

Nobody can predict the future; the idea is to have a firm grasp of the present.
Peter Drucker

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Cast in Steel 2023 African Spear Point

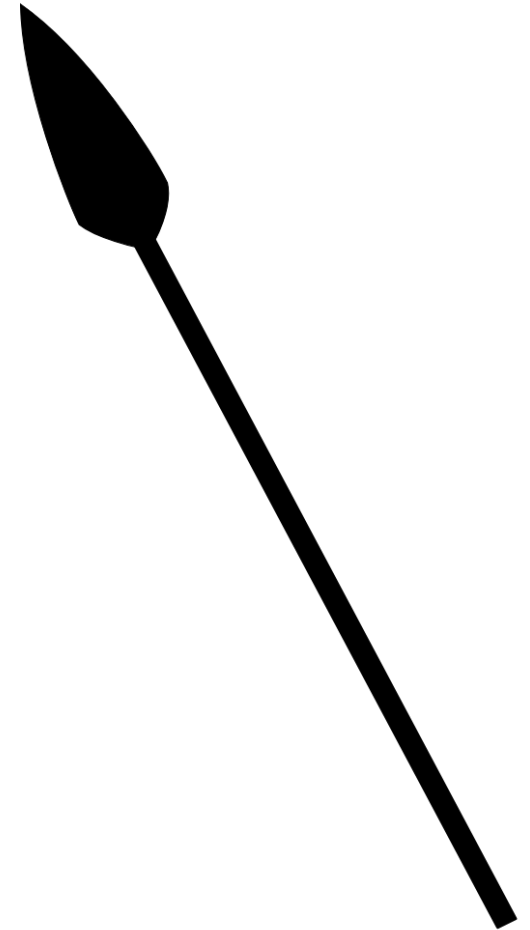


<https://www.youtube.com/watch?v=exXN-Ah9kL4>

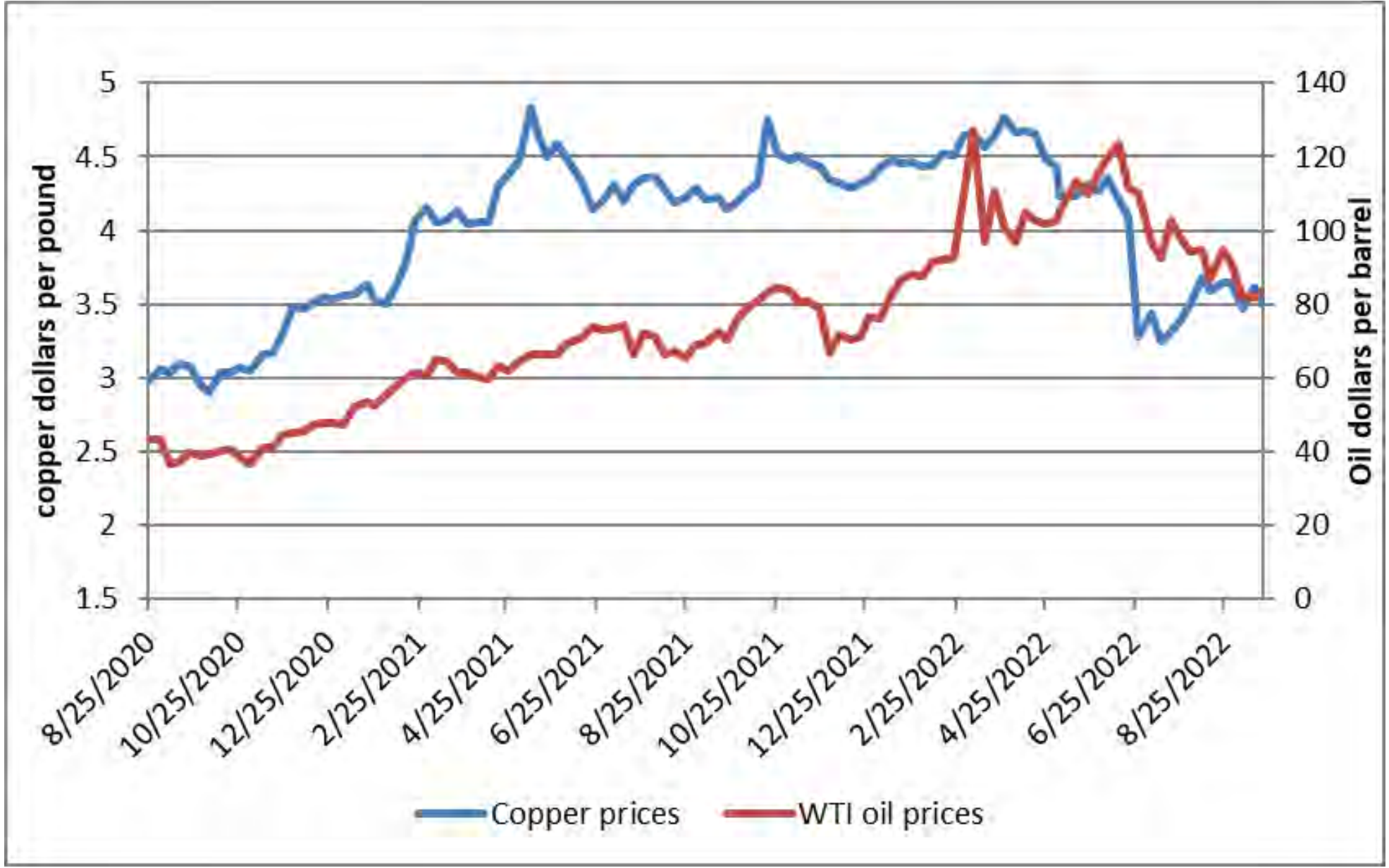
COMPETITION REQUIREMENTS

Teams will perform all aspects of creating a new African Spear Point exploiting the casting manufacturing process from design conception to performance. All four (4) components of the project should be submitted. All students must:

