



Statistics

Analysis of revisions - Monthly Banking Statistics

30 June 2015

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This paper provides an analysis of the revisions to the *Monthly Banking Statistics* (MBS) publication and notes the intention to improve the identification of any future revisions.

Revisions analysis

APRA publishes revisions to its statistics to improve the usefulness of its publications. APRA publishes revised statistics when better source data becomes available or occasionally, after a compilation error has been identified. Better source data typically becomes available from resubmissions of data by reporting institutions.

APRA lists 'significant revisions' to statistics and aims to explain the circumstances under which they were revised. Significant revisions currently include those revisions more than \$100 million and over 10 per cent of the original value. These significant revisions are listed in the 'revisions' section of the *Back Series of Monthly Banking Statistics* publication.

To minimise the frequency of revisions, APRA analyses past revisions to identify potential improvements to source data and compilation techniques. Such analysis is considered international best practice. The International Monetary Fund's (IMF's) *Data Quality Assessment Framework* (DQAF) for example states that statistical agencies should ensure that "*studies and analyses of revisions and/or updates are carried out and used internally to inform statistical processes.*" The DQAF also recommends that "*studies and analyses of revisions are made public.*"

APRA's analysis shows that, in the 24 editions of MBS from January 2013 to December 2014:

- There were 82 reporting banks, an average 2,148 new data items published in each edition of MBS, for a two year total of 51,553 data items.
- there were 1,951 revisions to data items (an average of 81 data items revised per edition). There is approximately a 4.6 per cent likelihood of any data item being revised within a year from its first publication;
- on average, six banks (around nine per cent of all banks) resubmitted data per month that resulted in revisions to MBS;
- there were 557 revisions (about 29 per cent of all revisions, or 1.0 per cent of all data items) over 10 per cent and more than \$100m of the original value ('significant revisions'); and
- revisions to data items relating to the loans-to and deposits-from non-financial corporations were the two most significantly revised data items, together accounting for 20 per cent of all 'significant revisions', between January 2013 and December 2014.

Following analysis of MBS revisions, APRA intends to improve the usefulness of MBS by individually listing revisions of more than five per cent and \$5m of the original value in future editions of MBS.

MBS publication

The MBS publication provides selected information on the banking business of individual banks within the domestic market. The publication is available on APRA website at <http://www.apra.gov.au/adi/Publications/Pages/monthly-banking-statistics.aspx>.

APRA releases MBS on the last business day (in NSW) of every month for the previous month.

The MBS for the most recent month is available in two electronic formats: Adobe PDF for printing and Microsoft Excel for further analysis. The *Back Series of Monthly Banking Statistics* is available for download in a single Microsoft Excel spreadsheet.

APRA publishes revisions to prior months' MBS data in the *Back Series of Monthly Banking Statistics*.

