Is China Fudging its Figures? Measuring Fluctuations in Economic Activity Using Imports and Other Indicators

John G. Fernald
INSEAD
fernaldjg@gmail.com

For many countries, observers are suspicious of national accounting data, perhaps because of poor statistical capacity or, worse, because of concerns that the figures might be manipulated for political purposes. In this paper, we propose using imports as an independent check on economic activity. This indicator has the virtue that it is measured by trading partners as well as by the country itself, so the quality tends to be relatively high even for countries with poor statistical capacity. Indeed, even though imports are best measured for goods rather than services, it turns out that for countries with relatively good statistical systems (using measures from the literature), imports and GDP move quite closely. In contrast, for countries with poor statistical systems, the co-movement is much less close.

We apply this method to Chinese data. China is a clear example where fluctuations are of first-order interest to many observers, including financial markets and where there has been considerable concern about data quality.

We find that Chinese statistics, including GDP, have become more reliable over time. Among possible economic indicators that we consider, GDP is in the middle of the pack—others (such as electricity production, an alternative indicator of activity that the literature on China has often used) are better, and some are worse. But no single indicator is particularly reliable. Rather, our preferred indicator of economic activity takes the first principle component of a wide range of indicators. We also find that trying to distinguish among the indicators to find a parsimonious set of indicators that provides the best performance within a given sample tends to lead to relatively poor out-of-sample performance.