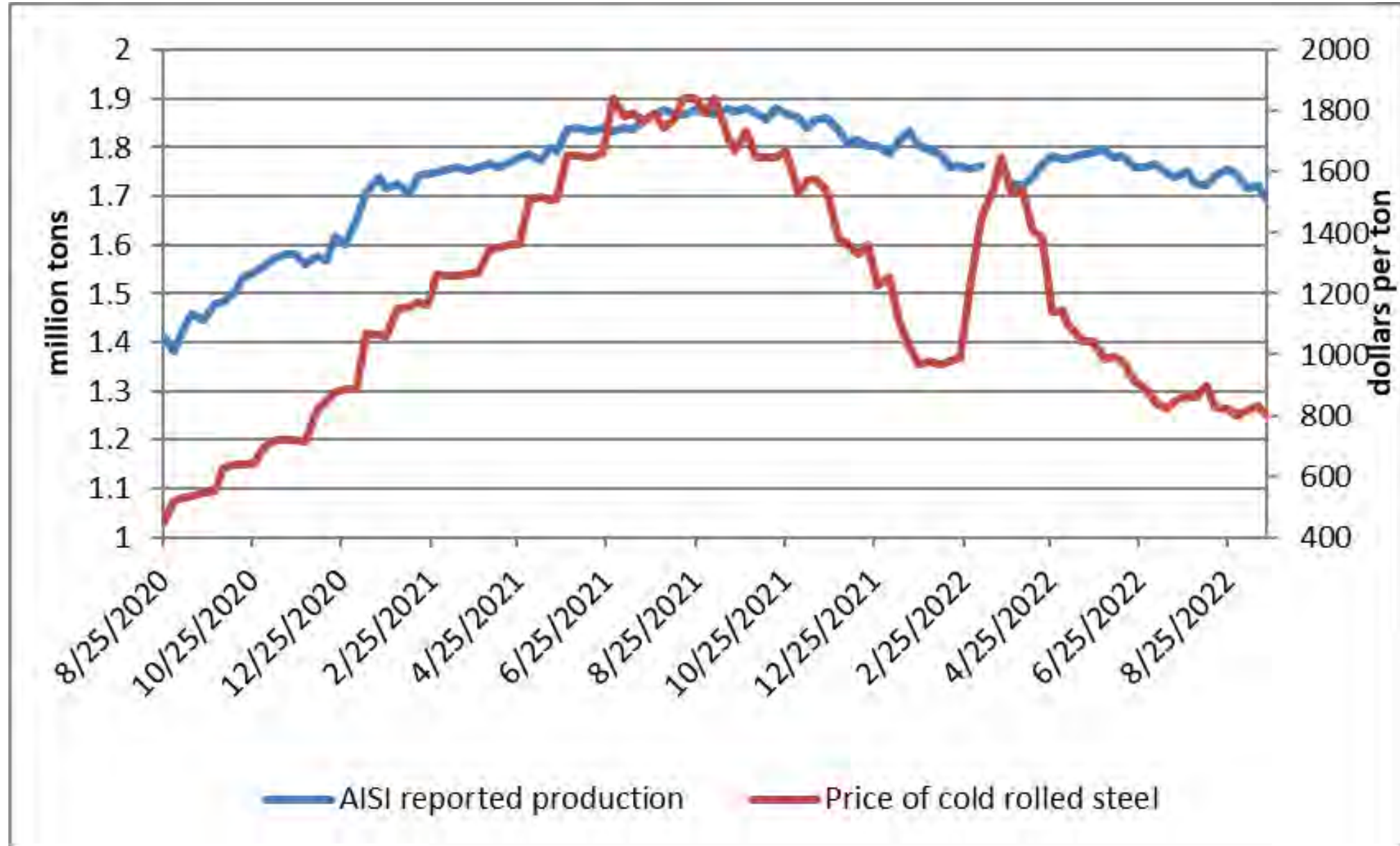
1. Provide a preliminary plan (one page)
 - Rough outline of steps
 - Tentative timeframe
 - Questions/issues they need to address
 - Preliminary decisions they've made (type of steel, casting process, etc.)
2. Make their version of an African Spear Point
 - Your Spear Point should weigh no more than 1 kg (2.2 lbs).
 - Your Spear Point should not be longer than 0.5 m (20 in.) in overall length.
 - Your Spear point will be attached to a commercial handle for the shaft. The Libman 1.5 m (60 in.) wood handle will be used. The taper is 65 mm (2.5 in.) long and goes from 29mm (1 1/8 in.) to 19 mm (3/4 in.) in diameter. This handle is widely available and inexpensive so should be easy to get a sample for your design and trials.
<https://libman.com/products/60-tapered-wood-handle>
3. Document their project with a professional Technical Report of less than 30 pages supporting their decisions.
4. Produce a Project Video, not to exceed 5 minutes, that documents their project.



