Polluted IPOs
Miao, Wang and Zuo 2022

A Discussion

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A Great Paper, Very Intriguing Results

- Positive association between IPO passing rate and PM2.5 on the date of decision, in China
  - Air pollution negatively affects the productivity of approval decision-makers
- I appreciate the efforts in showing support to the authors' argument
- Especially when I also have a "Polluted something" in my research repertoire

But I have some a question …

- I can OK that bad air can potentially make people makes mistakes.
- But, why the mistakes would have to be directional?
  - They can approve bad IPOs
  - They can also reject good IPOs
  - Then why they approval overall more IPOs on bad air days

- Dong, Fisman, Wang, Xu (JFE, 2021)
  - More pessimistic forecasts
  - But, here, approvers are more optimistic by approving more IPOs.
- Hu, Li and Lin (2014)
  - Stock price is lower when Shanghai and Shenzhen's PM2.5 is higher that in Beijing

- PM2.5 is not that severe in China now.
  - Those pictures are rather old.

- I do not agree with the authors' story.

This should be a bias story, not a mistake story that is due to impaired mental capacity.

Another question

- The committee members should be equally affected by PM2.5 days or hours before the meeting.
  - not just during work hour, on the decision day.
  - IPOs take years to approve, and follow a certain formula

- Why did not the approving authority install air purifiers or filters?
  - the stake is high and IPOs are luxury goods in China

  - they may already have it.
  - the committee members do not work in the open.

Now, is the haze really a bad thing?

- Let’s look at a longer history of China

Asian Monsoon, Dynasties and Dust-storm

ARTICLE

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Asian dust-storm activity dominated by Chinese dynasty changes since 2000 BP

Fahu Chen[1,2,3,9✉], Shengqian Chen[1,9], Xu Zhang[1,3,4], Jianhui Chen[1], Xin Wang[1], Evan J. Gowan[4], Mingrui Qiang[1,5], Guanghui Dong[1], Zongli Wang[1], Yuecong Li[6], Qinghai Xu[6], Yangyang Xu[7], John P. Smol[8] & Jianbao Liu[1,2,3✉]

The Asian monsoon (AM) played an important role in the dynastic history of China, yet it remains unknown whether AM-mediated shifts in Chinese societies affect earth surface processes to the point of exceeding natural variability. Here, we present a dust storm intensity record dating back to the first unified dynasty of China (the Qin Dynasty, 221–207 B.C.E.). Marked increases in dust storm activity coincided with unified dynasties with large populations during strong AM periods. By contrast, reduced dust storm activity corresponded to decreased population sizes and periods of civil unrest, which was co-eval with a weakened AM. The strengthened AM may have facilitated the development of Chinese civilizations, destabilizing the topsoil and thereby increasing the dust storm frequency. Beginning at least 2000 years ago, human activities might have started to overtake natural climatic variability as the dominant controls of dust storm activity in eastern China.

