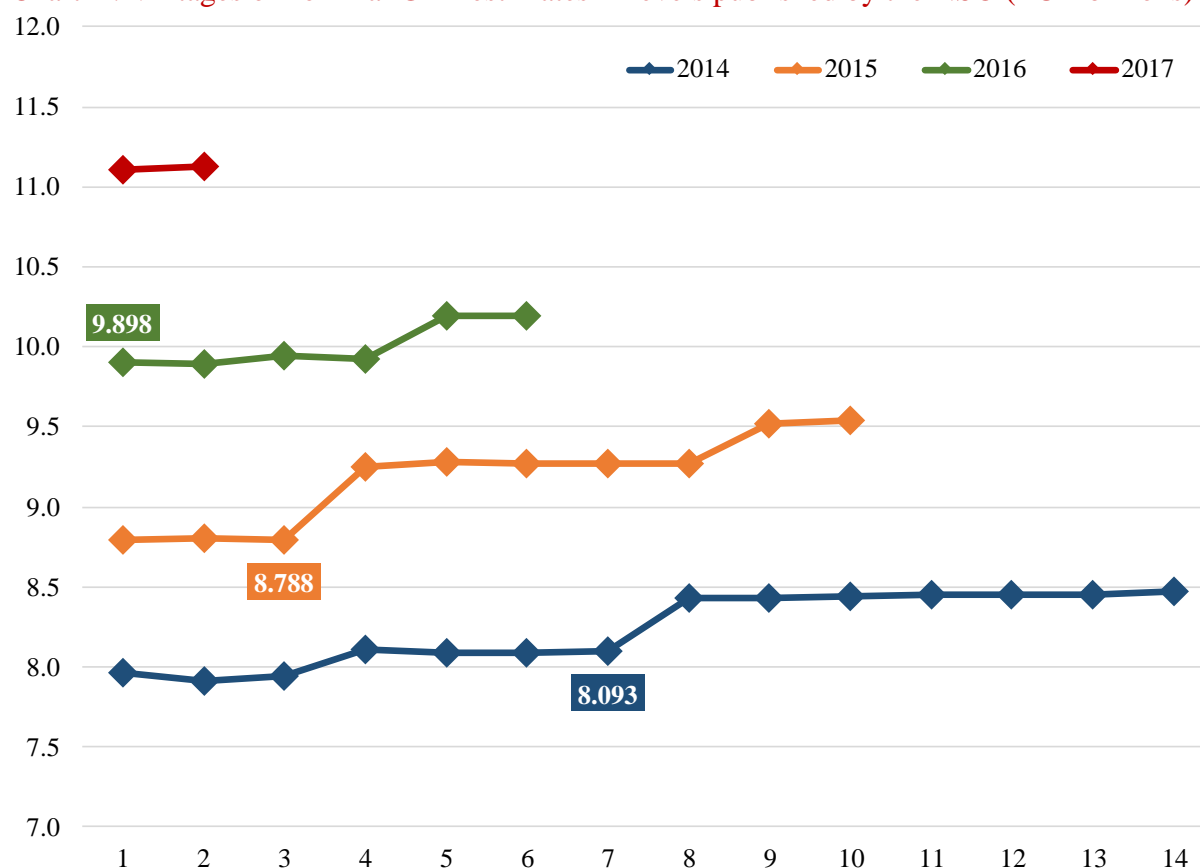


Box 1: Revisions in nominal GDP levels and growth rates

GDP statistics are provisional and thus subject to change. Historical data revisions may create challenges for macroeconomic forecasts, since this can alter estimated relationships and create base effects. The problem is exacerbated if the revisions are biased in one direction, potentially creating biases in the forecasts based on such statistics. The cut-off date to produce macroeconomic forecasts is thus important as it helps clarify the specific data which is available at the time of the preparation of such forecasts. Specifically, the cut-off date used by the MFIN to produce the macroeconomic forecasts contained in the DBP 2017 was 28 September 2016, while that for the USP 2017 – 2020 was 30 March 2017.

Chart A shows the changes which have taken place across the various vintages of NSO News Releases, in respect of yearly nominal GDP data from 2014 to 2017.

Chart A: Vintages of nominal GDP estimates in levels published by the NSO (EUR billions)



Note: Vintage '1' corresponds to the first release wherein this figure was available. Vintage '2' corresponds to the second release wherein the figure was available, and so on.

