



Trade Remedies
Authority

Statement of Essential Facts

Case AD0012

**Investigation into alleged dumping of aluminium
extrusions from the People's Republic of China**

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Section A: Summary and findings

A1. Introduction

1. This section briefly summarises the legal framework for this Statement of Essential Facts (SEF) and the Trade Remedies Authority (TRA)'s main findings. The background to the investigation and further detail on all aspects are explained fully in the remaining sections.
2. This SEF sets out a summary of the facts considered by the TRA during the investigation that have formed the basis of the TRA's intended final determinations and the anti-dumping remedy that the TRA intends to recommend to the Secretary of State for International Trade (Secretary of State). It should be read in conjunction with other public documents available for this case on [the public file](#).
3. This SEF also informs interested parties who have supplied information that has been considered by the TRA, how the TRA has used the information supplied by them.
4. Interested parties, contributors and any other person who has supplied information to the TRA in respect of this investigation are invited to make submissions in response to the SEF within 31 days of it being published, i.e., before close of business on 20 June 2022.
5. Any submissions received after this date may not be accepted by the TRA if to do so would significantly impede the progress of this investigation.
6. Registered parties to the case can make submissions on the [Trade Remedies Service](#) (TRS) online platform. These submissions must be accompanied by a non-confidential version or summary for the public file. In exceptional circumstances it may not be possible to summarise confidential information. If this is the case, you must provide a statement of reasons.¹ Those not registered

¹ A 'statement of reasons' means a statement setting out the reasons of a person supplying information to the TRA, explaining why summarisation of confidential information is not possible, as defined under regulation 45(6)(b) of the Regulations.

on TRS can send submissions by email to AD0012@traderemedies.gov.uk. These submissions must also be accompanied by a confidential and non-confidential summary.

7. For further information about our investigations, please see our [public guidance](#).

A2. Legal framework

8. This SEF is made pursuant to regulation 62 of the Trade Remedies (Dumping and Subsidisation) (EU Exit) Regulations 2019 (as amended) (the Regulations).

9. This SEF includes:

- the final determination that the TRA intends to make;
- a summary of the facts considered during the investigation; and
- details of the analysis forming the basis of the intended final determination.

A3. Scope assessment

10. The Notice of initiation (NOI) sets out the goods subject to investigation (the Goods Concerned) as:

Bars, rods, profiles (whether or not hollow), tubes, pipes; unassembled; whether or not prepared for use in structures (e.g., cut to length, drilled, bent, chamfered, threaded); made from aluminium whether or not alloyed, containing not more than 99.3% aluminium. The product concerned is commonly referred to as 'aluminium extrusions', referring to its most common manufacturing process even if it can also be produced by other production processes such as rolling, forging or casting.

11. The Goods Concerned are subject to the following commodity codes: 76041010; 76041090; 76042100; 76042910; 76042990; 76081000; 76082081; 76082089; 76109090. The Goods Concerned are defined by the description given above, and not by the commodity codes they are imported under. The Goods Concerned are explained in more detail in [Section C1: Goods Concerned](#).

12. The TRA issued a note to the public file on 16 July 2021 regarding the description of the goods. This note clarified for interested parties that aluminium structures or parts of structures, subassemblies, products that are imported in 'finished goods kit', and welded tubes and pipes are not included within the scope of this investigation, as set out in the NOI.²

A4. Dumping

13. In accordance with paragraphs 1(1) and 8(1)(a) of Schedule 4 to the Taxation (Cross-border Trade) Act 2018 (the Act) the TRA has examined whether dumping has occurred of the Goods Concerned originating in the People's Republic of China (PRC).
14. We have concluded that the Goods Concerned are being dumped into the UK from the PRC.

A5. Injury

15. In accordance with paragraphs 5 and 8(1)(b) of Schedule 4 to the Act the TRA has examined whether the dumped goods may have caused or is causing injury to the UK Industry in those goods.
16. We have concluded that the UK Industry has suffered injury and that the dumped goods from the PRC are the cause of injury to the UK Industry.
17. We have concluded that there are Goods Concerned which the UK does not manufacture and are not able to manufacture domestically, and that the importation of these goods have not or are not causing injury to the UK Industry.

A6. Economic Interest Test (EIT)

18. The TRA has considered the evidence before it and the following factors set out under paragraph 25 of Schedule 4 to the Act:

² Note to the file: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/4c0e46d2-96c2-4509-8823-c6328dcdadcd/>

- injury caused by the dumping of the Goods Concerned to the UK industry in the goods and the benefits to that industry of removing the injury;
- economic significance of affected UK industries and consumers;
- likely impact on affected UK industries and consumers;
- likely impact on particular geographic areas or groups in the UK;
- likely consequences for the competitive environment and the structure of UK markets for these goods; and
- such other matters as the TRA considers relevant.

19. We have concluded that the application of an anti-dumping remedy that the TRA intends to recommend to the Secretary of State meets the EIT.

A7. Intended final determinations and recommended measure

20. For the purposes of making final determinations under paragraph 11(7) of Schedule 4 to the Act the TRA may make different final determinations in relation to different goods.

21. Our intended final determinations are set out below.

22. We intend to make a final affirmative determination in respect of Goods Concerned originating from the PRC that fall under commodity codes: 76041010; 76041090; 76042100; 76042910; 76042990; 76081000; 76082081; 76082089; 76109090.

23. The TRA has determined that the Goods Concerned subject to a final affirmative determination have been or are being dumped in the UK and the dumping of the Goods Concerned has caused or is causing injury to UK Industry in those goods. The TRA has determined that the application of an anti-dumping remedy that it intends to recommend to the Secretary of State meets the EIT.

24. We intend to make a final negative determination in respect of Goods Concerned originating from the PRC that fall under commodity codes: 76041010; 76041090; 76042100; 76042910; 76042990; 76081000; 76082081;

76082089; 76109090 and have a maximum cross-sectional diameter of greater than 310mm, and a weight per metre of greater than 14kg/m.

25. The Goods Concerned subject to the final negative determination are not manufactured by the UK Industry and the TRA has determined that these goods have not or are not causing injury to the UK Industry.
26. We intend to recommend that the Secretary of State impose an ad-valorem duty for a period of five years on the Goods Concerned which are the subject of the final affirmative determination.
27. The rate of the duties we intend to recommend are as follows:

Table 1: Level of Duty		
Country	Exporter/Producer	Anti-dumping duty
The PRC	The Press Metal Group of Companies	10.1%
The PRC	Shandong Nanshan Aluminium Co. Ltd.	7.3%
The PRC	The Haomei Group	14.9%
The PRC	Non-sampled, cooperating exporters	10.1%
The PRC	Non-cooperative exporters	29.1%

Section B: Background

B1. Initiation

28. On 30 April 2021 the TRA received an application³ for a trade remedies investigation (the Application) lodged by Hydro Aluminium UK Ltd (the Applicant). The Applicant alleged that certain aluminium extrusions imported into the UK from the PRC are being dumped and are causing injury to the UK Industry.
29. UK producers supporting this application include Exlabesa Extrusions (Doncaster) Ltd (Exlabesa), Garner Aluminium Extrusions Ltd (Garnalex) and Aluminium Shapes Ltd (Aluminium Shapes). The Application was made on behalf of the UK Industry in aluminium extrusions which represented 55-65% of the total UK production of aluminium extrusions.
30. The Application contained evidence of dumping and of resulting material injury that was sufficient to justify the initiation of the anti-dumping investigation. The case was initiated by the TRA on 21 June 2021, and the NOI⁴ was published on that date.

B2. Investigation parameters

31. The period of investigation (POI) is 1 June 2020 to 31 May 2021.
32. To assess injury, the TRA has chosen to examine the period from 01 June 2017 to 31 May 2021 (the Injury Period).

B3. Participation in the investigation

33. The TRA invited interested parties and contributors to register in order to participate in the investigation.

³ Non-confidential Application: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/58db49f3-2ec8-4b8d-9acc-82d85bb69037/>

⁴ Notice of Initiation: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/58db49f3-2ec8-4b8d-9acc-82d85bb69037/>

34. [Annex A: Interested parties and contributors](#) contains a summary of information received from interested parties and contributors.

B4. The domestic industry

35. The following parties registered an interest in the case:

- Exlabesa;
- Garnalex; and
- Aluminium Shapes.

36. Questionnaire responses were received from the Applicant and the three UK domestic producers listed above.

37. The TRA considered information supplied by Exlabesa to be deficient and the deficiency was not rectified within the applicable timescales. Any reference to Exlabesa throughout this SEF is to publicly available information.

B5. Exporters from the PRC

38. The TRA received a registration of interest in the case from 25 overseas exporters from the PRC. A full list of these overseas exporters is available in [Annex A: Interested parties and contributors](#).

39. Due to the number of parties registering their interest in this investigation, the TRA has limited its examination of overseas exporters in accordance with regulations 56 of the Regulations.

40. The TRA determined the sample of overseas exporters based on the largest volume of exports to the UK in accordance with regulation 56(3)(a) of the Regulations.

41. The TRA published a notice of the proposed sample on 12 July 2021 in accordance with regulation 56(4) of the Regulations.⁵ This notice named four groups of overseas exporters as:
- The Press Metal Group of Companies composed of Press Metal International Ltd (China), Press Metal International Technology Ltd. (China), Press Metal UK Limited. (PMI (China) or PMUK (UK));
 - Shandong Nanshan Aluminium Co. Ltd. (Shandong Nanshan);
 - The Haomei Group composed of the two exporting producers Guangdong Haomei New Materials Co. Ltd and Guangdong King Metal Light Alloy Technology Co. Ltd. (Haomei); and
 - The PanAsialum Group composed of PanAsia Enterprises (Nan Yang) Co Ltd. and PanAsia Aluminium (China) Limited.
42. Questionnaire responses were received from three groups of overseas exporters listed in the sample above: PMI (China), Shandong Nanshan, and Haomei.
43. The PanAsialum Group did not complete a questionnaire. The PanAsialum Group of companies were therefore deemed non-cooperative and the information they provided was disregarded in accordance with regulation 49(1) of the Regulations.
44. Those overseas exporters from the PRC that registered an interest but were not part of the sample will be subject to the non-sampled cooperating exporters anti-dumping duty.

⁵ Notice of proposed sample: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/439ce90d-0c8d-44ec-87cf-58d58b4d3032/>

B6. Exporters requesting individual treatment

45. In response to the sample notice of 12 July 2021 the TRA received requests for calculations of individual anti-dumping amounts from the following two overseas exporters based in the PRC:

- The JMA Group composed of Foshan JMA, Guangdong JMA Aluminium Profile Factory (Group) Co Ltd, JMA (HK) Company Limited (the JMA Group); and
- Guangdong Jiangsheng Aluminium Co.Ltd.

46. The TRA rejected the request for calculation of an individual rate from the JMA Group on the grounds that the number of exporters is so large that further individual examination would be unduly burdensome, in accordance with regulation 56(7) of the Regulations.

47. The TRA rejected the request for calculation of an individual rate from Guangdong Jiansheng Aluminium Co Ltd as they did not provide the necessary information under regulation 56(6) of the Regulations.

B7. Importers

48. The following UK importers registered an interest in the case:

- Aalco Metals (part of Amari Metals Group);
- 3o Limited.

49. Questionnaire responses were received from both UK importers. However, the response received from Aalco Metals was considered deficient and these deficiencies were not rectified. Aalco Metals were therefore deemed non-cooperative and the information they provided was disregarded in accordance with regulation 49(1) of the Regulations.

B8. Downstream users of the Goods

50. The following downstream users of the goods registered an interest in the case:

- Dura Composites Limited;

- Global Extrusion Direct Ltd;
- M. G. Metals Limited;
- Senior Architectural Systems Limited;
- Sherwood Stainless and Aluminium Ltd.

51. Questionnaire responses were received from Global Extrusion Direct Ltd, Senior Architectural Systems Limited and Sherwood Stainless and Aluminium Ltd.

52. The information supplied by Senior Architectural Systems Limited and Sherwood Stainless and Aluminium Ltd was considered to be deficient and the TRA issued a deficiency notice to the parties. The deficiencies were not resolved within the applicable time limits. Where this is the case, information submitted in their pre-sampling questionnaires, and information which is publicly available, was considered.

B9. Foreign Government

53. The Ministry of Commerce, People's Republic of China (MOFCOM) registered an interest in the case and have made submissions to the TRA during the investigation.

B10. Contributors

54. The following contributors registered their interest in the case:

- ABL (Aluminium Components) Limited (part of the Amari Metals Group);
- Alvanco British Aluminium Ltd;
- European Aluminium;
- GSM Aluminium Limited;
- Hydro Aluminium Deeside Ltd;
- Linar Limited;
- Multi Metals Ltd;

- Parkside Group Limited (The);
- Portland Alloys Limited;
- Richard Austin Alloys Limited;
- Righton and Blackburn Ltd (part of the Amari Metals Group);
- Shackerley (Holdings) Group Limited;
- Sheerline Fabrications Ltd;
- Simmal Ltd.

55. Full questionnaire responses were received from:

- Hydro Aluminium Deeside Ltd;
- GSM Aluminium Limited;
- ABL (Aluminium Components) Limited;
- Righton and Blackburn Ltd.

56. The information received from ABL (Aluminium Components) Limited and Righton and Blackburn Ltd was considered to be deficient and the TRA issued deficiency notices to the parties. The deficiencies were not resolved within the applicable time limits. Where this is the case, information submitted in their pre-sampling questionnaires, and information which is publicly available, was considered.

B11. Verification of data

57. Verification of the submitted data took place either onsite or remotely with the following interested parties.

58. UK producers:

- The Applicant;
- Garnalex.

59. Overseas exporters from the PRC

- Haomei;
- Shandong Nanshan;
- PMI including PMUK.

60. The TRA conducted onsite verification visits at the Applicant's site in Tibshelf UK, and PMI at the PMUK site in Wolverhampton UK. Due to ongoing COVID-19 restrictions in the UK all other verification activity took place remotely.
61. Verification reports were produced for each of the parties verified and non-confidential versions of these reports are available on the [public file](#).⁶
62. The TRA did not conduct remote or onsite verification activities with Aluminium Shapes, however desk-based verification took place to reconcile cost and sales data during the POI with published financial accounts.

⁶ The Applicant Verification Report: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/d8cfc122-c6f6-4e08-a900-1da4e9737178/>
Haomei Verification Report: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/36cecce2-24e4-4845-a8be-0b22daf3862e/>
Shandong Nanshan Verification Report: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/31269f5e-d77d-4a51-a0f6-d2a5a2c23750/>
PMI Verification Report: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/e0fbaaa5-c08d-499c-b008-d4a63c221fad/>
Garnalex Verification Report: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/af15d222-8bf2-44bd-8177-17c0595fe6e7/>

Section C: The Goods and Like Goods

C1. The Goods Concerned

63. The Goods Concerned are defined in regulation 2 of the Regulations as “the goods described in the relevant notice of initiation of a dumping investigation under regulation 65(1) [of the Regulations]”.

64. The Goods Concerned are defined in the NOI as:

Bars, rods, profiles (whether or not hollow), tubes, pipes; unassembled; whether or not prepared for use in structures (e.g. cut to length, drilled, bent, chamfered, threaded); made from aluminium whether or not alloyed, containing not more than 99.3% aluminium. The product concerned is commonly referred to as ‘aluminium extrusions’, referring to its most common manufacturing process even if it can also be produced by other production processes such as rolling, forging or casting.

65. These goods are currently classifiable within the following commodity code(s): 76041010; 76041090; 76042100; 76042910; 76042990; 76081000; 76082081; 76082089; 76109090.

66. Not all the goods listed within these commodity codes are included in the product description set out in the NOI and do not therefore fall within the scope of this investigation. To clarify this point, the TRA issued a note to the public file on 16 July 2021 regarding the description of the goods. This note clarified that aluminium structures or parts of structures, subassemblies, products that are imported in ‘finished goods kit’, and welded tubes and pipes the goods are not included within the scope of this investigation.⁷

67. The TRA are aware that there are goods that fall into the description of the Goods Concerned that may be, or have been, imported under commodity codes outside of those set out in the NOI including where the end-use qualifies for a lower duty rate. The intended final determinations will apply to the Goods

⁷ Note to the file: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/4c0e46d2-96c2-4509-8823-c6328dcdadcd/>

Concerned as defined by the description of the goods that fall under the commodity codes set out in the NOI.

C2. The range of Goods Concerned

68. The Goods Concerned are unique in that they are for the most part custom made to order on customer specifications. They can be light or heavy, and highly specialised with differentials in use and pricing.
69. Due to the variation of products within aluminium extrusions the TRA has limited its examination of the Goods Concerned in the injury and dumping calculations in line with regulation 56(2)(c) of the Regulations. The TRA considered it impracticable to consult with interested parties regarding limiting the examination of the Goods Concerned, in accordance with regulation 56(5) of the Regulations. Further detail on this can be found in [Section C4: Product Control Numbers](#).

C3. Like Goods

70. Like Goods are defined as goods which are like those goods in all respects under paragraph 7 of Schedule 4 to the Act. Like Goods include:

Aluminium extrusions that are supplied to meet customer design needs (usually identified in the form of drawing specifications, tolerance level and aluminium alloy specification), including but not limited to bars, rods, profiles (whether or not hollow), tubes, pipes; unassembled; whether or not prepared for use in structures (e.g. cut to length, drilled, bent, chamfered, threaded); made from aluminium alloy containing less than 99% of aluminium. The goods are commonly referred to as 'aluminium extrusions', referring to its most common manufacturing process even if the goods can also be produced by other production processes such as rolling, forging or casting.

71. In identifying Like Goods, the TRA has considered:
- physical likeness, such as physical characteristics;
 - commercial likeness, including competition and distribution channels;
 - functional likeness, such as end-use or interchangeability;

- similarities in production, such as method and inputs; and
- other relevant characteristics.

C4. Product Control Numbers

72. The TRA uses Product Control Numbers (PCNs) to match goods exported to the UK from the PRC with identical or mostly comparable domestically produced and sold goods in the UK.
73. PCNs are created on the basis of the main physical characteristics differentiating the goods, providing that the characteristics have an impact on price.
74. The PCN structure used in this case can be seen in [Annex B: PCN Structure](#).
75. The TRA invited parties to comment on its PCN structure. None of the UK producers, overseas exporters, contributors, or UK importers provided comments or suggested amendments to the structure.
76. The TRA verified that parties had allocated PCNs consistently within their submissions, and where anomalies were identified this was addressed with the parties.
77. As noted above, due to the variation of PCNs within aluminium extrusions the TRA has limited its examination of the Goods Concerned in the injury and dumping calculations. The PCNs used in the calculations are those which are both manufactured in the UK and exported to the UK from the PRC.

C5. Goods Concerned not manufactured in the UK

78. In the Provisional Affirmative Determination (PAD) recommendation the TRA provisionally identified that aluminium extrusions with a maximum cross-sectional dimension of greater than 310mm and a weight per metre of greater than 14kg/m are not currently being manufactured in the UK and that UK producers do not have the capacity to make larger extrusions.
79. In assessing whether these goods are being manufactured in the UK and whether UK Producers have the capacity to make these goods, the TRA

considered the verified questionnaire data, as well as submissions from interested parties.

80. Our analysis of verified data concluded that during the POI the largest weight per metre produced by two UK producers was less than 14kg/m. The TRA concluded that goods with a weight per metre over 14kg/m were not manufactured in the UK during the POI, but were imported into the UK from the PRC.
81. Our analysis of verified data concluded that there were goods imported from the PRC during the POI with a maximum cross-sectional dimension of greater than 310mm but that none of the Like Goods from the UK producers were assigned this characteristic. Our analysis of press sizes confirms that the largest capability in operation by UK producers during the POI, is a 9-inch press. Standard press specification information taken from PMI's website suggest maximum extrusion sizing for a 9-inch press to be between 180mm and 280mm in diameter depending on the shape.⁸ In addition, we received comments from Haomei,⁹ PMI,¹⁰ and GSM Aluminium Limited¹¹ that UK producers do not have the capacity to manufacture larger extrusions.
82. The TRA concluded that aluminium extrusions with a maximum cross-sectional dimension of greater than 310mm and aluminium extrusions with a weight per metre of greater than 14kg/m were not manufactured in the UK during the POI, and that UK producers do not have the capability to produce these goods.
83. PMI and GSM Aluminium Limited also made comments that the UK is not able to manufacture lighter extrusions. We assessed information at the PCN level for those extrusions that were classified as below 0.5kg/m. Our assessment of the data from two UK producers identified that during the POI there were aluminium extrusions produced in the UK that that were classified as below 0.5kg/m and

⁸ Press Metal Website: http://pressmetal.co.uk/pressmetal-v2/pmi_extrusion.html

⁹ Comments from Haomei and King Metal: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/8223d149-d097-457b-90cd-e37c3de1aeaa/>

¹⁰ Comments from PMI: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/bab88d1d-dcac-4271-b997-62ba164367e3/>

¹¹ GSM Aluminium Limited Questionnaire: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/c1351d84-da10-4db2-bbd9-50d847439c8f/>

aluminium extrusions produced in the UK with a weight per metre of 0.5kg/m to <4.5kg/m.

84. The TRA concluded that UK producers can manufacture lighter extrusions.

C6. Conclusion

85. The TRA has determined that the Goods Concerned and the Like Goods are comparable and manufactured in the UK, however there are certain goods that were not manufactured in the UK during the POI. These goods which were not manufactured in the UK during the POI included goods with a cross-sectional dimension greater than 310mm, or with a weight per metre larger than 14kg/m.

Section D: UK Industry and UK market

D1. Overview

86. The UK Industry is defined in paragraph 6 of Schedule 4 of the Act.
87. The TRA have determined that all the producers in the UK of Like Goods constitute the UK Industry for this investigation.

