

**UK HISTORIC SECTOR NATIONAL ACCOUNTS:
MEMORANDUM BY BILL MARTIN
NOTE BY STATISTICS COMMISSION SECRETARIAT**

Background

1. Bill Martin wrote to the Chairman of the Statistics Commission on 12 March, enclosing a memorandum about what he perceives to be deficiencies in the UK historical sector national accounts. The letter and memorandum were in response to a letter to the Chairman from Colin Mowl, Executive Director at the Office for National Statistics, concerning an article by Bill Martin, "The puzzle behind Britain's lamentable statistics", that had appeared in the Financial Times of 23 February.
2. The main issue raised in the memorandum - and in the FT article - concerns the quality of the data in the sectoral national accounts for the years prior to 1987. When the national accounts were converted to ESA95 for the 1998 Blue Book, a full conversion of the historical data was only carried out back to 1987. Conversion of data for the earlier years was on a more partial basis; as a result many historical time series within the sector national accounts only go back to 1987. However the memorandum asserts that the problems with the historical data series go much wider than that, insofar as a number of the individual data series that are available for the years prior to 1987 have been corrupted. The memorandum gives a substantial number of examples of such corrupted data series. The memorandum concludes that "the general impression is of a database that has fallen into substantial disrepair".
3. The Statistics Commission has sought ONS views on a number of issues arising from the memorandum. The ONS response is summarised later in this note, and has been taken into account in framing our conclusions.

Key points and findings

4. We have considered the evidence presented in Bill Martin's memorandum. Our main findings are set out below.

(a) quality of pre-1987 data

5. The conversion of the historical sector national accounts to ESA95 for the 1998 Blue Book was incomplete, in that full conversion of all data series was only carried out back to 1987. As a result, there are no data prior to 1987 for many sector national accounts time series. Furthermore, as documented in the memorandum, there are a substantial number of time series where the pre-1987 data looks to have been corrupted in some way or other, rendering those series not fit for use in analysis.

(b) availability of pre-1987 data – the user perspective

6. The historical time series that appear in the Blue Book publication do not go back as far as 1987 – most time series in the 2006 Blue Book stopped at 1997. And the time series in the quarterly national accounts releases are generally a good deal shorter than the Blue Book. However much longer time series, going back to 1948 in some cases, are available on the ONS website. In most cases where good quality data are not available prior to 1987, this will be clear to the potential user as the time series for those years will be blank. But the memorandum includes a substantial number of examples of time series with pre-1987 data that, for one reason or another, are clearly wrong. However it may not be clear to the potential user that the series are wrong, especially if that user is accessing individual series rather than complete datasets or tables.

(c) telling users about quality

7. In providing metadata on data quality for national accounts, ONS have focussed up to now on their key First Releases, eg. the 'Quality Statement' that is provided alongside the quarterly GDP First Releases. There is currently no quality information made readily available for individuals looking to access historical national accounts data series on the ONS website. Thus the potential quality issues with pre-1987 sectoral national accounts time series outside of the 'key indicators' arising from incomplete conversion to ESA95 are not being flagged up for potential users.

ONS views

8. Following receipt of Bill Martin's memorandum, the Commission sought the views of ONS on a number of the issues raised there. The main points from the ONS reply are summarised below.

- ONS "do not dispute ... that the pre-1987 national sector accounts dataset is incomplete and in places has become corrupted", although "data from 1987 is complete and fully maintained". They accept that sector accounts data prior to 1987 "are not fit for purpose".
- Other key data are reliable for the full length of the dataset. "GDP and its components are reliable for the full length of the time series (back to 1948)", as are Balance of Payments data (back to 1946), and Public Sector Finances data (back to 1963).
- ONS "wanted to be clear about the advice to give" before telling users about the problems with pre-1987 data, but will now "put a quality message out with the Quarterly National Accounts release on 29 June".
- The corrupted data are being removed. "Pre-1987 sector net lending [has been removed] from Databank/electronic versions of quarterly and annual publications", and ONS are "planning a more general cull of pre-1987 sector national accounts data for the June Quarterly National Accounts/Blue Book release".
- There is no prospect now of the gaps in data before 1987 being filled - "it is not practical within existing resources to complete the ESA95 conversion for the pre-1987 dataset". As a fall-back for users of historical data, ONS "are examining whether it would be possible to re-publish the pre-ESA dataset, as published in the 1997 Blue Book ... [which] would allow users to ... view ESA79 data for years to 1996 in parallel with ESA95 data from 1987 and ... to join the two datasets".
- Things should improve as statistical modernisation progresses. "The new modernised system [for national accounts, due to be introduced for the 2008 Blue Book] will be significantly different ... [in respect of] the maintenance of historic data and will give us a much better environment for managing the external outputs ... we are currently engaged in defining what datasets – both current and historic – we will commit to maintaining in the future".

Assessment and conclusions

9. The Commission's assessment and conclusions in regard to the issues raised by Bill Martin's memorandum are set out below.

(i) dealing with data corruption

10. In our view, the memorandum provides incontrovertible evidence of data corruption for pre-1987 data amongst the individual time series of the sector national accounts. Moreover the number of corrupted data series identified in the memorandum looks to be much too large for a dataset (the sector national accounts) that is classified as National Statistics. We believe that **ONS should ensure that corrupted data are either replaced, where this is possible, or the pre-1987 data locations left blank – which would at least send the right message to the prospective user.** We hope that this position will be realised through the proposed “more general cull” of pre-1987 data for the next Quarterly National Accounts release

(ii) a quality statement for historical national accounts data

11. The ONS view that there are no quality problems with historical data for the key indicators invites questions about the methods used to convert these aggregate series to ESA95 in 1998 – how can ONS be sure about the quality of the converted aggregate data series? The memorandum expresses some specific doubts about the methods used in respect of pre-1987 household disposable income and saving data, and by implication about the ONS assertion that there are no quality problems with pre-1987 estimates of the household saving ratio.

12. We believe that **ONS should address these concerns through a specific quality statement about pre-1987 data for sector national accounts**, which would state clearly the data series for which the pre-1987 data are regarded as of comparable quality with the post-1987 estimates, and offer re-assurance about the quality of these data through the provision of sufficient information about the ESA95 conversion process. We welcome ONS's intention to “put a quality message out” with the next Quarterly release. We believe that this also needs to appear in an appropriate place on the ONS website, where it is likely to get the attention of any

potential user looking to download historical time series from the sector national accounts.

(iii) fixing the historical data

13. The memorandum concludes that “the only credible solution to the deficiencies of the historical sector national accounts is to command the extra resources required finally to complete the 1998 conversion of the national accounts”. However ONS have now clearly stated that it is “not practical within existing resources” to do this. We welcome this more precise statement of ONS intentions in this respect, which has removed some of the ambiguity surrounding earlier statements (eg. in Colin Mowl’s letter concerning the FT article of 23 February, which stated that “our aim is in due course ... to address these issues ... [and] tidy up the historical accounts”). We also welcome the intention of ONS to consider re-publication of the pre-ESA95 dataset as a fall-back for users of the historical data.

14. The Commission accepts that completing the 1998 conversion of national accounts cannot be a priority in the current situation, prior to the introduction of modernised systems with publication of the 2008 Blue Book, and that maintaining the quality of more recent data has to be the higher priority. We note the ONS view that the new modernised systems will provide “a much better environment for managing the external outputs” from the system, and that ONS are currently looking to take advantage of this through defining the datasets they will commit to maintaining in the future. In doing this, we hope that ONS will take into account the views of the wider community of users, and not just of two key users.

Statistics Commission Secretariat

20 June 2007