about the documentation, traceability or conformity of imported products,³⁴ while others indicated that overseas producers can meet Australian requirements.³⁵

The PC has not investigated these competing claims, but critical concerns about safety and consumer protection, if verified, should be addressed directly. A safeguard measure would raise the price of compliant and non-compliant imports alike. It would not test product quality, verify conformity or strengthen enforcement. Enforcing objective standards, conformity assessment, procurement requirements, and monitoring and enforcement would address the problem more directly. Some inquiry participants have suggested these sorts of measures be introduced.³⁶

³⁴ For example: First Line Engineering (sub. 34, pp. 1–2); name withheld (sub. 7, p. 10; sub. 28, p. 7); NEACH (sub. 15, p. 5); Roam Engineering (sub. 47, p. 3); SEMMA (sub. 6, pp. 2, 5); Sencova Steel Fabrication (sub. 26, pp. 4–5); Steel Builder Australia (sub. 42, p. 3); Weld Australia (sub. 24, p. 1).

³⁵ For example: CASA Engineering (transcript, 13 May, p. 28); Technoweld (transcript, 13 May, p. 34).

³⁶ For example: name withheld (sub. 28, p. 8); SEMMA (sub. 6, p. 5); Sencova Steel Fabrication (sub. 26, p. 5); Steel Builder Australia (sub. 42, pp. 8–9); Weld Australia (sub. 24, p. 8).

6.2 Measure design

If the conditions for safeguard measures are met and the government chooses to introduce a measure, it will need to determine both the type of measure (tariff, quota, tariff rate quota) and the level at which it is set. Safeguard measures can only be applied 'to the extent necessary to prevent or remedy serious injury and to facilitate adjustment' (SA Article 5.1). This means the measure must be calibrated to the injury observed. If a quota is used it cannot be lower than the average of imports in the last 3 years (SA Article 5.1). Within these constraints, governments have discretion over what measure to use.

Any safeguard measure will increase costs for domestic buyers

The purpose of a safeguard measure is to reduce imports and increase demand for domestically produced goods, which would typically be expected to increase costs for domestic buyers. And under standard competitive assumptions, tariffs and quotas that reduce imports by the same amount can have equivalent effects on domestic prices, production and consumption (figure 6.1).

A tariff rate quota can have similar effects, even where the in-quota tariff is zero. The outcome depends on whether the quota is fully used and whether it is worthwhile importing at the tariff-inclusive price.

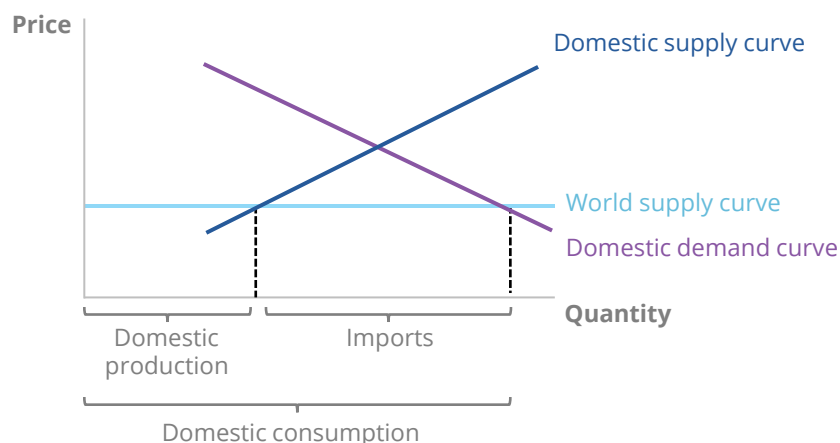
If the tariff rate quota applies to a final good (a good sold directly to consumers):

- Where the quota is fully used but above-quota importing is not commercially viable (because the tariff is prohibitively high), the domestic market price would be expected to increase to somewhere between the landed tariff-free price and the tariff-inclusive price. The higher price would reduce domestic consumption and increase domestic production until the difference between domestic demand and domestic supply equals the quota.
- Where demand is strong enough that above-quota imports occur, the tariff-inclusive price sets the marginal cost of imported supply. Subject to product substitutability, competition and other market conditions, the domestic market price would be expected to move toward the tariff-inclusive price of imports. In-quota imports would continue to face no tariff but they could be sold at the prevailing domestic market price, generating quota rents for whoever holds the scarce quota allocation.

Similar principles apply for intermediate goods like FSS. Where above-quota imports occur, the tariff-inclusive price can influence the price of within-quota imports and the final goods produced using them. This effect may be weaker where quota access is allocated to particular users and cannot be transferred, but distortions would be larger.

Figure 6.1 – Tariffs and quotas can have equivalent effects

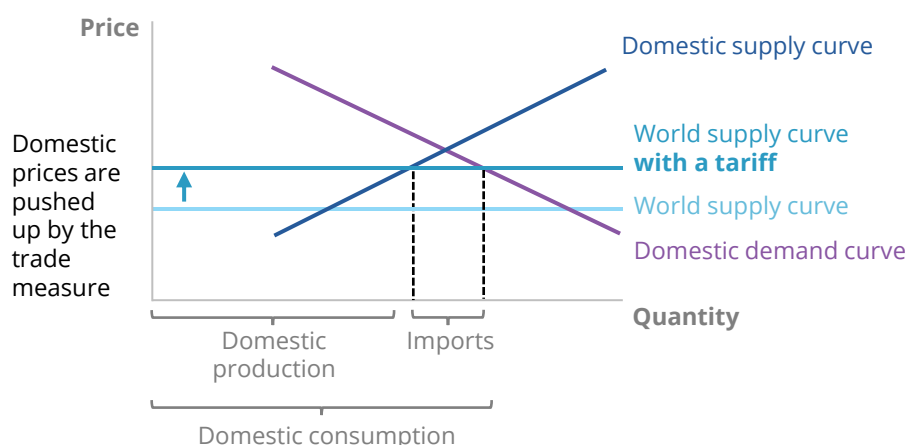
Free trade



Domestic producers who are competitive with imports produce.

Imports enter at world prices.

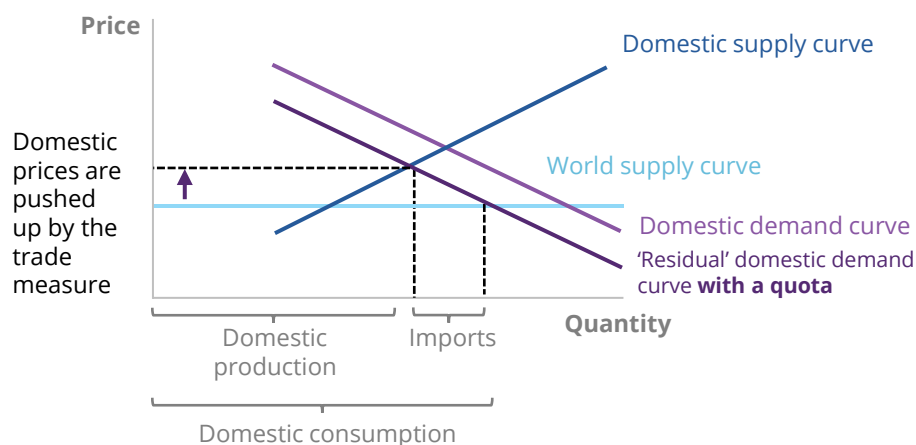
Tariff in place



The tariff effectively shifts up the world supply curve facing Australia.

This increases domestic production and prices, and reduces imports and total consumption.

Quota in place – at the same level of imports as occurred under the tariff



The quota can be thought of as creating a 'residual' domestic demand curve.

As under the tariff, domestic production and prices go up. Imports and overall consumption go down.

Quotas are the least-preferred measure

There are important design decisions to be made to minimise the cost of any border measures. The PC has concerns about the possible return of quotas or tariff rate quotas to the policy toolkit, because of their propensity to foster lobbying and an uneven playing field between competitors.

Tariffs generally impose lower costs on the economy than quotas providing comparable protection. Tariffs are also more transparent and less costly to implement than quotas or tariff rate quotas.

Tariffs fix the cost of protecting the relevant industry, while quotas can become more damaging as market conditions change. A tariff fixes the tariff rate and allows import volumes to respond; a quota constrains import volumes but its tariff-equivalent rate changes as market conditions change. If demand rises or domestic supply contracts, for example, domestic prices can rise and consumption can fall without any change to the quota. As the PC observed in its safeguards inquiry into frozen pigmeat, a fixed quota can provide increasing protection as domestic demand grows, while a tariff allows some of the additional demand to 'spill over to imports automatically' (1998, p. 59). A tariff rate quota can operate in the same way in the range where its above-quota tariff deters further imports.

The different ways tariffs and quotas operate also make tariffs more transparent. The tariff rate is stated directly, whereas the tariff-equivalent rate of a quota must be estimated and depends on market conditions that will change over time. Tariff rate quotas bring additional complexity: their effects depend on whether the quota binds, whether above-quota imports are commercially worthwhile, and how domestic demand and supply respond to price changes.

Quotas and tariff rate quotas are generally more costly to implement than tariffs. Government must design and administer access to the quota, monitor imports against it and enforce the arrangements, while importers must comply with the associated requirements. A tariff can generally be administered through the existing customs system.

In addition, quotas or tariff rate quotas can create an incentive to expend resources in rent seeking. If quota units are scarce, they will have a value, known as a rent. If government or bureaucrats have discretion over how those valuable quota units are allocated, it can be expected that potential quota holders will spend time and resources lobbying, making their case to get access to the quota units. For example, a change in the administration of the Cheese and Curd Quota Scheme led one quota holder, Del Re Nominees Pty Ltd, to seek judicial review after receiving a lower quota allocation than it believed it was entitled to (Australian Border Force 2025a, p. 1). Such expenditures are a potential social cost of quota systems: resources are devoted to ensuring access to the quota rights, rather than to productive activity.

Safeguard measure design needs to consider the distribution of benefits and costs and minimise unanticipated impacts

The timing of a safeguard measure can affect who bears its costs. In the case of the FSS industry, for example, projects are often designed, tendered and contracted months or years before delivery. A safeguard measure that applies to imports required to fulfil pre-existing commercial commitments could therefore impose unexpected costs on importers, builders or project owners.

When introducing a safeguard measure – or any border measure – governments should aim to ensure that implementation arrangements take account of pre-existing commercial commitments. This could include ensuring a sufficient lag between announcement and commencement of the measure, some type of phase-in period, or even special treatment for goods already in transit or contracted for

delivery. Each of these options brings increasing levels of administrative complexity. The approach taken should be informed by consultation with industry.

Implementing a quota or tariff rate quota requires deciding how access to the limited import volume will be rationed. It could be based on importers' historical shares, on a first-come, first-served basis, through an auction or by administrative decision.

Different approaches distribute the benefits and costs of quota access differently. Allocating access according to historical shares would favour incumbent importers and might make it harder for new importers to enter the market. A first-come, first-served system could encourage importers to bring forward orders because they risk missing out once the quota is exhausted. An auction would direct the quota rents to the government, but importers would have to pay for access. Administrative allocation would require the government to set criteria, assess applications and resolve disputes. The allocation method can therefore affect competition, import timing, who receives any quota rents and administrative costs.