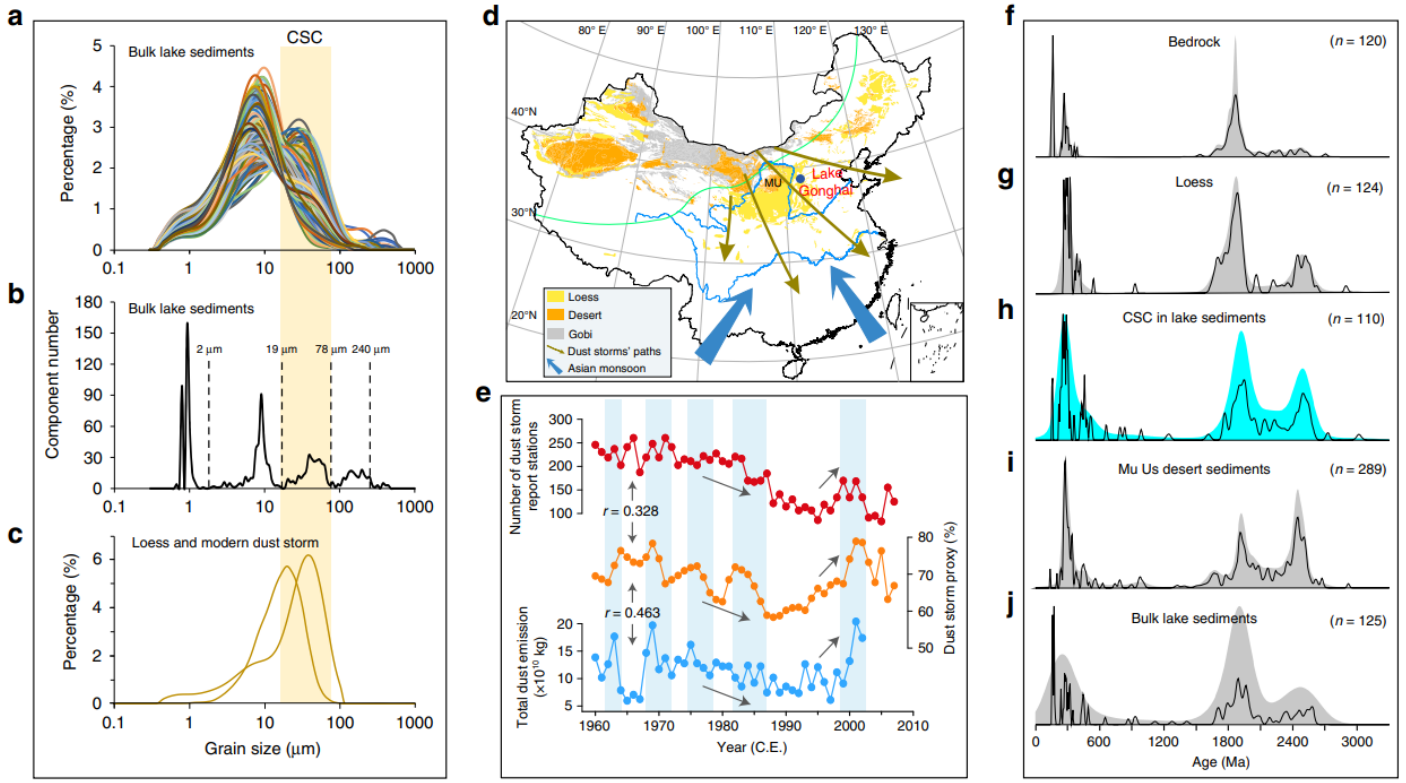
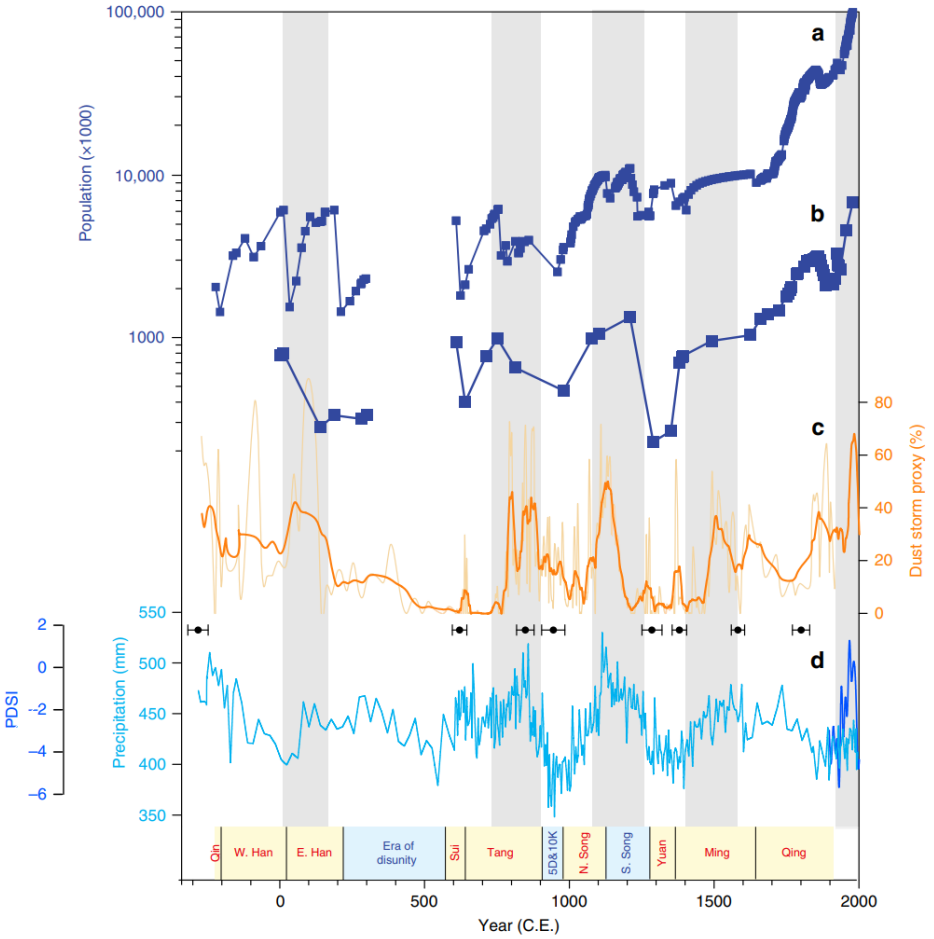


