Nat. Hazards Earth Syst. Sci. Discuss.,
doi:10.5194/nhess-2016-354-RC1, 2016

Natural Hazards and Earth System Sciences
Discussions

Interactive comment on "Assessment of ripple effect and spatial heterogeneity of total losses in the capital of China after a great catastrophe shocks" *by* Zhengtao Zhang et al.

Anonymous Referee #1

Received and published: 12 December 2016

This paper addresses a very interesting topic: the economic evaluation of the ripple effect and spatial heterogeneity after a catastrophe, with an application to earthquakes in the one of the most developed regions of China. The paper is well innovative and well written. It does a good job analyzing the ripple effect and spatial heterogeneity of total economic losses (especially indirect economic loss) by the established IRRE model. The results that the loss can be spatial extended into each street, and sectors' losses in each street can be further evaluated are both meaningful and useful.

I have a few comments:

i) Page 3, Line 3. Writing the names of the DEL and IEL in Figure 1 instead of acronyms would make it easier for the readers, especially in the introduction. ii) Page

6, Line16. You refer to Sichuan Province is a less developed region in China, (Page 2, Line18) refer to Beijing is a developed metropolises in China. . .What is the criterion to judge their economic development degreeïij§ iii) Page10, Line10. The SDN model, "DELBJ/CAPBJ stands for direct economic loss/stock of fixed asset of BJ"; Page10, Line18. The IRRE model, "BINstr stands for business income of streets/(villages and towns),". Why do you use stock of fixed asset to spread direct economic loss, use business income to spread indirect economic loss? iv) Page 10, Line16. What's the meaning of the parameters of spatial aggregation in Figure 4? You should illustr

Please also note the supplement to this comment:
http://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2016-354/nhess-2016-354-RC1-supplement.pdf

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., doi:10.5194/nhess-2016-354, 2016.