Seasonal adjustment: Effects of the 2012 Diamond Jubilee

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This article describes the approach, being implemented this month, for seasonal adjustment of statistics affected by the 2012 Diamond Jubilee.

Introduction

In both 2002 and 2012, as part of the Queen’s Golden and Diamond Jubilee celebrations, the pattern of bank holidays in May and June changed. A previous Bankstats article noted that the Bank of England was considering how to deal with the seasonal adjustment of certain series over the Diamond Jubilee period. The Bank has now completed its investigations and a new treatment is being implemented this month.

Background

In 2012, the Spring Bank Holiday, which usually takes place on the last Monday of May, instead took place in June, along with the extra Diamond Jubilee Bank Holiday. This affected the number of working days in each month, and therefore had an effect (referred to here as the “Jubilee effect”) on certain monetary and financial statistics series. Our usual seasonal adjustment processes take into account standard bank holiday patterns, but a different treatment is required to allow the seasonal adjustment to treat the Jubilee bank holidays correctly.

Treatment of 2002 Jubilee

The treatment of the Golden Jubilee in 2002 in our published statistics series was described in an earlier article. This approach, implemented in 2006, took into account the switch of the Spring Bank Holiday from May to June, and assumed that the business lost on the extra Jubilee Bank Holiday was made up at a later date: partly during June and partly during July. But that approach was only applied to “flows” series that are not derived from “levels” series. This means that various net lending series have not previously had any special treatment in place to take into account Jubilee effects.

Evaluation of 2012 Jubilee effect

The Bank has conducted an evaluation of various approaches to the Jubilee effect, and concluded that the 2002 treatment is also the most appropriate treatment for the 2012 Jubilee, although the size of the two effects will be allowed to differ. Specifically, our treatment assumes that some business was conducted in May instead of June (due to the Spring Bank Holiday being moved), and that business that was lost due to the extra Jubilee Bank Holiday was conducted instead during the rest of June and during July (with similar amounts in both months).

The Bank will now aim to apply the new Jubilee treatment for both 2002 and 2012 to all series (both “flows” and “levels”) identified as exhibiting a statistically significant Jubilee effect.

Implementing the new treatment: Stage 1

As described in an earlier article, the Bank now reviews its seasonally adjusted data annually in a three phase process, with the series split into phases according to data topic. The most recent phase of the review, and the first full phase since the Diamond Jubilee celebrations, covered Lending to Individuals data. Each series reviewed during this phase was tested to see if Jubilee effects were significant, and the new treatment applied, if appropriate. Changes resulting from this phase of the seasonal adjustment review have been implemented in this edition of Bankstats, including, amongst other changes, the new treatment for the Jubilee effect for relevant series.

The implementation of the new Jubilee treatment will lead to revisions to various seasonally adjusted series - primarily to data for May, June and July 2012. All series affected have been footnoted in this publication of Bankstats to highlight the main reason for the revision.

For series that already had the 2002 Jubilee treatment in place, there will be no revisions to 2002 data due to these changes. But due to a more extensive assessment, more series are now subject to this Jubilee treatment, so some series will now show revisions in 2002 as a result of this work.

Series covered by other phases of the annual review will be considered throughout 2013 and further sets of changes implemented in May and September where relevant.

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Example: Number of house purchase approvals

The following series gives an example of the effect of the inclusion of the new treatment of the Jubilee effect on one of our Lending to Individuals series.

Chart A: Total number of approvals for house purchase\(^6\)

(a) Revisions shown are primarily driven by the implementation of the new Jubilee treatment, but there may also be effects from revisions to underlying data or from other changes to seasonal adjustment settings. Seasonally adjusted.

In this example, applying the new treatment results in a somewhat smoother profile for seasonally adjusted house purchase approvals over the May to July 2012 period. But the average of those three months is broadly unchanged. Other series have similar, but sometimes less pronounced, effects.\(^4\)

\(^4\) For an example, see B4TI, ‘Gross unsecured lending by other lenders (excluding the Student Loans Company)’, available in Table A5.6: www.bankofengland.co.uk/statistics/Documents/bankstats/current/tabA5.6.xls.