

# Sources of Revisions of Seasonally Adjusted Real Time Data

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## Abstract

Revisions of seasonally adjusted real time data are a frequently discussed topic. Statistical agencies and users of seasonally adjusted real time data alike are interested in it, *inter alia* in terms of the quality and interpretation of statistics. Generally, revisions to seasonally adjusted real time data have two separate but inter-related sources. One source is the technical procedure of the method used for seasonal adjustment. The other is the revision process of unadjusted data in real time. This paper deals with the empirical quantification of and decomposition in these sources for selected German time series, using the real time database of the Deutsche Bundesbank.

The framework for decomposition of total revisions into these two sources is a heterogeneous panel regression model. Elasticities are calculated and set in relation to each other. It can be concluded that revisions of unadjusted real time data should not be neglected when trying to understand the revision process of seasonally adjusted real time data. For levels, elasticities of seasonally adjusted real time data revisions with respect to unadjusted real time data revisions are greater than those with respect to revisions stemming from the seasonal adjustment method. For period-to-period changes results are somewhat mixed. However, the use of moving averages underlines the importance of unadjusted real time data revisions for explaining those of seasonally adjusted real time data.

**Keywords:** Decomposition of Sources, Revision Analysis, Real Time Data, Seasonal Adjustment, X-12-ARIMA.

**JEL:** C23, C51, C82, O11.

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\*This paper represents the author's personal opinion and does not necessarily reflect the view of the Deutsche Bundesbank or its staff. Detailed results and descriptions of methodology are available on request from the author. Address for correspondence: Jens Mehrhoff, Statistics Department, Deutsche Bundesbank, Wilhelm-Epstein-Str. 14, 60431 Frankfurt am Main, Germany, Tel: +49 69 9566 3417, E-mail: jens.mehrhoff@bundesbank.de, Homepage: [www.bundesbank.de](http://www.bundesbank.de). Paper prepared for The 2008 World Congress on National Accounts and Economic Performance Measures for Nations in Washington DC, 13-17 May 2008.