A. Public engagement

This appendix provides information about the consultation process for this inquiry. It lists the organisations and individuals who contributed through consultations, submissions and public hearings.

- The Productivity Commission received 62 public submissions (table A.1). The submissions are available at www.pc.gov.au/inquiries-and-research/steel-safeguards/submissions. We also received 45 confidential submissions or submission attachments.
- The PC has met with individual domestic FSS producers, steel distributors, steel producers, construction firms and peak bodies representing these market segments (table A.2). We have also met with Australian and foreign government organisations, as well as the China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters. Staff from the PC toured a steel distribution facility and several steel fabrication workshops in south-east Melbourne to gain a deeper understanding of the FSS industry.
- Public hearings were held from 13 to 15 May 2026: 15 witnesses appeared (table A.3); 8 post-hearing submissions were provided (table A.4).

Table A.1 – Public submissions

Participants	Submission number
Acute Fabrication Pty Ltd	41
AMARCON	16
Australian Manufacturing Workers Union	51
Australian Industry Group	32
Australian Steel	1
Australian Steel Institute (ASI)	30
Australian Workers Union	53
Austruss	37
Beenleigh Steel Fabrications	29
BlueScope Steel	48
Brezac Constructions	38
Buttler Engineering	19
Caneland Engineering Pty Ltd	8
CASA Engineering	14
China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCC MC)	55
CS Traders	23
CSF Industries Pty Ltd	17
Department of Foreign Trade, Thailand	35
Dr Sophie Scamps MP	56
EDCON Steel	22
European Commission	12
First Line Engineering	34
Galintel Pty Ltd	33
Gonzalez Steel Pty Ltd	43
HF Hand Constructors	25
HVAC Australia	13
idec Solutions	21
InfraBuild	40, 62
Instant Steel Solutions Pty Ltd	46
Kyst Engineering	18
Master Builders Australia	49
Ministry of Commerce of the People's Republic of China	50
Ministry of Investment, Trade and Industry – Government of Malaysia	61

Participants	Submission number
Ministry of Trade of the Republic of Indonesia	11
Moulis Legal on behalf of Peikko Australia	54
Name withheld	7
Name withheld	9
Name withheld	28
Name withheld	31
Name withheld	39
Name withheld	44
Name withheld	58
Name withheld	59
Name withheld	60
NEACH	15
OneSteel Manufacturing	45
Prince Engineering	3
Range Steel Fabrications	57
Republic of Türkiye – Ministry of Trade	2
Roam Engineering	47
Rowville Engineering	4
Sencova Steel Fabrication	26
South East Melbourne Manufacturers Alliance (SEMMA)	6
Steel Builder Australia	42
Stevens Group	5
Technoweld Pty Ltd	10
United Steel Pty Ltd	52
Watkins Steel	20
Weld Australia	24
Weldlok Industries	36
Westys Steel Fabrication	27

Table A.2 – Consultations

Participants

Anti-Dumping Commission (ADC)
Australia Border Force (ABF)
Australian Building Codes Board
Australian Bureau of Statistics (ABS)
Australian Constructors Association
Australian Government Department of Foreign Affairs and Trade (DFAT)
Australian Government Department of Industry, Science and Resources
Australian Government Department of the Treasury
Australian Industry Group
Australian Steel Association
Australian Steel Institute (ASI)
Belmore Engineering
BlueScope Steel
Brown Steel
Capral Aluminium
China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCCMC)
Continental Steel
Embassy of the People's Republic of China
Embassy of the Republic of Indonesia
Embassy of the United States of America
Galvanizers Association of Australia
InfraBuild
Infrastructure Australia (IA)
Jeff Doran
John Holland Group
Department of Jobs, Skills, Industry and Regions (Victoria)
Mario and Sons
Master Builders Australia
Multiplex
Organisation for Economic Co-operation and Development (OECD)
Oxford Economics Australia
PacifiCO Structural Steel
Page Steel
Southern Steel Group

Participants

Standards Australia

Structural Challenge

United Steel Pty Ltd

Vulcan Steel

Table A.3 – Public hearings**Participants**

Australian Steel Institute

CASA Engineering

China Chamber of Commerce of Metals, Minerals, Chemical Importers and Exporters (CCC MC)

Croft Steel

Delegation of the European Union to Australia

Korda Metha

Master Builders Australia

Ministry of Trade of the Republic of Indonesia

Ministry of Commerce, People's Republic of China

OneSteel Manufacturing

Rowville Engineering

Royal Thai Consulate General – Thai Trade Centre

South East Melbourne Manufacturers Alliance (SEMMA)

Steel Builder Australia

Technoweld Pty Ltd

Table A.4 – Post-hearing submissions**Participants**

Australian Steel Institute

Brezac Constructions

CASA Engineering

China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCC MC)

European Commission

Ministry of Trade of the Republic of Indonesia

Steel Builder Australia

Technoweld Pty Ltd

B. Technical appendix

This technical appendix covers:

- analysis of imports
- sourcing data on the domestic industry
- estimation of domestic production
- analysis of injury.

B.1 Analysis of imports

The Productivity Commission has analysed imports using the BLADE Merchandise Trade Imports module. This dataset includes data on all import transactions from 2003–04 to 2024–25. The PC also obtained access to preliminary import data from the first three quarters of 2025–26. However, the data will not be final until the December 2026 reference month estimates are published in early 2027 (ABS 2026).³⁷

This appendix steps out the method the PC used for analysing the imports data, details evidence at more granular levels than is presented in the body of the report, and compares results with estimates submitted by inquiry participants.

Methodology for estimating imports

In considering imports of in-scope fabricated structural steel (FSS) products, the PC heard from the ABS that import estimates deriving from published ABS data sources were incomplete, as some transactions are removed for data confidentiality purposes. Further, evidence provided through submissions highlighted abnormal activity occurring in some years, suggesting there may be value in the PC investigating the underlying imports data (CCCMC, sub. 55, pp. 7–12; ASI, post-hearings submission, p. 8).

The PC undertook analysis of imports using the BLADE Merchandise Trade Imports data module. This module includes a wide range of detailed information, including:

- transaction (a commercial exchange of one category of product), declaration (a collection of transactions), business and port-level ID
- quantity (the 'heaviness' of the product excluding packaging) and value of transactions and weight (the 'heaviness' of the product including packaging) of declarations³⁸
- month of transaction and country of origin.

³⁷ Monthly ABS merchandise trade data is subject to a 6-month revision window. Therefore, the 2025–26 merchandise trade data is preliminary and still subject to further revision.

³⁸ For example, a declaration can include any number of transactions of any number of HTISC codes. The weight variable will include the 'heaviness' of all transactions and associated packaging within a given declaration and will be attributed to the first transaction within a declaration.

Each transaction has a 10-digit Harmonized Tariff Item Statistical Code (HTISC) assigned to it, allowing the identification and aggregation of imports transactions relating to the HTISCs in the inquiry's terms of reference. However, changes to the HTISC classifications in 2015 limited the historical period in which relevant imports data is available (ABS 2022). PC analysis suggested that, for understanding import trends in the pre-investigation (and pre-COVID) period, data is most reliable from 2016–17 onwards.³⁹

Early testing of the BLADE Merchandise Trade Imports module suggested that, without developing an approach to address these issues, estimated import quantities may be inaccurate. In particular, two concerns were identified:

- there were instances where quantity data was missing – primarily an issue with transactions of HTISC 7308.10.00.01 which was missing quantity data for all transactions
- there were instances where quantity and custom value measures of a given transaction appeared unrealistically low or high, indicating a high likelihood of reported quantity errors.

The PC developed a methodology to account for these issues in its analysis of imports.⁴⁰ The overarching process undertaken is detailed below:

1. Data was extracted on all declarations which included at least one transaction of any FSS HTISC (that is, any HTISC starting with 7308). To prevent double-counting, data was also filtered to exclude intrastate movements of imported shipments.
2. Quantities and weights of 0 were set to NA and the quantity and weight series were converted to tonnes where necessary.
3. Customs value per tonne (quantity) was estimated by HTISC and financial year.
4. Transactions were identified as outliers where their custom value per quantity tonnage varied by more than 3 standard deviations from the mean within a given financial year.⁴¹ Only non-outlier transactions were included in ensuing trimmed mean calculations.
5. Outlier transactions had their quantity data replaced with the transaction's customs value multiplied by the trimmed mean ratio between quantity and customs value estimated by HTISC and financial year. In the case of transactions for HTISC 7308.10.00.01, quantity was estimated by multiplying the transaction's customs value by the trimmed mean ratio of weight to customs value on a financial year basis, then by the mean ratio of quantity to weight across all in-scope FSS products (to account for packaging).⁴²
6. For completeness, an attributable weight per transaction was also estimated. Where all transactions within a declaration included an attributable quantity measure, weight was attributed proportionately to this measure; otherwise, weight was estimated by multiplying the quantity measure by the HTISC-level mean ratio of weight to quantity.⁴³

³⁹ While the new classifications were implemented from 2015-16, evidence from DataLab suggested that imports may have been inaccurately allocated in many cases during the first year of implementation.

⁴⁰ Analysis was done using R Studio. Scripts will be made available on the inquiry website.

⁴¹ The data appeared normally distributed. Under a normal distribution, approximately 0.3% of datapoints fall outside three standard deviations.

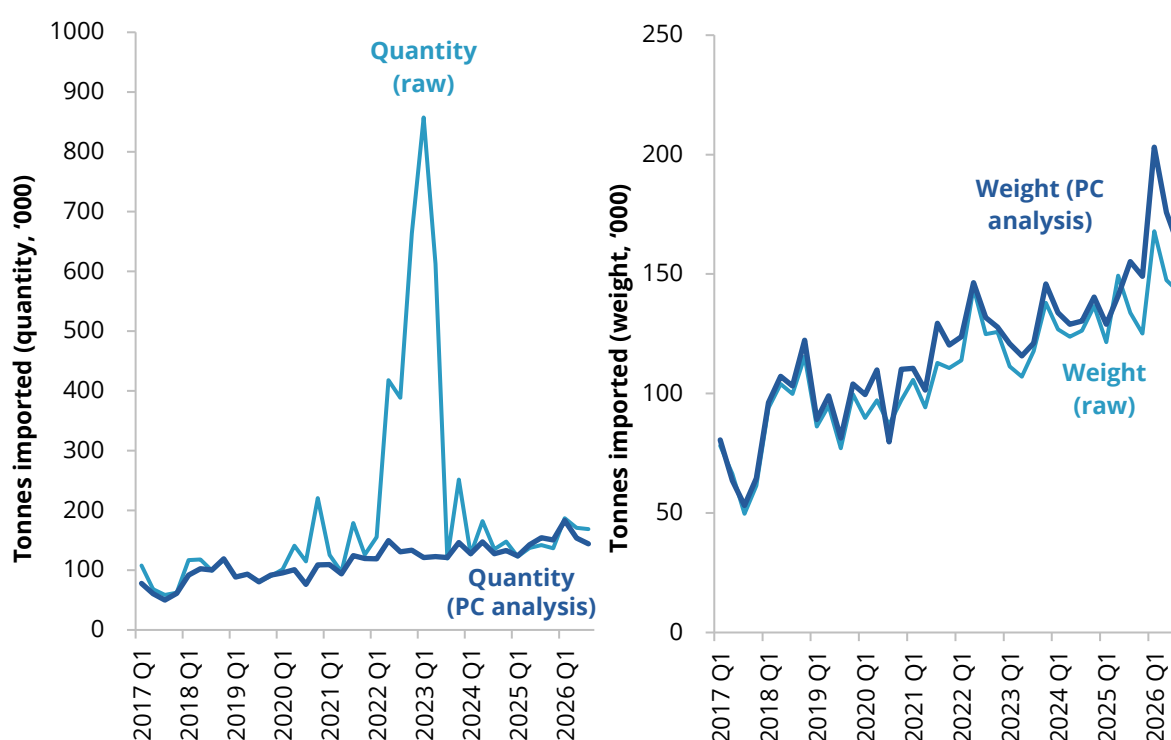
⁴² This mean was restricted to declarations with only one transaction to ensure only relevant products were included in the ratio.

