Title: The Country Bias in Quality-Adjusted Euro Area Inflation

Authors: Jan-Oliver Menz (Deutsche Bundesbank), Elisabeth Wieland (Deutsche Bundesbank), Jens Mehrhoff (Deutsche Bundesbank

Abstract How much does quality adjustment matter in measuring consumer price inflation? To address this question, we use different sources of micro and macro price data for Germany and the euro area. For Germany, we find that quality adjustment applies to a large range of goods and services but, on average, price adjustments due to quality changes reduces headline inflation only by 0.06 percentage points, which is balanced out by an increase due to quantity adjustment (e.g. a smaller package size) of the same amount. For the euro area, we assess the impact of heterogeneous quality adjustment methods by deriving the distribution of member states' cumulative inflation rates for typical quality-adjusted products. Our macro-based estimate makes up to +/- 0.2 for headline HICP inflation and ranges between +/-0.1 and +/-0.3 for core inflation, when controlling for income differentials between member states. Finally, we illustrate the role of heterogeneous QA methods in the euro area based on micro price data for washing machines. We show that the price development of this product would have been between 2 and 4 percentage points lower during the first years of the euro area if prices in the member states had been quality-adjusted in exactly the same way.