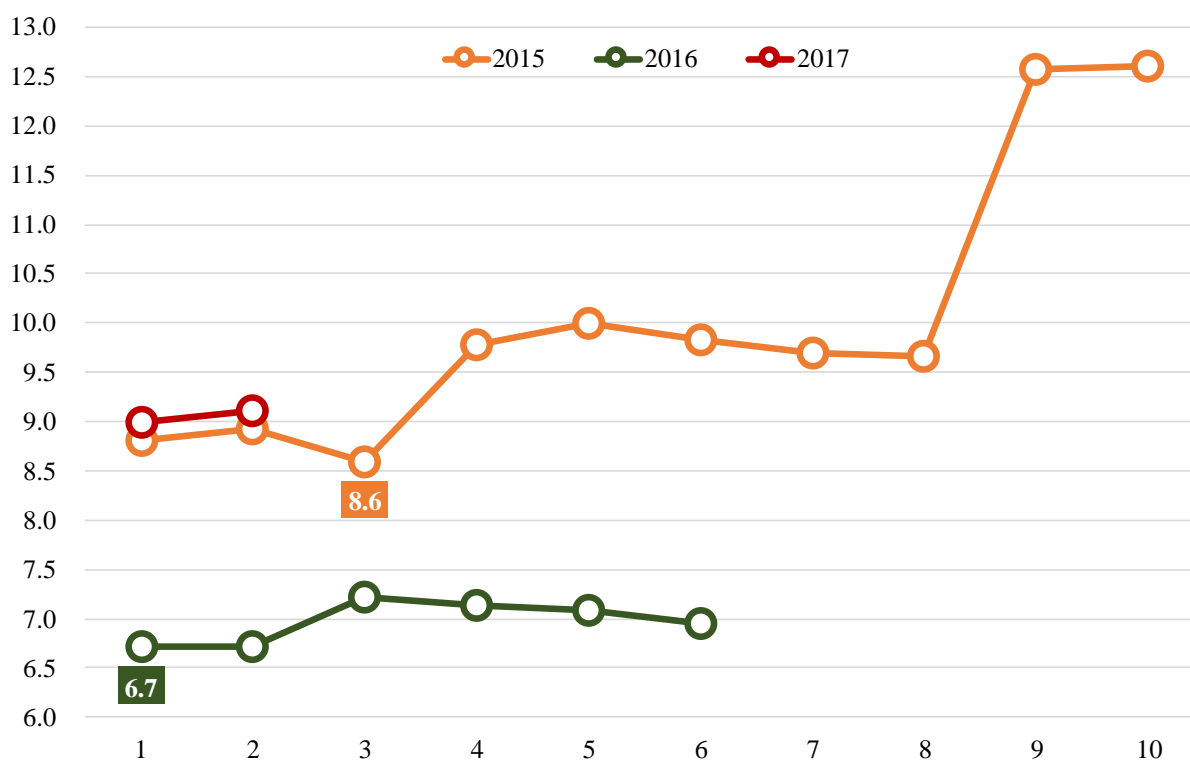
Source: NSO

The nominal GDP data available to the MFIN for preparation of the DBP 2017 (in October 2016) were the seventh vintage estimate for 2014, which amounted to €8.093 billion; the third vintage GDP estimate for 2015 which amounted to €8.788 billion; and data for the first two quarters of 2016 (as published through NSO News Release 142/2016).

On the other hand, the nominal GDP data available to the MFIN for the preparation of the USP 2017 – 2020 (in April 2017) were the first vintage for 2016, which amounted to €9.898 billion; and two further GDP vintages for 2014 and 2015 (as published through NSO News Release 041/2017). In the latter two cases, the estimate for nominal GDP for 2014 and 2015 was higher than indicated at the time of the DBP.

Chart B shows the nominal GDP growth rates which resulted from successive nominal GDP vintages. The DBP factored in the third vintage nominal GDP growth rate of 8.6% for 2015. The latter was subsequently lifted to 10.0% at the time of the publication of the USP. Furthermore, the USP was based on the first vintage estimate of 6.7% nominal GDP growth for 2016. The growth rate for 2016 has remained rather stable across more recent vintages, with the latest available vintage placing it at 6.9%.

Chart B: Vintages of nominal GDP growth rates published by the NSO (%)



Note: Vintage '1' corresponds to the first release wherein this figure was available. Vintage '2' corresponds to the second release wherein the figure was available, and so on.

Source: NSO

Revisions to date have led to a rather volatile estimate for nominal GDP growth in 2015, but so far, the nominal growth rates for 2016 and 2017 have been rather stable. Albeit, in the case of 2016 and 2017 the number of vintages available is fewer.

Overall, it is worth noting that statistical revisions carried out in recent years tended to be biased upwards in terms of both levels and growth. This could lead to biases in the forecasts.