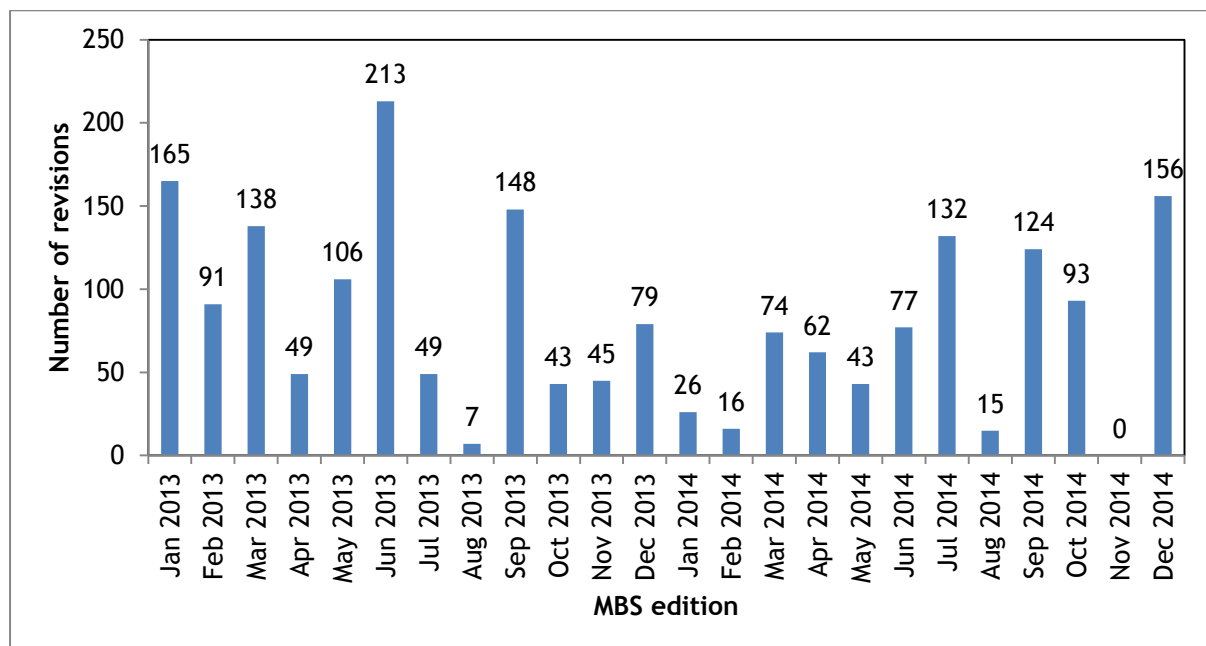
Data in MBS are sourced from *ADI Reporting Form ARF 320.0 Statement of Financial Position (Domestic Books)*, which is reported monthly by all banks. As at 31 December 2014, 72 banks and 33 data items appear in MBS.

Analysis

Frequency of revisions in MBS

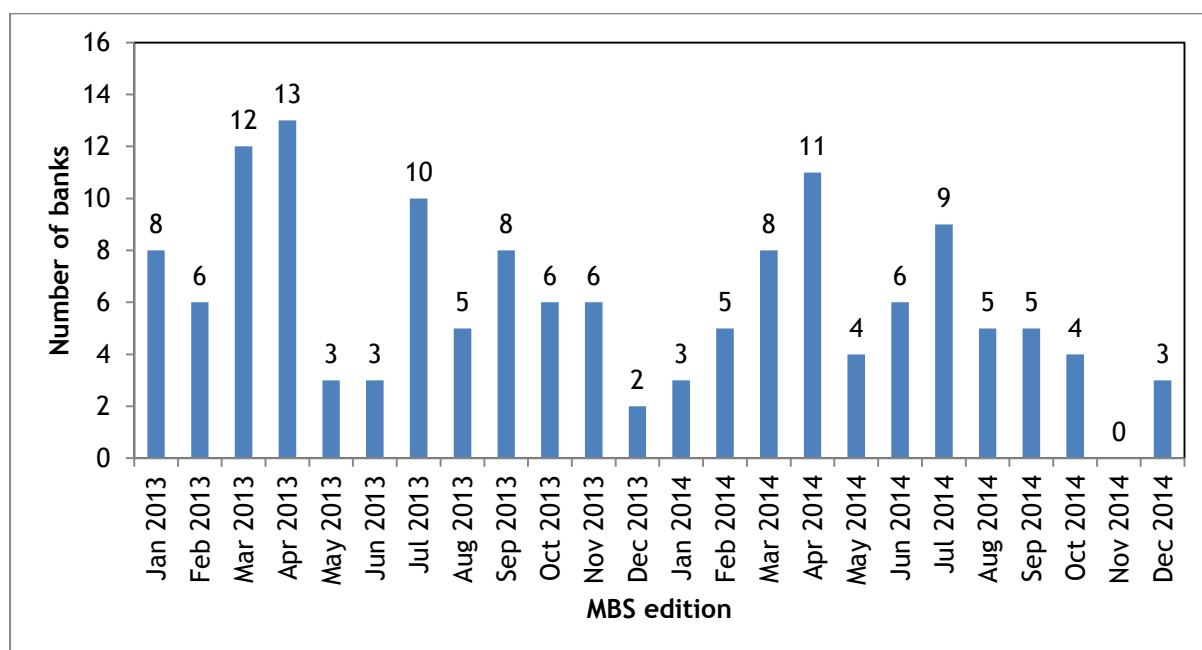
In the 24 months between January 2013 and December 2014 there were a total of 1,951 data items revised in MBS, an average of 81 data items revised per edition. For context, there are approximately 2,200 new data items published each edition of MBS and as at June 2014 there were over 250,000 data items in the *Back Series of Monthly Banking Statistics*. There is approximately a 4.6 per cent likelihood of data item being revised within a year from its first publication. Figure A shows the number of revisions for each edition of MBS between January 2013 and December 2014.