⁴³ As with 7308.10.00.01, this mean was restricted to declarations with only one transaction to ensure only relevant products were included in the ratio.

7. To meet the requirements of the free trade agreements with New Zealand and Singapore, imports from these countries were excluded from aggregates.
8. Data was aggregated and processed for reporting purposes.⁴⁴

The PC's approach reveals the scale of assessed data quality issues when interpreting imports in terms of the quantity series (figure B.1). Where the 'raw' series indicates a significant increase in imports over 2021–22 and 2022–23, the PC's approach to analysing the imports data largely identifies these instances as being driven by unrealistic custom value to quantity ratios, indicating a high likelihood of incorrectly reported quantities. Further, outside these years, PC analysis closely follows the raw series. Conversely, the PC's analysis of weight suggests the raw values track closely with the adjusted values.

Figure B.1 – The PC's approach removes the impacts of potential misreporting issues
Raw import estimates from DataLab versus the PC's estimation approach



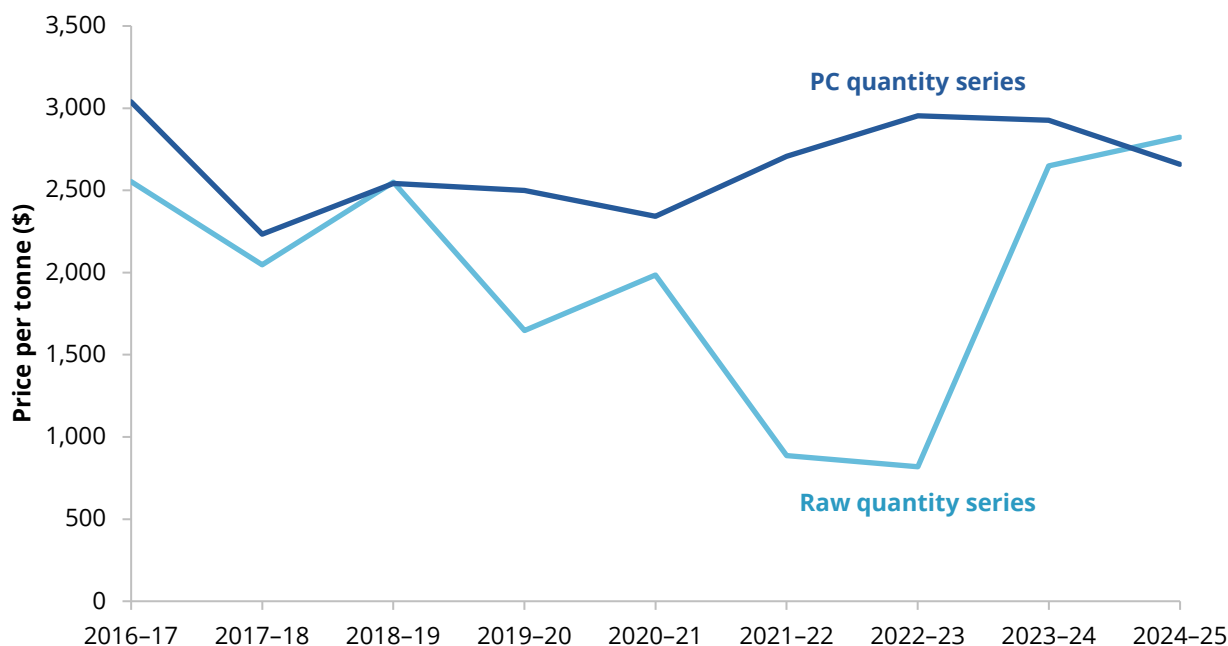
Source: PC analysis of ABS data.

Combining import quantity estimates with official import customs value statistics produced by DFAT further supports the likelihood of data entry error in the quantity series. The raw import series suggests the average price per tonne of imported in-scope FSS fell from just over \$2,500 to just over \$800 from 2018–19 to 2022–23, before rising to over \$2,800 in 2024–25 (figure B.2). Alternatively, PC analysis of the time series suggests a smoother time series, generally increasing over time with some price falls in select years, with prices rising over the inflationary 2021–22 and 2022–23 years rather than

⁴⁴ Testing of the outlier analysis approach was also undertaken by removing outliers rather than imputing quantities, and it was found that this series did not notably vary from the imputed series. The broader method was tested internally and with the international statistics team at the ABS.

falling as the raw series would suggest. This provides further confidence in the robustness of the cleaning approach employed by the PC.

Figure B.2 – The PC’s value per quantity estimates are steadier than raw import estimates
Raw import estimates from DataLab versus the PC’s estimation approach

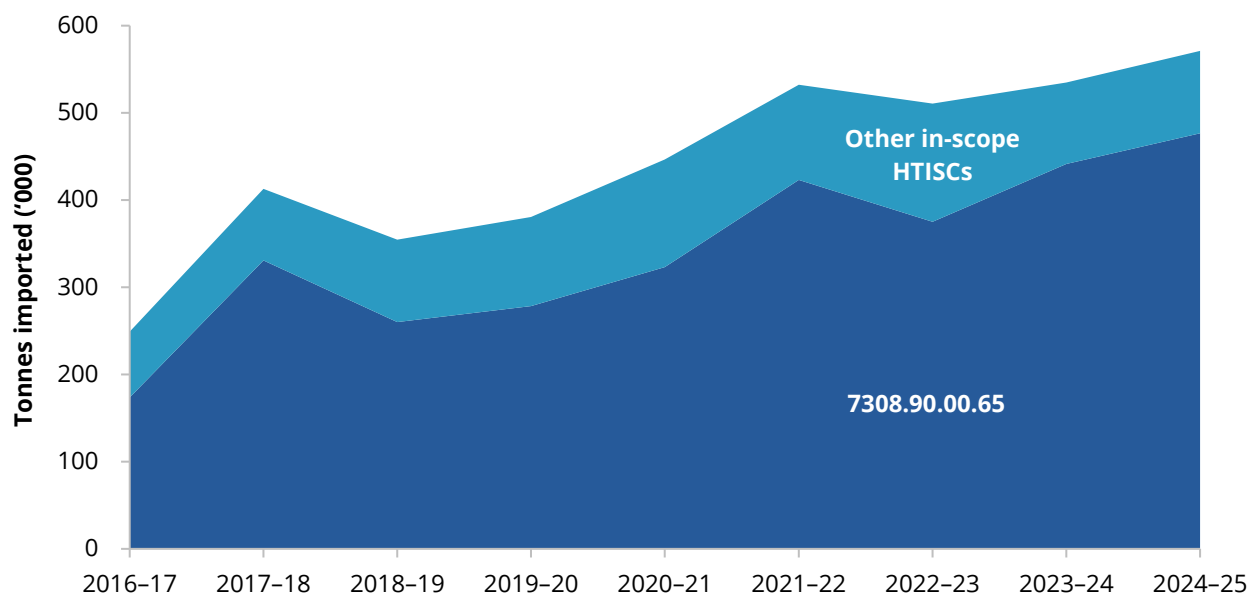


Source: PC analysis of ABS and DFAT data.

The PC believes that the PC’s quantity series is the most reliable series for estimating imports of in-scope FSS products. This reflects that the quantity measure explicitly excludes the weight of packaging; by not excluding packaging, the ‘weight’ variable would be expected to systematically overestimate imports. It is noted that inquiry participants referred to measures inconsistently, with some submissions referring to weight (for example, Steel Builder Australia, sub. 42) while others referred to quantity (Ministry of Commerce of the People’s Republic of China, sub. 50; CCCMC, sub. 55; Thailand Department of Foreign Trade, sub. 35).

Further analysis of imports

The PC also found that HTISC 7308.90.00.65 (imports of columns, pillars, posts and beams, girders, bracing, gantries, brackets, struts, ties and similar structural units which fall into the ‘other’ category) comprises the majority of in-scope imports (figure B.3). Across the investigation period, this HTISC contributed between 72% and 83% of imports in any given year.

Figure B.3 – Absolute imports are dominated by HTISC 7308.90.00.65**Financial-yearly imports of in-scope fabricated structural steel, by HTISC grouping**

Source: PC analysis of ABS data.

Comparison to submissions by inquiry participants

In total, 8 inquiry participants provided statistical evidence regarding imports of FSS products into Australia, drawing on a combination of Australian and international data sources. Across the inquiry participants who provided evidence regarding import statistics, 4 submissions came from domestic industry groups (ASI 2026, p. 19; BlueScope Steel, sub 48, p. 7; InfraBuild, sub. 40, p. 6; Steel Builder Australia, sub. 42, p. 1). The other 4 came from international bodies and agencies (Ministry of Commerce of the People's Republic of China, sub. 50, p. 4; CCCMC, sub. 55, pp 8; Malaysia Ministry of Investment, Trade and Industry, sub. 61, p. 5; Thailand Department of Foreign Trade, sub. 35, p. 2).

Analysis by the PC differs from that provided by inquiry participants. Variation is driven by 3 factors:

1. Variation in usage of the weight and quantity series
2. The implementation of the PC's methodology for interpreting import data which is only available to organisations with access to transaction-level import data
3. Data provided by the ABS Consulting Service and through other public sources can be incomplete – for example, the ABS Consulting Service removes transactions and declarations in some cases for confidentiality purposes. This has not been a limitation of the PC's analysis.

In general, submissions from the ASI, BlueScope Steel, InfraBuild and Steel Builder Australia found evidence of an increase in imports, all based upon data requested from the ABS Consulting Service. ASI cited an increase from calendar year 2022 to 2024 (ASI 2026, p. 19). InfraBuild evidence suggested a reduction in imports from calendar year 2021 to 2022, then an increase in imports from 2022 to 2025, as well as generally increasing relative imports (InfraBuild, sub. 40, pp. 3–6).⁴⁵ Steel Builder Australia

⁴⁵ The relative analysis was based on import code 7308.90.00.65 and confidential estimates of Australian sales of hot rolled structural sections.

reported an increase from 2016 to 2025, and BlueScope Steel reported a material increase in imports (BlueScope Steel, sub. 48, p. 7; Steel Builder Australia, sub. 42, p. 1).

