

Sample purchasing power calculation

Calculation of the euro (€) equivalent general purchasing power (PP) in 2010 of one Deutsche Mark (DEM) in 1990

$$\begin{aligned} PP_{2010} (\text{DEM}1)_{1990} &= \text{DEM } 1 \times \frac{\text{price index}_{2020=100} \text{ 2010}}{\text{price index}_{2020=100} \text{ 1990}} \times \text{conversion rate (€ / DEM)} \\ &= \text{DEM } 1 \times \frac{88.1}{60.8} \times \frac{\text{€}1}{\text{DEM } 1.95583} \\ &\approx \text{€}0.74 \end{aligned}$$

Notes

- The calculated purchasing power equivalent corresponds to the value of goods and services on average across 2010 that could be obtained for one DEM in 1990.
- The calculation of purchasing power equivalents is subject to certain limitations. Please refer to the explanatory notes on our website:
<https://www.bundesbank.de/en/statistics/economic-activity-and-prices/producer-and-consumer-prices/purchasing-power-comparisons-of-historical-monetary-amounts-795290#tar-5>
- Purchasing power equivalents for amounts from other years can be calculated using the time series of the consumer price index.
Link to the time series of the consumer price index for Germany (2020=100); in the example above, the calculation was performed using the annual average values:
https://www.bundesbank.de/dynamic/action/en/statistics/time-series-databases/time-series-databases/759784/759784?listId=www_ssb_lr_vpi
- The calculations are provided without any guarantee on our part.