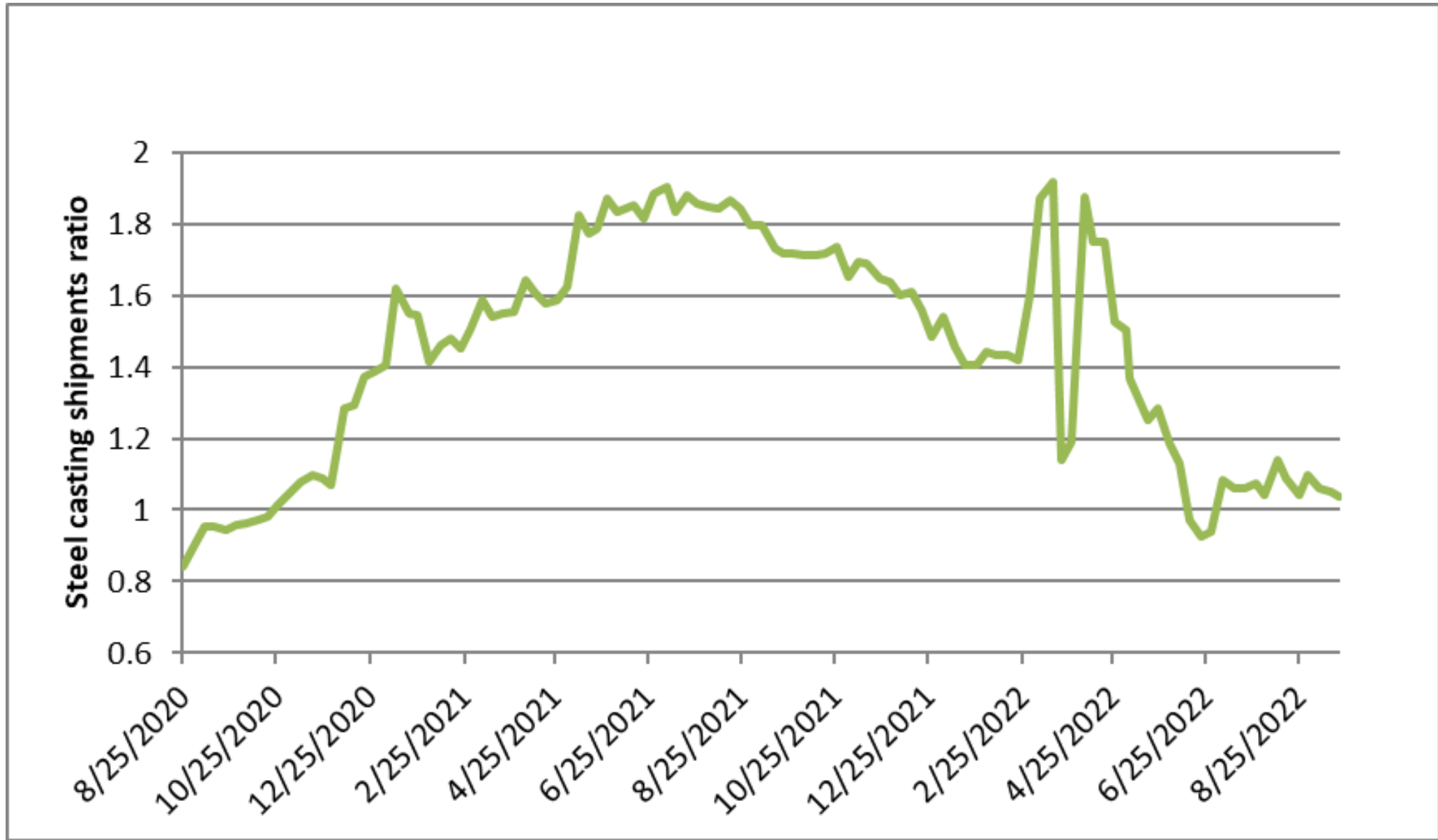
SFSA 2022 Oil and copper prices should remain stable.



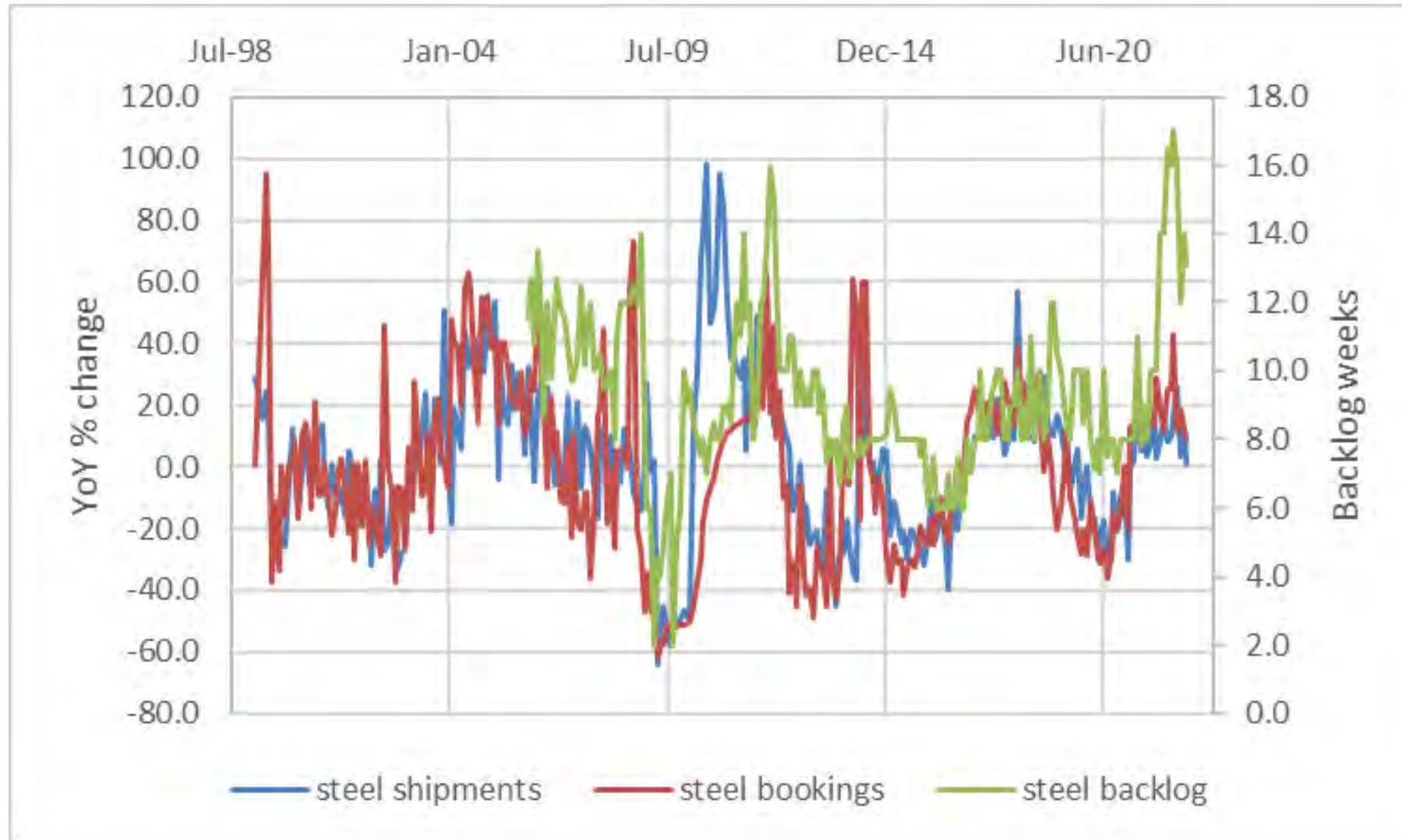
SFSA 2022 Steel demand production remains high but prices have dropped.



