

## ***Interactive comment on “Effects of atmospheric transport and trade on air pollution mortality in China” by Hongyan Zhao et al.***

### **Anonymous Referee #1**

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This manuscript investigates the effect of atmospheric transport and trade on air pollution mortality in China. The topic is interesting and important. The approach is new and robust. The paper presents a good interdisciplinary study and is written. A few minor correction may need to be made.

1. Abstract: “33% of China’s air pollution deaths...”, it is suggested to provide the number of premature deaths besides the percentage.
2.  $\delta C$  is the counterfactual concentration in equation (1). The authors should declare the value of  $\delta C$  adopted in this study.
3. China also imports intermediate and finished goods from other regions. The authors should describe the calculation of international imports in methods.

C1

4. Recent progress in transboundary air pollutants and its associated health effect should be mentioned in this study, some are listed below: Zhang Q, Jiang X, Tong D, et al. Transboundary health impacts of transported global air pollution and international trade[J]. Nature, 2017, 543(7647): 705-709. Li Y, Meng J, Liu J, et al. Interprovincial reliance for improving air quality in China: a case study on black carbon aerosol[J]. Environmental science & technology, 2016, 50(7): 4118-4126.

5, The authors should thoroughly check the manuscripts to avoid grammar mistakes. For example, Page

6 Line 25, “which account for about 35%...” should be “which accounted for about 35%...”, all “PM2.5” should be changed to “PM<sub>2.5</sub>”.

6, Fig.2, white color means no data, why lots of grids in northwest and northeast are white? This paper is suggested for minor revisions.

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Interactive comment on Atmos. Chem. Phys. Discuss., doi:10.5194/acp-2017-263, 2017.

C2