PC analysis supports the general trend reported by the 4 participants that imports have been increasing but does not support their conclusion that there has been a recent sharp increase. However, the ASI, BlueScope Steel, and Steel Builder Australia appear to refer to the weight series rather than the quantity series. As discussed previously, the series systematically mismeasures in-scope FSS imported – particularly at the level of analysis accessed by these participants, and excludes some confidential transactions.

Conversely, submissions from foreign governments suggested there was no significant increase in exports, drawing upon data from the ABS and the Global Trade Atlas (Ministry of Commerce of the People's Republic of China, sub. 50, p. 4; CCCMC, sub. 55, p. 8; Malaysia Ministry of Investment, Trade and Industry, sub. 61, p. 5; Thailand Department of Foreign Trade, sub. 35, p. 2). Each reported a decline from calendar year 2021 to 2025 while also observing a one-off significant increase in 2022. Data was sourced from both the ABS Consulting Service and the Global Trade Atlas.

These estimates do not align with the PC's analysis of import trends; where the PC identified an increase in imports over time, these submissions suggested there was instead a decrease. The discrepancy is likely driven by the sources of variation outlined earlier in this section (the usage of the quantity series which requires more careful examination to appropriately apply and the removal of some transactions for confidentiality purposes).

B.2 Identifying the Australian FSS industry

To construct a dataset of relevant injury factors for the Australian FSS industry, the PC used administrative data housed within the ABS Business Longitudinal Analysis Data Environment (BLADE). The environment provides anonymised, firm-level data, which the PC aggregated to form industry-level estimates.

To do so, the PC provided the ABS with a list of businesses that we believe make up the Australian FSS industry. To prepare this list we drew on multiple sources:

- ASI's member list: the ASI provided a list of 336 member fabricators.
- PC website: the inquiry website encouraged non-ASI-member fabricators to register their interest, which only captured 6 businesses.
- Fabrication businesses who engaged in the inquiry or were otherwise identified during the inquiry, including businesses that closed in recent years.
- Information from a number of key industry participants on businesses that purchase the major steel inputs used by fabricators.

The above sources were combined to create a master list of unique business names. Where ABNs were provided, they were checked for GST status to ensure they are linked to relevant ATO administrative data. If the provided ABN was not registered for GST, the business name was added to the pool of business names without ABNs. For cases where we did not have an ABN, we performed an ABN look up using the Australian Business Register, taking the 5 ABNs with the highest match score. Of the top 5 ABN matches, the most likely ABN was selected by matching on business postcode (if available), state of registration (if available), or highest matching score. Selected matches were checked to ensure they were registered for GST.

Based on the master list of unique businesses and their source, the PC constructed 2 populations of businesses: a conservative population and an expanded population.

- **Conservative population** – includes ASI fabricator members, businesses identified through the online register and businesses otherwise directly engaged or identified in the inquiry. The conservative population was used for the safeguard assessment and includes 376 businesses.
- **Expanded population** – includes the conservative population as well as any business identified as having purchased the major steel inputs used by fabricators. The expanded population is the PC's best estimate of the total FSS industry and includes 514 businesses.

ASI estimates their fabricator members represent approximately 70% of industry capacity (ASI 2026, p. 9–10). Assuming uniform distribution of capacity between ASI members and non-ASI members, we would expect there to be approximately 480 businesses in the industry. It is more likely that industry capacity is more concentrated in ASI members so we would expect there to be slightly more than 480 businesses in the industry overall, which aligns with the expanded population of 514 businesses.

Not all of the businesses identified existed in all of the years analysed, or provided data in every year. The largest number of businesses identified in any one year was 2024–25 (table B.1).

Table B.1 – Contributing counts for key variables to the conservative population

	FTE	Headcount	Cost of sales	Sales	Profit	Turnover	Contributed to any	Total ABNs identified
2016–17	239	239	227	225	256	264	277	293
2017–18	240	240	240	235	269	275	290	306
2018–19	252	252	243	234	273	286	301	321
2019–20	277	277	252	247	282	297	315	332
2020–21	286	286	263	252	293	303	322	343
2021–22	298	298	267	246	291	314	332	352
2022–23	301	301	278	264	306	326	343	360
2023–24	310	310	279	266	305	324	343	363
2024–25	311	311	-	-	-	328	342	366

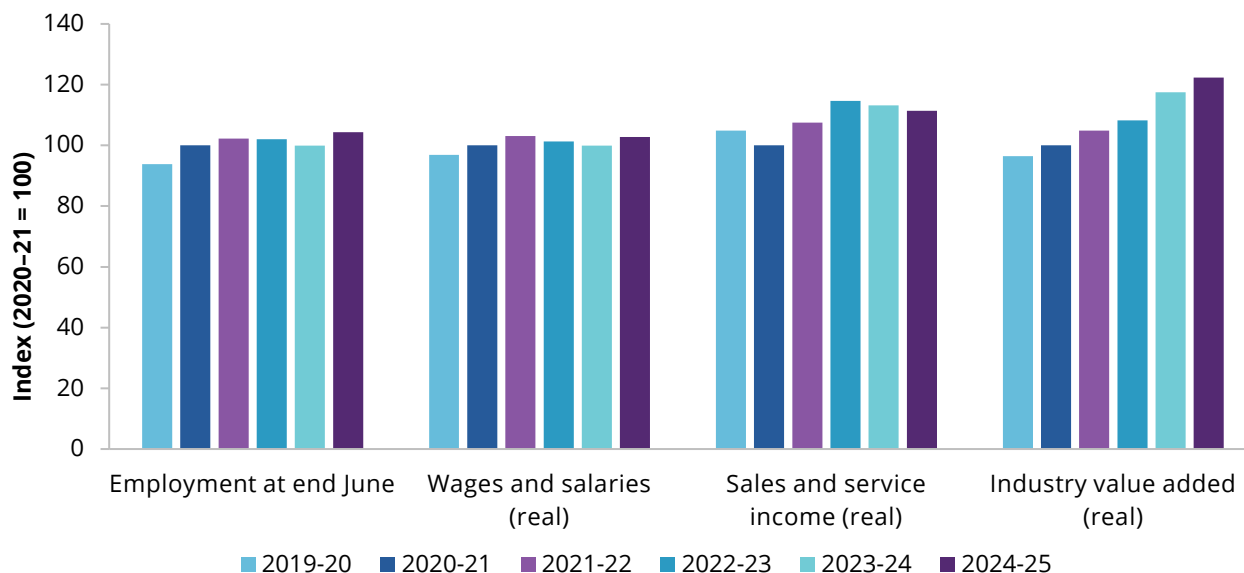
Source: PC analysis of ABS data.

Comparison to ABS FSS industry definition

The ABS publishes annual performance statistics for Australian industries based on the Australian and New Zealand Standard Industrial Classification (ANZSIC), including for 'structural steel fabricating' (class 2221). The ATO assigns businesses an ANZSIC class based on the activity description provided when they first register for an ABN. The assignment may not accurately align with the industry of interest for this inquiry due to misclassification or changes in business activities over time.

The PC believes the industry population we have constructed provides a better foundation for analysing the FSS industry than ABS data on industry class 2221. Nevertheless, as part of sensitivity testing, the PC considered performance by the ANZSIC 2221 definition to test whether injury determination would vary under this industry definition. All measures for ANZSIC class 2221 increased in the investigation period compared to 2020–21 (figure B.4).

Figure B.4 – There is not evidence of serious injury for ANZSIC 2221
ANZSIC 2221 industry performance relative to 2020–21



Source: ABS (2025) Australian Industry.

Estimating firm entry and exit

There is no consistent approach in research literature on estimating the entry and exit of firms using administrative data. The PC has drawn on multiple datasets within BLADE to assess firm entry and exit in addition to Business Income Tax (BIT) and Business Activity Statement (BAS):

- Cross-sectional indicative data items: identifies whether an ABN is considered alive or dead according to ABS criteria.
- Business birthdate: provides year in which ABNs were created.
- Australian Securities and Investments Commission (ASIC) insolvency data: identifies businesses that have entered various forms of insolvency.

Entry

Firm entry is defined as an ABN in the population whose birthdate occurred within the investigation period (2020–21 to 2024–25) and which subsequently recorded non-zero FTE, headcount, cost of sales, sales, profit, turnover or wage expense in any future period. The population of ABNs was also checked against the cross-sectional indicative data items alive status variable. Based on this approach, 40 firms entered the conservative population during the investigation period.

Exit

Firm exit is defined as occurring in the last period in which an ABN in the population:

- records non-zero FTE, headcount, cost of sales, sales, profit, turnover or wage expense
- has previously recorded non-zero FTE, headcount, cost of sales, sales, profit, turnover or wage expense, and
- does not record non-zero FTE, headcount, cost of sales, sales, profit, turnover or wage expense in any subsequent period.

The population was also checked against the cross-sectional indicative data items alive status variable. Based on this approach, 20 firms exited the conservative population in the investigation period. A cross-check of the ASIC insolvency dataset provided no additional firm exits.

B.3 Estimating domestic production

Data on domestic production is needed to calculate relative imports, but this data is not readily available for Australia. The PC has developed its own estimates of domestic production in tonnes based mainly on the PC's definition of the industry and administrative data.

Methodology for estimating domestic production

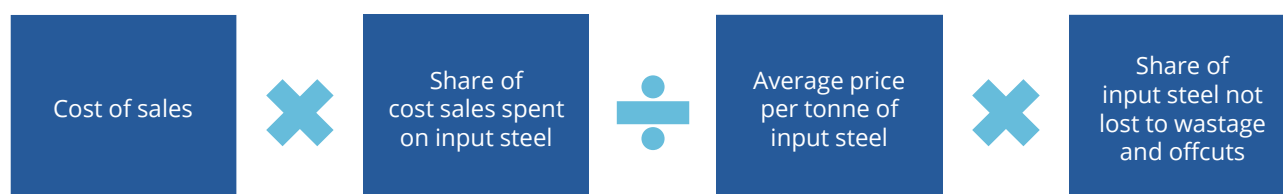
Four approaches were considered for estimating the tonnage of domestic FSS production:

- Based on upstream activity: collating distributor data on how much steel was sold to fabricators, and adjusting for wastage in the fabrication process
- Based on downstream activity: estimating FSS production based on activity in the galvanising sector
- Based on demand: extracting public tender data to estimate project-level demand for FSS products
- Based on administrative data: estimating the share of the cost of sales reported by fabricators attributable to steel inputs and adjusting for price per tonne and steel offcuts.

