

Did Poor Environmental Regulation Lead to China's Steelmaking Success? PS 360

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Topic Statement Has China's steel industry grown to its dominance today due to China's lax environmental regulations increasing competitiveness, or do other factors dominate?

Topic Background Five of the top seven steel manufacturers are now Chinese firms. China has become the steel making center of the world, overtaking the US, and producing about ten times more than the US in the first two months of 2015 [1].

As the steel industry in China is mainly domestic, its dominance does not result from 'pollution haven' status. Instead, there are a few plausible explanations. First is the idea that China has fewer costly environmental regulations, which allows the domestic industry to spend less and be more competitive. Another plausible explanation could be lower labor costs providing the same benefit. A third potential source of dominance is China's governmental policy. Could governmental policies and subsidies explain the dominance?

Research Direction The first step will be to compare cost of environmental controls across the US and China. Fortunately a cursory search turns up material from the Economist, University of Colorado, University of Minnesota, Caltech and University of Chicago Booth School of Business.

The second step is the cross examination between the environmental regulation angle and the other potential contributing factors. A reasonable way to compare contributions is by discerning the economic costs of each then comparing dollars and cents. After this conversion is done, it will be easy to declare the costs as percentages of each other, to see if the environmental factors outweigh, tie, or are dwarfed by the other factors.

The cost of labor can be found through data from the Bureau of Labor Statistics for the US. China does not have an English language equivalent, so the data can be found from other, external sources (example: [2]).

Governmental subsidies can be found through external studies such as this one [3] by the Harvard Business Review. After finding absolute dollar value for the subsidies, they will have to be scaled by the production size of the two countries: if China manufactures 10 times more steel than the US, but only has 9 times the dollar value of subsidies, China is actually subsidizing *less* than the US.

Expected Conclusions It is expected that China's dominance in steel making comes as a confluence of many factors. The exact weighting of each factor is unknown, and is the target of the paper. However, by starting the research at one factor, the cost competitiveness of environmental regulation, more can be learned about all the factors.

References

- [1] <http://www.worldsteel.org/dms/internetDocumentList/steel-stats/2015/Crude-steel-production-Jan-Feb-2015-vs-2016/document/Crude%20steel%20production%20Jan-Feb%202015%20vs%202014.pdf>
- [2] http://china.ahk.de/fileadmin/ahk_china/Marktinfo/Studies/2013_GCC_Wage_and_Salary_Report_Public_Version_01.pdf
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