

The backcasting exercise aims to produce long and continuous Annual National Accounts & Quarterly National Accounts series when major revisions in the national accounts are conducted. Therefore, the same principles of backcasting should apply for both annual and quarterly accounts. Backcasted series offer long and consistent time series, which are a necessary ingredient for short-term economic modeling and forecasting. The Splicing (or linking) technique was chosen and is the simplest and most common backcasting method. Splicing can be used to link the new series with the old published national accounts series.

The Revision exercise was a huge undertaking in that it included not only adoption of the SNA 2008 methodologies but also implementation of International Standard Industrial Classification revision 4. Adoption of ISIC revision 4 meant that some sectors were split or merged with others which poses a huge challenge in back-calculating the series because we may no longer compare apples to apples as before. Below, we highlighted the sectors which were affected and how the data was linked backwards.

Producer of government services, this line item represents government expenditure based on 1968 SNA which has been replaced subsequently with SNA 1993 and now with SNA 2008. Series from 1980 – 1999 are not comparable moving forward, therefore, that data ends in 1999. From the year 2000, government is split into three sectors: 'Public Administration and Defense', 'Education' and 'Health'. In all cases, the series are raised to reflect the levels of 2015. Therefore, the data of Producer of government services is not comparable with the new series of Education, Health and Public Administration.

Mining and quarrying has remained the same between the old and new series breakdown however, "other mining and quarrying" from 1980 – 1999 is not comparable with data from the year 2000 onwards. Series of "other mining and quarrying" from 1980 – 1999 includes Uranium, Gold, Zinc and Copper which has been split from 2000 and are now part of Metal ores mining, hence the step issue.

"Other manufacturing" has remained the same between the old and new series breakdown however, "other manufacturing" data from 1980 – 1999 is not comparable with data from the year 2000 onwards. Series of "other manufacturing" from 1980-1999 includes all other manufacturing except meat processing which were split from the year 2000. All the series were raised with a raising factor in order to reflect the levels of 2015 prices.

Transport and storage sector which included Telecommunication subsector were split further as Information and Communication is gaining momentum in the information age. This meant

huge revision to the sector. Transport and storage sector levels were revised downward from 1980 – 2019 as a result of the split, however, previous growth rates remain. In this regard no step issues are encountered.

The Information and communication sector data series start from 1980 – 2019 while the growth rates from 1980- 2000 has remain the same. Major revision was done for the Transport subsector, data from 1980- 1999 is not comparable with the data from 2000 onwards because prior data includes storage. Despite all this, the previous growth rates as recorded have remain the same by only raising the levels to 2015 prices.

The sector business services has been split into “Professional, scientific and technical services” and “administrative and support services” as per the requirement of ISIC revision 4. The time series for “business services” and “real estate and business services” has been discontinued as from 2013 onwards, however, the old series were raised to 2015 prices to reflect the current prices levels.

As per the requirements of SNA 1993, the “Financial services indirectly measures” has been allocated to respective sectors as part of intermediate consumption and therefore has been discontinued as from 2013 onwards.

The quarterly backcasted data were treated in the same manner, while trying to ensure that the sum of the 4 quarters adds to the annual value. Given that additivity is lost, the sum of the four quarters only approximate the value of the annual. In summary, the splicing technique allows for back-calculation of data by multiplying the values of the old series by the ratio between new and old levels in the overlap period. The spliced series will preserve the old annual rate for the overlap year however there will be a lost of additivity in the backcasted data as it tries to preserve the same growth rates as before.