The first approach could not be used because the PC did not receive sufficient data from industry to be confident estimates were representative of the population. The second approach could not be used because data on the tonnes galvanised was provided on a confidential basis. It would not be possible to publish estimates of domestic FSS production without also revealing the confidential data. The third approach could not be used because tender websites do not provide sufficiently detailed data for effective website scraping.⁴⁶

As a result, the PC pursued the fourth option. This approach has 4 major steps (figure B.5). In summary, industry-wide cost of sales (drawn from administrative data) is multiplied by an estimate of the share of cost of sales attributable to input steel. This was divided by the average price per tonne of input steel to calculate an estimate of tonnes used. This figure was then adjusted for the share of input steel lost to wastage. The final number is an estimate of domestic FSS production in tonnes.

Figure B.5 – The approach to estimating domestic production of the FSS industry



Detail on each of the 4 major steps is as follows:

⁴⁶ For example, Estimate One allows projects to be filtered by structural steel, but does not report the value or quantity of the structural steel component, which is often subcontracted separately. Tender websites investigated included: Estimate One, Procore, BCI central and Australian, state and territory government tender websites.

- a. **Cost of sales:** Cost of sales was estimated based on the sum of cost of sales including wages as reported in BLADE. Cost of sales was not available for 2024–25. To address this gap, turnover for 2024–25 was multiplied by the ratio of cost of sales to turnover over the investigation period. This approach, as well as how cost of sale was estimated for the expanded population, is discussed in section B.4.
- b. **Share of cost of sales spent on input steel:** To estimate the share of cost of sales spent on input steel, the PC obtained detailed cost data from 4 fabricators who are members of the ASI.⁴⁷ Data provided by fabricators included the cost of sales reported each year on their business income tax statements, as well as the total cost of input steel represented within these figures. A weighted average steel share of cost of sales was calculated using the 4 fabricators' data. This was calculated for the most recent year of data provided by the 4 fabricators (2024–25). This figure was used as an anchor for calculating previous years' steel share of cost of sales based on change over time in the non-labour share of cost of sales (sourced from BLADE), the price for steel inputs (sourced from key industry participants) and an index of all non-labour input costs for ANZSIC class 2221 ('structural steel fabrication').
- c. **Average price per tonne of steel:** The PC collected data from several key industry participants on the value and tonnage of steel purchased by fabricators. This data was aggregated to estimate a single price per tonne of input steel for each year.
- d. **Share of input steel lost to wastage:** the PC asked several fabricators and inquiry participants about the percentage of input steel lost to wastage and offcuts. We were told the figure is typically in the range of 5–10%. The PC used 7.5% as the central estimate for domestic production.

The PC's estimate of domestic production is anchored by the share of cost of sales spent on input steel provided by the 4 fabricators. If the estimates provided by the 4 fabricators do not reflect the industry average, the level of domestic production might be biased. For example, if the 4 firms focussed on more labour-intensive (tier 1) projects than the industry on average, the PC would underestimate domestic production. However, the level to which domestic production is anchored would not change the pattern of production over the investigation period. The sensitivity analysis below illustrates the likely impact.

Estimates of domestic production based on the conservative and expanded populations are provided in table B.2, along with key inputs to the calculation. Table B.3 includes key parameters used to produce these estimates.

Table B.2 – Estimated domestic production of FSS (tonnes)

	2016–17	2017–18	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25
Conservative population	360,000	413,000	440,000	453,000	474,000	435,000	482,000	501,000	542,000
Expanded population	590,000	612,000	677,000	683,000	703,000	653,000	710,000	747,000	759,000

Source: PC analysis of data from inquiry participants and the ABS.

⁴⁷ Attempts were made to attain the largest sample possible; however, the PC acknowledges that this is a small sample and that there will be uncertainty associated with the application of this data.

Table B.3 – Inputs used to calculate domestic production

	2016–17	2017–18	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25
Cost of sales, conservative population (\$m)	\$2,084	\$2,548	\$2,888	\$2,997	\$3,070	\$3,582	\$4,217	\$4,345	\$4,576
Cost of sales, expanded population (\$m)	\$3,340	\$3,691	\$4,468	\$4,504	\$4,516	\$5,189	\$6,339	\$6,680	\$6,404
Share of cost sales spent on input steel, conservative population (%)	28%	27%	27%	27%	29%	32%	30%	26%	25%
Share of cost sales spent on input steel, expanded population (%)	29%	28%	27%	27%	29%	33%	30%	26%	25%
Price per tonne of input steel (\$/tonne)	\$1,494	\$1,554	\$1,658	\$1,623	\$1,734	\$2,439	\$2,464	\$2,118	\$1,939
Share of input steel not lost to wastage and offcuts (%)	92.5%	92.5%	92.5%	92.5%	92.5%	92.5%	92.5%	92.5%	92.5%

Source: PC analysis of data from inquiry participants and the ABS.

Sensitivity testing for domestic production estimates

Estimates of domestic production can vary substantially depending on the inputs used. Sensitivity testing was undertaken by varying inputs in the following manners:

- the raw sum of complete cost of sales data was utilised rather than imputing missing data
- the maximum and minimum average reported share of cost of sales spent on input steel were applied instead of the 2024–25 estimate
- average price per tonne of input steel was varied by 20%
- the wastage share of input steel was varied by 2.5 percentage points.

Estimates of domestic production (table B.4) and relative imports (table B.5) can be found below.

Table B.4 – Sensitivity scenarios for domestic production based on conservative population
Tonnes, thousands

	2016–17	2017–18	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25
Central estimate	360	413	440	453	474	435	482	501	542
Sum of cost of sales	328	364	390	387	390	350	392	418	-
Share spent on input steel (high, 38%)	449	516	549	565	592	542	602	625	677

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Share spent on input steel (low, 23%)	313	359	382	394	412	378	419	436	472
Average price (high, -20%)	450	517	550	566	593	543	603	626	678
Average price (low, +20%)	300	345	367	377	395	362	402	418	452
Offcuts (high, 5%)	370	425	452	465	487	446	495	515	557
Offcuts (low, 10%)	350	402	428	441	462	423	469	487	528

Source: PC analysis of data from inquiry participants and the ABS.

Table B.5 – Sensitivity scenarios for relative imports based on conservative population
Ratio of tonnes imported to tonnes produced

	2020-21	2021-22	2022-23	2023-24	2024-25	Investigation period change
Central estimate	94.1%	122.5%	105.9%	106.8%	105.3%	11.2%
Sum of cost of sales	114.4%	152.1%	130.2%	127.8%	-	-
Share spent on input steel (high, 38%)	75.4%	98.2%	84.8%	85.5%	84.4%	9.0%
Share spent on input steel (low, 23%)	108.3%	141.0%	121.8%	122.8%	121.1%	12.9%
Average price (high, -20%)	75.3%	98.0%	84.7%	85.4%	84.2%	8.9%
Average price (low, +20%)	113.0%	147.1%	127.1%	128.1%	126.4%	13.4%
Offcuts (high, 5%)	91.7%	119.3%	103.1%	104.0%	102.5%	10.9%
Offcuts (low, 10%)	96.7%	126.0%	108.8%	109.7%	108.2%	11.5%

Source: PC analysis of data from inquiry participants and the ABS.

B.4 Construction of injury metrics

The PC used administrative data collected by the Australian Taxation Office to assess the performance of the domestic FSS industry. The analysis draws on business income tax (BIT), business activity statements (BAS) and Pay As You Go (PAYG) data.

BIT data is derived from business tax returns and provides the most comprehensive insight on business performance, so the PC has relied on BIT for assessing most injury factors in most years. However, BIT data is only available up until 2023–24. The PC has used BAS data to estimate the equivalent injury factors for the final year of the investigation period (2024–25). The PC also used PAYG data to assess employment over the periods of interest.

As shown in table B.1, not every entity reports all data in every period. For the safeguard assessment based on the conservative population, the inquiry reports the sum of the variable across firms, ignoring any missing data:

$$Injury\ measure_{j,t} = \sum_{i=1}^N y_{i,j,t}$$

Where the PC has attempted to provide a best estimate of the FSS industry as a whole based on the expanded population, we imputed the trimmed mean (of all reporting firms) for missing values to complete the population estimate for the given year:

$$Injury\ measure_{j,t} = \sum_{i=1}^N [R_{i,j,t} y_{i,j,t} + (1 - R_{i,j,t}) \bar{y}_{trim,j,t}]$$

Where $R_i = 1$ or 0 to represent the presence or absence of an observation of injury measure j for firm i in year t . Trimming removed logged observations that were greater than 3 standard deviations from the mean. Using the trimmed mean helps correct for skewness in the population. However, it assumes that the missing data is randomly distributed. The PC does not have a conclusive perspective on whether the missing data is randomly distributed or biased towards firms with specific characteristics.

As a further sensitivity check for the assessed population, the PC examined multiple subpopulations. For sales, profit/EBITDA and employment we provide:

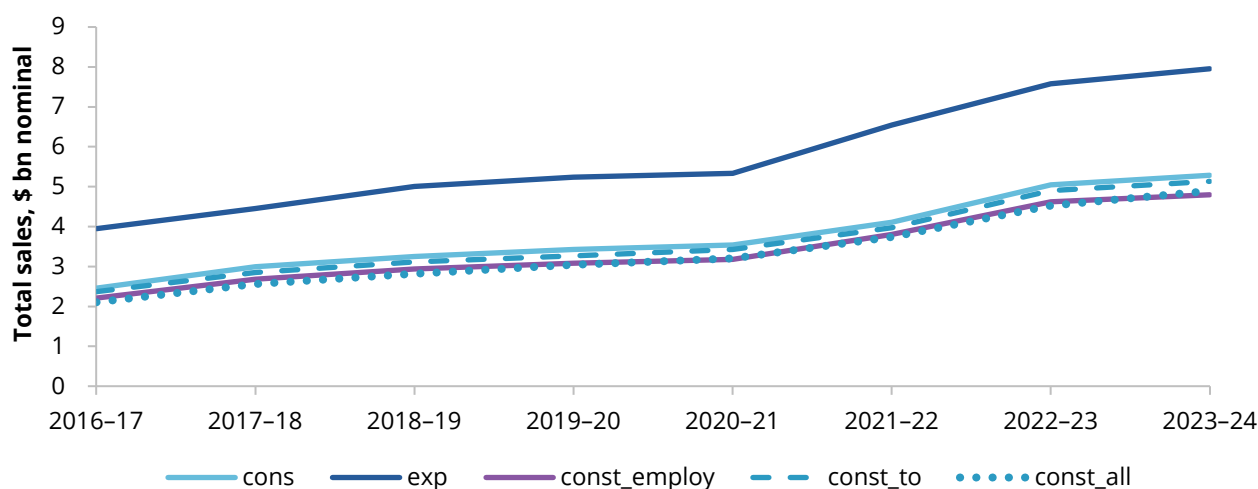
1. *cons*: the conservative population.
2. *exp*: the expanded population.
3. *const_employ*: a subset of the conservative population which only includes firms that reported wages expense of at least \$60,000 throughout the investigation period.
4. *const_to*: a subset of the conservative population which only includes firms that reported turnover throughout the investigation period.
5. *const_all*: a subset of the conservative population which only includes firms that reported turnover (BAS), FTE (PAYG) and at least one metric in their BIT return throughout the investigation period.