Fig. 1 Establishment of a dust storm proxy in the sediments of Lake Gonghai. a Measured grain-size distributions of 340 samples from core GH09B. **b** Frequency distribution of the component size of the sediments of core GH09B using the grain-size distribution function method[19]. From this analysis, a distinguishable coarse silt component is identified, indicated by the yellow shading. **c** Measured grain-size distributions of surrounding loess and modern dust storm deposits[44]. **d** Distributions of loess (yellow shading)[15], desert (orange shading), and Gobi (gray shading) (http://westdc.westgis.ac.cn/) in

Monsoon, precipitation, economy, population and dust-storm

Population

Precipitation



Dust-storm

Fig. 2 Comparison of the dust storm record with variations in population and monsoon rainfall. Population variations in China[6] (**a**) and in the dust source region (i.e., Shanxi, Shaanxi, Ningxia, and Inner Mongolia)[6], which are defined by zircon U–Pb dating (**b**). During the Era of Disunity, there was long-term civil unrest, during which no national demographic data were recorded in the contemporary literature[6]. **c** Reconstructed dust storm variations from Lake Gonghai (light-yellow raw data smoothed with a dark-yellow five-point moving average). The raw radiocarbon age-control points with error bar are

This can be enhanced by fewer conflicts with northern nomads when there is plenty of Asian monsoon --- a more prosperous Han society that moved further north

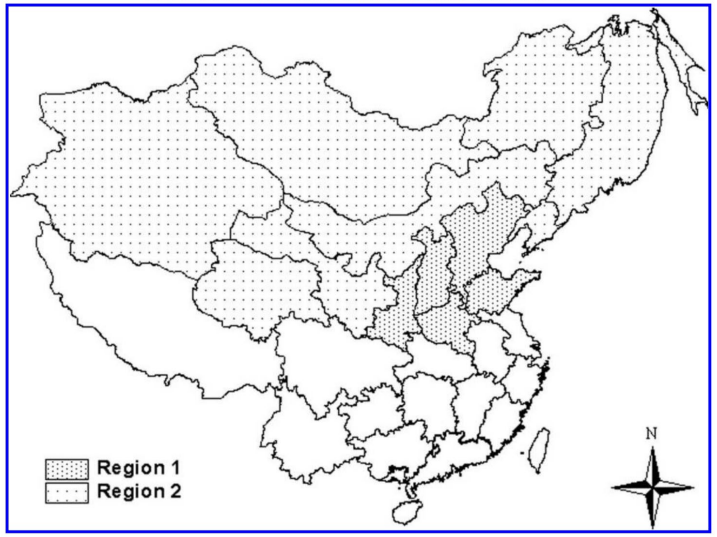
CLIMATE SHOCKS AND SINO-NOMADIC CONFLICT

