

The use of VAT for benchmarking the quarterly GDP flash estimate

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In the Netherlands, the first quarterly GDP (*gross domestic product*) estimate is made 45 days after the end of the quarter. When making this so-called flash estimate the input for the National Account system is mainly based on preliminary results of the underlying business statistics. The uncertainty around the preliminary results might be large for some industrial branches. This is especially the case for the short-term turnover statistics (STS). As a consequence the margin of error about the GDP estimate is relatively large. This margin might be even larger for the first quarters of 2009, due to the present financial and economic turmoil.

To reduce the uncertainty Statistics Netherlands developed a method to benchmark the quarterly GDP estimate with VAT-declarations. VAT-turnover, available for each enterprise, is used to benchmark the input from short term statistics for the different industrial branches. To benchmark the output total VAT-remittance is compared with the estimated GDP growth rate. The latter is possible, because the theoretical VAT-income for the Dutch government can be derived from the National Account system.

In a first step this so-called “benchmark method” was tested on time-series from 2006. This test was performed afterwards when the legal VAT-declaration period is already closed. As a result all VAT-declarations are available. Therefore this test is relatively simple from a methodological point of view; estimates for industrial branch x for quarter t can be determined by adding the concerned VAT-declarations.

In a second step the “benchmark method” was carried out during the GDP flash estimate of the 1st quarter of 2009. This test was performed real-time when part of the enterprises were still reporting their VAT-declaration at the tax office. As a result this test is more complex from a methodological point of view; an imputation technique for the missing declarations is necessary. The problem of these missing VAT-declaration can, however, be reduced by shortening the production time for VAT-estimates. The chosen solution is therefore a balance between 1) shortening production time and 2) perfection by checking data at enterprise level. Quality indicators may help to find this balance.

During the presentation we'll demonstrate that benchmarking the GDP-estimates with VAT is indeed possible. Using VAT is, however, limited to high aggregation levels with the chosen approach. It will be shown that the presented benchmark method is especially suitable to detect biases in the (preliminary) input from short term statistics. Some quality aspects of the VAT registration, like enterprise classification and specific declaration patterns, become more important when interpreting the results at a more detailed level. During the presentation we'll discuss some examples and mention subjects to further research.