The pattern of change for sales, profit/EBITDA and employment are relatively similar across subpopulations.

Sales

In their annual tax returns, businesses record revenue from providing goods and services under 'Other sales of goods and services', with the exact reporting depending on the business type (table B.6). For the businesses analysed, the vast majority of total income was recorded under 'Other sales of goods and services'.

Figure B.6 – FSS industry sales for the expanded and conservative populations and subpopulations
Total sales, \$billion nominal, 2016–17 to 2023–24



Source: PC analysis of ABS data.

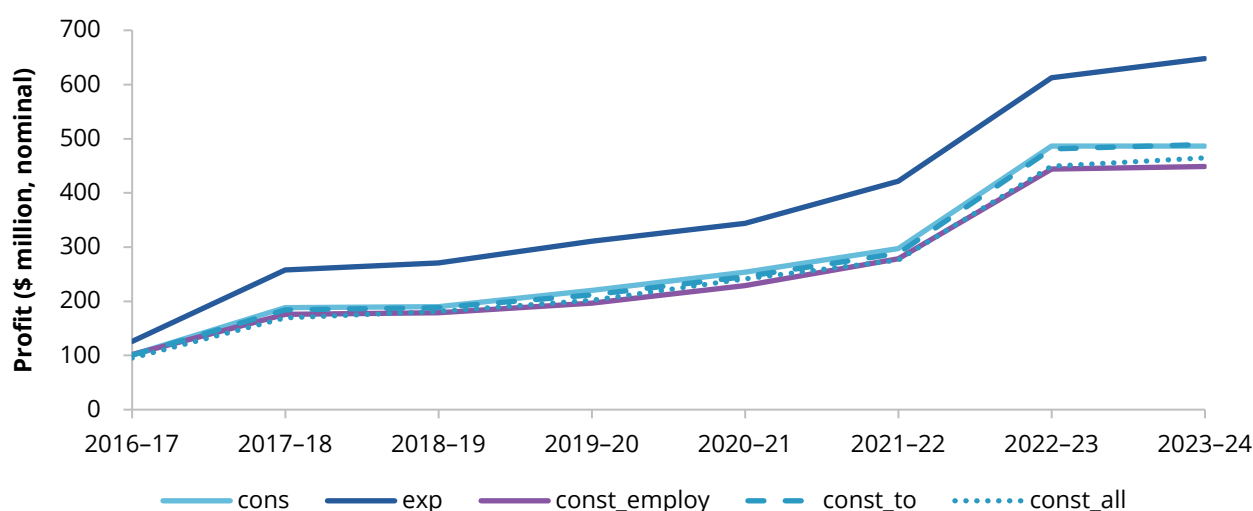
Table B.6 – Sales variables used in BIT

Injury measure	Business type	Variables	Description	Source
Sales	Company	c_sales	Other sales of goods and services	Link
	Individual	i_othbicpp + i_othbinpp	*_othbicpp: Other business income – PP (Primary Production)	Link
	Partnership	p_othbicpp + p_othbinpp	*_othbinpp: Other business income – NPP (Non Primary Production)	Link
	Trust	t_othbicpp + t_othbinpp		Link

Profit/loss and EBITDA

Total profit or loss represents the pre-tax profit or loss of a business and is calculated as total income less total expenses. This measure of profit or loss is commonly referred to as accounting profit and differs from taxable income, which includes deductions, capital gains/losses, tax losses carried forward from previous years and other adjustments.

Figure B.7 – FSS industry profit for the expanded and conservative populations and subpopulations
Profit, \$million nominal, 2016–17 to 2023–24

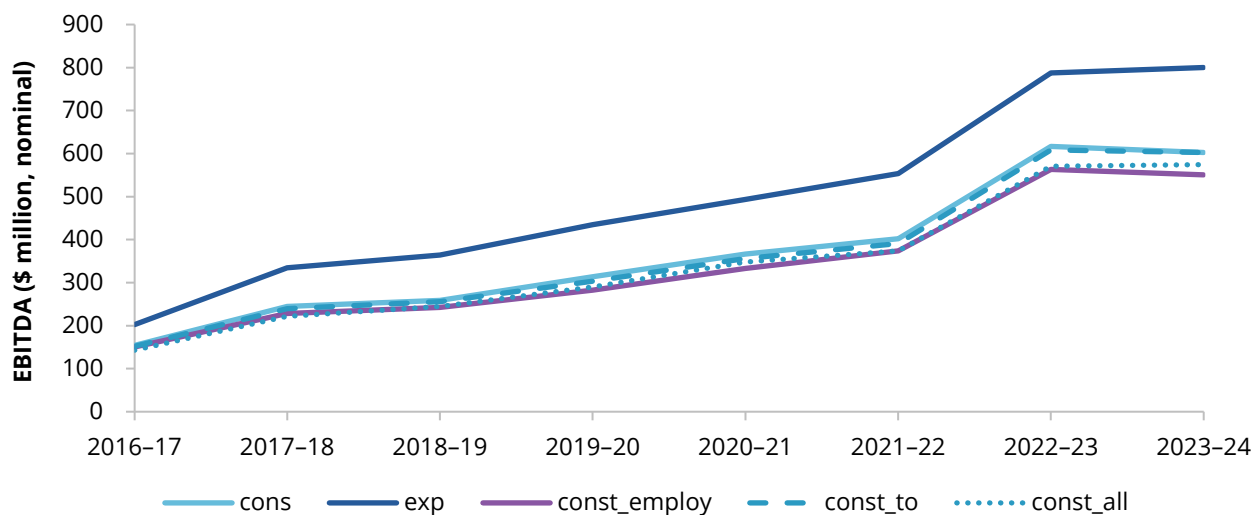


Source: PC analysis of ABS data.

Table B.7 – Profit variables used in BIT

Injury measure	Business type	Variables	Description	Source
Profit/loss	Company	c_toprols	Direct BIT total profit or loss.	Link
	Individual	i_netpp + i_netnpp	Direct BIT net income/loss from business across PP and NPP.	Link
	Partnership	p_netilbus	Direct BIT net income or loss from business.	Link
	Trust	t_netilbus	Direct BIT net income or loss from business.	Link

Measures of accounting profit can be negatively biased by accelerated depreciation measures, and a range of such measures were available during the period analysed (including instant asset write-offs and temporary full expensing). To investigate whether the accounting profit data was providing a misleading picture of industry profits, the PC also examined EBITDA (earnings before interest, taxes, depreciation and amortisation). EBITDA is calculated by adding back interest and depreciation expenses to the measure of pre-tax profit (table B.8). EBITDA has increased in a similar pattern to accounting profits.

Figure B.8 – FSS industry EBITDA for the expanded and conservative populations and subpopulations**EBITDA, \$million nominal, 2016–17 to 2023–24**

Source: PC analysis of ABS data.

Table B.8 – EBITDA components and their BIT fields by entity form

Input variable	Company	Individual	Partnership	Trust
Overseas interest expenses	c_intexpos	i_intexpos	-	-
Domestic interest expenses	c_intexpau	i_intexpau	-	-
Total interest expenses	-	-	p_intextot	p_intextot
Depreciation expenses	c_deprexps	i_deprexps	p_deprexps	t_deprexps

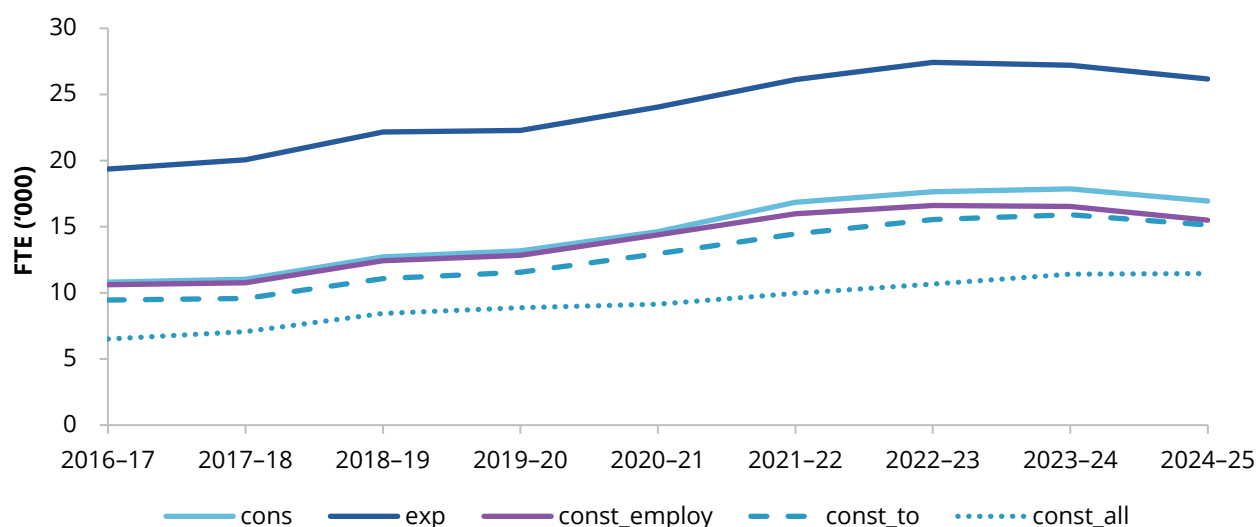
‘-’ means the form has no analogue for that input.

Employment

Headcount for each firm is provided to the ATO through PAYG statements. The ABS uses PAYG wage expenses and the average annual full-time earnings for each industry and year to derive full-time equivalents (FTE). The PC has reported both measures in its assessment of employment (figures B.9 and B.10).

Figure B.9 – FSS industry FTE for the expanded and conservative populations and subpopulations

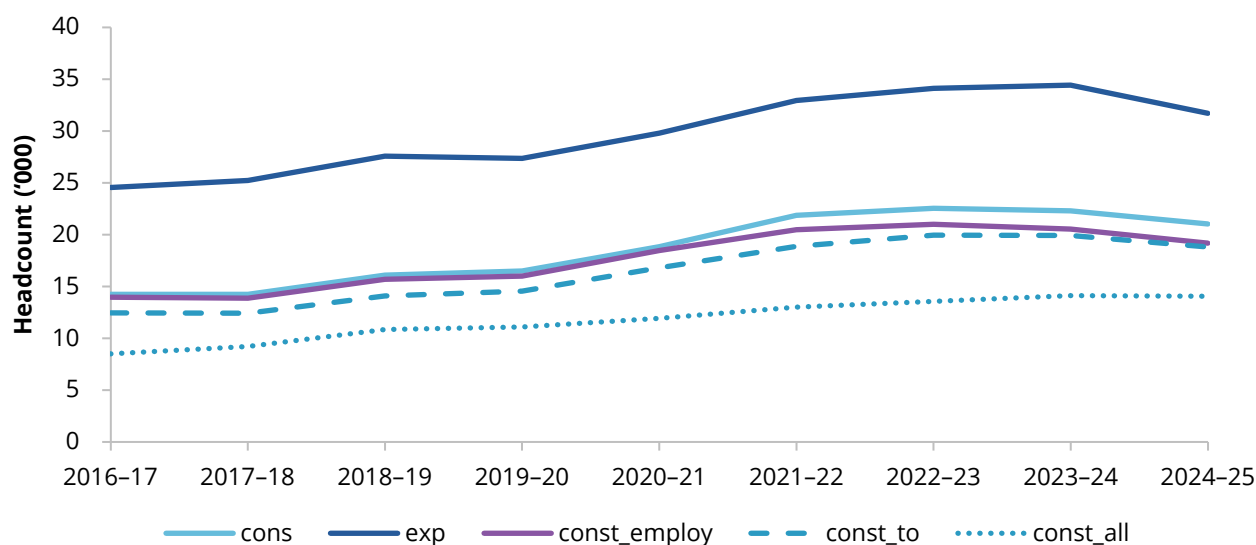
FTE, thousands, 2016–17 to 2024–25



Source: PC analysis of ABS data.