Ying Bai and James Kai-sing Kung*

Abstract—Employing droughts and floods to proxy for changes in precipitation, this paper shows nomadic incursions into settled Han Chinese regions over a period of more than two thousand years—the most enduring clash of civilizations in history—to be positively correlated with less rainfall and negatively correlated with more rainfall. Consistent with findings that economic shocks are positively correlated with conflicts in modern sub-Saharan Africa when instrumented by rainfall, our reduced-form results extend this relationship to a very different temporal and geographical context, the Asian continent, and long historical period.

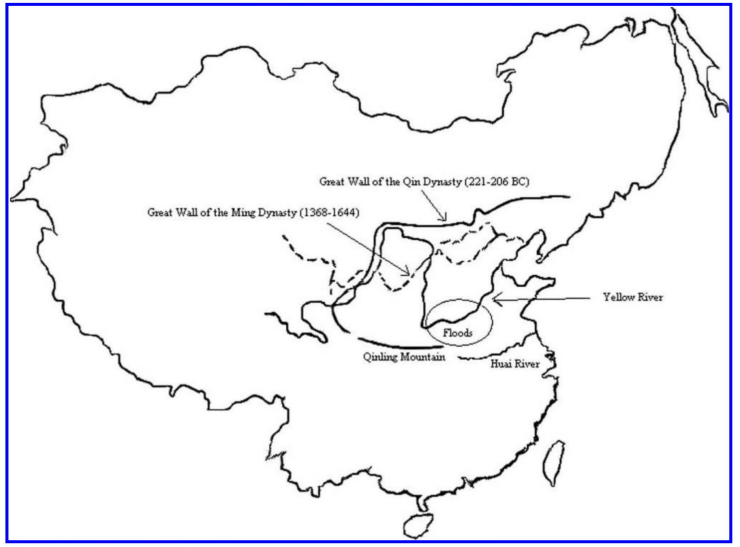
Nomadic economies were heavily dependent on the grazing of vast herds of animals, but these peoples often lived under unfavorable continental climatic conditions with relatively little rainfall. Under normal weather conditions, the autarkic nature of nomadic economies in terms of balancing natural resources (fodder and water) with livestock and the human population can be maintained (Graff & Higham, 2002). In times of drought, however, water shortages lead

