Journal of Official Statistics, Vol. 20, No. 4, 2004, pp. 603–605

Discussion

Dennis Trewin[1]

1. Introduction

The National accounts are among the most important statistics produced by national statistical agencies. The reputation of the agency can depend very much on how the quality of their national accounts is perceived.

National accounts are first published before all data sources are finalised. Otherwise, they will not be as timely or relevant as users wish. There is a real trade-off between accuracy and timeliness. Furthermore, new methods are introduced from time to time which result in historical revisions. Good-quality national accounts will have revisions. This should be made clear to all users, particularly the less informed users (which unfortunately can include some media commentators). If the national accounts are not revised, it means among other things that up-to-date data sources are not being used and/or methods are not being updated. National Accounts without revisions will almost certainly be poor-quality national accounts.

However, it is important that revisions are such that the measurement processes are "in control." For example, there should not be systemic bias in revisions. Also, the revisions should not be so large that the estimates (prior to revisions) give misleading impressions of underlying trends. The Patterson and Heravi article provides an analysis of revisions of U.S. GNP to assess whether they are "in control" or not. Although the application is to U.S. GNP, the methods are of general application to other countries and are therefore of broader interest. My comments will focus on this aspect rather than the technical side of the article.

2. Revisions Are More Good Than Bad!

It would be relatively easy to have no revisions.

(1) You would not use concurrent seasonal adjustment, even though it may be demonstrated to be a superior method of adjustment (consultation with users in Australia has shown they clearly prefer to have more accurate seasonally adjusted estimates even though some revision to historical estimates may be a consequence).
(2) Even when using "forward factors" rather than concurrent seasonal adjustment, you would not backwardly revise your series even though more accurate seasonal factors are now available. (This would lead to distorted estimates of annual movements.)
(3) You would not introduce up-to-date and more accurate data into the national accounts.

[1] Australian Bureau of Statistics, P O Box 10, Belconnen ACT 2616, Australia. Email: dennis.trewin@ abs.gov.au

(4) You would not introduce new improved methods or concepts for compiling the national accounts. If you did introduce new methods, you would not backwardly revise the series in light of these methods or concepts, thereby creating discontinuities.
(5) You would not be introducing up-to-date weights in rebasing your constant price series, thereby creating a downward bias in your constant price estimates.
(6) You would not be benchmarking to more accurate estimates of the national accounts components that become available on a periodic basis.

Let us make it clear. National accounts without revisions are bad national accounts. We should make sure public commentators, especially those from the media, are aware of this. Of course, this does not mean we should be relaxed about revisions. If they are unduly large or result in misinterpretation of economic trends, the statistical office can be roundly criticised. Therefore, it is important that we understand the behaviour of revisions and remain confident that they are "in control." Large revisions may provide an early warning of systemic problems on the national accounts that need to be addressed so it is important that the pattern of revisions continues to be monitored.

3. Which Vintage Should We Analyse?

The authors use time series methods to study each vintage of the GNP estimates to understand the characteristics of the measurement/revision cycle employed by the U.S. Bureau of Economic Analysis. Reassuringly, each vintage shows the same underlying trend.

They also found that revisions between the first and second vintages are stationary and between the second and third vintages are also stationary - desirable outcomes. It was not anticipated that the revisions involving the final vintage would pass this test, owing to the considerable conceptual and methodological changes leading up to this vintage. However, it was found that the revisions leading up to the final vintage could be put on a comparable basis by simply rescaling the estimates. Again, this is reassuring.

But is this what is most relevant to users? At the business end of a time series, we are usually comparing vintage 1 for time t with vintage 2 for time t-1 and possibly vintage 3 for time t-2 and vintage x for several years back. It is the revision history and behaviour of this somewhat artificial series that are of most interest to analysts. For this series to be well-behaved, it is not sufficient that each vintage reflects the underlying trend and that the revisions appear to belong to a stationary time series. Although these behaviours are certainly desirable and reassuring, the real test should be against the actual series (which is a mixture of vintages) that policy makers and others are using to analyse the economy. Even if each vintage shows the same underlying trend in growth rates, differences in trend levels and/or the seasonal factors can make growth rates look different from the true economic picture.

Likewise, economic modellers are using a mixture of vintages. They do have the benefit that they can "model" any unusual behaviours that particular vintages display.

4. Conclusion

The authors have introduced some useful methods for analysing national accounts revisions and should be congratulated on this initiative. However, these methods are relatively complex and there are less sophisticated methods that could also be used for studying the behaviour of revisions, and these should not be ignored.

The authors introduce discussion as to whether GNP revisions are best characterised as measurement errors or as resulting from inefficient forecasts. This debate may be significant to economic modellers, who must choose how to include the effects of revisions in their models. However, I suspect the debate is of little relevance to other users or national statistical agencies.

Regardless, analysis of national accounts revisions is still very important to national statistical agencies. Specifically, the size and nature of revisions should be of great interest. If analysis shows the national accounts measurement processes are not "in control," it is essential that appropriate adjustments are made to the compilation methods for such important series. The authors' analysis focuses on the different vintages of the national accounts as they go through the series of revisions. They provide useful analytical methods but I wonder if they are being applied to the right series. As I mentioned above, users will be mostly interested in a time series that incorporates combinations of different vintages, particularly at the business end of the series. The article would have been strengthened if the authors' analysis had also included a series of this type.

Received April 2004