Figure B.10 – FSS industry headcount for the expanded and conservative populations and subpopulations

Headcount, thousands, 2016–17 to 2024–25



Source: PC analysis of ABS data.

Share of the domestic market

Imports' share of the domestic market is calculated as follows:

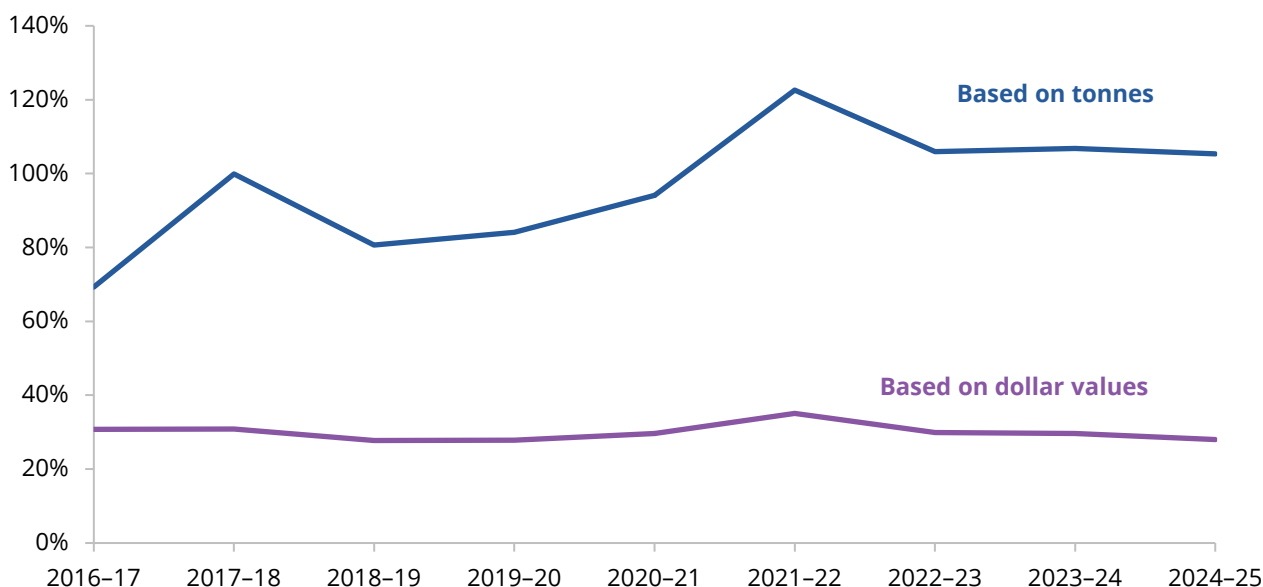
$$\text{market share}_t = \frac{\text{value of FSS imports}_t}{\text{value of FSS imports}_t + \text{domestic FSS sales}_t - \text{value of FSS exports}_t}$$

The value of imports and domestic sales are taken from estimates previously described. The value of FSS exports is calculated based on the Australian Harmonised Export Commodity Classification codes most closely aligned to the HTISC codes in our terms of reference. These include:

- 73081020: Bridges and bridge-sections, of iron or steel
- 7308.90.00: Structures and parts thereof, of iron or steel (excl. doors, windows and their frames and thresholds for doors and equipment for scaffolding etc).

Imports' share of the domestic market is calculated differently to relative imports. Each series can be used to understand the role of imports in the Australian FSS market. Imports' share of the domestic market, calculated using the above equation, can never go above 100%, and is based on values. Relative imports are calculated by dividing imports by domestic production, which exceeds 100% if imports are greater than domestic production. In addition, for the purposes of addressing the condition of whether the conditions for safeguards are met, the PC has relied on an estimate of relative imports based on tonnes imported or produced domestically. Relative imports can be calculated using dollar values. Compared with relative imports based on tonnes, relative imports based on values are much lower and exhibit no upward trend over the last decade (figure B.11).

Figure B.11 – Relative imports based on dollar values and tonnes



Source: PC analysis of ABS data.

Investment and capital stock

Investment and capital stock are not injury factors in their own right. However, a measure of capital stock is required to estimate total factor productivity and capacity utilisation.

The PC estimates capital stock in two stages. First, we combine information from BAS and BIT returns to estimate annual investment for each firm. Second, we use the Perpetual Inventory Method (PIM) to accumulate that investment into an estimate of the capital stock remaining in use.

Investment

Why investment must be estimated

Administrative data do not contain a single investment measure that is reported consistently by all firms. The available information varies according to business size, tax status and reporting process:

- BAS provide a measure of capital acquisitions for businesses with turnover above \$10 million.
- BIT returns record expenditure on tangible and intangible depreciating assets for firms using ordinary Division 40 depreciation.
- small business entities using simplified depreciation report relevant expenditure through different BIT fields, which are not currently incorporated into the PC's investment measure.

All firms report depreciation expenses, but these cannot be used directly to infer investment. Accelerated depreciation incentives introduced during the assessment period changed the timing of deductions without necessarily reflecting changes in the acquisition or economic depreciation of assets. As a consequence, using depreciation would likely over-estimate investment. Reported non-current assets are also imperfect because they reflect accounting values rather than the economic value of capital still in use.

The PC therefore combines the available BAS and BIT information using an established hierarchy. This provides a more consistent estimate than relying on any one administrative field.

Constructing the investment series

For each firm and year, the PC estimates nominal investment as follows:

- A non-zero BAS capital acquisitions amount is used where available.
- Otherwise, the PC uses a BIT-based proxy, calculated as the sum of tangible and intangible depreciating assets first deducted under item 9.
- Where neither source provides an investment estimate, the BAS observation is retained as either zero or missing.

The resulting nominal investment measure is called `capex_inferred`. It is converted into real investment using:

$$inv_t = \frac{I_t^N}{P_t}$$

where inv_t is real investment in year t , I_t^N is nominal investment (`capex_inferred`), and P_t is the manufacturing investment price deflator (`Capital_def`). Real investment and capital stock are expressed in constant 2024–25 prices.

Table B.9, below, sets out the full range of administrative variables the PC has used to construct the investment series.

Table B.9 – Administrative variables used to construct the investment series

Concept	Variable	Description and use
BAS capital acquisitions	capex_bas	Capital acquisitions reported at BAS item G10. Used as the preferred nominal investment measure where the reported amount is non-zero.
BIT investment proxy	capex_proxies	Sum of tangible and intangible depreciating assets first deducted under BIT item 9 (see below). Used when a non-zero BAS capital acquisitions amount is unavailable.
Tangible investment component	other_dep_assets (c_othdepas)	Tangible depreciating assets first deducted under item 9 by firms using ordinary Division 40 depreciation.
Intangible investment component	intangible_dep_assets (c_intdepas)	Intangible depreciating assets first deducted under item 9 by firms using ordinary Division 40 depreciation.
Preferred nominal investment	capex_inferred	Combines capex_bas and capex_proxies according to the hierarchy above.
Investment price deflator	Capital_def	Manufacturing GFCF implicit price deflator, derived from ABS cat. 5204.0.
Real investment	inv_t	capex_inferred divided by Capital_def. This is the investment flow used in the PIM.

Investment under simplified depreciation

The BIT proxy captures only item 9 expenditure reported by firms using ordinary Division 40 depreciation. Small business entities using simplified depreciation instead report relevant expenditure through item 10. These item 10 amounts are not currently included in capex_proxies.

As eligibility for simplified depreciation expanded from 2016–17, an increasing share of investment was able to be reported outside the fields used by the PC.⁴⁸ Investment is therefore likely to be understated for affected small business entities, with the potential understatement increasing from 2016–17. The relevant item 10 fields become available in BLADE from 2018–19 for individuals, partnerships and trusts, and from 2019–20 for companies, but have not yet been incorporated into the estimates.

Capital Stock

How the PIM works

The perpetual inventory method (PIM) is a standard method for estimating the stock of fixed assets by tracking investment and depreciation over time (OECD 2009, p. 88). The PIM treats capital stock as the accumulated value of past investment that remains in use. Each year, some existing capital is assumed to wear out or become obsolete through depreciation, while new investment adds to the stock.

⁴⁸ 'Small business entity simplified depreciation – Deduction for certain asset' and similar in Sheet 6 (BIT) of BLADE Modular Product: Data Item List (ABS 2025).

For each firm, capital stock is updated using:

$$k_t = (1 - \delta_t)^{g_t} k_{t-g_t} + inv_t$$

where k_t is real capital stock in year t , δ_t is the economic depreciation rate, g_t is the number of consecutive years with no observed investment, and inv_t is real investment during the year.

Put simply, capital stock in any given year is whatever capital remains in use from previous years plus new investment.

The PC uses a manufacturing-wide economic depreciation rate rather than firm-reported depreciation expenses and asset disposals. This is a departure from as Hambur and Andrews (2023a), which uses:

$$k_t = k_{t-1} + inv_t - \text{asset disposals} - \text{depreciation}$$

The PC departs from this to avoid distortions caused by the small business tax changes and accelerated depreciation incentives discussed above. Some of the other changes discussed below around missing data were also made to be more reliable for small business and at the firm level.

Table B.10, below, sets out the full range of variables the PC has used to estimate capital stock.

Table B.10 – Variables and parameters used to estimate capital stock

Concept	Variable	Description and use
BAS capital acquisitions	capex_bas	Capital acquisitions reported at BAS item G10. Used as the preferred nominal investment measure where the reported amount is non-zero.
Real capital stock	k_t	Estimated value of the firm's capital stock remaining in use in year t .
Real investment	inv_t	Real investment added to the capital stock in year t .
Economic depreciation rate	delta (δ_t)	Manufacturing depreciation rate derived from ABS cat. 5204.0 using consumption of fixed capital and average net capital stock.
Non-current assets	non_current_assets (NCA_t)	BIT balance-sheet measure calculated as total assets less current assets. Used to anchor the capital stock estimate where appropriate.
Consecutive missing years	g_t	Number of consecutive years for which investment is unobserved.
Gap before re-anchoring	pim_gap_restart	Number of consecutive missing investment observations after which the estimate may be re-anchored to reported non-current assets. The default is three years.
Start of warm-up period	pim_tsid_start	First year used to build the capital stock history. Set to 2001–02, the first year available in BLADE.