D2. The wider UK aluminium extrusions industry

88. The UK Industry is part of a wider aluminium extrusions industry (AEI) in the UK, which in turn is a sector within the larger aluminium industry.
89. The wider AEI also includes importers, stockholders, fabrication and coating industries and upstream/downstream industries. Upstream industries include producers and suppliers of inputs, such as aluminium billets, energy, and chemicals. Downstream industries are detailed in [Section D6: UK Market](#) below.
90. The Aluminium Federation (ALFED) is the trade association that represents interests of the larger aluminium industry in the UK.

D3. Production processes

91. The aluminium extrusion production process¹² starts with the raw material bauxite. Alumina is extracted from the bauxite through refining. The alumina is dried to a white powder. The refined alumina is transformed into aluminium. The liquid aluminium is cast into aluminium ingots. The aluminium ingot is combined with alloys (to define the grade of material) and recycled aluminium and then converted to logs (or smaller billets). These billets are heated and extruded through a shaped tool called a die. The resulting extrusion is then stretched and cut to length and annealed to retain its properties. Further work, such as fabrication, painting or anodising can be carried out to customer specification.

¹² Hydro: How aluminium is made: <https://www.hydro.com/en-FR/aluminium/products/extruded-profiles/extrusion-in-detail/> and <https://www.hydro.com/en-GB/aluminium/about-aluminium/how-its-made/>

D4. Employment details

92. The Fraser of Allander Institute, using Office for National Statistics data, reports that the wider aluminium industry directly employs 37,000 people across the UK with the largest share being in the West Midlands.¹³ The TRA has analysed that between 2-4% of this figure are directly employed in production of the Like Goods but was unable to assess an accurate figure for the wider AEI.
93. Employment is analysed in more detail in [Section H4: Economic significance of affected industries and consumers in the UK](#).

D5. Conclusion on UK Industry

94. The TRA has determined that all producers in the UK of the Like Goods constitute the UK Industry for this investigation. The aluminium extrusions produced by UK Industry are Like Goods when compared to the Goods Concerned, they are wholly produced in the UK, and there is an existing UK Industry.

D6. UK market

95. The UK market for aluminium extrusions covers a wide variety of downstream industries including building, construction, transportation, automobiles, engineering, and consumer durables.
96. Aluminium is lightweight and is easily formed into shapes which means it can be used by downstream industry for a diverse range of products. It has a strong ability to withstand corrosion as well as being a highly recyclable material. According to ALFED, aluminium is viewed as a key contributor to the UK's desire to become a low-carbon economy, and its increasing use will help to create a more sustainable future.¹⁴
97. As businesses and consumers in the UK move increasingly towards more sustainable practices, the market for aluminium extrusions has potential to

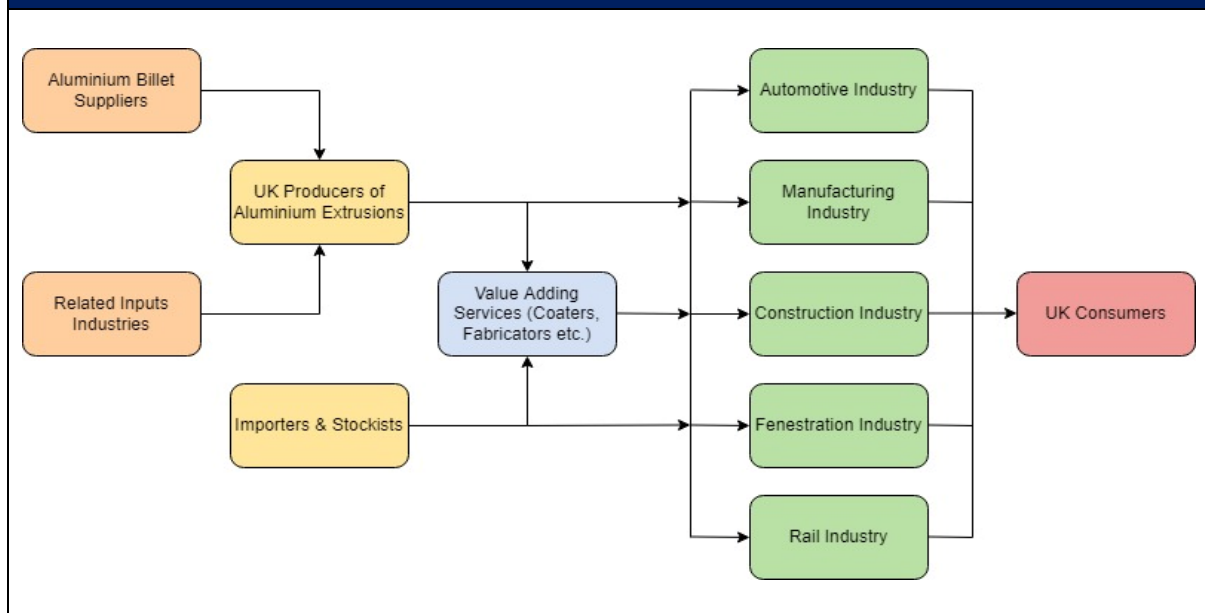
¹³ Fraser of Allander Institute - The Aluminium industry in the UK: <https://fraserofallander.org/publications/the-aluminium-industry-in-the-uk/>

¹⁴ Aluminium Federation Sustainability Roadmap to 2050: <https://alfed.org.uk/policy-areas/sustainability/>

grow, given its unique properties and advantages over other materials such as steel and plastics.

D7. Market structure

Figure 1: An overview of the aluminium extrusions supply chain with examples of downstream industries



98. Figure 1 above shows a simplified structure for the wider AEI, with routes to market (market shown in green in Figure 1). Whilst UK producers of aluminium extrusions can supply value-adding services to the market, these are also provided by businesses in the middle (shown in blue in Figure 1) who will seek supply of extrusions from importers and stockists, as well as UK domestic producers, and/or from importing extrusions themselves.
99. Aluminium billets are the main input in the production of aluminium extrusions. Other inputs include electricity, dies, and chemicals used in the coating process.
100. There are seven producers of aluminium extrusions in the UK that produce the Like Goods (known to the TRA): the Applicant, Capalex, BOAL Aluminium, Garnalex, Exlabesa, Aluminium Shapes and Smart Aluminium. Four of these producers are interested parties to the case including the Applicant (see [Section B4: The Domestic Industry](#)).

101. HMRC data records 738 companies that imported aluminium extrusions during the POI. This is a mixture of businesses, including those who import and stock aluminium extrusions (and in some cases other metals) before distributing them in the UK, often without performing any further value-adding services. It also includes businesses further downstream who import aluminium extrusions directly for their own use (or to provide value adding services).
102. There are a wide range of downstream industries that purchase aluminium extrusions from both UK producers and UK importers for use in further production and value-adding processes. The downstream industries identified from questionnaire responses include fenestration, heating, ventilating and air conditioning, building and construction, transportation, and automobiles.
103. Aluminium extrusions are not considered to be a consumer product. Instead, consumers purchase products in which aluminium extrusions were used as an input in the production process.

D8. Market size

104. Using the commodity codes set out in the NOI the TRA established the size of the UK market for the Goods Concerned was 191,822 tonnes¹⁵ during the POI. The TRA is aware that the Goods Concerned are also imported under commodity codes outside of those set out in the NOI including where the end-use qualifies for a lower duty rate, meaning the UK market in aluminium extrusions is considerably larger. As the Goods Concerned are defined by the description of the goods, and not by the commodity codes themselves, these goods imported under alternative commodity codes are still considered as part of the Goods Concerned. However, it was not possible to determine the exact volume of goods imported under these additional commodity codes because of the diverse nature of products that are imported under such codes (i.e. the codes also covered goods other than the Goods Concerned).

¹⁵ HMRC: <https://www.uktradeinfo.com/> and UK producer submissions

105. During the POI UK Industry (as defined in [Section D1: Overview](#)) made up 39% of the total UK market, measured by sales volume as a proportion of total domestic consumption. Importers supplied the remaining 61% showing their importance as part of the wider AEI in helping to meet UK market demand.

D9. Market analysis

106. European Aluminium¹⁶ provides insight into the European aluminium extrusions market in 2020, which included the UK. They report that in 2020 “...primary production in Europe remained stable, despite the COVID-19 crisis. The semi-fabricated products (flat rolled products and extrusions) market, on the other hand, was greatly affected by the crisis. Demand decreased significantly, due to the downturn in end-use markets, mainly automotive, transport, building and construction. Chinese excess capacity, strict EU energy and climate regulations, and challenges in accessing aluminium scrap are all exerting additional pressures on the industry”.

107. In addition, the UK market suffered disruption and delays to imports following its withdrawal from the European Union (EU Exit) that necessitated implementation of new import rules, and the shipping crisis during Q1-Q2 of 2021 only contributed further to these delays. This is explained in [Section G4: The current state of the UK Industry](#).

D10. Market trends

108. Despite these challenges for the UK Industry during 2020 and early 2021, European Aluminium claims that future demand for aluminium and aluminium extrusions is expected to grow, due to an increase in the manufacture of sustainable products that contain aluminium extrusions.¹⁷

109. [Section G: Injury](#) addresses relevant historical market trends in detail as part of our injury assessment.

¹⁶ European Aluminium Market Overview: <https://www.european-aluminium.eu/activity-report-2020-2021/market-overview/>

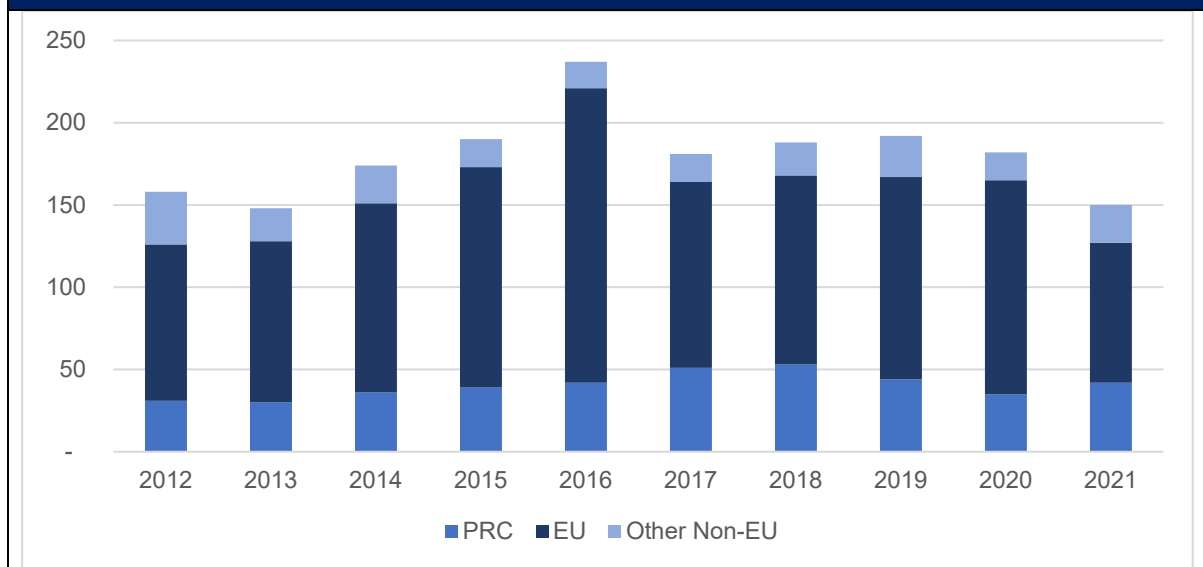
¹⁷ European Aluminium Circular Action Plan: <https://www.european-aluminium.eu/media/3263/european-aluminium-circular-aluminium-action-plan.pdf>

D11. Market demand

110. European Aluminium¹⁶ gives a split of the aluminium extrusion market by sector for 2020, which included the UK, and is therefore a good indication of UK market demand. The largest market sector was building and construction at 41%, followed by transport at 23%, stockists at 14%, and engineering at 14%. The remaining 8% came from other sectors including consumer goods.

D12. Sources of supply

Figure 2: Source of Imports of the Goods Concerned to the UK from 2012 - 2021 (thousand tonnes)



Source: HMRC: <https://www.uktradeinfo.com/>

111. Figure 2 above details sources of UK imports of the Goods Concerned over a 10-year period. Throughout this period, the PRC made up 20-30% of UK imports and they have consistently been the largest exporter of Goods Concerned to the UK. Germany, Italy, Netherlands, and Spain were the next largest exporters of the Goods Concerned to the UK during this period.

112. UK domestic supply is concentrated with seven known producers of the Like Goods, detailed in [Section D7: Market Structure](#) above. Downstream industries source supply from importers, stockists, and UK Industry.

113. [Section G: Injury](#), addresses relevant historical market share in detail as part of our injury assessment.

D13. Competition in the market

114. Given aluminium's unique properties including its infinite recyclability, it possesses many advantages over other materials such as steel and plastics. [Section H8: Likely consequences for the competitive environment, and for the structure of the market in the UK](#) addresses competition within the aluminium extrusions market in detail as part of our EIT assessment.

Section E: Particular market situation

E1. Introduction

115. In accordance with regulations 7(2)(b) and 7(4) of the Regulations, it is not appropriate to use comparable price to determine normal value where there is the existence of a particular market situation (PMS). A PMS includes situations where:

- prices are artificially low;
- there is significant barter trade; and
- prices reflect non-commercial factors.

116. Allegations of a PMS were made by the Applicant and evidence was provided in support of these allegations.¹⁸ The allegations were made in relation to:

- government influence in company decision-making;
- labour cost and policy;
- capital;
- land;
- aluminium input; and
- energy.

117. The TRA investigated each of these allegations to determine if a PMS existed in each area. Some allegations were rejected because the TRA did not find any evidence of PMS, such as government involvement in the hiring or dismissal of employees, labour costs and preferential access to capital. Other allegations were rejected because although a PMS was identified in relation to the Goods Concerned, this did not have a material impact on costs or prices of the Goods Concerned. These distortions involved government influence in internal

¹⁸ Hydro Aluminium Ltd Anti-Dumping Application: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/58db49f3-2ec8-4b8d-9acc-82d85bb69037/>

company decision making, trade union laws, the hukou system and government control over land use.

118. The TRA identified that a PMS was present in two cost areas, and found that this was affecting the prices and costs of the Goods Concerned. A PMS was identified in aluminium input costs ([Section E3: Aluminium input](#)) and energy costs ([Section E4: Energy](#)).
119. To examine the impact that the PMS was having on costs and prices, we identified benchmark costs, which were used to represent what the PMS-affected costs were expected to be under market conditions. This process is explained in [Section E5: Assessing the Impact of PMS on Costs and Prices](#).
120. The TRA found that the PMS affecting aluminium input and energy costs was having a material impact on the price of the Goods Concerned for two exporters: PMI and Haomei. Shandong Nanshan was found to have highly integrated production processes in these two areas, which meant it was unaffected by the PMS. This is explained in [Section E8: Treatment of Shandong Nanshan](#).
121. In accordance with regulation 8(1)(a) of the Regulations, the TRA therefore determined the normal value of the Goods Concerned for PMI and Haomei by determining the costs of production plus a reasonable amount for administrative, selling and general costs (AS&G), and a reasonable amount for profits. In line with regulation 13(2) of the Regulations an adjustment was made to the cost of aluminium billets and energy. This adjustment was calculated using the same benchmarks that were identified when determining the existence of a PMS. The adjustment used for each exporter was the difference between that exporter's distorted costs and the benchmark costs. More information on Normal Value can be found in [Section F2 Normal Value](#).

E2. Sources of evidence

122. Questions relating to PMS were included in the questionnaires sent to overseas exporters in the PRC. In addition to the allegations on PMS raised by the

Applicant, the TRA received information relating to PMS allegations from the following interested parties during the investigation:

- Questionnaire responses from PMI,¹⁹ Haomei²⁰ and Shandong Nanshan²¹
- Comments from MOFCOM,²² PMI,²³ Haomei,²⁴ Shandong Nanshan,²⁵ and GSM Aluminium Limited (via their questionnaire response).²⁶

123. The TRA invited the GOC to respond to a questionnaire concerning the alleged existence of distortions in the PRC. No response to the questionnaire was received at the time of this publication. Separately, the GOC made comments on the initiation of the case, which were submitted to the public file on 11 August 2021.²⁷

124. The GOC commented on the allegations of PMS, stating that “UK anti-dumping law and other domestic legislation do not provide criteria for determining ‘market distortion’, nor do they authorise TRA to investigate whether there is a market distortion in the country of origin of the product under investigation”.²⁸

125. The GOC also made comments about the evidence used by the Applicant. They stated that “distortions in the Chinese market is [sic] only based on the work paper of the third parties and has no legal basis and does not provide facts or evidence”.²⁹ Haomei commented on the assessment of evidence used by the

¹⁹ Press Metal Group Questionnaire Response: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/90b23425-32d3-4a83-bbb1-0f76e37541b0/>

²⁰ Haomei Group Questionnaire Response: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/d9276f66-de90-424c-8c9a-f14f32dc88a9/>

²¹ Shandong Nanshan Questionnaire Response: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/180602a5-9a6c-48a6-8506-97d4c4a9b25f/>

²² Comments on Initiation by MOFCOM: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/60e41f9d-0802-4187-a956-9ae30ebb8eb2/>

²³ Comments by Press Metal: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/bab88d1d-dcac-4271-b997-62ba164367e3/>

²⁴ Comments from Haomei and King Metal: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/8223d149-d097-457b-90cd-e37c3de1aeaa/>

²⁵ Comments received from Shandong Nanshan: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/9401d448-0044-4931-9acf-0e04210bdac3/>

²⁶ GSM Aluminium Ltd Questionnaire Response: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/c1351d84-da10-4db2-bbd9-50d847439c8f/>

²⁷ Comments on Initiation by MOFCOM: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/60e41f9d-0802-4187-a956-9ae30ebb8eb2/>

²⁸ Comments on Initiation by MOFCOM: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/60e41f9d-0802-4187-a956-9ae30ebb8eb2/>

²⁹ Ibid.

applicant, stating that “under art. 7 of the Basic Regulation [sic], the TRA can well consider domestic costs, but only to the extent that they are positively established not to be distorted, on the basis of accurate and appropriate evidence and the assessment shall be done for each exporter and producer separately”.³⁰

126. As well as the submissions from interested parties to the case detailed above, the TRA also used the following sources to investigate claims of a PMS:

- relevant legislation and regulations in the PRC, including the Constitution and relevant Five-Year Plans;
- OECD Trade Policy Paper ‘Measuring Distortions in International Markets: The Aluminium Value Chain’;³¹
- information obtained during verification visits (in-person and virtual);
- data sourced from S&P Global Platts (under subscription); and
- various online sources, investigated through desk research.

E3. Aluminium input

127. A PMS was found in relation to aluminium input costs. Aluminium input costs, in the form of aluminium billets, typically constitute around 65-95% of the cost of production.³²

128. The Applicant alleges that “the Chinese government is influencing the supply and hence the prices of raw materials on the market by using a number of interventionist policies. A significant problem is a mismatch between demand and supply”. The Applicant also alleges that:

- “China has implemented 15% export taxes and no VAT refund on export of primary aluminium... The main purpose is to utilise the subsidized

³⁰ Comments from Haomei and King Metal: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/8223d149-d097-457b-90cd-e37c3de1aeaa/>

³¹ OECD Trade Policy Papers: Measuring Distortions in International Markets: The Aluminium Value Chain: https://www.oecd-ilibrary.org/trade/measuring-distortions-in-international-markets-the-aluminium-value-chain_c82911ab-en

³² Taken from exporter questionnaire data. Ranges have been used for confidentiality.

primary production for the benefit of Chinese downstream producers especially their Extrusion business.”