Figure A - Number of revised statistics in MBS



All revisions to MBS in the period January 2013 to December 2014 were due to better source data becoming available via resubmissions of ARF 320.0 by banks. The number of banks that resubmitted data varied over this period, as shown in Figure B. For example, while the June 2013 edition of MBS had the most revisions over the period (213 revisions), only three banks contributed to the revisions. This compares to the average of about six banks (nine per cent of all banks) contributing to MBS revisions during January 2013 to December 2014.

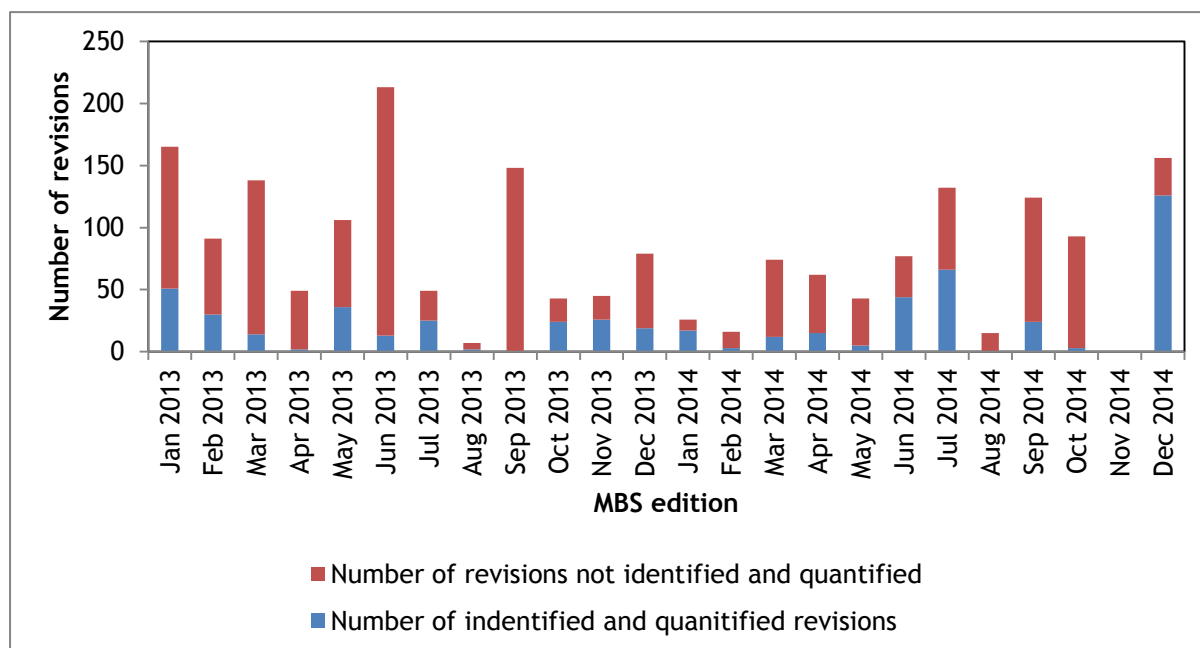
Figure B - Number of banks contributing to revised statistics in MBS



Scale of revisions in MBS

APRA lists and quantifies any revisions over ten per cent and \$100m of the original value in each edition of the *Back Series of Monthly Banking Statistics* publication. As shown in Figure C, the majority of revisions have fallen below this significance threshold in the 24 months from January 2013 to December 2014.

