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RESPONSE

In her comment on our study “Administrative Reform and Environmental Protection: The Case of China,” Deborah Seligsohn raises important questions about event analysis. These methods have been used widely to get at the effects of various political and economic shocks, but she questions our choice of the event window and the event date. The issues are larger: what can we expect to learn from these types of studies and what can we say about institutional and policy change in China in particular?

Regarding the event window, Seligsohn argues that the event window chosen was too narrow and “it most likely should include the entire period from the adoption of the 11th Five Year Plan and its targets in March 2006 to the elevation to Ministry status in March 2008. At the very least, the period from the OECD review in late 2006 through March 2008 needs to be included.” Yet this assumes that policy proposals or policy initiatives may have real effects, even if they are not yet endorsed by the party leadership (or powerful organizations).

Let us take a recent example. The Third Plenum of the 18th Party Congress, which was held in November 2013, announced an ambitious agenda to restructure the relationship between the government and the market. The agenda was highly praised and deemed to provide new momentum for China’s economic reform (Xu 2015). However, a recent estimation of reform performance after 2013 concluded that “it is impossible to resist the conclusion that the reform process overall has stumbled and is in serious trouble” (Naughton 2017, 3). If a policy initiative that is announced by the central committee of the Party and endorsed by the top leader (Xi Jinping) turns out to be (basically) a failure, how can we be sure that a regular policy proposal such as the 11th Five Year Plan (hereafter the Plan) may significantly change polluting companies’ behavior?

It is true that there are certain hard (mandatory) environmental targets in the Plan, and these targets have been basically met (according to the Chinese government);¹ however, these targets are met mainly through certain public investment projects, such as building more sewage treatment works and more desulfurizing installations (for electric power plants)² or even by radical administrative measures, such as *laxhaxiandian* (cutting power to limit consumption)³ rather than by encouraging environmental regulatory agencies to implement environmental regulations more seriously.⁴ Why might companies’ performance (and hence investors’ expectations) change as a response to such a broad (or amorphous) pollution control strategy?

Seligsohn also emphasizes the importance of the OECD review as a possible trigger. International organizations, such as the World Bank and the International Monetary Fund (IMF), have issued numerous reports, reviews, and policy proposals concerning China. Whether and to what extent the Chinese government may adopt these proposals is a debated issue. For example, the IMF has warned several times that China’s financial

stability may face a serious threat in the near future (IMF 2015; IMF 2016; IMF 2017). However, no real change has occurred as a response to these warnings (Xu and Gui [Forthcoming](#)) and it is not even clear that markets respond to them. Why would an OECD review matter?⁵

Second, there is certainly a tradeoff when deciding the length of an event window. On the one hand, a short window helps to pin down the exact effects of an event but may suffer from the problem of information leakage. On the other hand, a long event window may accommodate more information, but the results of event studies will inevitably be contaminated by other news. Following Fama (1991, 1998), most financial studies prefer to use a short-term event study methodology. This is also true for some recent studies, such as those of Berkowitz, Lin, and Ma (2015)⁶ and Wang (2017), which used events to investigate the effects of shocks in China. We follow these practices and found significant results. Even if there is indeed an information leakage problem, it only means that our study *underestimates* the effects of the establishment of the MEP.

The second concern raised by Deborah Seligsohn is about the event date. In our paper, we addressed the problem with respect to the relevant date by choosing March 10 (as covered by the China.org.cn report), but also looking at March 12 and 17 as alternative event dates and comparing the mean daily ARs of the sample stocks for the five trading days around these event dates. We found that the magnitude of market reaction is the largest on March 17 (the market reaction on March 10, March 11, and March 12 is not only much smaller but also positive).

Seligsohn by contrast argues that “by January 2008, the intention to raise SEPA to ministry status was well enough known—even among generalist reporters—that it was reported in the *Economist*” and “even the announcement itself occurred on multiple different days ... Reuters reported on March 12 that the Ministry was announced two days earlier, meaning March 10. China.org.cn in fact reported on March 10 that the Ministry had been announced the previous day, i.e., March 9.”