- “The Chinese government takes measures to limit capacity and support downstream products.”
- “The 13th Five Year Plan relevant for raw materials mentions the role of governmental decision-making on the sector's development and it includes a number of detailed provisions with regard to different mineral groups.”
- “Export restrictions can lead to considerable price differences between China and the world market, limit the exports significantly and keep the products on the domestic market. The increased supply on the domestic market, which is not necessarily linked with an increased demand, drives the domestic prices for those products down. This means that the downstream industry gains access to cheaper raw materials.”
- “The Department of Prices in the NDRC [National Development and Reform Commission] is responsible for setting prices. The European Commission confirmed significant distortions of prices of aluminium in China after a comprehensive antidumping investigation on small rolls of aluminium foils”.³³

129. The TRA found that aluminium input prices were likely to be artificially lowered by non-commercial factors. The OECD published a 2019 paper titled ‘Measuring Distortions in International Markets: The Aluminium Value Chain’.³⁴ The report stated that export restrictions have been in operation in the PRC and can cause distortions in supply chains. Export restrictions generally have the effect of making the product cheaper domestically and can also increase its price on world markets. An OECD database records export restrictions on raw materials

³³ Hydro Aluminium Ltd Anti-dumping Application: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/58db49f3-2ec8-4b8d-9acc-82d85bb69037/>

³⁴ OECD Trade Policy Papers: Measuring Distortions in International Markets: The Aluminium Value Chain: https://www.oecd-ilibrary.org/trade/measuring-distortions-in-international-markets-the-aluminium-value-chain_c82911ab-en

applied during the period of 2009–2020. It shows that export taxes on unwrought aluminium have consistently remained at 15% over this period, which is inclusive of the POI.³⁵

130. Unwrought aluminium is understood to include aluminium products in the form of ingots, blocks, billets, slabs and other similar manufactured forms. Aluminium ingots and aluminium billets are forms of unwrought aluminium used in the production process of aluminium extrusions. The restrictions placed on the export of these unwrought aluminium products artificially increased the domestic supply of these products, which is likely to have lowered prices and means producers of the Goods Concerned benefited from artificially lowered prices of unwrought aluminium.
131. By comparison, export taxes are approximately 0-1% for semi-fabricated products and articles of aluminium.³⁶ This encouraged the export of processed aluminium products, but not the export of primary or unwrought aluminium products. The OECD paper reported that estimated VAT costs for different aluminium products in the PRC show exports of bauxite, alumina, and primary aluminium have all borne the full extent of the VAT over the past 8 to 15 years [paper published in 2019]. The OECD paper stated that “...this has provided a strong incentive to Chinese smelters not to export their primary aluminium and instead sell it domestically for lower prices than they would obtain in global markets”. It is the TRA’s view that this is highly likely to distort the market and result in lower aluminium input costs into the production process of the Goods Concerned.
132. Interested parties commented on the price of aluminium input in the PRC, often citing the close interaction between the London Metal Exchange (LME) and the Shanghai Futures Exchange (SHFE). The LME is the global centre for trading

³⁵ OECD: Export Restrictions on Industrial Raw Materials:
https://qdd.oecd.org/subject.aspx?Subject=ExportRestrictions_IndustrialRawMaterials

³⁶ OECD Trade Policy Papers: Measuring Distortions in International Markets: The Aluminium Value Chain:
https://www.oecd-ilibrary.org/trade/measuring-distortions-in-international-markets-the-aluminium-value-chain_c82911ab-en

industrial metals.³⁷The SHFE is the largest trading centre for metal futures in the PRC, representing the regional price of metals in China.³⁸

133. Shandong Nanshan stated that “The metal prices published by SHFE and LME during the Injury Period were at the similar level or even higher, which by no means were distorted”.³⁹ GSM Aluminium Limited stated that “These two metal trading exchanges mirror each other... This is a strong evidence that market value for raw materials and prices in China and Europe are exposed to the same market forces”.⁴⁰ Haomei stated that “index prices are in any case not distorted prices because they are subject to free-market forces, even in China... If titles are offered to the public in the market, their price tend[s] by definition [to be] non-distorted because the public can purchase it or not and make the price. Considering the Shanghai index price an element of distortion would be on the contrary a logical error”.⁴¹
134. The TRA investigated the interaction that occurs between the LME and SHFE. An article by LME Insight in 2017⁴² stated that “China, by and large, produced its own primary aluminium, most of which remained on-shore. In turn there was little pricing interaction between LME and SHFE markets. Now the status quo appears to have changed”. Referring to aluminium specifically, the article stated “Aluminium, on the other hand, is the highest-volume contract traded on the LME but has typically seen lower volumes and more stable prices than other LME base metal contracts during Asian hours, demonstrating little interaction between the two markets”.
135. Another article by LME Insight⁴³ stated that “The fundamental price distinction between the [LME] and the [SHFE] is grounded in the physical markets”. The

³⁷ LME: Setting the Global Standard: <https://www.lme.com/Company/About> (Accessed: 21/03/2022)

³⁸ LME: [The Asian Connection: how to London and Shanghai markets interact?](https://www.lme.com/en/Education/Online-resources/LME-Insight/The-Asian-connection) (Accessed: 21/03/2022)

³⁹ Comments Received from Shandong Nanshan: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/9401d448-0044-4931-9acf-0e04210bdac3/>

⁴⁰ Questionnaire GSM Aluminium Ltd: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/c1351d84-da10-4db2-bbd9-50d847439c8f/>

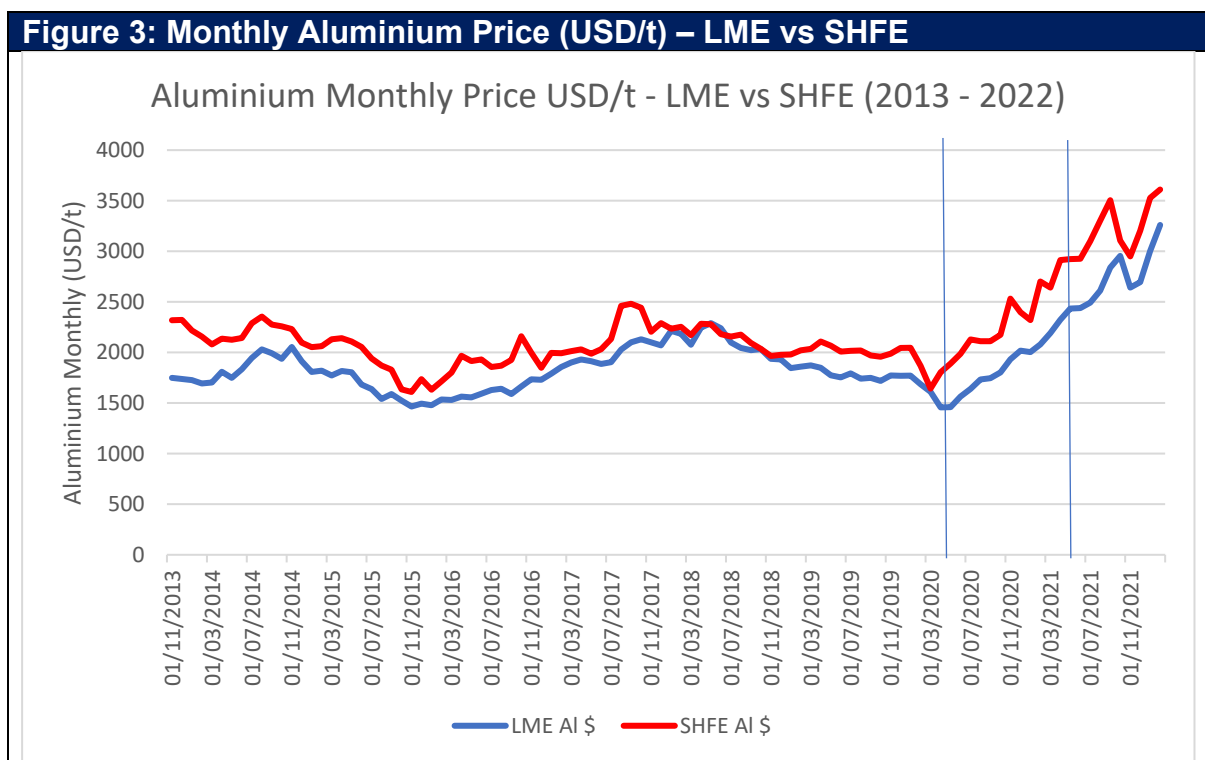
⁴¹ Haomei Group Questionnaires: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/d9276f66-de90-424c-8c9a-f14f32dc88a9/>

⁴² LME Aluminium: <https://www.lme.com/en/Education/Online-resources/LME-Insight/LME-Aluminium-West-to-East-as-Asian-influence-rises> (Accessed: 21/03/2022)

⁴³ LME Insight: <https://www.lme.com/en/Education/Online-resources/LME-Insight/The-Asian-connection> (Accessed: 21/03/2022)

SHFE is a regional price based on its “solely Chinese delivery network”⁴⁴, whilst the LME is a global price with a warehouse network worldwide. This suggests that SHFE can be impacted by domestic factors that would not have the same impact on the LME. The arbitrage between the two markets “is fundamentally priced in the physical i.e. the supply-demand balance and actual transportation costs connecting the two markets”.⁴⁵

136. Figure 3 compares the monthly price for aluminium on the LME and SHFE, between 2013 and 2022. The POI is approximately highlighted between the two vertical lines.



Source: S&P Global Platts (Under Subscription)

137. Across the period represented in Figure 3 above (November 2013 to November 2021), the SHFE is mostly higher in price than the LME. This is because the SHFE price is inclusive of sales tax,⁴⁶ whereas the LME does not include sales tax. The graph shows a greater degree of volatility present in the SHFE

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ Reuters: <https://www.reuters.com/article/china-metals-derivatives-idUSL3N20Y0SJ> (Accessed: 21/03/2022)

aluminium price than the LME. Moreover, the price difference between the two markets varies notably across the period. Fluctuations in the price difference were experienced between 2013 and 2017, before the two markets converged very closely in price between 2017 and 2019. After this, the difference in the two market prices increased between 2020 and 2021. Whilst the SHFE and LME follow similar market trends overall, these smaller fluctuations in price between the two markets indicate that different factors can affect the price of aluminium in each market separately.

138. Price limitations are regularly used on the SHFE to restrict the impact of price volatility. A report by the LME noted that “In extreme circumstances, SHFE will cease trading once the daily price limit has been reached, while the LME prices will remain active”.⁴⁷ The Risk Management Rules of the SHFE⁴⁸ state the price limitation and margin requirement rules that operate on the SHFE. Article 2 states “The risk management regimes adopted by the Exchange include the Margin Requirement, the Price Limit, the Position Limit, the Trading Limit, the Large Trader Reporting, the Forced Position Liquidation, and the Risk Warning, etc”. The TRA determined that the existence of controls like these is likely to prevent the price mechanism from operating freely.
139. Lastly, the price similarities between the LME and SHFE, as argued by the interested parties above, do not detract from the other market distortions that have been identified as part of this investigation. As a result, benchmark prices have been constructed for aluminium input, based on LME aluminium prices. This is because the TRA have determined that the LME aluminium prices are a more reliable reflection of the market price for aluminium than SHFE prices.
140. The TRA determined that the imbalance in export taxes between unwrought aluminium and semi-finished/finished articles of aluminium (which includes aluminium extrusions) caused a PMS in the market during the POI and lowered the aluminium input costs used in the production of the Goods Concerned. As a

⁴⁷ LME Insight: <https://www.lme.com/en/education/online-resources/lme-insight/lme-shfe-cross-market-arbitrage#:~:text=The%20LME%20is%20a%20mature,place%20to%20dampen%20excessive%20volatility> (Accessed: 21/03/2022)

⁴⁸ SHFE: <http://www.shfe.com.cn/upload/20201214/1607916436790.pdf> (Accessed: 21/03/2022)

result, prices of the Goods Concerned were artificially low and reflected non-commercial factors.

E4. Energy

141. A PMS was found in relation to energy costs. Energy costs, in the form of electricity and gas, typically constitute around 3-12% of the cost of production.⁴⁹
142. The Applicant alleges that “China is the world’s largest electricity producer, and 50% of generation capacity is state-owned. Prices are fixed by the State. The Department of Pricing in the National Development and Reform Commission (NDRC)⁵⁰ is responsible for overseeing prices in China. The prices for electricity and domestic natural gas are regulated by NDRC”.⁵¹
143. Energy prices in the PRC were found to reflect non-commercial factors. A WTO report states that price controls take two forms: "government-set prices" or "government-guided prices".⁵² Government-set prices are fixed prices set by the competent authorities, while government-guided prices are prices set by business operators within a range of prices set by the competent pricing departments or other related government departments, within which the market price is allowed to fluctuate.
144. For energy prices, the competent authority is the Department of Pricing, which sits within the National Development and Reform Commission (NDRC). The Department of Pricing states its objective is “to monitor, forecast and give warning of price changes, and propose price control targets and policy recommendations”.⁵³
145. The relevant authority is the Department of Pricing, which applies the Price Law of the PRC. Article I of Price Law states “This Law is enacted with a view to

⁴⁹ Taken from exporter questionnaire data. Ranges have been used for confidentiality.

⁵⁰ NDRC: About: https://en.ndrc.gov.cn/aboutndrc/BandD/202105/t20210526_1280939.html (Accessed: 21/03/22)

⁵¹ Hydro Aluminium Ltd Anti-dumping Application: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/58db49f3-2ec8-4b8d-9acc-82d85bb69037/>

⁵² WTO Trade Policy Review: https://www.wto.org/english/tratop_e/tpr_e/s415_e.pdf (Accessed: 21/03/22)

⁵³ National Development and Reform Commission: https://en.ndrc.gov.cn/aboutndrc/BandD/202105/t20210526_1280939.html

standardising the price acts, giving play to the role of price in the rational allocation of resources, stabilising the overall price level of the market, protecting the lawful rights and interests of the consumers and operators and promoting the sound development of the socialist market economy”. Article 18 of the Price Law states “The government may enforce government-guided prices or government-set prices when necessary for the prices of the following commodities and services: [...] the prices of essential public utilities”.⁵⁴The WTO published its trade policy review on the PRC in September 2021. This review contains a summary of the products or services subject to prices set or guided by local Governments in 2021 and includes electricity transmission and distribution.⁵⁵

146. The TRA found a PMS in the energy costs used by the sampled exporters. There is evidence that energy price setting existed during the POI at a national and local level, and that this was likely causing prices to be artificially low and to reflect non-commercial factors.

E5. Assessing the impact of PMS on costs and prices

147. As stated in [Section E1: Introduction](#), where a PMS was identified, the TRA investigated whether this was having a material impact on the costs and prices of each exporter and to quantify that impact. The benchmark costs identified were used to represent what the PMS-affected costs were expected to be under normal market conditions, in accordance with regulation 7(4) of the Regulations, which states that a PMS includes situations where prices are artificially low, or where prices reflect non-commercial factors. The use of benchmarks in this regard allowed the TRA to determine whether the PMS were affecting prices in this way.
148. Suitable benchmark values were constructed in accordance with the principles regarding adjustments under regulation 13(4) of the Regulations. This advises that the TRA may have regard for (a) corresponding costs of production, AS&G

⁵⁴ Price Law of the People’s Republic of China:

<http://english.mofcom.gov.cn/article/policyrelease/Businessregulations/201303/20130300046121.shtml>

⁵⁵ WTO Trade Policy Review China: https://www.wto.org/english/tratop_e/tpr_e/s415_e.pdf

and profits in an appropriate representative third country, (b) international prices, costs or benchmarks, or (c) any other factors considered relevant. Actual costs paid by the exporters were then compared with the benchmarks to identify whether the PMS had resulted in artificially lowered prices or had caused prices to reflect non-commercial factors.

149. The benchmark for aluminium input costs was constructed using benchmark costs for aluminium ingot, a regional premium and a billet premium. The benchmark for energy costs was constructed using benchmark electricity and gas costs. In certain circumstances, where it was appropriate, the TRA used internationally recognised prices or costs. In most other circumstances, the TRA opted to use a representative third country to acquire the corresponding costs of production necessary to calculate the benchmarks. A representative third country was selected based on the following criteria:

- a similar level of economic development to the PRC, on the basis of GDP per capita, life expectancy and literacy rate;
- similar level of employment in industry (as a % of total employed) and evidence of an aluminium industry and production of aluminium extrusions; and
- availability of relevant information - where more than one country fit the above criteria, a country was selected based on the quality of the available information from secondary and publicly available sources.

150. The TRA considered a number of countries and measured them against the above criteria. Following this assessment, Brazil was selected as most appropriately meeting each of the above criteria.

151. Brazil was found to be reasonably comparable with the PRC in economic development. Table 2 illustrates the similarities between the PRC and Brazil in terms of GDP per capita, life expectancy at birth and literacy rate.

Table 2: Brazil and the PRC – Economic Development Indicators

	Brazil	The PRC
GDP per capita (<i>average annual figure from 2017-20</i>)	\$8,693	\$9,892
Life Expectancy at birth (2019)	76 years	77 years
Literacy Rate (2018)	93%	97%

Source: [The World Bank](#)

152. We also consider that Brazil meets the second criteria, which is the level of employment in industry and presence of an aluminium extrusion industry. A number of companies in Brazil were identified to be producing aluminium extrusions. These include Companhia Brasileira de Alumínio; Brazilian Aluminium Company (CBA)⁵⁶ and Hydro Aluminium Brasil S.A.⁵⁷ ⁵⁸ (which manages one of the world’s richest bauxite mines)⁵⁹ as well as aluminium smelters such as Albras Alumínio Brasileiro S.A (Albras)⁶⁰. Brazil also has a similar proportion of people employed in industry to the PRC, which is demonstrated in Table 3:

Table 3: PRC and Brazil – Employment in Industry⁶¹

	Brazil	PRC
Employment in industry (<i>as % of total employment</i>)	20%	27%

Source: The [World Bank](#)

153. Where possible, Brazil has been prioritised as a representative country. However, in certain circumstances alternative data sources have been used.

⁵⁶ CBA: <https://cba.com.br/en/cba/>

⁵⁷ Hydro Aluminium Brasil: <https://www.hydro.com/en-BR/about-hydro/hydro-worldwide/north-america/brazil/tubarao/hydro-extrusions-tubarao/>

⁵⁸ Vale: <http://www.vale.com/en/aboutvale/pages/default.aspx>

⁵⁹ Mining Technology: <https://www.mining-technology.com/projects/paragominas/>

⁶⁰ Albras: <http://www.albras.net/>

⁶¹ The World Bank defines ‘industry’ as “The industry sector consists of mining and quarrying, manufacturing, construction, and public utilities (electricity, gas, and water).”

This was done where a given industry standard was the more reliable option (for example, LME was used as a global standard for Aluminium ingots). Alternative data sources were also used when no suitable data from Brazil were available to the TRA (for example, Aluminum 6063 Billet Upcharge delivered US Midwest was used for Billet Premiums). Where this has occurred, in accordance with regulation 47(5) of the Regulations, alternative data sources have been used with special circumspection and have been selected based on the availability, reliability and suitability of the respective data.

E6. Aluminium input benchmark

154. The TRA constructed a benchmark price for aluminium input costs. This cost was in the form of aluminium billet. To construct the raw material price for aluminium billets, benchmark costs were obtained for:

- the cost of the primary aluminium, in the form of aluminium ingots;
- the cost to acquire the aluminium ingot. This is known as a 'Regional Premium', which is inclusive of all the costs associated with acquiring and transporting the goods from their country of export to the destination; and
- the cost of processing the aluminium ingot into a billet (billet premium).

E6.1 Primary aluminium ingot

155. Costs of the aluminium ingot were obtained from average monthly price data for the POI from the LME,⁶² sourced from S&P Global Platts under subscription. In 2021, the equivalent of \$15.6 trillion (or 3.3 billion tonnes) of industrial metals were traded on the LME. It is the world's centre for industrial metals trading and is used as the global reference price.⁶³

156. The aluminium ingots are described as "Al99.70 in the GB/T 1196-2017 Standard entitled 'Unalloyed aluminium ingots for remelting'".⁶⁴ Since prices

⁶² The London Metal Exchange: <https://www.lme.com/Company/About>

⁶³ Ibid.

⁶⁴ The London Metal Exchange: <https://www.lme.com/Metals/Non-ferrous/LME-Aluminium/Contract-specifications>

were given in USD, monthly average exchange rates were obtained from the Bank of England⁶⁵ to convert into CNY.

E6.2 Regional premium

157. Data for benchmark Regional Premium costs were taken from Brazil. Brazil was chosen as a suitable third country based on the methodology provided above.
158. Regional Premium costs for Brazil for the POI were sourced from S&P Global Platts, under subscription, and data were provided in Delivered Duty Paid (DDP) incoterms. This ensures all costs associated with acquiring the goods are covered (including transport, insurance, freight, and any relevant import duties).

E6.3 Billet premium

159. Benchmark cost information for billet premiums was obtained for the POI from S&P Global Platts. The billet premium used was 'Aluminum 6063 Billet Upcharge delivered US Midwest', using data from the United States of America (USA) Midwest. Since prices were given in USD, monthly average exchange rates were obtained from the Bank of England⁶⁶ to convert into CNY.
160. The US Midwest was selected by the TRA as there were limited data available to the TRA in respect of billet premiums. However, this billet premium was also selected because the 6063 series is a 6-series alloy, which is the alloy-series most commonly used by the UK Industry.
161. By combining the average of each aluminium input cost (aluminium ingot, regional premium and billet premium), the TRA established a benchmark cost per tonne (CNY) of the aluminium input.

E6.4 Aluminium input - findings

162. The TRA compared the aluminium input cost per tonne for each sampled exporter against the benchmark cost per tonne. We found that each exporter's

⁶⁵ Bank of England: <https://www.bankofengland.co.uk/boeapps/database/>

⁶⁶ Bank of England: <https://www.bankofengland.co.uk/boeapps/database/>

raw material costs per tonne were approximately 5-20%⁶⁷ lower than the benchmark cost per tonne, confirming that a PMS existed in the market which had a material impact on the costs and price of the Goods Concerned. This meant that prices of aluminium were artificially low and reflected non-commercial factors, in accordance with regulation 7(4) of the Regulations.

E7. Energy benchmark

163. The TRA constructed a benchmark for energy costs. Energy is one of the key inputs into the aluminium extrusion process, and accounts for approximately 5-10% of the cost of manufacturing aluminium extrusions.⁶⁸ There are two main energy inputs which are used in this process: electricity and gas. These are used to smelt ingots into billets, heat billets for extruding, and for other general purposes such as operating machinery.
164. Brazil was used as a third country for benchmark costs, as identified above. Energy cost data were obtained from the Brazilian Government's Ministry for Mines and Energy⁶⁹ (MME), using their Energy Information Service.
165. The data available to the TRA were up to December 2020, meaning energy prices covered the first seven months of the POI (from June 2020 to December 2020) but did not cover the last five months (January 2021 to May 2021). The TRA chose to use this data source, as alternative data sources in this regard were limited, and the TRA relied on the best facts available.
166. Benchmark electricity and gas costs obtained from the MME were presented in Brazilian Reals per British Thermal Unit (BTU). This was converted from BTU to kWh, and from Brazilian Real (BRL) into CNY using monthly exchange rates obtained from the Central Bank of Brazil (Banco Central do Brasil).⁷⁰
167. The TRA used source documents provided by each exporter to identify the prices paid for electricity and gas. Source documents were taken at the

⁶⁷ A range has been used for confidentiality

⁶⁸ Exporter questionnaire data

⁶⁹ Ministry for Mines and Energy:

https://www.mme.gov.br/SIEBRASIL/consultas/visor_reportes_d42.aspx?oc=138&or=30175&ss=2&v=1

⁷⁰ Banco Central do Brasil: <https://www.bcb.gov.br/en>

beginning and at the end of the POI to cover any changes in energy prices over the period. Electricity costs were presented by exporters in kWh, whilst gas costs were presented by exporters in cubic metres and converted into kWh for comparison. The TRA also identified the total volumes of electricity and gas used by each exporter and used this information to calculate a weighted average energy cost using the benchmark cost information. This meant that the benchmark data reflected the sources of energy and volumes of energy used by each exporter.

168. The TRA calculated the average volume of energy used to produce a tonne of extrusions (using the sampled data from each exporter) and used this to create the benchmark value. Whilst there is a lot of variation in the energy required to produce different types of extrusion, this approach ensured that the average volume of energy used was a fair reflection of production. Next, the actual average cost of energy per tonne of extrusions was calculated by dividing the total energy costs by the total quantity of Goods Concerned produced.