Starting the capital stock estimate

Capital stock in any year reflects investment undertaken in previous years. Starting the PIM at the beginning of the investigation period would therefore omit older capital that remains in use and understate the opening capital stock.

To reduce this initial-condition problem, the PC starts each firm's capital stock series in 2001–02, the first year available in BLADE. This allows earlier investment to accumulate before the investigation period begins. The warm-up years are then excluded from the final results.

Reported non-current assets provide an additional anchor. The first time a firm reports non-current assets, the PC raises the running PIM estimate to that value if the reported amount is higher. This adjustment is made at most once for each firm and only increases the estimate, because accounting depreciation may reduce book values more quickly than the economic depreciation rate used in the PIM.

Treatment of missing and zero investment

The method distinguishes between a reported zero and a missing investment observation.

A reported zero is treated as genuine zero investment. Existing capital continues to depreciate, but no new investment is added:

$$k_t = (1 - \delta_t)k_{t-1}$$

A missing investment observation means that investment is unobserved, not that the firm's capital stock has disappeared. The existing stock therefore continues to depreciate while no observed investment is added. After several consecutive missing observations, the accumulated depreciation can be expressed as:

$$k_t = (1 - \delta)^{g_t} k_{t-g_t}$$

where g_t is the number of consecutive years with no observed investment.

After three consecutive years of missing investment data, the PC re-anchors the estimate to reported non-current assets where those data are available. If non-current assets are unavailable, the capital stock series continues from the existing PIM estimate.

This treatment avoids interpreting gaps in administrative reporting as either zero investment or the disappearance of a firm's existing capital stock.

Remaining limitations

The estimates remain subject to several limitations. Investment is likely to be understated for small business entities because expenditure reported under item 10 of the simplified depreciation schedule is not yet captured. Non-current assets are unavailable for sole traders because they do not provide a BIT balance sheet, making their capital stock estimates more dependent on observed investment flows and initial conditions.⁴⁹ A common manufacturing deflator and depreciation rate are also applied across firms, although the composition and useful lives of their assets may differ. Finally, investment flows do not capture capital acquired through mergers and acquisitions.

Despite these limitations, the approach combines the available administrative information with an established method for accumulating investment into capital stock. It also explicitly accounts for missing observations and avoids relying on firm-reported depreciation expenses that may be distorted by tax treatment.

⁴⁹ 'Current assets' and 'Total assets' in Shet 6 (BIT) of BLADE Modular Product: Data Item List (ABS 2025).

Productivity

Two productivity measures are produced: labour productivity, which relates output to labour alone, and total factor productivity (TFP), which relates output to combined labour and capital input. Both use value added as the output measure. This section defines value added, the labour and capital inputs, and the user cost of capital that converts the capital stock into a service flow comparable to the wage bill.

Value added

Value added (VA) is gross output less intermediate consumption. It is built from the BIT profit-and-loss statement as:

$$VA = \text{revenue} - \text{total_expenses} + \text{labour_expenses} + \text{capital_expenses} + \text{other_non_intermediate}$$

Total expenses are first subtracted from revenue; the primary-factor and other non-intermediate components of those expenses are then added back, so that only intermediate inputs are netted out (Hambur and Andrews 2023b, p. 25). Each component is itself a sum of the underlying BIT fields in table B.11. The fields are mutually exclusive across the 4 BIT entity forms (company, individual, partnership, trust), so the sums combine correctly across forms. Missing fields are treated as zero; a firm-year with no non-missing component is left missing rather than set to zero.

Table B.11 – Value-added components and their BIT fields by entity form

Input variable	Company	Individual	Partnership	Trust
revenue: total_income	c_totlinc	-	-	-
revenue: total_business_income	-	i_totbusin	-	-
revenue: total_business_income_pp	-	-	p_totbuspp	t_totbuspp
revenue: total_business_income_npp	-	-	p_totbusnp	t_totbusnp
total_expenses	c_totlexps	i_totlexps	p_totlexps	t_totlexps
labour_expenses: wages	c_totlwage	i_totlwage	p_totlwage	t_totlwage
labour_expenses: external_labour_hire	c_extnlabr	i_extnlabr	p_extnlabr	t_extnlabr
labour_expenses: superannuation	c_superann	i_superann	p_superann	t_superann
capital_expenses: rent	c_rentexps	i_rentexps	p_rentexps	t_rentexps
capital_expenses: lease_au	c_leaexpau	-	-	-
capital_expenses: lease_os	c_leaexpos	-	-	-
capital_expenses: lease	-	i_leaextot	p_leaextot	t_leaextot
capital_expenses: depreciation	c_deprexps	i_deprexps	p_deprexps	t_deprexps
capital_expenses: interest_au	c_intexpau	i_intexpau	-	-
capital_expenses: interest_os	c_intexpos	i_intexpos	-	-

Input variable	Company	Individual	Partnership	Trust
capital_expenses: interest	-	-	p_intextot	t_intextot
other_non_intermediate: royalties_au	c_royexpau	-	-	-
other_non_intermediate: royalties_os	c_royexpos	-	-	-
other_non_intermediate: royalties	-	-	p_royextot	t_royextot
other_non_intermediate: bad_debts	c_baddebts	i_baddebts	p_baddebts	t_baddebts

‘-’ means the form has no analogue for that input.

Labour (L) and Capital inputs (K)

For labour expenses, BAS wages are used where reported and non-zero. Where BAS wages are zero or missing, BIT labour_expenses (the labour_expenses component of table B.11) is substituted. Where neither is available the value is missing. A genuine zero from BAS with no BIT record is retained as zero (non-employment). For capital expenses, the PIM capital stock defined in the Investment and Capital Stock section above is used.

User cost of capital (UC)

Capital does not enter the TFP denominator as a stock; it is weighted by the annual user cost of capital, which converts the capital stock into an annual flow of capital services measured in the same units as the wage bill. UC follows a slightly modified form of Fox’s formulation (2021, p. 14):

$$UC_t = Capital_def_t \times (i_t - pi_t + delta_t)$$

where Capital_def is the capital goods price deflator, i_t is the nominal interest rate, pi_t is general price inflation, and delta is the depreciation rate (table B.12). UC is a manufacturing-sector benchmark that is common to all firms in a given year.

Table B.12 – User cost of capital inputs

Input	Source	Construction
i_t	RBA, F1 Cash Rate	Monthly cash rate target, averaged over the financial year. Stored as a decimal.
pi_t	ABS, CPI All Groups Quarterly (Table 17)	FY-on-FY change in the average all-groups CPI index over the four quarters. Stored as a decimal.
Capital_def	ABS, GFCF by Industry and Asset (5204064)	Division C current-price GFCF divided by chain-volume GFCF.
delta	ABS, Net Capital Stock by Industry (5204063) and Consumption of Fixed Capital by Industry and Asset (5204065)	Division C consumption of fixed capital (chain volume) divided by the average of current- and prior-year net capital stock (chain volume).

Total Factor Productivity (TFP) and labour productivity

TFP is value added per unit of combined labour and capital input:

$$TFP_i = \frac{VA_i}{(L_i + UC_i \times K_i)}$$

Firm-years with a zero denominator are set to missing.

Labour productivity is measured as value added per full-time equivalent (FTE) worker:

$$labour_prod_i = \frac{VA_i}{FTE_i}$$

where (VA_i) is value added and (FTE_i) is full-time equivalent employment reported in PAYG data. The ABS derives FTE employment from employee headcounts using information on hours worked from the Labour Force Survey.

Sample restrictions

Firm-years with labour input below `min_labour_expenses_tfp` (\$60,000) are excluded from both measures by setting the relevant input to missing. We also tested a minimum capital threshold, `min_capital_stock_tfp`, but it had no effect and was not applied to avoid adding unnecessary assumptions. These floors prevent near-zero denominators from generating extreme productivity ratios; they are not intended to represent economically meaningful size thresholds.

Capacity utilisation

Capacity utilisation measures each firm's productivity relative to a fixed best-practice frontier. It is constructed in 3 steps.

1. **Reference sample.** Within a reference group of firms, only firm-years with a positive, finite TFP are retained. TFP is then trimmed within each fiscal year, removing observations more than 3 standard deviations from that year's mean log-TFP.
2. **Frontier.** For each fiscal year, the frontier is the mean TFP of the top 10% of firms in the reference group. These annual frontiers are averaged over all years to give a single, time-invariant frontier **level**. Holding the frontier fixed over time ensures that movements in utilisation reflect firms moving toward or away from best practice, rather than a frontier that is redefined each year:

$$F_g = \text{mean}_t(\text{mean}\{TFP_i: i \text{ in top 5\% of group } g \text{ in year } t\})$$

3. **Utilisation.** Each firm-year is scored against the frontier and bounded to the unit interval:

$$utilisation_{i,t} = \min(\max\left(\frac{TFP_{i,t}}{F_g}, 0\right), 1)$$

A value of 1 indicates the firm is operating at or above frontier productivity; values near 0 indicate performance far below best practice.

The frontier is estimated separately for several reference groups. The groups embody different assumptions about which firms form the relevant comparison set and yield correspondingly different utilisation series.

Estimating values for 2024–25

While injury measures based on business activity statement and PAYG data were available to 2024–25, BIT data was only available to 2023–24. To estimate 2024–25 data, the average ratio of the trimmed mean of the injury measure to turnover for the first 4 years of the investigation period was applied to the 2024–25 turnover figure. Trimmed means were estimated based on the population of businesses which provided data for turnover and the variable being projected. Estimates for 2024–25 imputed in this manner should be considered as indicative only.

Approaches to estimate missing data through regression analysis were investigated (for example, lasso fixed effects regressions). However, the limited number of predictive variables and missing data across the sample led these approaches to misspecification issues and poor predictive power.

Abbreviations

Abbreviation	Definition
ABN	Australian Business Number
ABS	Australian Bureau of Statistics
ADC	Anti-Dumping Commission
ASI	Australian Steel Institute
ASIC	Australian Securities and Investments Commission
ATO	Australian Taxation Office
BAS	Business Activity Statement
BIT	Business Income Tax
BLADE	Business Longitudinal Analysis Data Environment
CPI	Consumer Price Index
CCCMC	China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters
DFAT	Department of Foreign Affairs and Trade
DPMC	Department of the Prime Minister and Cabinet
EBITDA	Earnings before interest, taxes, depreciation and amortisation
EU	European Union
FSS	Fabricated structural steel
FTE	Full-time equivalent
GATT	General Agreement on Tariffs and Trade 1994
GFCF	Gross fixed capital formation
GST	Goods and Services Tax
HTISC	Harmonized Tariff Item Statistical Code
OECD	Organisation for Economic Co-operation and Development
PAYG	Pay As You Go
PPI	Producer Price Index
PIM	Perpetual inventory method
RBA	Reserve Bank of Australia
SA	Agreement on Safeguards
TFP	Total factor productivity
UC	User cost of capital
WTO	World Trade Organization

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