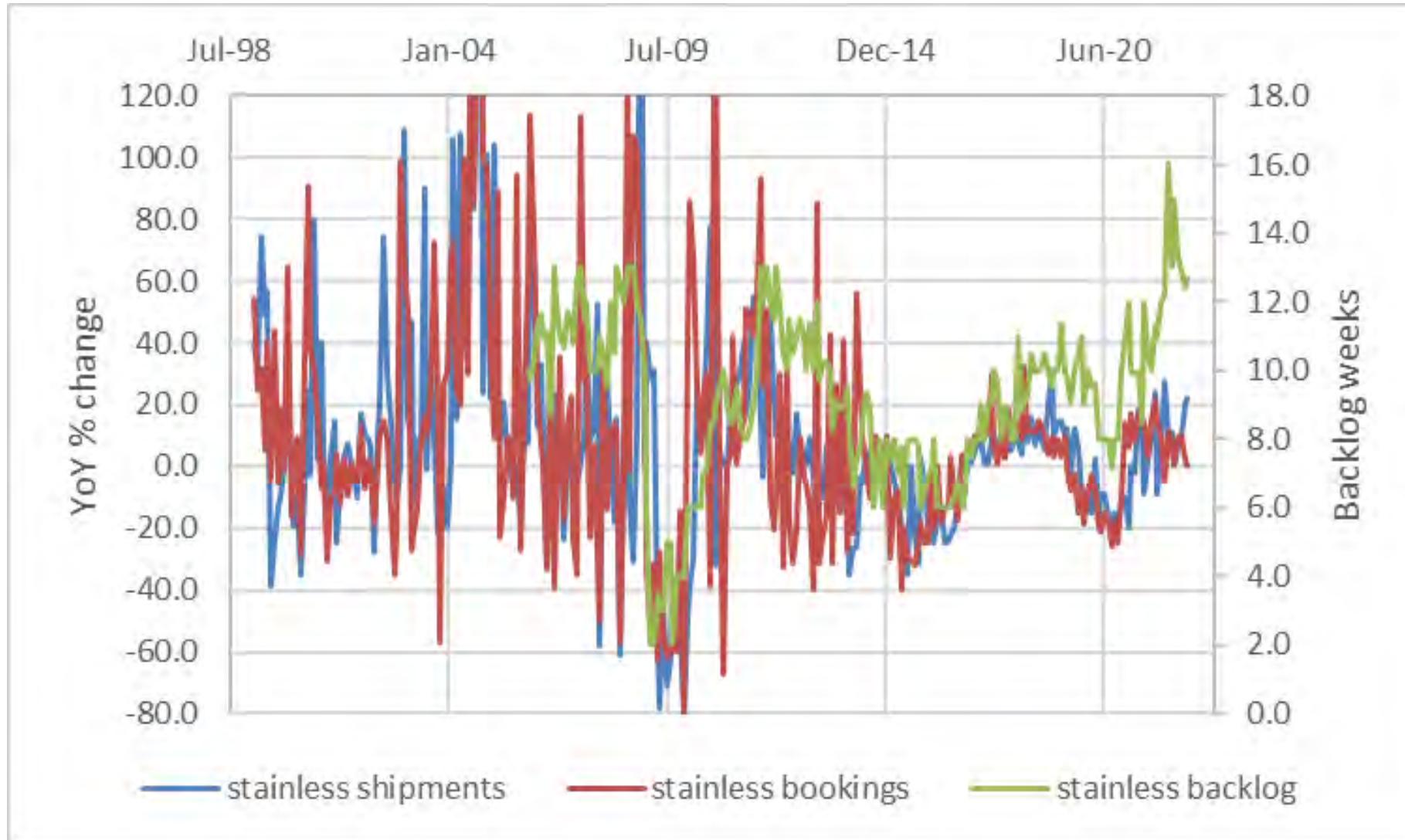
SFSA 2022 Steel casting shipment ratio remains positive.