E7.1 Energy - findings

169. The TRA compared the energy cost per tonne for each sampled exporter against the benchmark cost per tonne. This average energy cost per tonne was compared against the benchmark value. We found that each exporter's energy cost per tonne was 30 – 110%⁷¹ lower than the benchmark cost of energy per tonne, confirming that a PMS existed in the market which had a material impact on the costs and price of the Goods Concerned. This meant that prices of energy were artificially low and reflected non-commercial factors, in accordance with regulation 7(4) of the Regulations. The difference as a percentage was identified to be the impact that the PMS had on the energy costs incurred by each exporter.

⁷¹ A range has been used for confidentiality

E8. Treatment of Shandong Nanshan

170. Shandong Nanshan was identified to have highly integrated production processes. Shandong Nanshan has a division which produces electricity, and a division which produces alumina powder from bauxite and then converts this into aluminium. The electricity and aluminium produced by these divisions are both used to manufacture aluminium extrusions. The TRA considered these integrated processes against the PMS identified in energy and aluminium input.

E8.1 Shandong Nanshan - energy usage

171. During verification, the TRA investigated Shandong Nanshan's production and subsequent use of electricity. Shandong Nanshan use their own electricity to produce the Goods Concerned, and as such, they benefit from lower electricity costs than other exporting producers. This is because no profit margins are added to the electricity they use as it is produced internally. Moreover, the distortions in the energy market that were identified by the TRA concerned price-setting and price-control mechanisms which impact energy when it is bought and sold in the market. These distortions do not impact the production of energy. As a result, the electricity that Shandong Nanshan use is not impacted by these price-control mechanisms because it is produced internally and is not bought or sold on the open market before it is used in the production of the Goods Concerned.

172. Shandong Nanshan also use natural gas in the production of aluminium extrusions. The natural gas Shandong Nanshan uses is not produced internally, and as such is bought from independent companies. This means the gas they use is likely to be impacted by the market distortions identified above. The TRA compared Shandong Nanshan's gas costs to the benchmark gas costs (calculated using the methodology set out above) and determined that the gas prices were impacted by the PMS. However, only a small proportion of Shandong Nanshan's energy usage was sourced from natural gas. Most of the energy used by Shandong Nanshan is the electricity they produce internally. The TRA determined that whilst natural gas prices were distorted, the level of

distortion was too small to make a material impact on the end price of the Goods Concerned.

E8.2 Shandong Nanshan - aluminium input

173. Shandong Nanshan produce the aluminium used in its production of the Goods Concerned. The TRA investigated the way they produce their aluminium during the verification process and assessed it against the market distortions identified in the aluminium industry in the PRC. The distortions identified in the aluminium industry impact unwrought aluminium as it is traded in the domestic market in the PRC. Export taxes on unwrought aluminium artificially increase domestic supply, thus lowering prices. As Shandong Nanshan produce their own aluminium internally, the aluminium costs they incur are not affected by the distortions that operate in the domestic market for unwrought aluminium (i.e. ingots or billets).
174. Furthermore, it was identified that Shandong Nanshan purchase the bauxite used in the production of aluminium from suppliers in Australia. This was also noted in a separate submission made by Shandong Nanshan.⁷² Bauxite is the key raw material used in the production of aluminium. As the bauxite used by Shandong Nanshan has been imported directly from Australia, and is not purchased from the domestic market, it is also not impacted by the market distortions identified above. As a result, no distortion was identified to impact Shandong Nanshan's aluminium input costs.

E8.3 Calculation of normal value – Shandong Nanshan

175. Based on the above evaluation of evidence, the distortions identified in aluminium input and energy costs were determined to not impact Shandong Nanshan's highly integrated production processes. Further detail on how the normal value was therefore calculated for Shandong Nanshan can be found in [Section F: Dumping.](#)

⁷² Comments received from Shandong Nanshan: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/9401d448-0044-4931-9acf-0e04210bdac3/>

E9. Conclusion – constructed normal value

176. In accordance with regulations 7(2)(b) and 7(4) of the Regulations, the TRA found that a PMS existed in the aluminium input cost and energy cost of two sampled exporters: PMI and Haomei. Shandong Nanshan was not found to be affected by the PMS, as explained above in [Section E8: Treatment of Shandong Nanshan](#).
177. As a result of this, in accordance with regulation 8(1)(a) of the Regulations the TRA determined the normal value of the Goods Concerned by determining the costs of production plus a reasonable amount for AS&G, and a reasonable amount for profits. In line with regulation 13(2) of the Regulations an adjustment was made to the cost of aluminium billets and energy. This adjustment was calculated using the same benchmarks that were identified when determining the existence of a PMS. More information on normal value can be found in [Section F2: Normal Value](#).
178. In their application, the Applicant identified Turkey as a suitable third country to construct normal value. Turkey was selected by the Applicant because of similar levels of economic development to the PRC, as well as the presence of a domestic industry for aluminium extrusions and an extrusion market. The Applicant chose to replace all direct costs from the PRC with direct costs from Turkey. Regarding raw materials, the applicant relied upon prices from the LME in addition to a European Billet Premium.
179. A number of interested parties commented on the use of Turkey as a third country to replace all direct costs.
180. The GOC, via MOFCOM, dismissed the use of Turkey as “untenable”. They noted that “the United States, the European Union, India and other countries have launched anti-subsidy investigations against Turkey and made definitive final rulings”.⁷³

⁷³ Comments on Initiation by MOFCOM: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/60e41f9d-0802-4187-a956-9ae30ebb8eb2/>

181. Haomei stated that “the choice of Turkey is not agreeable”. They referenced “the internal demand and the amount of population” making a difference in the comparison and expressed that “lack of adequate representativeness comes from the enormous difference in the internal demand and the amount of population: due to a basic principle of economy of scale, the more the production grows (to primarily satisfy a higher internal demand) the more the fixed cost increment decreases”.⁷⁴
182. Since the TRA identified that distortions were impacting on two cost areas (aluminium input and energy), the TRA determined that it was not suitable to replace all costs when constructing normal value. As a result, the TRA did not consider Turkey to be an appropriate third country to construct normal value, out of the third country data sources available.
183. The TRA therefore calculated PMS in accordance with regulation 8(1)(a) of the Regulations. Where cost areas in the PRC were identified to not be distorted, or where potential distortions did not have a material impact on the costs of the sampled exporters, the TRA used the costs submitted to it by the exporters. The TRA therefore constructed normal value using exporter costs plus adjusted costs for aluminium input and energy. As previously mentioned, these adjustments were determined using the same benchmarks identified in [Section E6: Aluminium input benchmark](#) and [Section E7: Energy benchmark](#). More information on normal value can be found in [Section F2: Normal Value](#).

⁷⁴ Comments from Haomei and King Metal: <https://www.trade-remedies.service.gov.uk/public/case/AD0012/submission/8223d149-d097-457b-90cd-e37c3de1aeaa/>

Section F: Dumping

F1. Introduction to dumping

184. As defined in paragraph 1(1) of Schedule 4 to the Act, dumping occurs when goods are imported into the UK and their export price is less than their normal value. The export price and normal value of goods are determined under the Regulations.
185. The dumping margin is the difference between the export price and the normal value of the goods being dumped, described as a percentage of the export price. Dumping margins are determined under Part 2 of the Regulations.
186. Calculating a dumping margin involves the following steps:
- calculating the normal value of the Goods Concerned;
 - determining the export price;
 - ensuring a fair comparison between the normal value and the export price; and
 - comparing normal value and export price to determine the dumping margins.
187. The TRA calculated an individual dumping margin for the three sampled overseas exporters who cooperated in the investigation: PMI, Shandong Nanshan and Haomei.
188. The TRA calculated a dumping margin for the non-sampled cooperative overseas exporters. The overseas exporters who are subject to this rate can be seen in [Annex A: Interested parties and contributors](#).
189. The TRA calculated a dumping margin for all other non-cooperative overseas exporters. This is known as the residual margin.
190. The TRA used verified data to calculate the dumping margins set out in [Section F7: Dumping Margins](#). During verification we identified highly specialised goods that were sold per unit and not by tonne. These goods were distorting the

margins and have been excluded from the calculations in the SEF. During verification we were able to establish a reasonable level of profit for an aluminium extrusions manufacturing business in the PRC. Dumping margins for the SEF therefore differ from those in the PAD which were conducted using unverified data. The methodology used to calculate the dumping margins is set out in the sections below.

F2. Normal value

191. Where possible the TRA will use the price of the Goods Concerned or Like Goods in the ordinary course of trade in the home market of the exporting country to calculate the normal value. This is known as the comparable price.
192. In accordance with regulation 7(2) of the Regulations the TRA found it was not possible to use the comparable price as the domestic sales in the PRC do not permit a proper comparison with the Goods Concerned.
193. In accordance with regulation 7(2)(b) of the Regulations, PMI and Haomei's domestic sales do not permit a proper comparison with the Goods Concerned because of a PMS which distorts two cost areas: aluminium billets and energy, and because certain PCNs are not sold in the domestic market in the PRC.
194. In accordance with regulation 7(2)(a) of the Regulations, Shandong Nanshan's domestic sales of certain PCNs do not permit a proper comparison with the Goods Concerned because they are not made in the ordinary course of trade.
195. In accordance with regulations 7(2)(b) and 8(1)(a) of the Regulations, the TRA determined the normal value of the Goods Concerned for PMI and Haomei by determining the costs of production plus a reasonable amount for AS&G, and a reasonable amount for profits.
196. In accordance with regulation 11(2) of the Regulations the TRA used the cost of production data provided by the overseas exporters. These records conform to the generally accepted accounting principles of the exporting country, and reasonably reflect the costs associated with the production and sale of the Goods Concerned in the exporting country.

197. In accordance with regulation 12 of the Regulations the TRA used the AS&G costs provided by the overseas exporters in the PRC.
198. Where there are no domestic sales regulation 8(2) of the Regulations states that the TRA may also calculate the normal value based on the data from other overseas exporters of the Goods Concerned in the exporting country or territory. This method was considered but not undertaken due to variations within PCNs, differences in production processes such as integration, and that not all overseas exporters sell the same PCNs.

F2.1 PMI costs of production and AS&G

199. To construct normal value, the TRA used the verified domestic cost of production and AS&G data provided by PMI and:
- adjusted the cost of aluminium billets and energy to account for a PMS;
 - established cost of production and AS&G where there are no domestic sales;
 - adjusted for transactions between related parties; and
 - applied a reasonable level of profit.
200. In line with regulation 13(2) of the Regulations an adjustment was made to the cost of aluminium billets and energy. [Section E: Particular Market Situation](#) provides detail on how the adjusted values for aluminium billets and energy have been calculated.
201. The TRA found that 26 PCNs sold for export to the UK are not sold domestically in the PRC. As there were no domestic sales, domestic cost of production data were not available. The TRA used PMI's export cost of production data. When comparing the domestic cost of production against the export cost of production for PCNs that are sold in both markets, the TRA found that there were differences in cost of production for the PCNs produced by Press Metal International Technology (PMIT), part of the Press Metal Group. Where we have used the export cost of production for PCNs produced by PMIT, we applied an average adjustment to bring it in line with the domestic cost of production.

202. The TRA established that PMI's domestic AS&G costs per unit are an equal amount for each PCN. The TRA was able to use PMI's domestic AS&G cost per unit for the PCNs that did not have domestic sales.
203. PMIT buy 'Semi-finished goods' as their raw material input from PMI. An adjustment was made to remove the profit element between the associated parties. The level of profit was established during verification.

F2.2 Haomei costs of production and AS&G

204. To construct normal value, the TRA used the verified domestic cost of production and AS&G data provided by Haomei and:
- adjusted the cost of aluminium billets and energy to account for a PMS;
 - established cost of production and AS&G where there are no domestic sales; and
 - applied a reasonable level of profit.
205. In accordance with regulation 13(2) of the Regulations an adjustment was made to the cost of aluminium billets and energy. [Section E: Particular Market Situation](#) provides detail on how the benchmark values for aluminium billet and energy have been calculated.
206. The TRA found that three PCNs sold for export to the UK are not sold by Haomei in their domestic market. As there were no domestic sales, domestic cost of production data were not available. The TRA used Haomei's export cost of production data with an adjustment to bring it in line with the domestic cost of production. The adjustment was calculated by comparing the domestic cost of production against the export cost of production for PCNs that are sold in both markets.
207. The TRA established that Haomei's domestic AS&G costs per unit are an equal amount for each PCN. The TRA was able to use Haomei's domestic AS&G cost per unit for the PCN that did not have domestic sales.

F2.3 Shandong Nanshan costs of production and AS&G

208. As stated in [Section E: Particular Market Situation](#), a PMS (as defined in regulation 7(4) of the Regulations) does not apply to Shandong Nanshan due to the highly integrated nature of the company.

209. The TRA carried out normal value tests to determine whether the normal value based on actual sales can be used.

210. These tests considered:

- whether the weighted average net sales price at ex-factory was greater than cost; and
- whether profitable sales volume was greater than or equal to 80% of the total sales volume.

211. Seven PCNs did not pass both tests. In accordance with regulation 7(2)(a) of the Regulations the TRA found that sales of these PCNs were not made in in the ordinary course of trade. As a result, constructed normal value was used.

212. To construct normal value, the TRA used Shandong Nanshan's verified cost of production and AS&G data and applied a reasonable level of profit.

213. Three PCNs did not pass the second test. As a result, the normal value of profitable sales of these PCNs was used.

F2.4 Reasonable level of profit

214. Due to the economic impact of COVID-19, the POI was not considered a suitable year to establish a reasonable level of profit. The TRA used the average profit achieved by two sampled overseas exporters in the Injury Period 1 June 2017 to 31 May 2018 and 1 June 2018 to 31 May 2019. The profit margin was used to mark-up cost of production and AS&G costs.

F3. Export price

215. The export price is the transaction price at which the product is sold by a producer or exporter in the exporting country to an importer in the importing country.
216. The three sampled overseas exporters export to the UK in two different ways:
- through a related importer in the UK; and
 - through a related company in the PRC.
217. Where export sales to associated importers affects price, a constructed export price has been used. This is based on the price the Goods Concerned are first sold to an independent buyer in the UK.
218. Where export sales to associated or non-associated importers does not affect price, the export sales have been used as the basis for export price.

F3.1 PMI export price

219. In line with regulation 15(2) of the Regulations, the TRA found that PMI's sales to the UK are made through a related importer in the UK (PMUK). The TRA established that this relationship affected the export price.
220. In line with regulation 15(4)(a) of the Regulations the TRA used a constructed export price. The TRA constructed the export price based on the price at which the Goods Concerned are first sold to an independent buyer in the UK.
221. To construct the export price, PMUK's sales data was used and adjustments were made to remove all costs between importation and resale. These were:
- the actual costs incurred by the associated importer in the UK;
 - a reasonable level of profit that would usually be accrued by an importer of the Goods Concerned with no association or compensatory arrangement with an overseas exporter; and
 - customs duty.

222. The TRA calculated actual costs incurred by PMUK using their financial accounts for 2020. Administrative costs were calculated as a percentage of the total sales revenue.
223. Due to the economic impact of COVID-19 the POI was not considered a suitable year to establish a reasonable level of profit. A reasonable level of profit was calculated using the publicly available 2019 financial accounts for a comparative UK based importer.⁷⁵
224. The customs duty was included in the verified data provided by PMI.

F3.2 Haomei export price

225. The TRA used Haomei's export sales data for the basis of the export price.
226. Haomei's export sales are made through a related company which is registered in Hong Kong. The TRA found that the association did not affect price. All sales were made to non-associated importers in the UK and the price was considered reliable.

F3.3 Shandong Nanshan export price

227. The TRA used Shandong Nanshan's export sales for the basis of the export price.
228. Shandong Nanshan's export sales are made through a related company in the PRC. The TRA found that the association did not affect price. All sales were made to non-associated importers in the UK and the price was considered reliable.

F4. Fair comparison

229. To ensure a fair comparison, normal value and export price need to be compared:
- at the same level of trade; normally on an ex-factory⁷⁶ level; and

⁷⁵ Companies House: <https://find-and-update.company-information.service.gov.uk/company/03551533>

⁷⁶ In INCOTERMS, this is the Ex Works (EXW) price

- in respect of sales made as near as possible the same time.

230. The TRA chose to make adjustments for differences that affected price comparability.

231. Fair comparison adjustments were not needed to the constructed normal value because it was calculated on an ex-factory level.

F4.1 PMI fair comparison adjustments

232. The TRA removed the costs of freight forwarder and carriage from the export price to get back to an ex-factory level. This meant the export price could be compared to normal value at the same level of trade to ensure a fair comparison.

F4.2 Haomei fair comparison adjustments

233. The TRA removed the costs of packing, transport, insurance and handling, domestic freight and credit from the export price to get back to an ex-factory level. This meant the export price could be compared to normal value at the same level of trade to ensure a fair comparison.

F4.3 Shandong Nanshan fair comparison adjustments

234. The TRA removed the costs of packing, transport, insurance and handling, domestic freight, bank charges and credit from the export price to get back to an ex-factory level. This meant the export price could be compared to normal value at the same level of trade to ensure a fair comparison.

235. For three PCNs where normal value on profitable sales was used, the TRA made fair comparison adjustments to normal value. The TRA removed the transport insurance and handling, packing, commission and credit costs to get back to an ex-factory level. This meant the normal value could be compared against the export price at the same level of trade to ensure a fair comparison.

F5. Non-sampled cooperating margin

236. The TRA calculated the margin for non-sampled cooperating overseas exporters using a weighted average of the dumping margins and export

volumes of the sampled overseas exporters. Sales with zero or minimal dumping margins were excluded from this calculation.

F6. Residual amount

237. Regulation 38(3) of the Regulations states that the TRA may determine the residual amount using any reasonable means.
238. In line with regulation 38(4)(b) of the Regulations the TRA has determined the residual margin taking account of information contained in the overseas exporters' questionnaires.
239. The residual margin has been set by using a method of selecting the highest dumping margin established for a PCN that had high sales volumes when compared to the total export volume during the POI.
240. This method differed from the PAD and the recommendation to require a guarantee where the TRA used a method of selecting the highest normal value and lowest export price to calculate the residual rate. Following verification, the TRA did not consider this method reasonable because of the variety of aluminium extrusion products, some of which are specialist and have different price ranges.

F7. Dumping margins

241. Using the approaches and data detailed above, the TRA has calculated the following dumping margins:

Table 4: Dumping Margins		
Country	Overseas Exporter	Dumping Margin
The PRC	PMI	10.1%
The PRC	Shandong Nanshan	7.3%
The PRC	Haomei	14.9%
The PRC	Non-sampled, cooperating overseas exporters	10.1%
The PRC	Residual Margin	29.1%

F8. Conclusion on dumping

242. The TRA has concluded that overseas exporters from the PRC have dumped the Goods Concerned into the UK.

Section G: Injury

G1. Introduction to injury

243. Under regulation 27(1) of the Regulations the TRA is required to determine whether dumped goods have caused or are causing injury to UK Industry in accordance with paragraph 5 of Schedule 4 to the Act.
244. Under regulation 27(2) of the Regulations, where the TRA has determined that goods have been or are being dumped, it must determine whether the UK Industry has suffered or is suffering injury; and whether the dumped goods have caused or are causing that injury to that UK Industry.

G2. Imports from the PRC

245. The TRA has used HMRC import and export data in Table 5 to calculate UK Industry consumption and imports from the PRC relative to UK consumption. We are aware of a possible error concerning Portuguese imports reported for the month of December 2020 which we have raised with HMRC for further investigation. At the time of writing this is still being investigated by HMRC, who may revise figures later, if necessary, as part of the unscheduled revisions process. The import volume for that month appears to be overstated, as the average price for Portugal moved from £7,178 per tonne in November 2020 to £22,087 per tonne in December 2020, and the TRA have used secondary evidence to confirm this overstatement. We have therefore used Portugal's prior year monthly volume (December 2019) to calculate the percentage of imports from the PRC relative to UK consumption for June 2020 to May 2021. Had we used the published volume it would have considerably altered the split of UK market share percentages during the POI for the PRC, UK, and Rest of World (RoW), along with our related conclusions.

Table 5: Absolute and relative change in total import volumes of the Goods Concerned into the UK from the PRC (June 2017 to May 2021)

	June 2017 – May 2018	June 2018 - May 2019	June 2019 – May 2020	June 2020 – May 2021
	Year one	Year two	Year three	The POI
Import volumes from the PRC (tonnes)	54,554	47,306	41,564	35,508
Import volumes from the PRC Index (June 2017 – May 2018 = 100)	100	87	76	65
UK Industry production (tonnes)	98,150	87,632	66,106	75,083
UK Industry production Index (June 2017 – May 2018 = 100)	100	89	67	76
Imports from the PRC relative to UK production (%)	56	54	63	47
UK Industry consumption (tonnes)	201,217	193,890	177,252	191,822
UK Industry consumption Index (June 2017 – May 2018 = 100)	100	96	88	95
Imports from the PRC relative to UK consumption (%)	27	25	24	19

Source: Questionnaire responses submitted by UK producers to TRA; HMRC Overseas Trade in Goods Statistics, 2022.

246. The TRA has assessed absolute changes in the total volume of imports of the Goods Concerned from the PRC, in addition to the change relative to UK domestic production and consumption. Table 5 shows this analysis.⁷⁷
247. Absolute imports showed a decline over the four-year Injury Period. Imports from the PRC relative to UK production reached a high of 63% in year three of the injury period, before dropping to 47% during the POI. Imports from the PRC

⁷⁷ Import volume data includes aluminium structures classified under commodity code 76109090. This splits in to five sub-categories, two of which are subassemblies and “finished goods kit” that are out of scope. The TRA found that over 99% of imports from the PRC during the POI were within the three remaining sub-categories, and therefore classified within the Goods Concerned.

