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Economic Data: Appearances Can Be Deceiving

One of the challenges we face as policymakers is the availability of data to assess the state of the economy in real time. Many economic data series are released with delays of weeks or months and are subject to subsequent revisions that can be quite sizable and can alter our perceptions of the economic situation. When formulating monetary policy in real time, we must always keep that in mind.

As a prime example, estimates of the nation's gross domestic product (GDP) undergo multiple revisions as new information becomes available. The Bureau of Economic Analysis releases three estimates (advance, second and third) for each observation of GDP in the months after a quarter ends. These estimates are then subject to annual revisions, which generally cover the three previous years but sometimes more. The latest annual revision, released July 29, demonstrated that estimates of GDP can change substantially from earlier reports.

The revisions to the data included in the July 29 GDP report create a different view of economic growth in recent years. Based on these revisions, the 2007-2009 recession now appears to have been deeper than economists and other analysts previously estimated. For instance, while still the largest contraction of the recession, output during the fourth quarter of 2008 declined by 6.8 percent according to the prior release but by 8.9 percent according to the revised numbers. In addition, the economy appears to have grown more slowly during the first half of 2011 than reports suggested at the time. First-quarter GDP growth was revised down from 1.9 percent to 0.4 percent, and first-half growth came in at just over 1 percent, according to the data released July 29.[1]

While the revisions suggest weaker growth, the anecdotal reports that came in during the first half of 2011 are not consistent with the idea that the economy grew very slowly and that growth was actually slowing down. Corporate profits, for example, were quite strong during that period. This could mean that GDP will be revised further in the future to reflect the stronger anecdotal reports. Alternatively, perhaps these reports came from larger businesses that have some global presence in Asia or elsewhere outside the United States. For those companies, U.S. markets are important, but they are not definitive for corporate profits. The inconsistencies between the revised data and the anecdotal reports serve as a caution about interpreting too much from the data.[2]

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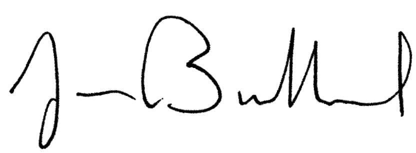
When taken at face value, however, these revisions possibly had an impact on how people view the U.S. economy's potential output. The revised GDP data suggest that trend output growth over the past decade was lower than previously thought. If, for example, stock market participants expect lower trend growth in the future, they may revalue equities downward and, thus, sell off stocks. Such revaluations seemed to have occurred in late July and early August. U.S. equity markets experienced large fluctuations, and at least some of that volatility can likely be explained by the GDP revisions.

Overall, the July 29 GDP report was a major piece of news that appeared to alter expectations of economic growth going forward. An important point to keep in mind is that the data may be adjusted again with other annual revisions, as well as with the benchmark revisions that occur roughly every five years. These future revisions could end up telling yet another story about economic growth in recent years.

As mentioned above, interpreting real-time data poses a challenge for policymakers because we know the data can be revised substantially. Nevertheless, we must rely upon the information available to us, as well as expectations for future data, when making policy decisions. The St. Louis Fed houses a real-time database called ALFRED (ArchivaL Federal Reserve Economic Data), which provides vintage versions of economic data for more than 30,000 series. Having access to this type of information helps researchers and policymakers evaluate past policy actions. To do so properly, we should use the data that a policymaker had at the time of a given decision rather than revised data that are available several years later.[3]

Even though policymakers do not have the benefit of revised data when reaching decisions, we can learn from economic history. My colleagues at the Fed and I use many pieces of economic information, including the latest vintage of GDP data, to shape our perceptions about the U.S. economy as we formulate monetary policy to achieve the Fed's dual mandate. Ω



ENDNOTES

1 These growth rates are annual rates of change.
2 Further illustrating the inconsistencies, second-quarter GDP was revised down from 1.3 percent (the advance estimate) to 1 percent (the second estimate) in the Aug. 26 report.
3 For example, see Orphanides, Athanasios. "Monetary Policy Rules Based on Real-Time Data." *American Economic Review*, September 2001, Vol. 91, No. 4, pp. 964-85.