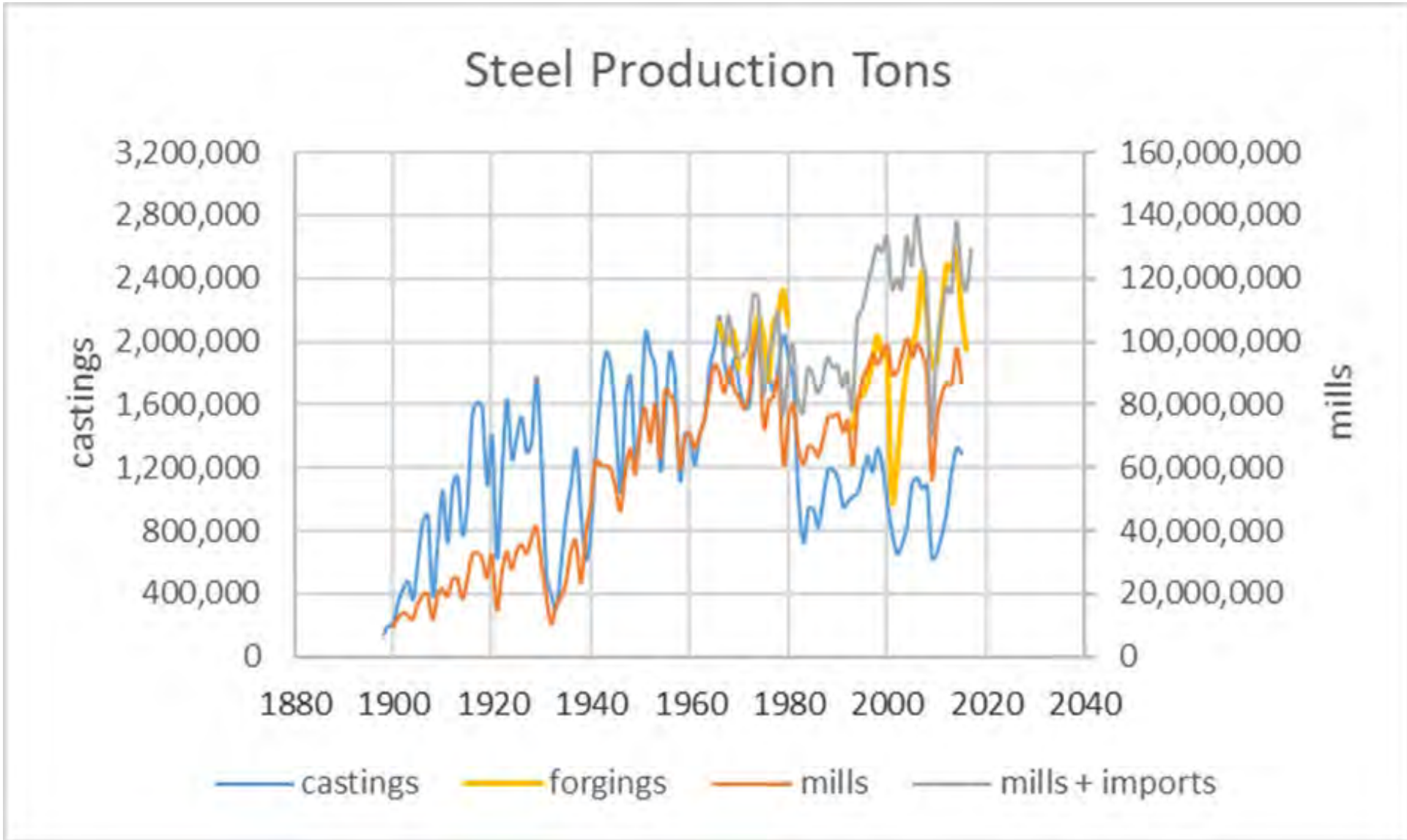
SFSA 2022 Steel casting shipments and bookings



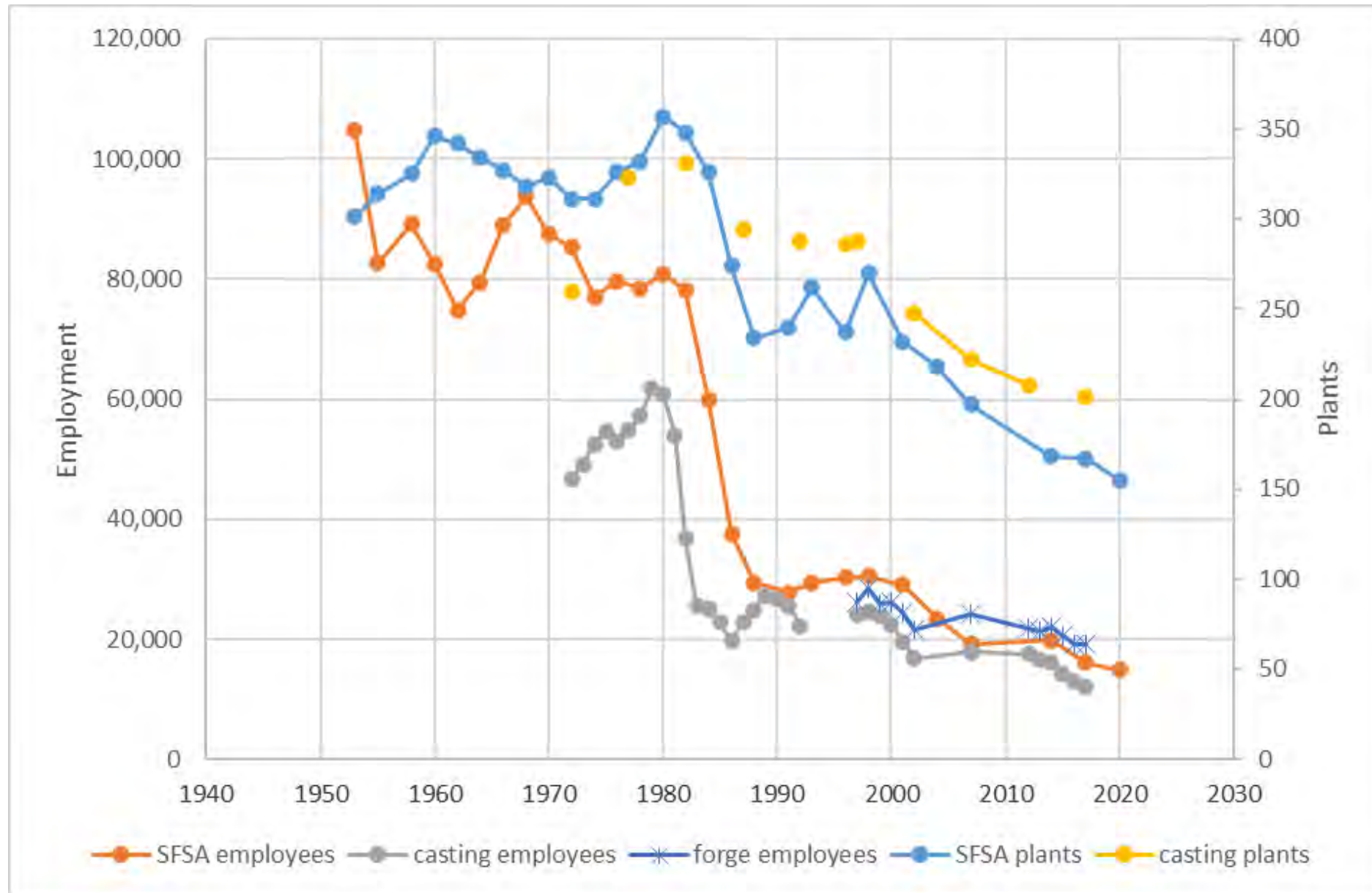
SFSA 2022 Stainless casting shipments and bookings