Figure C - 'Significant revisions' in MBS

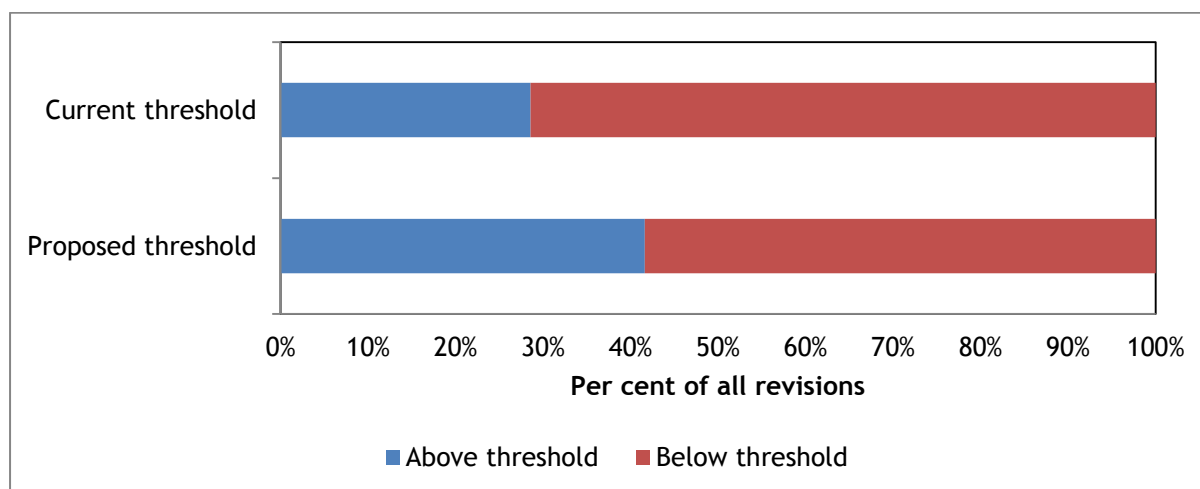


Over the period examined, revisions that were listed accounted for 557 (around 29 per cent) of the 1,951 revisions.

Improving the usefulness of MBS

APRA aims to improve the usefulness of revisions list in MBS by increasing the range of revisions that would be covered by the list. From the June 2015 edition of MBS (to be published 31 July 2015), APRA intends to explicitly list and quantify revisions over five per cent and \$5m of the original value. As shown in Figure D, if this threshold had been in place during the analysed period, around 42 per cent of all revisions would have been covered by the revisions list. Compare this to the current threshold for listing and quantifying revisions - more than a ten per cent and over \$100m movement - which resulted in about 29 per cent of revisions being covered by the revisions list between January 2013 and December 2014.