FIGURE 1.—THE GEOGRAPHY OF CONFLICT: LOCATIONS OF THE SEDENTARY AND NOMADIC REGIONS



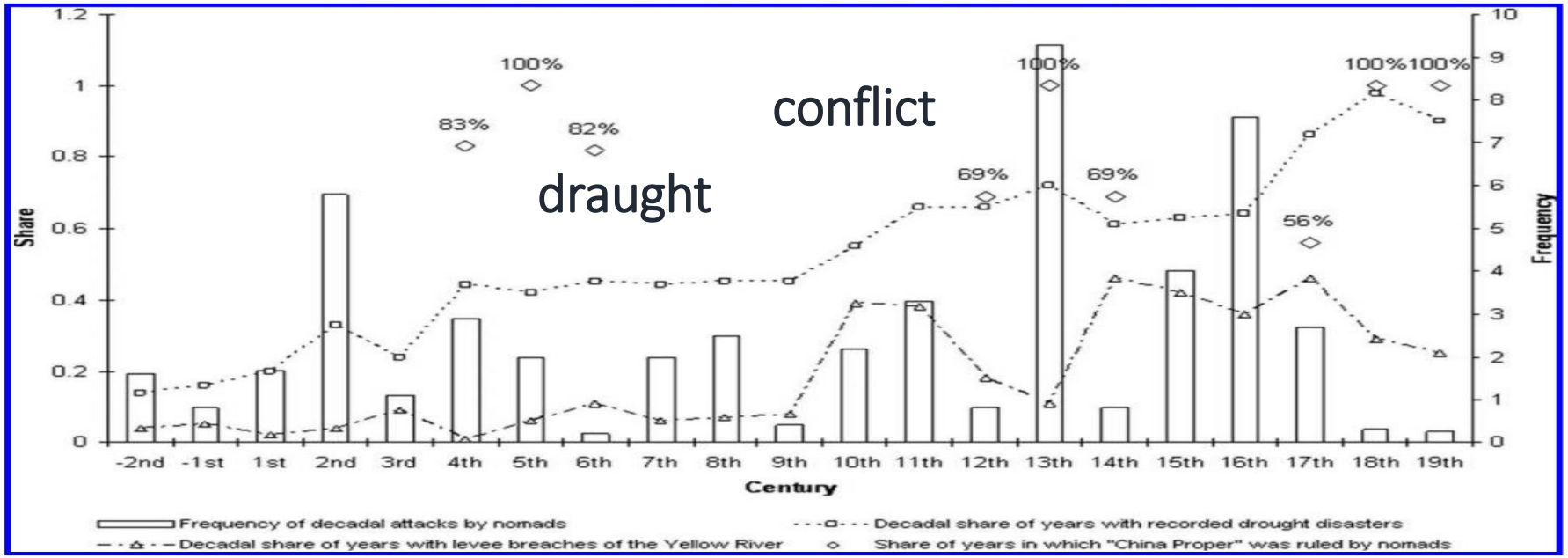
(1) Region 1: China proper (Henan, Shanxi, Shaanxi, Hebei, and Shandong provinces of today's China); central plains; and the middle and lower reaches of the Yellow River. Region 2: Northwest—Qinghai, Xinjiang, Gansu, Ningxia and Inner Mongolia provinces of today's China and the Republic of Mongolia; Manchuria—Heilongjiang, Jilin and Liaoning provinces of today's China and parts of Russia; and boundaries of Qing-China, 1820.
Source: "CHGIS, Version 4" (Cambridge, MA: Harvard Yenching Institute, 2007).

FIGURE 2.—LOCATIONS OF SINO-NOMADIC BATTLES, DROUGHTS, AND FLOODS



Source: "CHGIS, Version 4" (Cambridge, MA: Harvard Yenching Institute, 2007).

FIGURE 3.—TRENDS OF NOMADIC ATTACKS, DROUGHTS AND LEVEE BREACHES OF THE YELLOW RIVER



Data source: Same as table 1.