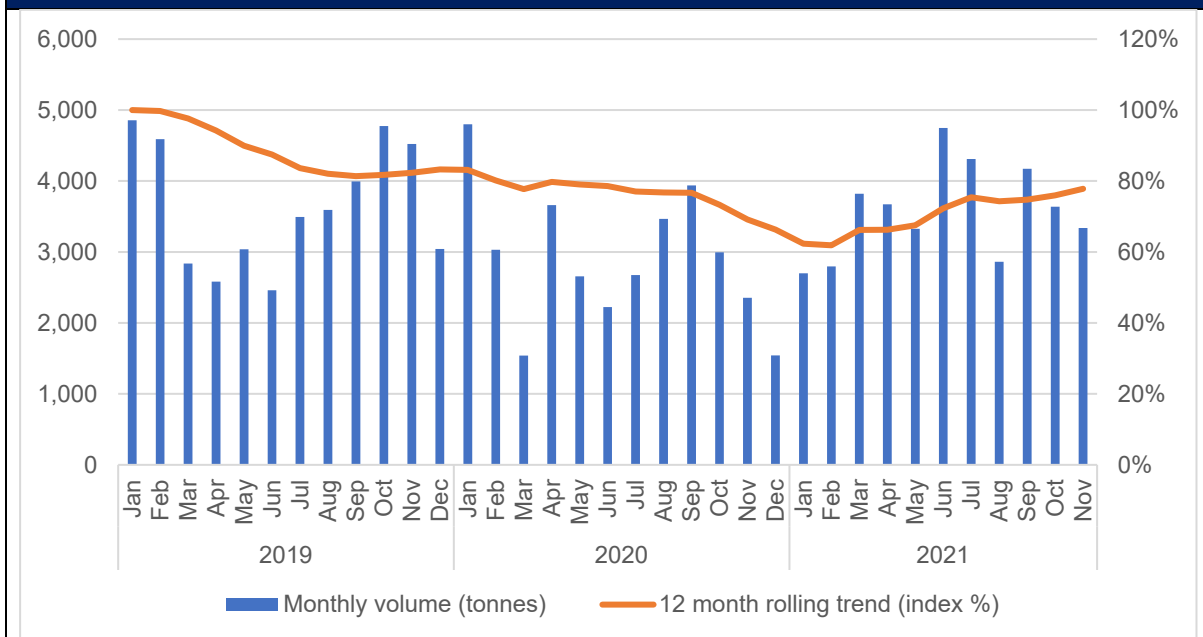
relative to UK consumption were fairly level for the first three years of the Injury Period, but then dropped during the POI from 24% to 19%.

248. The decrease in imports from the PRC relative to UK production and consumption during the POI were caused by exceptional circumstances, which led to a disruption in imports. This is explained in [Section G4: The current state of the UK Industry](#), paragraph 267.

249. This disruption meant importers and downstream industries sourced relatively more goods from UK producers, which gave UK Industry an increase in market share for the POI. During this period prices became less important relative to sources of supply and delivery timescales. Market share trends are explained in [Section G4.1: Market share and negative effects on growth](#), paragraph 270.

G2.1 Import volumes from the PRC before and after removal of EU measures

Figure 4: Absolute change in volume of imports of aluminium extrusions from the PRC 2019 to 2021 (tonnes)



Source: HMRC trade data information: <https://www.uktradeinfo.com/>

250. Figure 4 shows that import volumes of the Goods Concerned from the PRC decreased in October 2020 when the EU provisional duty was implemented and continued to decrease in November 2020 and December 2020. This duty was removed on 31 December 2020 when the UK's transition period for leaving the EU ended, and imports then began to trend upwards.
251. The TRA found that on a rolling 12-month basis, imports of the Goods Concerned from the PRC began to increase from March 2021, despite having been in decline across the Injury Period to that point. In nine months from March to November 2021, the 12-month rolling imports increased by 16%.
252. UK producers claimed that a proportion of the Goods Concerned exported from the PRC are now being diverted from the EU to the UK, due to the imposition of EU tariffs. The TRA was unable to evidence this, but the upward trend in import volumes does put the UK at further risk of injury.

G3. Prices and undercutting of UK Industry

G3.1 Effects on UK prices

Table 6: Average import prices from the PRC, UK average prices, and LME 3-month rate (June 2017 to May 2021)

	June 2017 – May 2018	June 2018 - May 2019	June 2019 – May 2020	June 2020 – May 2021
Average import prices from the PRC (GBP/tonne)	1,811	2,069	2,119	2,286
Average import prices from the PRC Index (June 2017 – May 2018 = 100)	100	114	117	126
UK producer average prices (GBP/tonne)	3,152	3,543	3,444	3,345
UK producer average prices Index (June 2017 – May 2018 = 100)	100	112	109	106
Average LME 3-month rate (GBP/tonne)	1,572	1,519	1,359	1,470
Average LME 3-month rate Indexed (June 2017 – May 2018 = 100)	100	97	86	94

Source: Questionnaire responses submitted by UK producers to TRA; HMRC Overseas Trade in Goods Statistics, 2022; The London Metal Exchange⁷⁸

253. Table 6 shows that over the Injury Period, the weighted average import prices from the PRC rose 26% compared to a rise of only 6% in UK producers' average prices. Whilst the average LME rate was lower during the POI compared to year one of the Injury Period, it showed an upwards trend throughout that year, hitting a 12-month peak of over £1,800 per tonne in May 2021. UK producers did not increase their average prices as raw material prices increased, suffering average price reductions in years three and four of the Injury Period, following a rise in year two. This contributed to the negative sales and profit trends explained in [Section G4: The current state of the UK Industry](#). Overseas exporters from the PRC were however able to raise prices during the Injury Period whilst still undercutting UK Industry as evidenced in Figure 5.
254. The TRA's view is that the LME aluminium prices are a more reliable reflection of the market price for aluminium than prices from the SHFE. We have explained our reasons for this in [Section E: Particular market situation](#), within [Section E3: Aluminium input](#).
255. The TRA recognised this average data across all nine commodity codes had limitations in drawing conclusions, due to the significant diversity and quantity of product types within the Goods Concerned. We therefore conducted more granular analysis of products within the Like Goods against similar products from the PRC and this also evidenced that UK producers were unable to compete on price.

G3.2 Undercutting analysis

256. Price undercutting is where the imported goods are consistently sold at a price below that of the Like Goods in the UK. This is calculated by comparing the UK sales price (ex-works) with the import price (the landed price) for similar products during the POI.

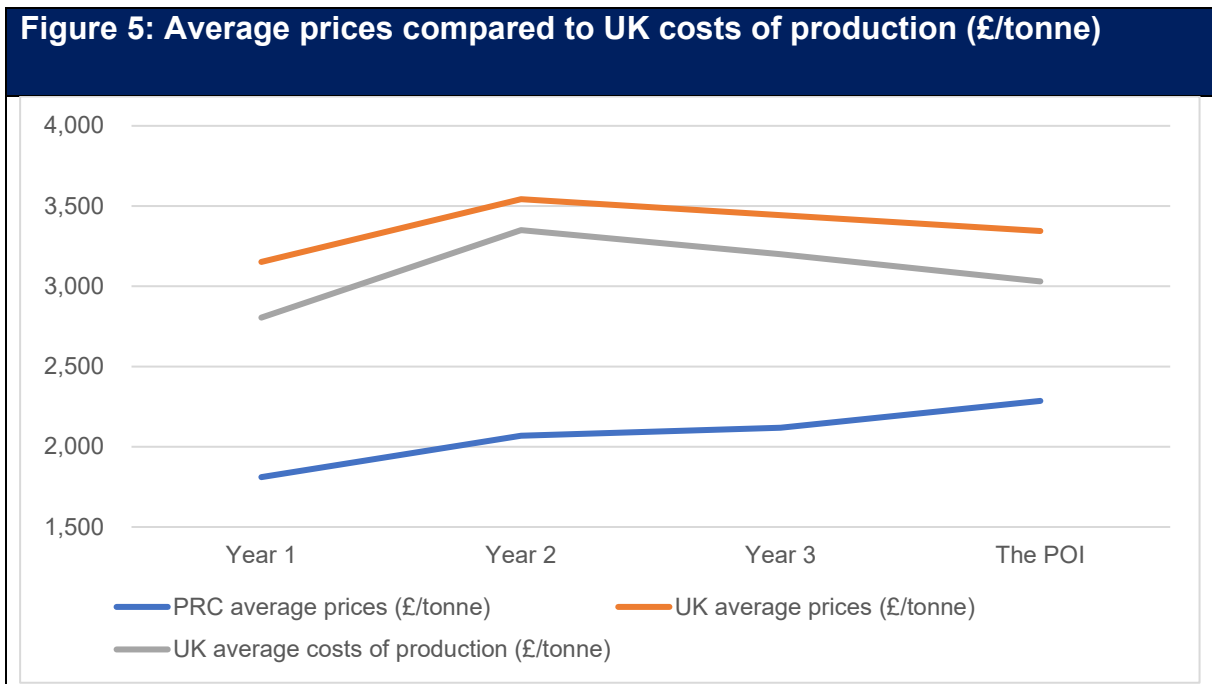
⁷⁸ London Metal Exchange: <https://www.lme.com/Metals/Non-ferrous/LME-Aluminium#Trading+day+summary>

257. The landed price is the price of the Goods Concerned when they arrive at a UK port. It equates to the CIF (Cost, Insurance and Freight) import price plus any relevant import duties and other costs associated with import.
258. The TRA calculated the landed price by using sampled exporters' CIF UK export price and adding import duty. Where the CIF value was not provided in GBP, this was converted using exchange rates provided in exporters' questionnaires that we verified for reasonableness.
259. The TRA calculated an average undercutting margin covering all PCNs and found that the PRC was undercutting at a rate of 28.5% during the POI. The TRA also conducted a more granular calculation for solid profiles because they accounted for 62% of all imports from the PRC during the POI. This resulted in a higher undercutting margin of 32.3%. Both calculations were based on verified data from cooperating UK producers and overseas exporters from the PRC.

G3.3 Price suppression

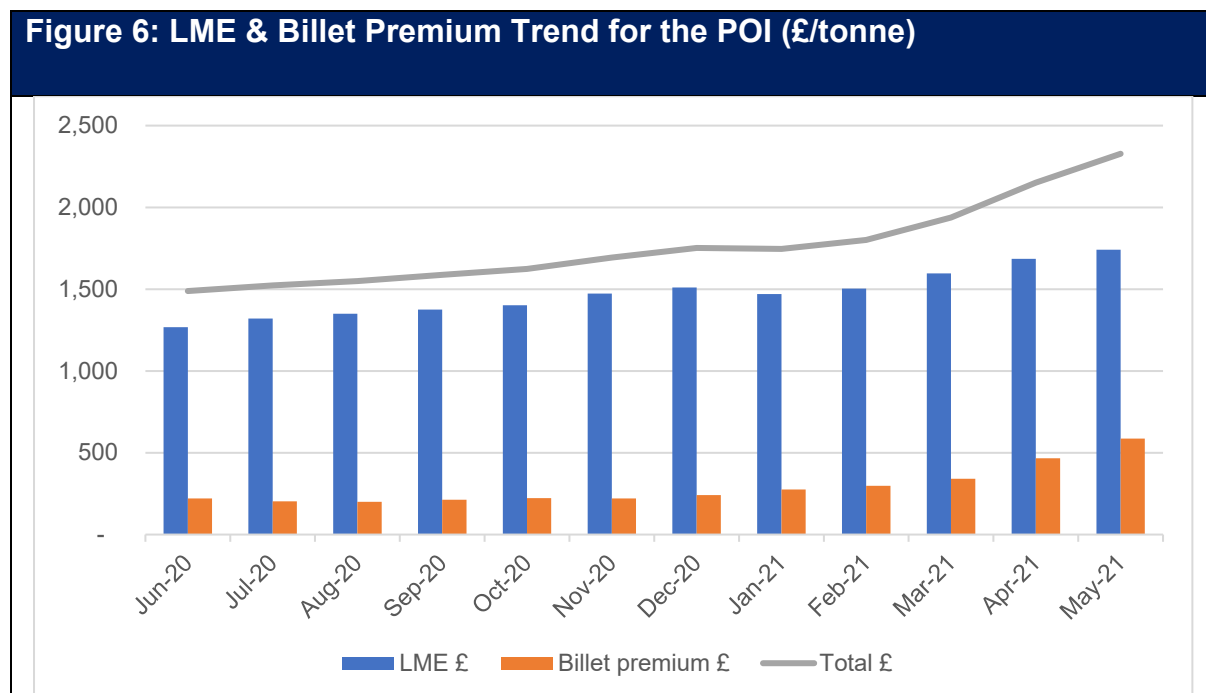
260. Price suppression occurs where price increases for the UK Industry Like Goods, which otherwise would have occurred, have been prevented to a considerable degree due to the price of imported goods.

Figure 5: Average prices compared to UK costs of production (£/tonne)



Source: Questionnaire responses submitted by UK producers to TRA; HMRC Overseas Trade in Goods Statistics, 2022.

261. Figure 5 shows the UK suffered undercutting of their prices throughout the Injury Period, but also that the PRC prices considerably undercut UK Industry costs of production. UK Industry claimed this undercutting had led them to restructure and consolidate to reduce their average costs of production, whilst at the same time having to reduce prices to compete with dumped goods from the PRC.



Source: Questionnaire responses submitted by UK producers to TRA; HMRC Overseas Trade in Goods Statistics, 2022; The London Metal Exchange⁷⁹

262. As explained in [Section E3: Aluminium input](#), aluminium billets are the main raw material cost for UK Industry, and the POI saw a steep rise in both the price of aluminium and billet premiums. Figure 6 shows that the total cost of billets rose by over 50% during the POI, while UK producers were reducing costs and prices in an effort to compete.

⁷⁹ London Metal Exchange: <https://www.lme.com/Metals/Non-ferrous/LME-Aluminium#Trading+day+summary>

263. During this period of pressure for domestic producers, the PRC exporters were still able to steadily increase prices in response to rising raw material costs.
264. The TRA found that UK Industry was prevented from increasing prices at a time when they were experiencing rising costs, and this was due to the considerably lower price of dumped imports of the Goods Concerned from the PRC. We therefore concluded that UK Industry suffered price suppression throughout the Injury Period.

G4. The current state of the UK Industry

265. UK Industry represented 39% of the UK market during the POI, although this has reduced from 49% during June 2017 to May 2018. The Applicant is by far the largest domestic producer of Like Goods. There has been minimal expansion of the UK Industry in recent years although one new producer was established in 2018.
266. As shown in [Table 5: Absolute and relative change in total import volumes of the Goods Concerned into the UK from the PRC](#), during the first three years of the Injury Period production volume of the UK Industry reduced by 33%, but then increased by 14% during the POI. This upwards trend during the POI was mirrored by some of the injury factors described below. The TRA concluded this was caused by temporary disruptions to imports that created an increased need to buy from UK producers during the POI.
267. Disruption to imports was caused by several factors, namely:
- imposition of EU provisional duties in October 2020 for 3 months (see [Section G2.1: Import volumes from the PRC before and after removal of EU measures](#));
 - the end of the UK's transition period following EU exit, necessitating implementation of new import rules;
 - the shipping crisis during Q1-Q2 of 2021 leading to increased container costs and delays; and
 - the global pandemic.

268. During this period downstream consumers placed greater value on local supply, but the TRA found this effect to be short-term, evidenced by a slowing down of orders at the end of the POI as the impact of these factors appeared to diminish.
269. To determine injury, the TRA used information relating to the UK Industry from questionnaires, as well as HMRC trade data, for market share and growth. For the remaining economic injury factors the TRA used data from UK producers who constituted a major proportion of production (55-65%) to represent the UK Industry.

G4.1 Market share and negative effects on growth

Table 7: UK market share of Aluminium Extrusions by volume (June 2017 to May 2021)

	June 2017 – May 2018	June 2018 - May 2019	June 2019 – May 2020	June 2020 – May 2021
The PRC market share (%)	27	25	24	19
UK market share (%)	49	45	37	39
RoW market share (%)	24	30	39	42

Source: Questionnaire responses submitted by UK producers to TRA; HMRC Overseas Trade in Goods Statistics, 2022.

270. Table 7 shows that the PRC had a UK market share of between 19-27% during the Injury Period. This was the highest share of any country at over twice the volume of the next largest country's imports during the first three years of the Injury Period. The PRC was still 1.5 times the second largest country by import volume at a time when they were being impacted by the disruption to imports mentioned in paragraph 267. The UK's share reduced from 49% to 39% during the Injury Period, with the RoW accounting for between 24-42% of the UK market. [Section G7: Other causes of injury \(non-attribution\)](#) explains why the TRA considers that third countries within RoW are not the cause of injury to UK Industry, despite their rising trend in UK market share over the Injury Period.

G4.2 Domestic sales

Table 8: Domestic sales June 2017 to May 2021

	June 2017 – May 2018	June 2018 - May 2019	June 2019 – May 2020	June 2020 – May 2021
Sales volume (tonnes – indexed)	100	91	73	79
Sales value (GBP – indexed)	100	102	80	84

Source: Questionnaire responses submitted by UK producers to TRA

271. Despite a minor rise in the value of sales in year two of the Injury Period, Table 8 evidences a reducing trend in both the volume and value of domestic sales during the first three years of the Injury Period. We concluded the slight increase in sales during the POI was because of disruption to imports explained in paragraph 267.

272. The TRA has assessed that continued dumping of the Goods Concerned from the PRC within the import market could result in lower volumes of Like Goods being sold by UK Industry, and in turn a decline in sales value. However, we acknowledge that any future imports from the PRC may also take market share from third country imports, as well as from UK Industry.

G4.3 Profitability

Table 9: Domestic profits June 2017 to May 2021

	June 2017 – May 2018	June 2018 - May 2019	June 2019 – May 2020	June 2020 – May 2021
Net profit margin from like goods (%)	0.5	-4.6	-2.3	2.9

Source: Questionnaire responses submitted by UK producers to TRA

273. Table 9 shows that UK producers suffered losses during years two and three of the Injury Period. Net profit margins relating to Like Goods (before tax) did not exceed 3% during the Injury Period. UK Industry suffered a 4.6% loss in year two of the Injury Period when undercutting of UK prices by the PRC was at its highest level.

G4.4 Return on investments, effects on cash flow and ability to raise capital

Table 10: Return on investments and cash flows June 2017 to May 2021

	June 2017 – May 2018	June 2018 - May 2019	June 2019 – May 2020	June 2020 – May 2021
Return on investments (%)	2	-17	-8	11
Cash flows (GBP – indexed)	100	-201	-45	251

Source: Questionnaire responses submitted by UK producers to TRA

274. UK producers claimed that a return on investments of between 12-15% during the Injury Period was reasonable to expect for capital intensive manufacturing business in the UK. This was confirmed by ONS data⁸⁰, which showed that manufacturing businesses experienced a net rate of return on investments of 16.5% for the calendar year 2018, and 12.5% for 2019.
275. Table 10 shows that UK Industry was unable to show this level of return on investments, except during the POI when it returned 11% because of the disruption to imports explained in paragraph 267. Cash flows followed a similar trend to UK Industry profits.
276. Evidence showed that UK producers did not invest in new plant and machinery during the Injury Period, except for one new producer established in 2018. Investments made were for improvements to areas such as health and safety and essential maintenance, rather than for business expansion. UK Industry claimed this was due to poor financial results caused by imports from the PRC undercutting their prices, and that the release of capital for growth would become a possibility if they were able to demonstrate a sustained return on investment nearer to 10%.

⁸⁰ Office for National Statistics:
<https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/bulletins/profitabilityofukcompanies/octobertodecember2019>

G4.5 Output and capacity utilisation

Table 11: Relative change in output, capacity, and capacity utilisation June 2017 to May 2021

	June 2017 – May 2018	June 2018 - May 2019	June 2019 – May 2020	June 2020 – May 2021
Output of UK Industry (indexed)	100	90	68	78
Production Capacity (indexed)	100	100	100	100
Capacity Utilisation (%)	84	75	57	65

Source: Questionnaire responses submitted by UK producers to TRA

277. Whilst the capacity of UK Industry remained constant during the Injury Period, as shown in Table 11, output and capacity utilisation reduced during the first three years of the Injury Period. There was a slight increase in both these factors during the POI due to the reasons stated in paragraph 267.
278. The new UK producer did not provide data covering the whole Injury Period due to being established in 2018. Given the unique circumstances linked to business start-up, including initial costs, and given there was not a full set of data covering all four years, the TRA took the decision to exclude their numbers from the economic injury factors. Whilst including their data would increase the output of UK Industry during year three and the POI in Table 11, the capacity utilisation trend would be unaffected.
279. Downstream importers, stockists, and fabricators claimed that UK Industry would not be able to fully meet increased demand were tariffs to be imposed. The TRA found that UK Industry was however able to respond to a large extent during what were exceptional circumstances leading to disruption of imports explained in paragraph 267. Future capacity considerations are discussed in [Sections H5](#) and [Section H6](#) of the Economic Interest Test.

G4.6 Productivity and negative effects on employment

Table 12: Productivity June 2017 to May 2021 (tonnes/FTE)				
	June 2017 – May 2018	June 2018 – May 2019	June 2019 – May 2020	June 2020 – May 2021
Number of employees (FTE – indexed)	100	101	82	82
Productivity (tonnes/FTE – indexed)	100	88	83	95

Source: Questionnaire responses submitted by UK producers to TRA

280. Table 12 shows there was a considerable drop in the employees of UK producers from year two to year three of the Injury Period that resulted from the closure of two fabrication sites, and further consolidation within the industry. Productivity reduced during years one to three of the Injury Period, and then increased during the POI due to the factors mentioned in paragraph 267.
281. A factor affecting productivity (and capacity) of the aluminium extrusion industry is complexity of extrusions. Simpler shapes take up less press hours and tend to be larger jobs leading to fewer changes of die, all of which leads to greater capacity and productivity. UK producers reported they had historically lost “easy-running” jobs to the PRC and claimed the mix of orders within the Injury Period had already shifted to more complicated extrusions with smaller order sizes. The TRA found some evidence of this during the Injury Period, but extrusion complexity was a relatively small contributor to injury when compared to the effects of price undercutting during the first three years of the Injury Period. The TRA did not consider trends in complexity of extrusions prior to June 2017.