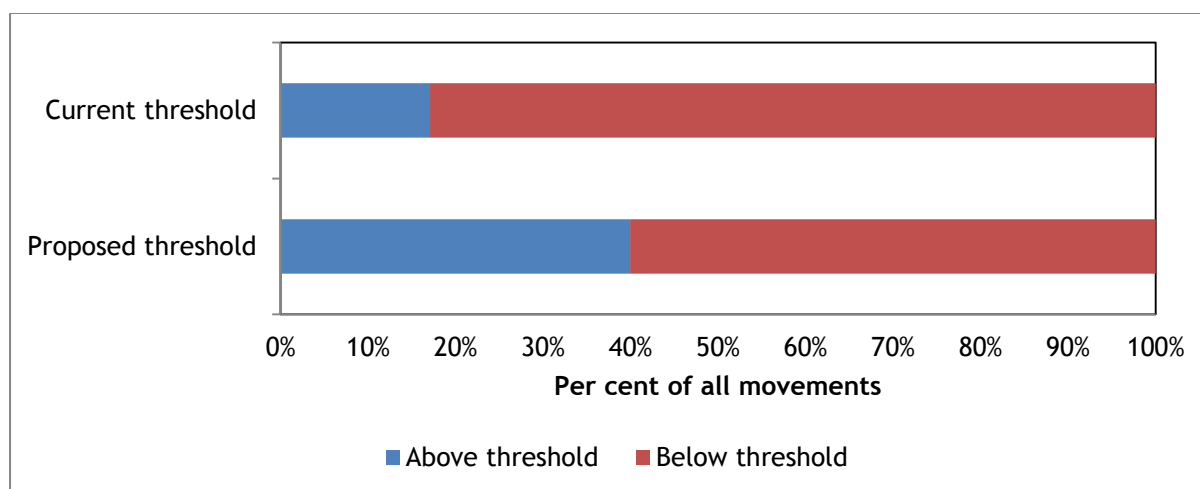
Figure D - Revisions listed and quantified in MBS - new threshold versus current threshold



By increasing the coverage of the listed revisions, APRA aims to make MBS more useful to those users who undertake analysis of movements to MBS data over time. Movements are the amount a data item changes over time and can be significantly impacted by revisions.

Figure E shows the current threshold for listing and quantifying revisions is equivalent to a movement in the 83rd percentile of all movements (17 per cent of all movements are above the threshold).¹ However, a revision above the new threshold would be equivalent to a movement in the 60th percentile of all movements (40 per cent of all movements are above the threshold). By increasing the proportion of monthly movements that the new threshold covers, users will be able to identify with more confidence where their previous analysis may be affected by revisions.

Figure E - Monthly movements - new threshold versus current threshold



Nature of revisions in MBS

Revisions to data items relating to the loans-to and deposits-from non-financial corporations were the two most revised data items, accounting for 20 per cent of all ‘significant revisions’, between January 2013 and December 2014. The relatively large number of ‘significant revisions’ on data items relating to non-financial corporation counterparties is due to banks misclassifying the counterparty as a non-financial corporation rather than a financial corporation or vice versa. Similarly, trading securities and investment securities accounted for 14 per cent of all ‘significant revisions’ and is largely due to banks misclassifying securities between the two categories.

Table A shows the top five data items with the most ‘significant revisions’.

¹ Based on the movements in the November 2013 edition of the *Back Series of Monthly Banking Statistics* publication.

Table A - The top five data items with the most 'significant revisions'

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Data Item	Table	Number of 'significant revision'	Per cent of all 'significant revisions'
Loans to non-financial corporations	Table 2	59	11%
Deposits from non-financial corporations	Table 4	53	10%
Bonds, notes and long-term borrowings	Table 3	41	7%
Investment securities	Table 1	41	7%
Trading securities	Table 1	36	6%

APRA notes that the great majority of significant revisions relate to incorrect classifications of items, rather than misstatements of item amounts. Only 24 of 557 significant revisions over the two year period resulted in a change to total resident assets.

Summary

The number of revisions to MBS is about 1.0 per cent of the total number of statistics published in MBS.

On average, around nine per cent of the banks resubmit past periods' data each month which are then published as revised statistics.

'Significant revisions' are often caused by banks misclassifying the counterparties' sector or misclassifying financial instruments when reporting the data.

To improve the usefulness of MBS, APRA intends to list and quantify revisions to statistics that are at least 5 per cent and \$5m of the original value.

APRA also intends to work with reporting banks, and with their auditors, to improve the quality of initial data received, and therefore further reduce the resubmission rate.



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