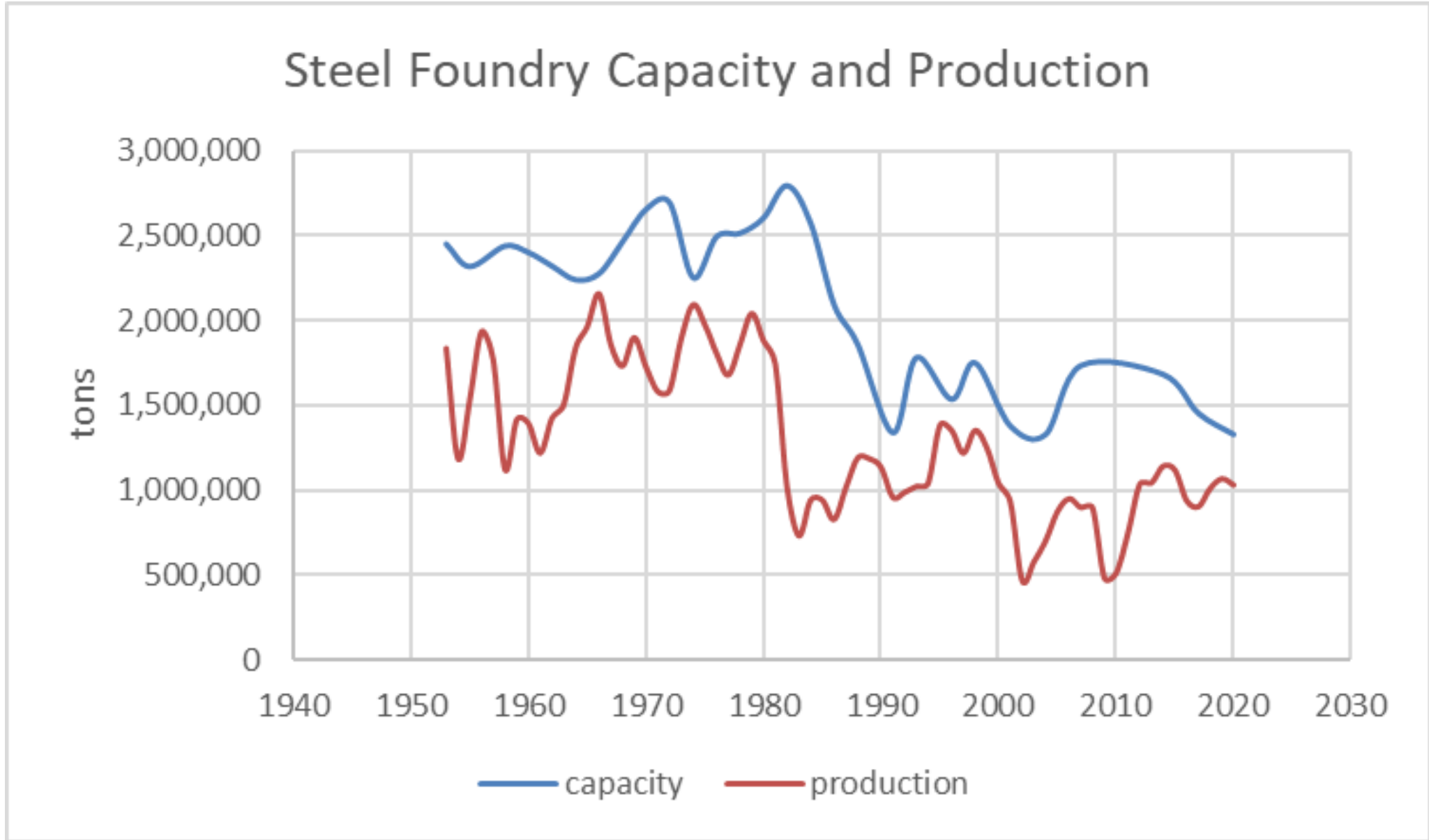
SFSA 2022 Steel production.