G4.7 Negative effects on inventories

Table 13: Inventories June 2017 to May 2021

	June 2017 – May 2018	June 2018 - May 2019	June 2019 – May 2020	June 2020 – May 2021
Closing stocks (tonnes - indexed)	100	120	81	78
Closing stocks as a percentage of production (%)	13	17	15	13

Source: Questionnaire responses submitted by UK producers to TRA

283. The nature of the UK Industry means that stock is made to order and held for short periods of time, often being transported to customers on the day of production. Therefore, trends for inventories shown in Table 13 were deemed irrelevant when assessing injury.

G4.8 Effects on wages

Table 14: Average wages June 2017 to May 2021

	June 2017 – May 2018	June 2018 - May 2019	June 2019 – May 2020	June 2020 – May 2021
Mean average wage for FTE engaged in activities related to the like goods (GBP - indexed)	100	108	107	110

Source: Questionnaire responses submitted by UK producers to TRA

284. Table 14 shows that average wages rose 10% during the Injury Period. The TRA found this rise to be reasonable, and there was not a material change between years two and three when the number of UK Industry employees reduced by 19%. We found these job losses were across a range of varying wage and skill levels, and so the TRA did not draw conclusions on injury in relation to average wages.

G5. Margin of dumping

285. [Section F7: Dumping Margins](#) details the dumping margins that show levels above the de minimis limits. The TRA considered these alongside the volume of

goods imported from the PRC, and their prices, and concluded that the impact of dumping on UK Industry was substantial.

G6. Causation

286. The TRA found evidence of UK producers losing sales to the PRC based on prices alone. In [Section G3: Prices and undercutting of UK Industry](#), we established that dumped imports from the PRC significantly undercut UK Industry. This had a negative effect on UK Industry's prices, sales volume, profits, return on investments, cash flow, output, capacity utilisation, and productivity during the Injury Period.
287. The data shows that UK producers lost market share throughout the Injury Period, and although there is also a downward trend in the PRC's market share, it remains the largest exporter of extrusions to the UK market. The significance of this market share, alongside other economic factors, especially prices, led the TRA to conclude there is a causal link between dumped imports from the PRC and injury suffered by UK Industry.

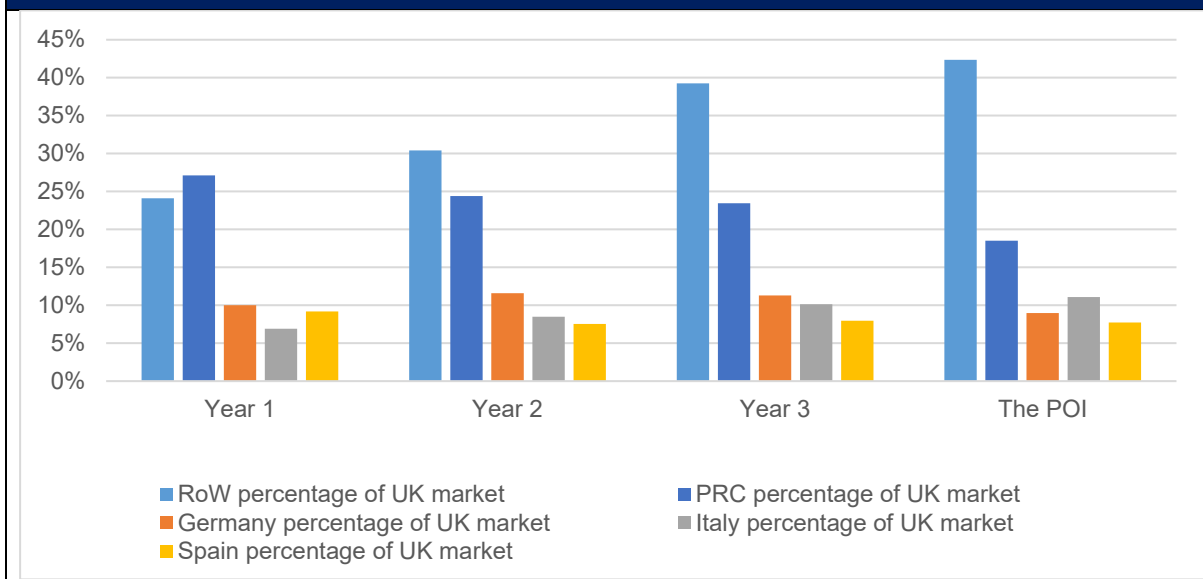
G7. Other causes of injury (non-attribution)

288. In accordance with regulation 35 of the Regulations, the TRA has also examined whether any known factors other than the dumped goods have caused or are causing injury to UK Industry.

G7.1 Third country imports and prices

289. Imports from the RoW (excluding the PRC) to the UK, as well as the three largest importing countries within this (Germany, Italy, and Spain), were examined to ascertain whether their imports have caused injury to UK Industry. Import prices for Germany, Italy, and Spain were compared against the PRC at a total average level, for imports of solid profiles (commodity code 76042990), and for imports of aluminium structures (commodity code 76109090). These two commodity codes were analysed in isolation given they represented 63% and 19% of imports from the PRC respectively into the UK during the POI.

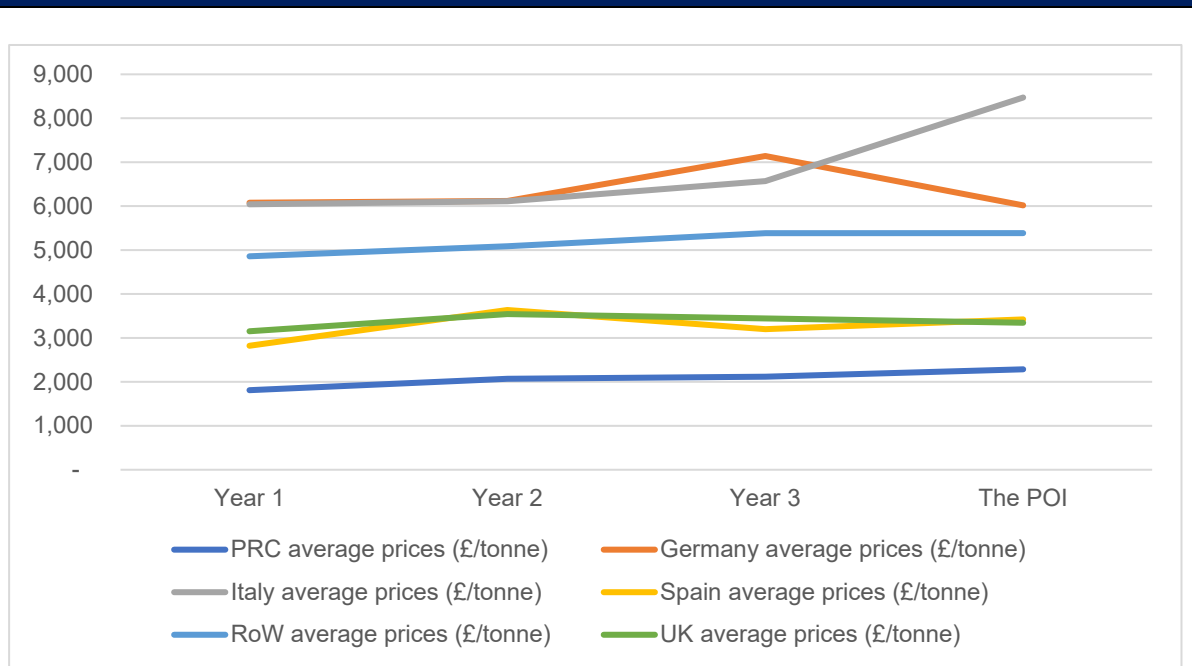
Figure 7: Third countries - imports as a percentage of the UK market



Source: HMRC Overseas Trade in Goods Statistics, 2022.

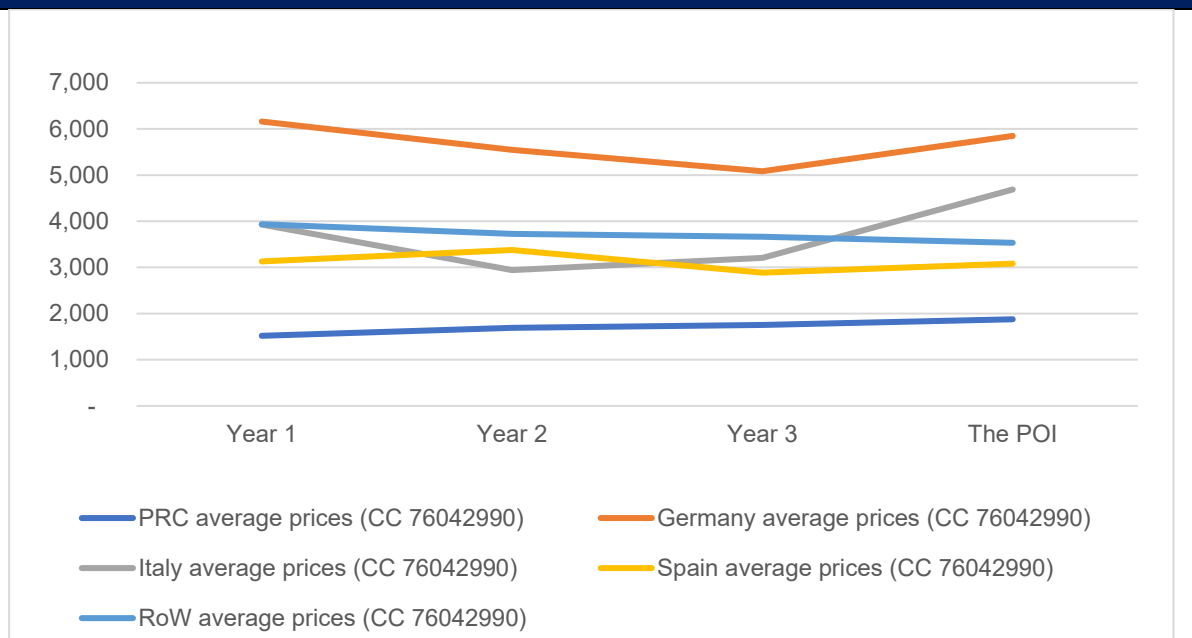
290. Figure 7 shows the RoW accounted for between 24-42% of UK market share during the Injury Period. The RoW figure includes Germany, Spain, and Italy who each accounted for between 7-12% of UK market share during the Injury Period. The PRC accounted for between 19-27% of UK market share.

Figure 8: Third countries – total average import prices compared to PRC (£/tonne)



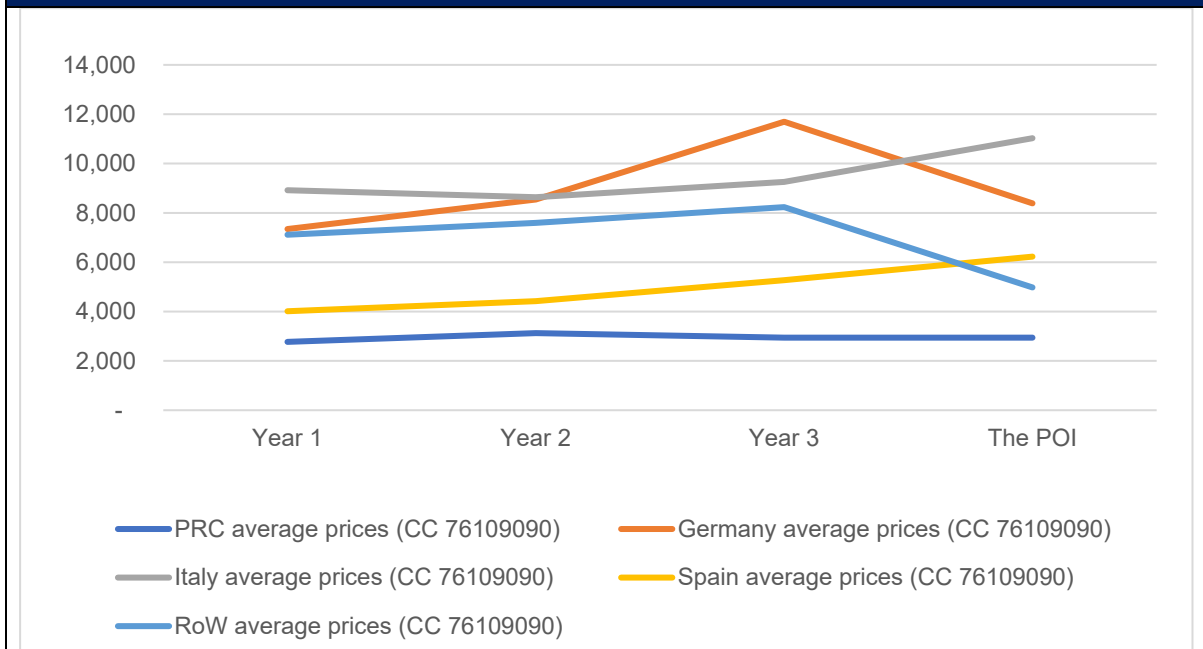
Source: Questionnaire responses submitted by UK producers to TRA; HMRC Overseas Trade in Goods Statistics, 2022.

Figure 9: Third countries – average import prices for solid profiles (CC 76042990) compared to PRC (£/tonne)



Source: HMRC Overseas Trade in Goods Statistics, 2022.

Figure 10: Third countries – average import prices for aluminium structures (CC 76109090) compared to PRC (£/tonne)



Source: HMRC Overseas Trade in Goods Statistics, 2022.

291. Figures 8, 9 and 10 show the average import prices for RoW, and for Germany, Spain, and Italy in isolation. The TRA analysed these average prices at a total level (all nine commodity codes), and for solid profiles and aluminium structures in isolation.
292. The TRA compared average UK prices with average prices for Spain in Figure 8 above and found they were at broadly similar levels throughout the Injury Period. Germany and Italy average prices were higher due to their product mix which was geared towards more complicated and expensive extrusions within commodity codes covering aluminium structures and hollow profiles. These products tend to be more expensive as they are relatively slow to manufacture and therefore have higher costs of production, leading to relatively higher prices.
293. Whilst differences between each country’s product mix explained most of the relative price differentials (given that the PRC product mix is geared towards simpler and relatively cheaper extrusions such as solid profiles), the data shows that the PRC prices still significantly undercut third countries throughout the

Injury Period. That included Spain whose product mix was also geared towards solid profiles imported under commodity codes 76042990.

294. [Section G3.2: Undercutting analysis](#) found that the PRC also undercut UK Industry prices in relation to solid profiles at a margin of 32.3% during the POI. Germany and Italy average prices were both above the UK average prices for this type of cheaper profile classified under commodity codes 76042990, with Spain in between UK and PRC average prices.
295. The TRA therefore concluded that the impact of third country imports were not sufficient to break the causal link between dumped imports from the PRC and the injury suffered by UK Industry.

G7.2 Inflation in raw material costs

296. As explained in [Section G3.3: Price suppression](#), the POI saw a steep rise in both the price of aluminium and billet premiums. Customers will often fix the cost of raw material against LME in their contracts with UK Industry, but this metal exposure is usually hedged by UK Industry to protect against future fluctuations.
297. Given the practice of hedging its exposure, UK Industry was shielded from these steep price rises during the POI. The TRA concluded inflation in raw material costs did not break the link between dumped imports from the PRC and the injury suffered by UK Industry.

G7.3 COVID-19 Global pandemic

298. The pandemic did cause some issues for UK producers in early 2020, and the TRA was able to evidence some disruption to orders at that time. However, this disruption was short-term, and UK Industry was operating at near pre-pandemic levels by the second half of 2020.
299. Data from the POI (when the global economy was struggling because of the pandemic) suggests that UK Industry benefited to a certain extent. Some customers looked for opportunities to shorten their supply chain as they

experienced disruption to imports, and this naturally led to an increase in orders for UK Industry.

300. The TRA concluded the pandemic did not break the link between dumped imports from the PRC and the injury suffered by UK Industry.
301. The TRA therefore concluded that dumped imports from the PRC were the main cause of injury to UK Industry during the Injury Period, and that other known factors did not break that causal link.

G8. Conclusion on Injury

302. UK producers claimed they had been suffering injury for several years prior to the Injury Period, and the TRA concluded that data at the start of the Injury Period was consistent with an industry that was already depressed.
303. The TRA noted that there was not an increase in absolute imports or imports relative to consumption from the PRC over the Injury Period. However, rising volume trends are not always necessary to determine injury caused by dumped imports where other factors in totality clearly show a picture consistent with injury. This is especially true for the Goods Concerned given the context of the PRC's high percentage of UK market share.
304. UK producers experienced a positive trend in sales, profits, return on investments, cashflows, output, capacity utilisation, and productivity during the POI, however we concluded this was as a result of the disruption to imports during that period. The effect of these factors was short-term and the TRA found there was a slowing down of orders during Q2 2021. There were significant negative trends in all these factors over the first three years of the Injury Period, and particularly a decline in financial performance, and these data were consistent with injury being caused to UK Industry.
305. The TRA found that UK producers have lost 'easy-running' jobs to the PRC, which has resulted in UK Industry producing a higher percentage of orders for more complicated extrusions. We concluded this was a factor linked to the decline in productivity and capacity utilisation and was a cause of injury to UK Industry.

306. However, the TRA evidenced that the major factor causing injury was the prices of imports, where the PRC significantly undercut UK producers, at the same time as third countries selling at or above UK prices.
307. We therefore concluded that UK Industry suffered material injury during the Injury Period within the meaning of paragraph 5(1) of Schedule 4 to the Act.
308. We concluded that dumped imports of the Goods Concerned from the PRC were the main cause of injury to UK Industry during the Injury Period, and that other known factors did not break that causal link.
309. As detailed in [Section C5: Goods Concerned not manufactured in the UK](#), the UK did not make certain goods during the POI. These are aluminium extrusions over with a maximum cross-sectional dimension of greater than 310mm and aluminium extrusions with a weight per metre of greater than 14kg. These Goods Concerned were however imported into the UK during the POI. Whilst our injury analysis may have included data relating to these goods, we cannot conclude that injury is being caused to the UK Industry in respect of these goods.

G9. Injury Margin

310. The injury margin is the extent of the injury to UK Industry.
311. The TRA calculated an individual injury margin for the three sampled overseas exporters who cooperated in the investigation: PMI, Shandong Nanshan and Haomei.
312. The TRA calculated an injury margin for the non-sampled cooperating overseas exporters. The overseas exporters who are subject to this rate can be seen in [Annex A: Interested parties and contributors](#).
313. The TRA calculated an injury margin for all other non-cooperative overseas exporters. This is known as the residual margin.
314. The TRA used verified data to calculate the injury margins set out in [Section G9.5: Injury margins](#). During verification we identified highly specialised goods that were sold per unit and not by tonne. These goods were distorting the

margins and have been excluded from the calculations in the SEF. During verification we were able to establish a reasonable level of profit for an aluminium extrusions manufacturing business in the UK. Injury margins for the SEF therefore differ from those in the PAD which were conducted using unverified data. The methodology used to calculate the injury margins is set out in the sections below.

315. The TRA's default methodology is to base the estimate of injury margins for each exporter on underselling margins. This is calculated by comparing a benchmark UK price (the target price) with the import price (the landed price).

G9.1 Target price

316. The target price is the price that a UK producer would expect to sell its Like Goods at if it were not being affected by the dumped goods.
317. The TRA has calculated the target price by using the sampled domestic producers' costs of production for the Like Goods, adding their AS&G costs, and then applying a normal rate of profit on top of these costs. The normal rate of profit was conservatively set at 6% (profit margin), and was based on historical data from UK producers, and what might be expected under normal competition.
318. The TRA found that one domestic producer who set up in 2018 had high production costs and a low production rate, due to the nature of a start-up. This artificially increased the allocation of costs and therefore, the TRA did not include their data within the calculations.

G9.2 Landed price

319. The landed price is the price of the Goods Concerned when they arrive at the UK port. It equates to the CIF (Cost, Insurance and Freight) import price plus any relevant import duties and other costs associated with import.
320. The TRA calculated the landed price by using sampled exporters' CIF UK export price and adding import duty. Where the CIF value was not provided in

GBP, this was converted using exchange rates provided in exporters' questionnaires that we verified for reasonableness.

G9.3 Non-sampled cooperating margin

321. The margin for non-sampled cooperating exporters has been calculated as a weighted average, using the total export volume of the Goods Concerned for each sampled exporter, as well as the injury margins established for each exporter.

G9.4 Residual margin

322. Regulation 38(3) of the Regulations states that the TRA may determine the residual amount using any reasonable means.

323. In line with regulation 38(4)(b) of the Regulations the TRA has determined the residual margin taking account of information contained in the UK producers' and overseas exporters' questionnaires.

324. The residual margin has been set by using a method of selecting the highest injury margin established for a PCN that had high sales volume when compared to the total export volume during the POI.

325. This method differed from the PAD and recommendation to require a guarantee where the TRA used a method of selecting the highest target price and the lowest import price to calculate the residual rate. Following verification, we did not consider this method reasonable because of the variety of aluminium extrusion products, some of which are specialist and have different price ranges.