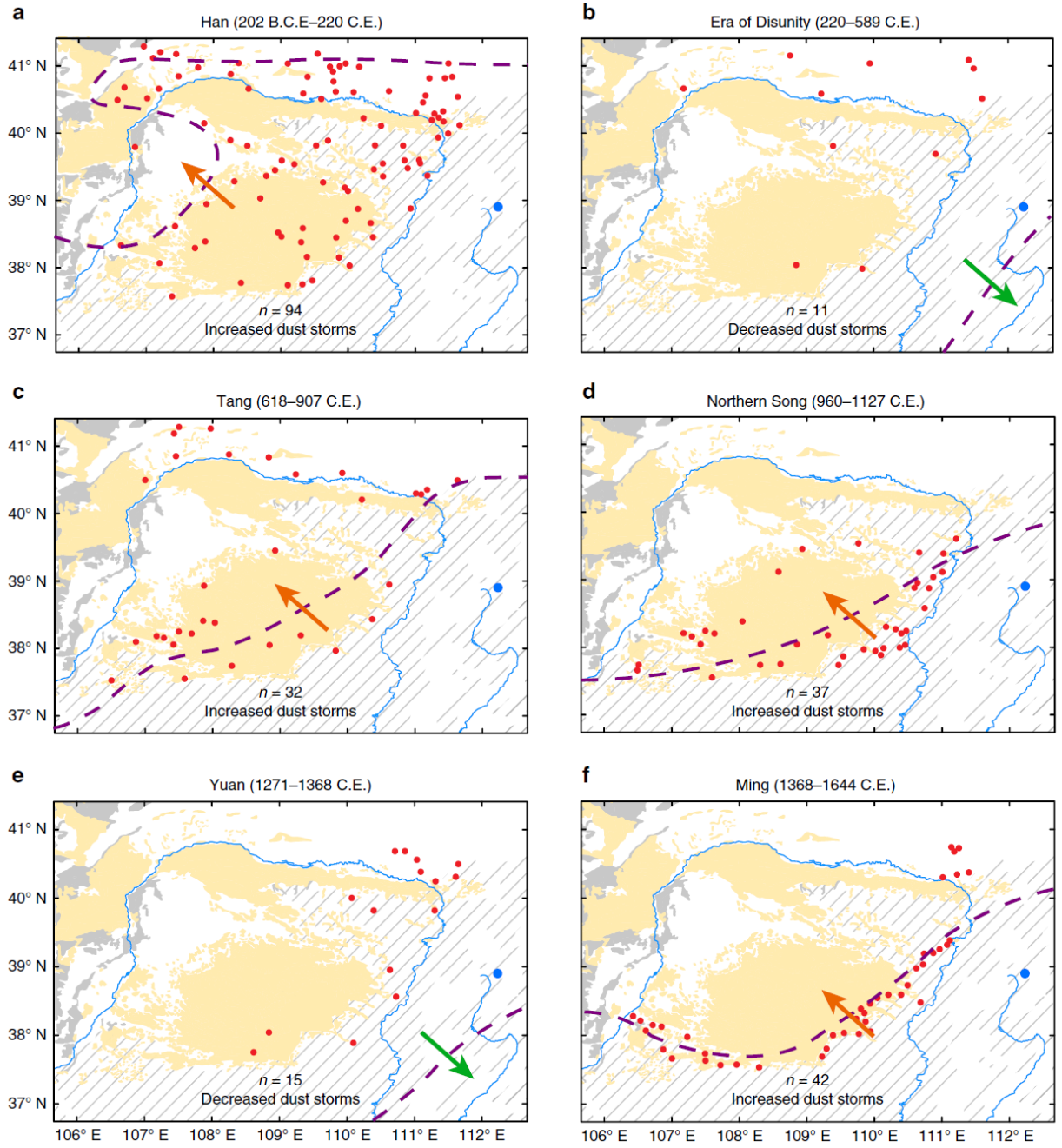
less conflicts

- Han people settled more to the north
  - creating more cities
  - increasing agricultural land
  - increasing population
  - creating more dust storms --- pollution

Ancient China

strong economy, more dust

weak economy, less dust



Present China

strong economy, higher PM2.5

weak economy, lower PM2.5

- Even though committee members' critical thinking is potentially negatively affected (though it should be non-directional) by PM2.5, they are buoyed by a better economic prospect due to high PM2.5.

- This would be an alternative story and I wonder if the authors can consider it.

Therefore, PM2.5 indicates a vibrant economy.

That is why more IPOs are approved on high PM2.5 days.

IPO offer prices (even though they follow a government-imposed formula) may also be higher on high PM2.5 days due to this buoyancy – leading to worse long-term performance in reversal.

When the prospects look good, there is no need to ask more questions or more complex questions.

All additional test results can be explained by this story

- polluting versus green industries
  - with high PM2.5, green industries have even better prospects
- complexity of review questions
  - seeing high PM2.5 and better economic prospects, no need to ask difficult questions
- Beijing versus non-Beijing residents
  - non-local members can come from even more polluted places.
  - non-local members awed by China's imperial history even more
- age
  - "old gingers are spicier" --- they know history and its implications
- before appointment
  - now you are saying that by thinking hard they can overcome pollution
  - re-appointment is a complex process in China

Further, it is important to include COVID-19 period …

- meetings must be held online and committee members are not mentally affected by Beijing PM2.5 at the location of the meeting.

there might be a regime change …

- Chinese president's "verdant hills, clear water" versus "gold hills and silver hills" talk on environmental protection around 2015, 2016?

Overall

It is a great and interesting paper.

No need to pay attention to my comments.

Best of luck with publishing it.