First, it is not clear that foreign coverage of these events would have mattered, because most Chinese investors—and certainly in 2008—got information from Chinese media, particularly newspapers. We searched CNKI (China National Knowledge Infrastructure), which is a leading literature dataset in China (covering more than 9,000 academic journals and more than 500 newspapers). We found that there were only three news reports regarding the proposal to establish the MEP between 1 January 2008 and 17 March 2008, and none of these three reports was published in a nationally influential newspaper, such as People’s Daily, Guangming Daily, or Economic Daily.⁷ It is likely that these English reports were irrelevant for most Chinese investors.

Even if certain sophisticated investors who have access to these English reports try to profit from this opportunity, the lack of short-selling in China’s capital markets means that these investors, at best, may sell their stocks in advance to avoid potential loss. Such behavior, at best, influences the market marginally.

We believe that our study reaches significant conclusions about the market response to an important regulatory change in China. Nonetheless, we agree with Seligsohn that care is needed when we conduct event studies, and particularly in a country like China. Choosing the appropriate event window and event date is always challenging, as an event, particularly a policy event, may span a period of time, and information may leak at different stages of the policy process. We therefore need to carefully examine

the full process of policy decision-making, check all possible sources of information leakage and consider alternatives as a robustness check.

NOTES

1. See “Shiyiwu jieneng jianpai huigu” (A review of the energy-saving and emission reduction targets stipulated by the 11th Five Year Plan). www.gov.cn/gzdt/2011-09/27/content_1957502.htm. Accessed October 30, 2018.

2. See “Zhongguo shiyiwu wuran jianpai pinggu” (Estimating China’s pollution reduction during the 11th Five Year Plan period). www.cciced.net/dxhd/nh/2011nh/yjjb/201210/P020160926381464525279.pdf. Accessed October 30, 2018.

3. See “Guojia fagaiwei zhuren zhangping huiying lazhaxiandian” (Zhangping, chairman of the National Development and Reform Commission, made a response to cutting power to limit consumption). <http://cpc.people.com.cn/GB/64093/64102/14078267.html>. Accessed October 30, 2018.

4. Actually, estimation reports that for SO₂ reduction, only 1.9% of the total reduction can be attributed to the regulatory efforts. See note 2.

5. In addition, if we follow Deborah Seligsohn’s suggestion to expand the event window to the date when pollution control becomes a general consensus and the establishment of the MEP is widely discussed, why don’t we extend to 2005, when the Songhua River spill occurred, or even to 2002, when certain scholars proposed to establish the MEP (see “Fuojia huanbao zongju kuoquan beihou” (Behind the power expansion of the SEPA). <http://news.sohu.com/20080321/n255833930.shtml>. Accessed October 31, 2018)? Where should we stop tracing back?

6. They study the effects of the enactment of China’s Property Law and use the date that the Standing Committee of the National People’s Congress accepted a draft of the Property Law as the event date. They use two event windows, (−2, +2) and (0, +5). However, if Deborah Seligsohn reviews this paper, she may suggest extending the event window to 2002, four years before the event date, because it is at 2002 when a draft of Property Law was first proposed and discussed. See “Zhongguo wuquanfa de zhiding” (The enactment of China’s Property Law). www.iolaw.org.cn/showarticle.asp?id=2153. Accessed October 31, 2018.

7. These three reports are on Wenhui bao (Shanghai) (March 11, 2008), Zhongguohuanjingbao (China Environment News) (March 13, 2008), and 21shijijingjibaodao (21 Century Business Herald) (March 12, 2008). Given these newspapers’ limited influence, it is hard to believe that most Chinese investors would change their investment portfolio based on these reports. Nevertheless, even if they did, this problem has already been addressed in our paper.

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