G9.5 Injury margins

326. Using the approaches and data detailed above, the TRA determined that overseas exporters from the PRC have injured UK producers at the following margins:

Table 15: Injury Margins		
Country	Exporter/Producer	Injury Margin
The PRC	Press Metal International Group	23.3%
The PRC	Shandong Nanshan	39.3%
The PRC	Haomei Group	47.1%
The PRC	Non-sampled cooperating exporters	25.7%
The PRC	Residual margin	72.0%

Section H: Economic Interest Test

H1. Introduction

327. The aim of the Economic Interest Test (EIT) is to determine whether our intended preliminary recommendation to introduce anti-dumping measures on the Goods Concerned imported from the PRC is in the economic interest of the UK. This test is presumed to be met unless we are satisfied that the application of the remedy is not in the economic interest of the UK.
328. In accordance with paragraph 25 of Schedule 4 to the Act, the EIT is met in relation to the application of an anti-dumping remedy if the application of the remedy is in the economic interest of the UK.
329. The TRA may only make a recommendation to the Secretary of State that an anti-dumping amount should be applied to the goods subject to a final affirmative determination where that recommendation meets the EIT in accordance with paragraph 17(5) of Schedule 4 to the Act.
330. In line with paragraph 25 of schedule 4 to the Act, the TRA has taken account of the following in conducting the EIT:
- the injury caused by the dumping of the Goods Concerned to a UK Industry in the goods and the benefits to that UK Industry in removing that injury;
 - the economic significance of affected industries and consumers in the UK;
 - the likely impact on affected industries and consumers in the UK;
 - the likely impact on particular geographic areas, or particular groups, in the UK;
 - the likely consequences for the competitive environment, and for the structure of markets for goods, in the UK; and
 - such other matters as the TRA considers relevant.

H2. Supply chain

331. An overview of the supply chain covering UK producers and importers of aluminium extrusions, as well as examples of upstream and downstream industries, can be found in [Section D7: Market Structure](#).

H2.1 Evidence base

332. The TRA received the following questionnaire responses from UK-based parties which contained information relevant to the EIT:

- one response from upstream industry;
- four responses from UK producers of aluminium extrusions;
- two responses from UK importers of aluminium extrusions;
- two responses from downstream industry; and
- four additional submissions from interested parties and contributors from the downstream and importing parts of the supply chain.

333. Additionally, questionnaire submissions from overseas exporters were examined for any evidence that may be relevant to the EIT.

334. The TRA has supplemented these questionnaire responses with evidence from background research and collated additional information from UK government data sources, as well as recognised market data providers. The TRA has also conducted research relating to parties that have not participated in this investigation.

335. Since the PAD and recommendation to the Secretary of State to require a guarantee, a number of parties have been labelled as non-cooperative or have not corrected their deficiencies within the applicable time limits. Data in respect of these parties have been included in the EIT analysis, however the data used are those that are publicly available only.

336. The sections that follow assess each of the factors of the EIT in turn.

H3. Injury caused by dumping and benefits to UK Industry in removing injury

337. In [Section G: Injury](#) the TRA found that UK producers have suffered injury during the Injury Period as a result of dumped Goods Concerned from the PRC.
338. Additionally, the TRA found in [Section G2: Imports from the PRC](#) that the upward trend in import volumes from the PRC puts the UK at further risk of injury moving forward.
339. The expected benefits to UK producers, and the impact on the rest of the supply chain, from the imposition of the recommended anti-dumping measures are explored under [Section H6: Likely impact on affected industries and consumers](#).

H4. Economic significance of affected industries and consumers in the UK

340. The Fraser of Allander Institute, using ONS data, reports⁸¹ that the wider aluminium industry directly employs 37,000 people across the UK with the largest share located in the West Midlands.
341. The sections below will examine the employment and wider economic significance of the groups within the aluminium industry related to the Goods Concerned. Gross value added (GVA) is one measure of the economic significance of companies, industries and sectors, measuring their contribution to the economy. Where possible, the TRA has estimated GVA for affected businesses in each part of the supply chain by summing operating profits, employment costs, depreciation and amortisation.
342. From the available evidence, five UK groups have been identified as potentially being affected by the measure:
- UK producers of aluminium extrusions;

⁸¹ Fraser of Allander Institute - The Aluminium industry in the UK: <https://fraserofallander.org/publications/the-aluminium-industry-in-the-uk/>

- upstream industry, namely aluminium billet producers;
- importers and stockholders of aluminium extrusions;
- downstream industries; and
- consumers.

H4.1 Upstream industry

343. Hydro Aluminium Deeside Ltd was the sole respondent from the upstream industry. They produce aluminium billets (which are the main input in the production of aluminium extrusions), undertake recycling of a mix of end-of-life scrap and process scrap, and offer a variety of alloys and diameters for the extrusion industry. They are a direct supplier to the UK producers of aluminium extrusions. Submitted revenue data show that aluminium billets make up a significant majority of their business activities.
344. An aluminium smelter located in Lochaber West, Scotland was identified during the investigation. The evidence that the TRA has seen suggests that this smelter supplies a wide range of industries, many of which are unrelated to aluminium extrusions, therefore anti-dumping measures are not expected to have a significant impact on this particular site.
345. Additionally, upstream industries producing other inputs (such as energy and chemicals used in the coating process) have not been assessed. These inputs are used in numerous other supply chains and are less likely to be affected.

H4.2 UK producers of aluminium extrusions

346. Four of the seven known UK producers – the Applicant, Garnalex, Exlabesa and Aluminium Shapes – submitted questionnaire responses.
347. The Applicant is a producer of aluminium extrusions as well as a provider of fabrication services, surface treatment and remelting of scrap aluminium. They have four sites across the UK in Birtley, Caerphilly, Cheltenham and Tibshelf employing an average of 843 people in 2020.

348. Garnalex is a producer of aluminium extrusion products and of their own aluminium window and door fenestration products. In 2021 they employed an average of 62 people.
349. Exlabesa are a producer of aluminium alloy profiles and associated added value services such as fabrication, painting and anodising, and employed an average of 53 people in 2020.
350. Aluminium Shapes are a producer of aluminium extrusions. They employed an average of 64 people in the year ended 31 March 2021.⁸²
351. Evidence submitted by these four UK producers show that the production of aluminium extrusions makes up a significant majority of their sales, with value-adding services such as anodising and fabrication only accounting for a small proportion of their business activities. The Like Goods are therefore extremely significant for this particular group.

H4.3 Importers of aluminium extrusions

352. HMRC data records 738 companies that imported aluminium extrusions during the POI. However, within this there is a smaller group of companies that specialise in the importing, stockholding and distribution of metal products, including aluminium extrusions. These companies import aluminium extrusions before distributing them to downstream businesses located in the UK, often without performing any further value-adding services to them.
353. Two UK importers of aluminium extrusions submitted questionnaire responses: 3o Limited and Aalco Metals Ltd (“Aalco Metals”).
354. 3o Limited provide procurement and supply chain services. The aluminium extrusions they purchase from the PRC come from vertically integrated companies which produce aluminium billets and then convert them into aluminium extrusions. Value adding processes such as painting and cutting to length are also carried out on site in the PRC, before being shipped directly to

⁸² For the companies mentioned in paragraphs 346 to 350, the latest publicly available data has been used.

UK customers. 3o Limited does not carry out any work on the materials they import.

355. Aalco Metals are the largest independent UK stockholder and distributor of multi-metals to the UK manufacturing industry. They are an importer of aluminium extrusions from various countries including the PRC.

H4.4 Downstream industry

356. Two UK businesses submitted a downstream questionnaire response: Senior Architectural Systems Ltd and Global Extrusions Direct Ltd.

357. Senior Architectural Systems Limited provide aluminium extrusions for the commercial and domestic fenestration markets, such as the assembly of window profiles. They employed an average of 159 people in the year ended 30 June 2021.

358. Global Extrusions Direct Ltd. supply cutting, painting, welding and assembly services for a range of clients. They purchase and convert extrusions for use in the production of marquees, electrical trunking, medical trolleys and stair lifts, among other things. Employment, turnover and profit data were not publicly available for Global Extrusions Direct, so they have not been included in the GVA analysis.

359. The total number of downstream businesses that use aluminium extrusions as an input in the manufacturing of other products is likely to be significantly higher, as only those given in submitted questionnaire responses were able to be identified.

H4.5 Contributors

360. Four UK businesses submitted contributor questionnaire responses: ABL Aluminium Components (ABL), GSM Aluminium Limited (GSM), Sherwood Stainless and Aluminium Limited (Sherwood Stainless), and Righton & Blackburn. Some of the information submitted by these parties was not suitable for use by the TRA. These deficiencies were communicated to the relevant parties, but a number of the parties were unable to correct their deficiencies

within the applicable time limit. Where this is the case, information submitted in their pre-sampling questionnaires, and information which is publicly available, was considered.

361. From the evidence submitted, the TRA believe both ABL and Sherwood Stainless to be part of the downstream industry, as they perform value adding manufacturing services to purchased aluminium extrusions before selling them on to industries further down the supply chain. Therefore, whilst they will be labelled as contributors in this analysis, they will be considered to be part of the downstream.

H4.6 Consumers

362. Aluminium extrusions are not considered to be a consumer product. They are most often an input into a broad range of production processes in which the final consumers come much further down the supply chain. These products include heating and air conditioning systems, fenestration (window and door) structures and automobiles.

Table 16: Significance metrics of selected businesses				
	UK Upstream Industries	UK Producers	Importers/ Stockists	Downstream Industries*
Total number of known UK businesses	2	7	At Most 738	At Least 4
Number of selected businesses	1	4	2	4
Estimated significance of aluminium extrusions to this group	Very significant (sales of aluminium billets as a proportion of total business turnover)	Very significant (sales of aluminium extrusions as a proportion of total business turnover)	Significant (turnover as a proportion of total imports), but no evidence on extrusion sales as a proportion of	Evidence of insignificance for automobile industry, but other industries may vary

			total business turnover	
Total employment of selected businesses	46	1,022	783	312
Total GVA of selected businesses (£million)	3.78	45.41	46.88	22.01
Total turnover of selected businesses (£ million)	58.01	154.72	333.36	65.53
Profit (£million)	0.79	3.94	15.64	9.46
Vulnerability to negative economic impacts	High - poor profitability	High - poor profitability, suffering injury	Small - sizeable profitability and ability to pass cost increases on	Small - businesses show steady profitability with some evidence of growth
Sources: Questionnaire responses, published financial accounts (Companies House), ONS Business Registration and Employment Survey.				
The assessment of vulnerability to negative economic impacts was made based on published accounts from 2017-2020, and 2021 where possible.				
These figures refer to businesses which responded to questionnaires, as well as parties and contributors who originally registered with the case but were later deemed non-cooperative.				
*Downstream industries include two contributor responses of ABL and Sherwood Stainless, although the necessary data for ABL was not available to include them in this significance metrics analysis.				

363. Table 16 provides a view on overall business activity rather than just activity specifically related to aluminium extrusions. This is to provide a broader context to the businesses affected.

H5. Likely impact on prices and quantities of affected industries and consumers

364. This section will examine how prices and quantities of products throughout the supply chain may change in two scenarios: the introduction of measures imposed as recommended, and no anti-dumping measures being imposed. The impact of any changes in prices and quantities on affected industries and consumers will then be assessed.
365. Due to the limited amount of data, the TRA has not been able to fully quantify the impacts of either scenario. A small amount of information on the proportion of final products that consist of aluminium extrusions was submitted. Numerous confidential questionnaire responses did provide some information on price increases already seen within the industry. Such responses suggested a combination of EU measures, COVID-19 and EU Exit as being drivers of these price increases.
366. Whilst the TRA notes the impact of such short-term market dynamics, this EIT analysis will focus purely on the potential impacts on price and quantity of whether or not anti-dumping measures are imposed as recommended.

H5.1 Prices and quantities in the event anti-dumping measures are imposed as recommended

367. The TRA estimates that, during the POI, UK producers supplied 39% of the total domestic consumption of aluminium extrusions, with imports meeting the remaining 61% of demand. Imports from the PRC alone account for 19% of the market share, which is greater than all but one UK producer.
368. Overall demand for aluminium extrusions is likely to remain stable if anti-dumping measures are imposed as recommended, as there was no submitted evidence to suggest there will be a significant change in overall demand in the UK market in the short-term. The TRA does not expect demand to decrease significantly as a result of any increase in prices. This is due to aluminium extrusions appearing to be a relatively price inelastic input into the production of final products due to their lack of substitutability.

369. As discussed in the injury assessment, the spare capacity currently held by UK producers could be used to supply the UK market if anti-dumping measures are imposed as recommended. The TRA did evidence that the spare capacity of UK producers was less than the level of imports from the PRC. As any measures would simply be bringing the price of imports from the PRC more in-line with those from elsewhere, UK producers would not be required to replace the full volume of imports from the PRC and would still have to compete with imports from third countries.
370. The TRA also noted that some aluminium extrusions cannot be produced in the UK (see [Section C5: Goods Concerned not manufactured in the UK](#)), and cannot conclude that these goods are causing injury to the UK Industry. These goods will be subject to a final negative determination
371. If exporters from the PRC could no longer export to the UK at lower prices due to anti-dumping measures, it is likely that UK producers will remain competitive without having to lower prices to an uneconomical level. In the absence of this injury, it is likely that the output of UK producers would increase. There is a possibility that UK producers may increase their prices in response to greater demand, however there is no evidence to suggest that such increases, should they occur, would be particularly significant.
372. Subsequently, if UK producers increase their demand for aluminium billets in order to produce more extrusions, upstream suppliers of billets would also likely increase their output. This increased demand may lead to upstream suppliers increasing their prices, but there is no evidence to suggest this would be particularly significant.
373. The combination of overall UK consumption of aluminium extrusions remaining stable and an increase in demand for aluminium extrusions from UK producers would likely result in a reduction of the quantities supplied by importers from the PRC.
374. The questionnaire response from 3o Limited states that cost increases could be passed on in full through the downstream and on to consumers, which has been their experience when freight costs have increased previously. Should importers

and downstream industries choose to pass on any changes in their costs due to the imposition of the recommended anti-dumping measures, there would be no changes in their profits and their customers would face higher prices of downstream products. The quantity of aluminium extrusions consumed is unlikely to change significantly.

375. Evidence was submitted by the Applicant on the quantity of aluminium extrusions, and other aluminium products, used in the production of road vehicles. A summary of this information can be found in Table 17. Aluminium extrusions make up 1.4% of the material content of the average car, compared to 8.4% and 2.5% for aluminium cast and aluminium sheet respectively. Due to this, the TRA does not believe that any increase in cost of aluminium extrusions as a result of anti-dumping measures would significantly impact the cost of the average car for consumers.

Table 17: Average amount of aluminium products used in the production of cars

Type of aluminium product	Average quantity per vehicle (kg, 2019)	As a proportion of 2015 total vehicle weight
Cast	116	8.4%
Sheet	34	2.5%
Extrusions	19	1.4%
Forged	10	0.7%
Total (Aluminium Products)	179	12.9%
Total Weight of Average Vehicle*	1,385	100%

Source: DuckerFrontier: Aluminium Content in European Passenger Cars

Figures may not add up due to rounding.

*Average weight of vehicles in the European Union in 2015. Source: The International Council on Clean Transportation: European Vehicle Market Statistics 2016/17

376. Evidence has been submitted highlighting price increases and some supply shortages during the COVID-19 pandemic and since the imposition of EU measures against aluminium extrusions from the PRC, which were also in place in the UK from 14 October 2020 to 31 December 2020.

377. As the majority of the evidence gathering stage of this investigation was before February 2022, no evidence was submitted with regards to any impacts of the Russian invasion of Ukraine on the price or quantity of aluminium extrusions. However, the TRA acknowledges the unpredictable economic effects that may occur as a result of this.

Table 18: Expected impacts on prices and quantities if anti-dumping measures are imposed as recommended

Group	Prices	Quantity
UK Upstream Industries	Increased demand for aluminium billets may push prices up	Increased output to meet greater demand for aluminium billets
UK Aluminium Extrusion Producers	Prevention of further undercutting; possibility of some price increases	Increased output in absence of injury
UK Importers & Stockholders	Increase in prices if they pass on the cost of the measure	May decrease as consumption remains stable and UK producers raise their output
UK Downstream Industries	Small increase in prices if they pass on any increased costs, dependent upon proportion of aluminium extrusions used in production process	No significant impact
UK Consumers	Small increase in prices of finished goods, as aluminium extrusions are just one input into a variety of production processes	No significant impact

H5.2 Prices and quantities in the event anti-dumping measures are not recommended

378. If anti-dumping measures are not recommended, this would allow the continued exporting of Goods Concerned from the PRC at lower prices, with UK producers having to continue reducing their prices to remain competitive. If UK producers continue to suffer injury, it is likely that the quantities they produce would reduce. This could lead to site closures and a loss of employment in the industry over time.
379. If UK producers reduce the quantity of aluminium extrusions they produce, they would demand fewer aluminium billets from upstream suppliers. Additionally, if prices of UK produced Like Goods decrease, upstream suppliers might face pressure to decrease their prices as well.

H6. Likely impacts on affected industries and consumers

H6.1 UK upstream industries

380. If anti-dumping measures are imposed as recommended, it is likely upstream industries would benefit from increased demand for aluminium billets from UK producers, driven by increased demand for UK produced Like Goods.
381. If anti-dumping measures are not imposed, it would likely have a negative impact on the upstream industry. Continued injury to UK producers of the Like Goods as a result of dumping could likely lead to less output and, in time, potential site closures and subsequent loss of employment. This would see less demand for the aluminium billets that the upstream industry produces.
382. As addressed earlier in this analysis, industries that produce other inputs in the production of aluminium extrusions (such as electricity), as well as the smelter in Lochaber West, serve a vast number of industries other than aluminium extrusions and therefore the TRA does not expect any significant impact on these groups.

H6.2 UK producers of aluminium extrusions

383. The imposition of anti-dumping measures as recommended would prevent further injury to the industry. Given that UK producers operate with spare capacity, it is likely they will be able to expand production to cover any decrease in imports that may result from the measure. This was evidenced during the POI when UK producers were able to respond to a large extent during the disruption of imports caused by the circumstances explained in [Section G4: The Current state of the UK Industry](#).
384. If no anti-dumping measures are recommended, it would likely have a negative impact on UK producers, as they would be forced to continue to reduce prices and/or output. The continued suffering of injury could likely lead to site closures and subsequent loss of employment.

H6.3 Importers of aluminium extrusions

385. If anti-dumping measures are imposed as recommended, the impact on importers would depend upon their ability to pass on any cost increase to their customers in downstream industries and ability to source aluminium extrusions from third party countries. It is anticipated that costs flowing from the anti-dumping measures will be passed on to customers. 3o Limited's questionnaire response states that such increases could be passed on in full through the downstream and on to consumers, which has been their experience when freight costs have increased previously. In this case, the direct impact on importers of the measures would be negligible.
386. If anti-dumping measures are not recommended, it is unlikely that importers would be impacted as the circumstances for them would not change.

H6.4 UK downstream industries

387. If anti-dumping measures are imposed as recommended, downstream industries could face higher input costs. The extent to which this will impact them depends on a multitude of factors including, but not limited to, price elasticities, profit margins, the proportion of their production costs which are

made up by aluminium extrusions and their ability to switch between suppliers of aluminium extrusions.

388. Concerns from importers and the downstream industry include their view that UK producers do not possess the available capacity to meet any extra demand, and that this will lead to increased lead times and higher prices if supply cannot keep up to compensate for any drop-off in imports. However, the evidence the TRA has considered suggests that UK producers do possess significant extra capacity that can be utilised. Furthermore, the TRA evidenced that UK producers were able to respond to a large extent during what were exceptional circumstances that disrupted imports as explained in paragraph 267. The TRA also noted that some aluminium extrusions cannot be produced in the UK (see [Section C5: Goods Concerned not manufactured in the UK](#)) and cannot conclude that these goods are causing injury to the UK Industry. These goods will be subject to a final negative determination.

389. The recommended anti-dumping measures would have the effect of bringing the price of dumped imports from the PRC more in-line with those from elsewhere. Such measures would not require UK producers to replace the full volume of imports from the PRC, and UK producers would still need to compete with the PRC and third countries in terms of price and other factors. The TRA does, however, acknowledge that market dynamics as a result of EU Exit and the COVID-19 pandemic may cause temporary supply chain issues.

390. If anti-dumping measures are not recommended, it is unlikely that downstream industries would be impacted as the circumstances for them would not change.

H6.5 Consumers

391. It is possible that any price increases as a result of any anti-dumping measures may be passed on to final consumers of downstream products.

392. However, aluminium extrusions are just one input of products such as air conditioning units, windows and automobiles. The impact of anti-dumping measures is therefore highly dependent upon the composition of the final product and the percentage in which aluminium extrusion costs contribute

towards prices that consumers are charged. Additionally, these products tend to be relatively price inelastic and therefore consumption of them is unlikely to decrease should prices rise.

Table 19: Expected impacts on affected groups if anti-dumping measures are imposed as recommended

Group	Expected Impacts
UK Upstream Industries	Positive impact - likely increased demand for aluminium billets from UK producers
UK Aluminium Extrusion Producers	Significant positive impact - prevention of injury
UK Importers & Stockholders	Negligible - costs can likely be passed on to downstream customers
UK Downstream Industries	Potential small negative impact - costs of production may rise, but can be passed on to consumers
UK Consumers	May be small increases in the price of finished goods, but may affect a large number of consumers. Overall impact on the individual consumer will likely be small.

H7. Likely impact on particular geographic areas, or particular groups in the UK

393. The previous section assessed the overall impacts of any anti-dumping measures should they be imposed as recommended. This section looks at how these impacts are distributed. The TRA considers how impacts are likely to be distributed by geography and whether any particular groups might be disproportionately impacted.