SFSA 2022 Steel casting plants and employment



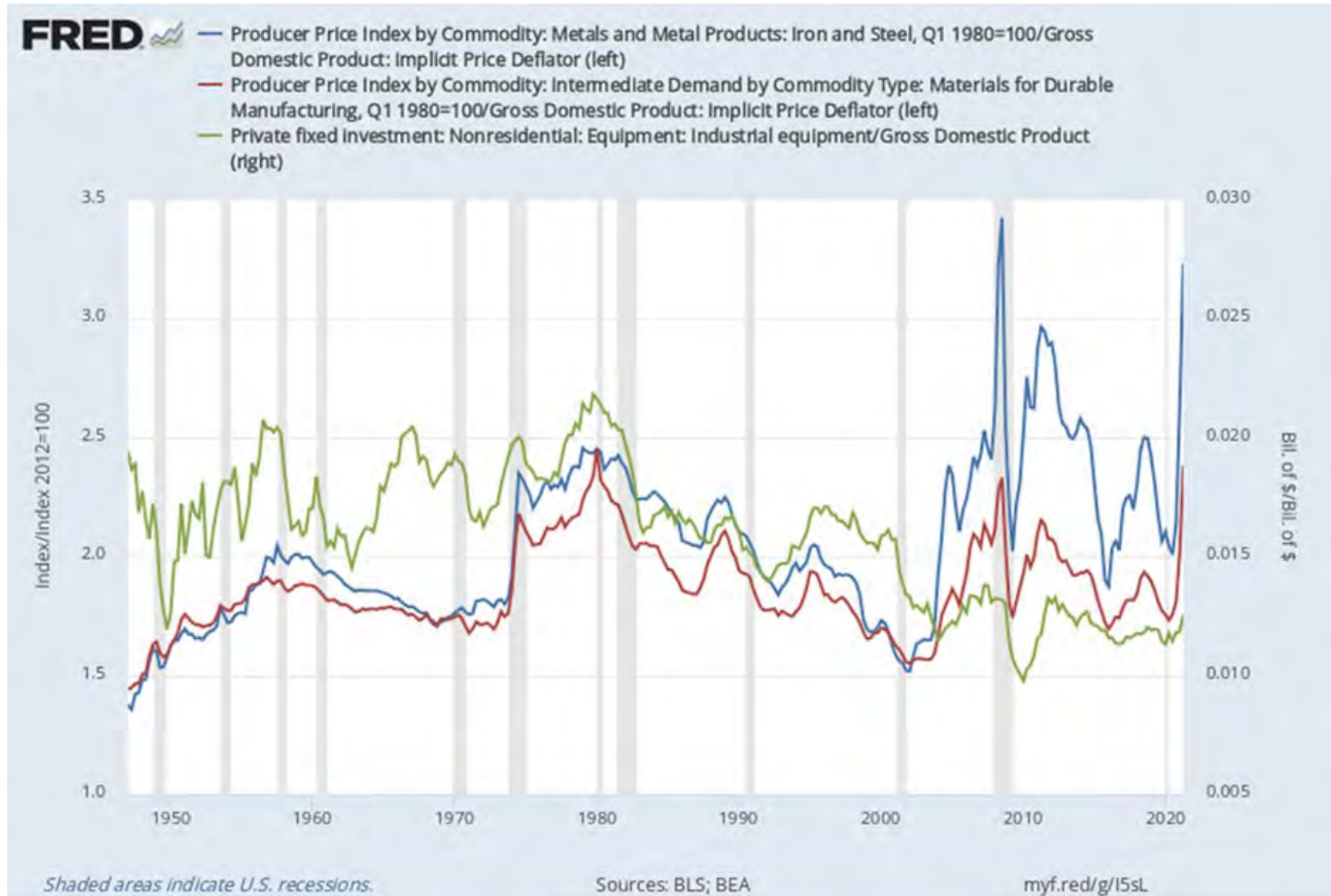
SFSA 2022 Steel foundry production and capacity



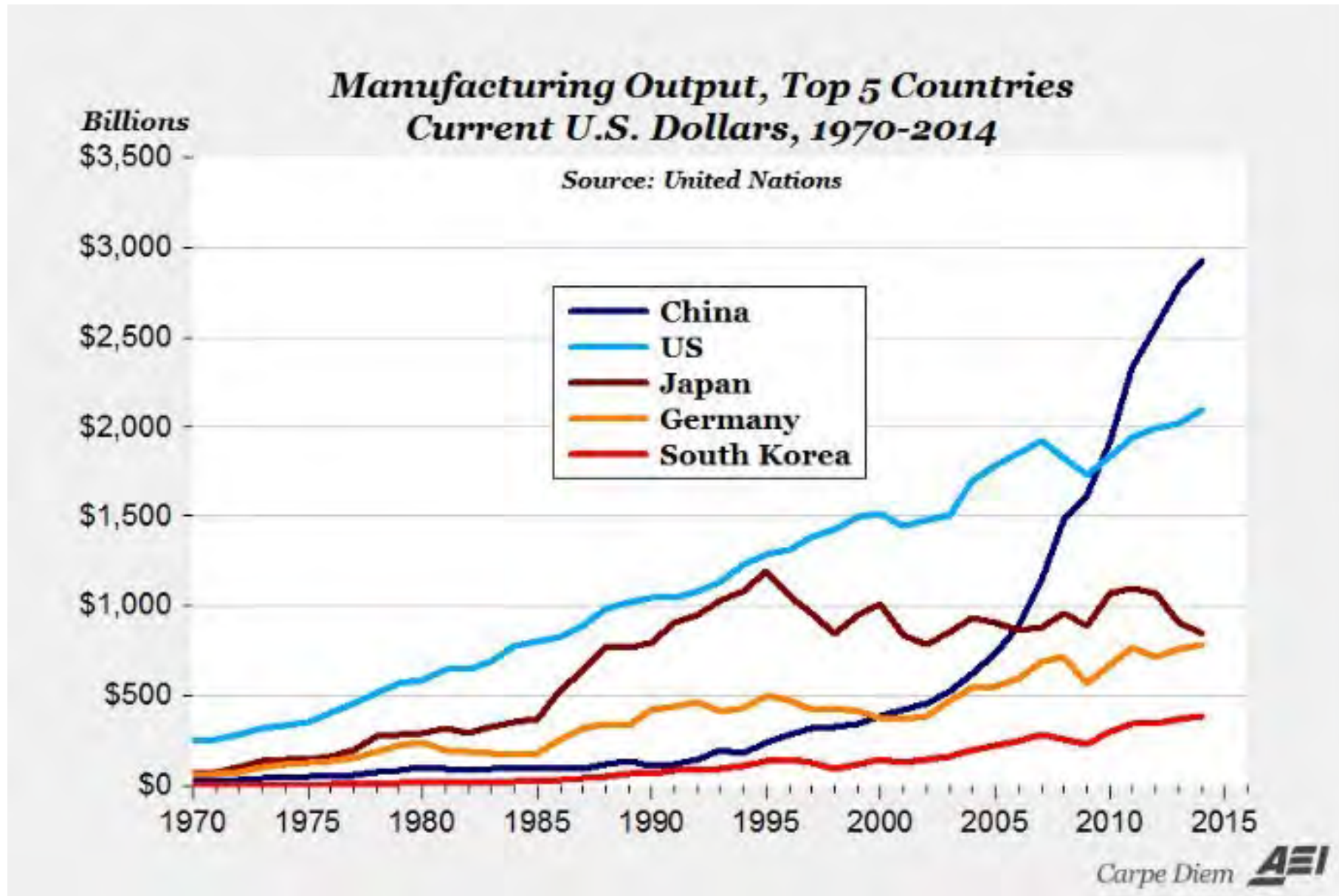
SFSA 2022 Steel manufacturing profitability



