FEATURED PROJECT:

characteristics and implications of chinese macroeconomic data revisions

Most macroeconomic data are obtained from official government sources. Generally these data are considered trustworthy and valuable for firm, household, and policy decisions. However, the quality of data released by the National Bureau of Statistics of China (NBS), China's statistical authority, has regularly been questioned by both the media and researchers.

Tara M. Sinclair, GW-CIBER Scholar and Associate Professor of Economics and International Affairs at The George Washington University, examined one piece of evidence often cited as a concern with the quality of Chinese macroeconomic data: the presence of large revisions in the historical data. Well-behaved data revisions are small and random with no impact on economic modeling, policy, or forecasting. Traditional macroeconomic analysis has assumed this is the case for data released by official statistical agencies. The size of the revisions for China, however, has caused some alarm. For example, the 2008 Statistical Yearbook released by the NBS recorded the real GDP growth rate of China for 2007 to be 11.9%. In the 2009 Statistical Yearbook, the 2007 growth rate was revised to 13.0%, and in the 2010 Statistical Yearbook it was revised again to 14.2%. The Chinese economy is growing quickly, however, so the revisions may not be outsized relative to the growth rate of the economy. Furthermore, recent research focusing on U.S. data has suggested that data revisions may not be nearly as well-behaved as previously assumed, even for highly trusted data coming from official U.S. sources.

Sinclair therefore took the traditional tests for well-behaved data revisions and applied them to Chinese macroeconomic data as published each year in the Chinese Statistical Yearbook. She first produced a "real-time" dataset which she has made publically available on her website. Next she applied the battery of tests present in the literature for well-behaved data revisions. Based on her analysis, she concluded that the Chinese data in general fail the tests for well-behaved data revisions, but in a comparison with U.S. data, she showed there is not much difference between the problems of the Chinese data revisions and the U.S. data revisions once the growth rates of the different economies are taken into consideration. Therefore, she writes that the problems "are not at all unique for China, since even U.S. data fail" most of the tests for well-behaved data revisions.

Given the growing relevance of the Chinese macroeconomy for global business, and the importance of timely data, a better understanding of the properties of the historical revisions can help users of the data better interpret the early information they receive. Sinclair wrote that her research is "a reminder to firms and policymakers dependent on the early data to expect there to be substantial revisions in future releases."

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