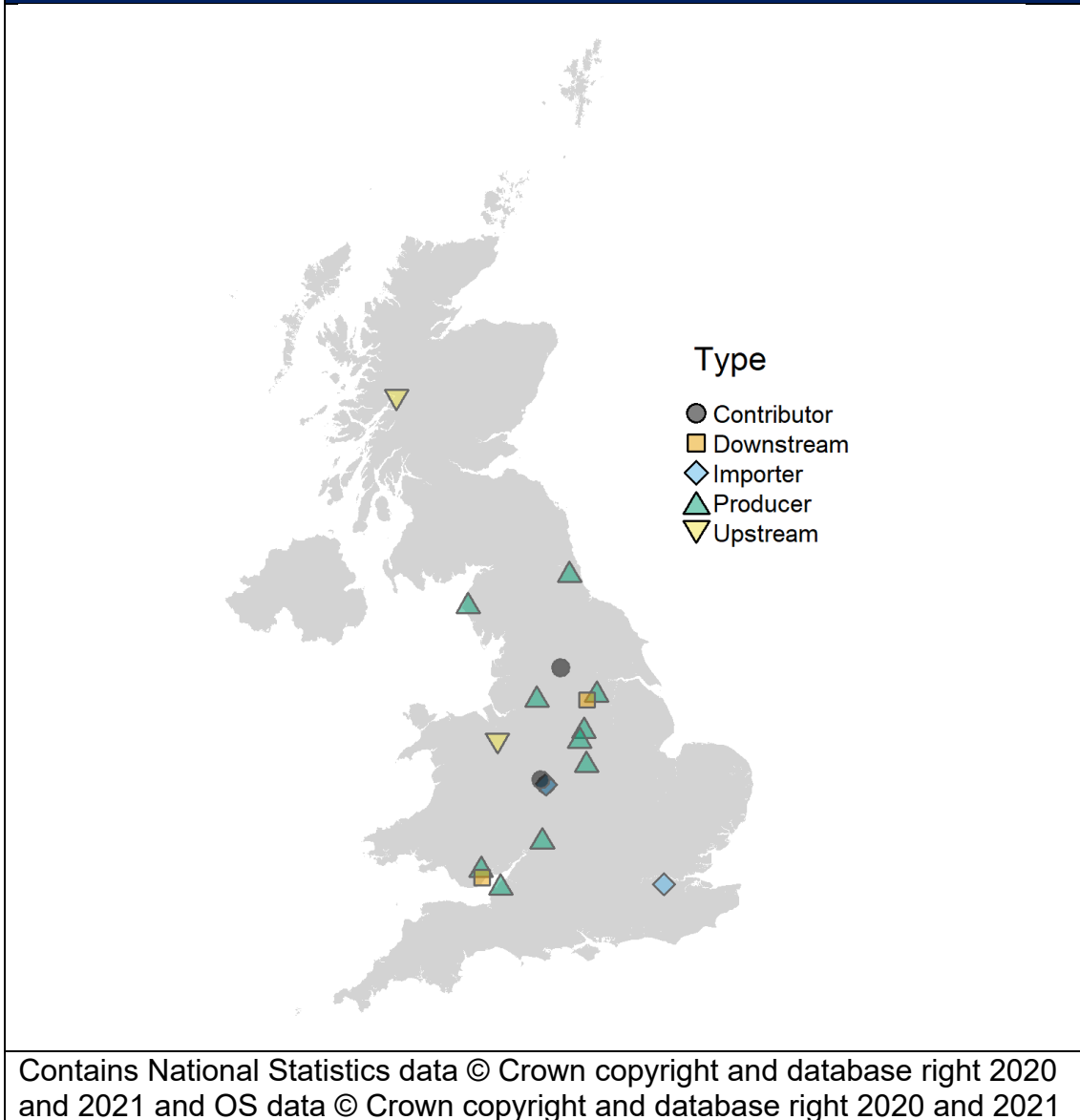
394. Where information was available, the TRA considered key economic indicators and wider evidence for locations of different elements of the supply chain.

H7.1 Likely impact on particular areas

395. The TRA considered the geographic areas where UK producers, importers, upstream industries and downstream industries exist, as identified through

questionnaire responses as well as some firms identified through the investigation. Due to the lack of employment data, Global Extrusions Direct Limited have not been included in this part of the analysis.

Figure 11: Distribution of Affected Industries in the United Kingdom



396. Figure 11 shows the distribution of stakeholders across the United Kingdom. The stakeholders included in this map are limited to those identified during the course of the investigation and therefore do not constitute a complete picture of the entire aluminium extrusion and related industries within the UK.

397. The TRA examined the significance of affected industries for employment in the relevant Local Authority Districts (LADs). Where the number of employees in

affected industries was not disclosed in questionnaire responses, these have been estimated using data from the ONS Business Registration and Employment Survey.

398. There would be a limited impact in LADs, as the employment of affected industries relative to the total employment of each LAD is small (less than 1%).
399. Although it is less than 1%, Tibshelf (Bolsover) exhibits a relatively high proportion (0.7%) of employment attributable to UK producers when compared to other areas. As employment of this group is directly related to the production of aluminium extrusions, the TRA believes there could be a significant impact in this LAD.

Table 20: Labour Market Statistics of Significantly Affected Local Authority Districts

Local Authority District	Economic Inactivity (%)	Job Density	Gross annual pay for full-time workers (Median, GBP)	Proportion with no formal qualifications (%)
Bolsover	27.6%	0.64	22,398	9.7%
Great Britain	21.0%	0.87	25,909	6.4%

Sources: ONS Business Registration and Employment Survey, ONS Annual Population Survey, ONS Jobs Density Survey, ONS Annual Survey of Hours and Earnings, LAESI Database

Job density is the level of jobs per resident aged 16-64, with a density of 1.0 signifying there is one job for every resident aged 16-64.

400. Table 20 contains labour market statistics for Bolsover, with benchmark figures included for Great Britain as a whole. A range of indicators were taken into consideration when assessing the likely impacts on different geographic areas. The indicators included in the table were selected as being the most relevant to assess economic activity and highlight regional differences in income and employment opportunities.

401. Bolsover has a substantially higher level of economic inactivity, a lower job density and lower annual gross wages than the national average. Additionally, Bolsover has a proportion of people with no formal qualifications that is greater than the national average. The potential negative impact on this area from the loss of affected industries may be stronger as a result of this.
402. Questionnaire responses received from UK producers of aluminium extrusions suggest the non-imposition of anti-dumping measures would result in continued injury, leading to a reduction in output and subsequently employment in areas that are already considered to be economically disadvantaged.
403. Additionally, these responses indicate that future investment plans, and consequently the expansion of employment opportunities, could be at risk. A reduction in both current and prospective employment could create a negative multiplier effect in geographical areas, some of which are already considered to be economically disadvantaged.
404. As noted in the earlier significance sections, it is likely that trade remedy measures on aluminium extrusions may have a smaller proportional impact on downstream industries than it will on the upstream and producers. Upstream suppliers of aluminium billets and producers of aluminium extrusions are more exposed to any changes given it makes up the majority of their business, and thus impacts will likely be harder felt in comparison to downstream industries who may have more diverse operations.

H7.2 Likely impact on particular groups

405. The TRA considered the likely impact on particular groups including those with protected characteristics as defined by the [Equality Act 2010](#).
406. No evidence was provided with respect to potential impacts on any particular groups, either as workers or consumers. Aluminium extrusions have a broad range of applications, and they are not sold directly to final consumers who are far down the supply chain, which makes it unlikely for them to be affected.
407. Therefore, there are no obvious impacts on protected or other groups which might result from the implementation or non-implementation of the measures.

H8. Likely consequences for the competitive environment, and for the structure of the market, in the UK

408. The assessment of the likely consequences for the competitive environment and structure of the UK market considers four areas:

- the impact on the number or range of suppliers;
- the impact on the ability of suppliers to compete;
- the impact on the incentives to compete vigorously; and
- the impact on the choices and information available to consumers.

H8.1 Background

409. The TRA has estimated market shares using sales volume data from the sampled UK producers alongside import data covering imports of the Goods Concerned.

410. UK producers made up approximately 39% of the total UK market during the POI, with imports fulfilling the remaining 61%. The PRC takes up a greater market share (19%) than all other nations and all but one UK producer.

411. Based upon this data, a Herfindahl-Hirschman Index (HHI) can be estimated for the POI, giving an indication of the concentration of the aluminium extrusions market⁸³. A HHI over 1,000 would indicate a concentrated industry, whilst an index in excess of 2,000 would constitute a highly concentrated market.⁸⁴

412. The TRA estimates a HHI of just over 1,000 for the UK aluminium extrusions market during the POI, which meets the threshold for it to be considered a concentrated market. However, this estimation is only one indicator of the competitive nature of a market and should be considered alongside other factors.

⁸³ This is done by taking the sum of the squares of market shares of each UK and overseas producer that supplies to the UK market.

⁸⁴ Competition Commission - Guidelines for market investigations: their role, procedures, assessment and remedies, Page 88

413. Various questionnaire responses highlight the lack of substitute goods for aluminium extrusions. Products such as steel and plastics do not possess the same thermal, strength and lightweight properties of aluminium and therefore are not considered to be close substitutes. This lack of substitutability suggests demand for aluminium extrusions is relatively price inelastic.
414. Aluminium extrusion production facilities require expensive equipment, such as presses, as well as experienced labour to operate the machinery. This high degree of capital and human investment shows that the aluminium extrusions industry exhibits high barriers to entry, which would limit the ability of new producers to enter the market.

H8.2 Impact on the number or range of suppliers

415. If anti-dumping measures are introduced, it is likely UK producers would face reduced competition as the cost of importing aluminium extrusions from the PRC would increase. However, UK producers would still have to compete with each other as well as imports from the PRC and third countries.
416. If anti-dumping measures are not recommended, it would be unlikely to change the number or range of suppliers in the short term. However, in the longer term, some UK suppliers may choose or be forced to leave the market if they continue to suffer the injury that they are currently experiencing.

H8.3 Impact on the ability of suppliers to compete

417. Introducing anti-dumping measures would bring the price of imports from the PRC more in-line with those from elsewhere, reducing the ability of suppliers in the PRC to influence the price of aluminium extrusions in the UK
418. The removal of price undercutting would increase the ability of UK suppliers to compete in the absence of further injury.

H8.4 Impact on the incentives to compete vigorously

419. Some questionnaire responses from affected businesses suggested that the incentive to compete would be reduced should anti-dumping measures be introduced. Should anti-dumping measures result in a reduction of the quantity

of imports from the PRC, the TRA expects that UK producers would still need to compete in terms of price, quality and customer service with each other as well as imports from elsewhere to pick up any vacated market share.

H8.5 Impact on the choices and information available to consumers

420. There is limited evidence to suggest that choices and information available to customers would be negatively impacted by the imposition of anti-dumping measures. Downstream customers would still be able to choose between UK produced Like Goods and imported Goods Concerned, and those aluminium extrusions which are not able to be produced in the UK (see [Section C5: Goods Concerned not manufactured in the UK](#)) will be subject to a final negative determination. As aluminium extrusions are just one input into a wide range of production processes, consumers are unlikely to see a significant change to final products in terms of availability or prices.

H9. Such other matters as the TRA considers relevant

421. As part of the EIT assessment, the TRA can consider any other factors that may be relevant in concluding whether the proposed trade remedy measure is in the economic interest of the UK.

422. Some questionnaire responses from producers highlighted the threat of further injury from trade diversion of aluminium extrusions produced by the PRC from the EU, where measures remain in place, to the UK. The TRA acknowledges this and import data from HMRC do show an increasing trend in imports of the Goods Concerned from the PRC since the removal of EU measures in the UK on 31 December 2020 following EU Exit as discussed in the injury section.

423. As the majority of the evidence gathering stage of this investigation occurred before February 2022, no evidence was submitted with regards to any impacts of the Russian invasion of Ukraine or the consequences of any sanctions placed on Russia and Belarus. However, the TRA acknowledges the unpredictable economic, trade, and supply chain effects that may occur as a result of this, and the impact this may have on input goods, relevant goods for this investigation,

and downstream products. HMRC data shows that 0.85% of UK imports of aluminium extrusions during the POI came from Ukraine, Russia and Belarus.

H10. Conclusions

424. In accordance with paragraph 25 of Schedule 4 to the Act, the TRA considers that the application of the anti-dumping remedy that the TRA is recommending is in the economic interest of the UK and the EIT is met. This test is presumed to be met unless the TRA is satisfied that the application of the remedy is not in the economic interest of the UK.
425. As described in previous sections, the TRA determined that UK producers have been suffering injury as a result of dumped Goods Concerned from the PRC. The injury assessment concluded that there would be further injury to UK Industry if anti-dumping measures are not recommended. In [Section H: Economic Interest Test](#), the TRA has tested whether imposing this measure would be in the economic interest of the UK.
426. In the impacts section, the TRA found that anti-dumping measures are likely to prevent further injury to UK producers, with a likely subsequent expansion of output for producers and the upstream industry. In contrast, not recommending anti-dumping measures would allow for the continued dumping of the Goods Concerned and subsequently further injury to UK producers who directly employ over 1,000 people, some of which are located in areas considered to be economically deprived. Based on the evidence available, the TRA determined that cost increases for downstream industries would be able to be passed on through the supply chain and to final consumers. As aluminium extrusions are just one input into a variety of production processes, the TRA does not believe any such price rises will be particularly significant to consumers.
427. In the competition section, the TRA determined that the aluminium extrusions market passes the threshold to be considered a concentrated market. Anti-dumping measures would bring the price of imports from the PRC closer to those from elsewhere, increasing the ability of UK producers to compete in the

absence of injury. UK producers would still need to compete with imports from third countries to capture any potential vacated market share.

428. The TRA has identified the following positive impacts of implementing the measure as recommended:

- UK producers will benefit from the removal of injury.
- There will likely be spill over benefits to the upstream industry.

429. The potential negative impacts of implementing the measure as recommended are:

- Businesses that continue to import the Goods Concerned from the PRC will face a higher cost to do so.
- Downstream industries may face increased input costs.
- Consumers may see some increased prices.

430. Under the presumption that the EIT is met and, having considered the evidence submitted by each of the interested parties and all of the factors listed in the legislation, we conclude that the EIT is met for the recommendation of anti-dumping measures.

Section I: Intended final determination and recommended measure

431. Our intended final determinations are set out below.
432. We intend to make a final affirmative determination on imports of the Goods Concerned originating from the PRC as described in the NOI, that fall under commodity codes: 76041010; 76041090; 76042100; 76042910; 76042990; 76081000; 76082081; 76082089; 76109090.
433. The TRA has determined that the Goods Concerned that are the subject of a final affirmative determination have been or are being dumped in the UK and the dumping of the Goods Concerned has caused or is causing injury to UK Industry in those goods. The TRA has determined that the EIT is met for our intended final affirmative determination and we therefore intend to recommend to the Secretary of State that a definitive anti-dumping duty is imposed.
434. We intend to make a final negative determination on Goods Concerned originating from the PRC that fall under commodity codes: 76041010; 76041090; 76042100; 76042910; 76042990; 76081000; 76082081; 76082089; 76109090 and have a maximum cross-sectional diameter of greater than 310mm, and a weight per metre of greater than 14kg/m.
435. The Goods Concerned that are the subject of the final negative determination are not manufactured by the UK Industry and the TRA has determined that these goods have not or are not causing injury to UK Industry in those goods.
436. We intend to recommend that the Secretary of State impose an ad-valorem duty for a period of five years on the Goods Concerned subject to the final affirmative determination.
437. In accordance with the lesser duty rule under paragraph 18(6) of Schedule 4 to the Act, the TRA intends to recommend that the Secretary of State impose the lower of the two margins as the level of duty.

Table 21: Level of Duty				
Country	Exporter/Producer	Dumping Margin	Injury Margin	Level of Duty
The PRC	PMI	10.1%	23.3%	10.1%
The PRC	Shandong Nanshan	7.3%	39.3%	7.3%
The PRC	Haomei	14.9%	47.1%	14.9%
The PRC	Non-sampled, cooperating exporters	10.1%	25.7%	10.1%
The PRC	Residual margin	29.1%	72.0%	29.1%

Annex A: Interested parties and contributors

Table 22: Interested Parties and Contributors		
Name	Party type	Submissions
Hydro Aluminium UK Limited	The Applicant	Application Questionnaire response
Aluminium Shapes Limited	UK producer	Pre-sampling Questionnaire Questionnaire response
Exlabesa Extrusions (Doncaster) Limited	UK producer	Pre-sampling Questionnaire Questionnaire response
Garner Aluminium Extrusions Ltd	UK producer	Pre-sampling Questionnaire Questionnaire response
3o Limited	Importer	Pre-sampling Questionnaire Questionnaire response Additional submission
Aalco Metals Limited	Importer	Pre-sampling Questionnaire Questionnaire response (deficient)
Guangdong Haomei New Materials Co., Ltd.	Sampled overseas exporter	Pre-sampling Questionnaire Questionnaire response Additional submission
Guangdong King Metal Light Alloy Technology Co., Ltd.	Sampled overseas exporter	Pre-sampling Questionnaire Questionnaire response

		Additional submission (joint with Haomei New Materials)
Press Metal International Ltd.	Sampled overseas exporter	Pre-sampling Questionnaire Questionnaire response Additional submission
Press Metal International Technology Ltd.	Sampled overseas exporter	Pre-sampling Questionnaire Questionnaire response
Shandong Nanshan Aluminum Co. Ltd	Sampled overseas exporter	Pre-sampling Questionnaire Questionnaire response Additional submission
Guangdong Huachang Group Co. Ltd.	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Guangdong Jiangsheng Aluminium Co. Ltd.	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Guangdong JMA Aluminium Profile Factory (Group) Co., Ltd.	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Guangdong Nanhai Light Industrial Products Imp. & Exp. Co. Ltd	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Guangdong Xingfa Aluminium Co., Ltd	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Guangdong Xinhe Aluminium Xinxing Co., Ltd	Non-sampled cooperating exporter	Pre-sampling Questionnaire

Guangya Aluminium Industries Co.,Ltd	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Guangdong Yaoyinshan Aluminum Co. Ltd.,	Non-sampled cooperating exporter	Pre-sampling Questionnaire
JMA (HK) Company Limited	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Shandong Mengshan Aluminium Co. Ltd	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Shandong Orient Aluminium Co., Ltd	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Taishan City Kam Kiu Aluminium Extrusion Co., Ltd.	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Yingkou Liaohe Aluminium Products Co. Ltd.	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Anyang Hoonly International Co., Ltd	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Foshan City Nanhai Yongfeng Aluminium Co. Ltd	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Foshan JMA Aluminium Co., Ltd	Non-sampled cooperating exporter	Pre-sampling Questionnaire
Foshan Kengye Metal Products Co.Ltd	Non-sampled cooperating exporter	Pre-sampling Questionnaire

Foshan Sanshui Fenglu Aluminium Company Limited	Non-sampled cooperating exporter	Pre-sampling Questionnaire
PanAsia Aluminium (China) Limited	Non-cooperating exporter	Pre-sampling Questionnaire
PanAsia Enterprises (Nanyang) Company Limited	Non-cooperating exporter	Pre-sampling Questionnaire
Ministry Of Commerce, P.R.C.	Foreign government	Pre-sampling Questionnaire Additional submission
Dura Composites Limited	Downstream user	Pre-sampling Questionnaire
Global Extrusion Direct Ltd	Downstream user	Pre-sampling Questionnaire Questionnaire response
M. G. Metals Limited	Downstream user	Pre-sampling Questionnaire
Senior Architectural Systems Limited	Downstream user	Pre-sampling Questionnaire Questionnaire response (deficient)
ABL (Aluminium Components) Limited	Contributor	Pre-sampling Questionnaire

		Questionnaire response (deficient)
Alvance British Aluminium Ltd	Contributor	Pre-sampling Questionnaire
European Aluminium	Contributor	Pre-sampling Questionnaire
GSM Aluminium Limited	Contributor	Pre-sampling Questionnaire Questionnaire response
Hydro Aluminium Deeside Ltd	Contributor	Pre-sampling Questionnaire Questionnaire response
Liniar Limited	Contributor	Pre-sampling Questionnaire
Multi Metals Ltd	Contributor	Pre-sampling Questionnaire
Parkside Group Limited(The)	Contributor	Pre-sampling Questionnaire
Portland Alloys Limited	Contributor	Pre-sampling Questionnaire
Richard Austin Alloys Limited	Contributor	Pre-sampling Questionnaire
Shackerley (Holdings) Group Limited	Contributor	Pre-sampling Questionnaire
Sheerline Fabrications Ltd	Contributor	Pre-sampling Questionnaire
Simmal Ltd	Contributor	Pre-sampling Questionnaire
Righton & Blackburns Limited	Contributor	Pre-sampling Questionnaire Questionnaire response (deficient)

Sherwood Stainless and Aluminium Ltd	Contributor	Pre-sampling Questionnaire Questionnaire response (deficient)
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Annex B: PCN Structure

Table 23: Product Control Numbers		
Field Description	Field Format	Explanation
Customisation	X Letter	<p>S – standard profiles/shapes which can be purchased by any customer, normally shown in a standard catalogue</p> <p>C – custom/bespoke profiles. The customer owns the copyright/design rights</p>
Shape/Form	X Letter	<p>B – Bars and rods</p> <p>P – Pipes and tubes</p> <p>S – Solid profiles specifically: I, C, T (both with equal and unequal sides), H, U, double U, Z, L (angle), mouldings/ledgers</p> <p>H – Hollow Shape</p> <p>O – Other</p>
Alloy Series	X Digit	<p>2 – 2000 series</p> <p>3 – 3000 series</p> <p>4 – 4000 series</p> <p>5 – 5000 series</p> <p>6 – 6000 series</p> <p>7 – 7000 series</p> <p>8 – 8000 series</p> <p>9 – Other</p>
Length	X Letter	<p>S – ≤ 2 metres</p> <p>M – >2 metres to ≤7 metres</p> <p>L – >7 metres</p>
Weight per metre	X Digit	<p>0 – less than 0.1 kg/m</p> <p>1 – 0.1 kg/m to <0.5 kg/m</p> <p>2 – 0.5 kg/m to < 4.5kg/m</p> <p>3 – 4.5kg/m to < 8 kg/m</p> <p>4 – 8kg/m to < 10 kg/m</p> <p>5 – greater than 10kg/m</p>
Maximum Cross-Sectional Dimension	X Letter	<p>S – ≤ 310mm</p> <p>L – > 310mm</p>

Finish	X Letter	N – No Finish P – Painted A – Anodised O – Other
Fabrications	X Letter	N – None Y – Other including additional cutting, machining, drilling, punching, notching, bending, stretching.
Drawing	X Letter	Only applies to Bars and Rods (Shape/Form B) N – Not drawn D – Drawn For shape/form P, S, H, O – use N