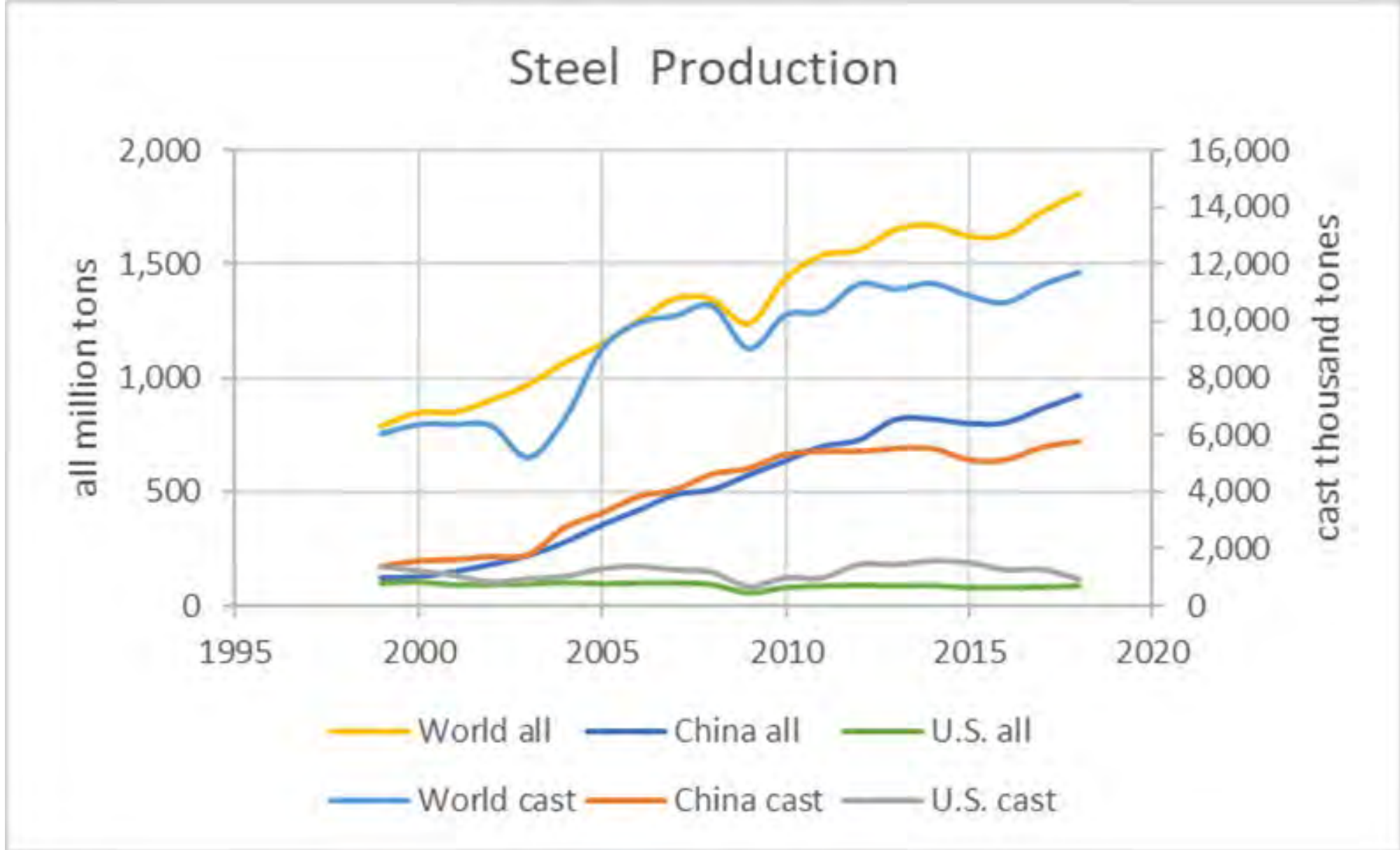
SFSA 2022 Iron and steel values and investment in industrial equipment.



SFSA 2022 China is a challenge



SFSA 2022 China dominates world steel production



Thanks!
Questions
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