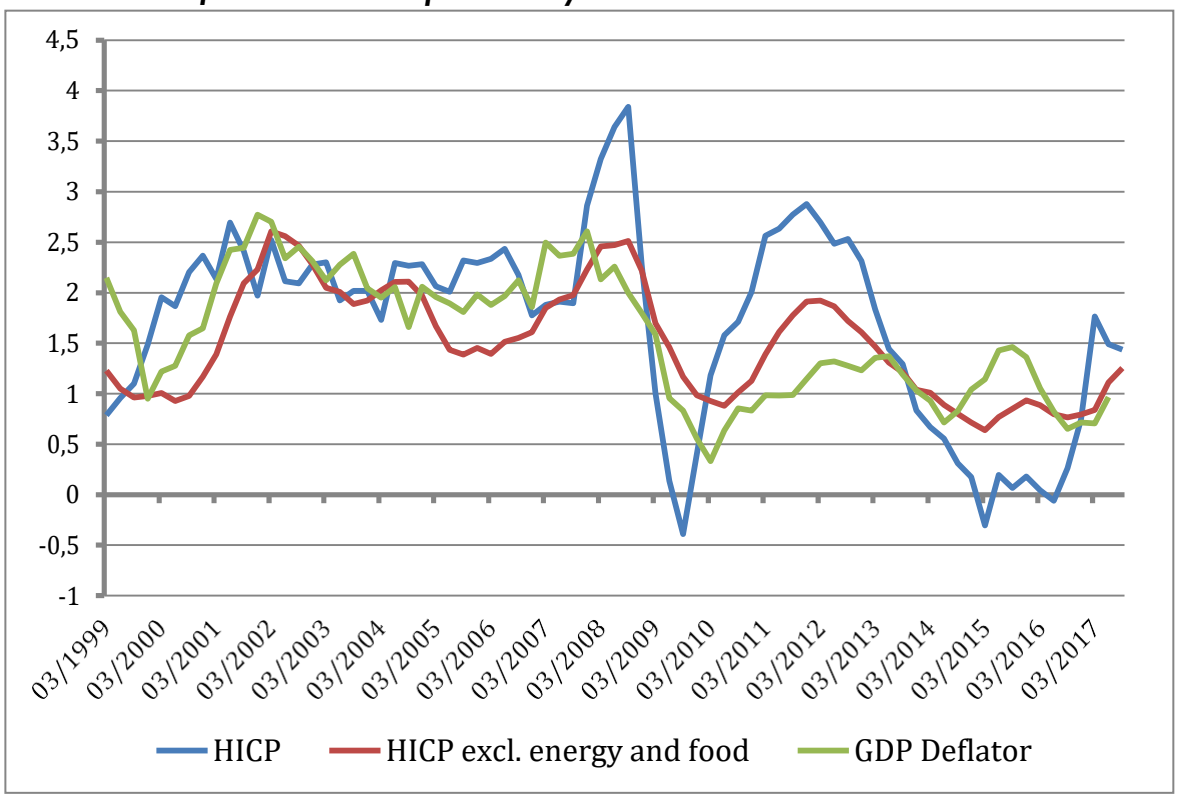
What would be wrong with lowering the inflation target

By Philippe Andrade, Hervé Le Bihan and Julien Matheron

According to the latest Eurosystem projections, inflation is expected to be substantially below 2 % by 2018. Some commentators contend that the Eurosystem should adjust to the "lowflation" environment and lower its inflation target. In this post, we argue that this would not be a good idea. A lower inflation target would increase the incidence of depressed output in the future, thereby dragging inflation further below this new 'target'.

Chart 1

Inflation has been persistently low in the euro area since 2013



Note: source Eurostat. Figures are year-on-year percentage growth rates. HICP stands for the harmonised index of consumer prices. All data are quarterly.

Various measures of inflation have been running significantly below 2% in the euro area since 2013 (Chart 1). Were the situation to last for too long, this might call into question the commitment of the Governing Council to achieve price stability, i.e. a headline inflation rate "below but close to 2%" over the medium run.

While, in the United States, the debate revolves around the appropriateness of raising the inflation target, some commentators contend that the Eurosystem should adjust to the lowflation environment and lower its inflation target. Proponents of a lower target view the current lowflation environment as a structural phenomenon: innovation and globalisation trends dramatically lower production and distribution costs, thereby reducing final goods and services prices. According to this view, central banks are bound to miss on their current inflation targets. This would eventually impair their credibility.
Granted, globalisation and innovation drag down the price of some production factors, thereby lowering the relative prices of some final goods and services. - These changes in relative prices can transitorily impact aggregate consumer price inflation because of price rigidities which prevent the full stabilisation of inflation through upward adjustments in those prices that do not experience downward cost shocks. However, lower relative prices cannot explain a sustained decline in overall inflation per se. By symmetry, an analog example is provided by Germany in the 1980s, where stable price inflation was achieved in spite of upward pressures on oil prices.

Lowflation: an aftermath of the crisis

The Great Recession of 2008-09 and the following euro area sovereign crisis of 2011-12 led to a sharp contraction in every component of aggregate domestic demand from firms, households and governments. Thus, in recent years, the unemployment rate has been above its pre-crisis average level by about 2 to 3 percentage points. The resulting depressed demand brought underlying inflation below its pre-crisis average (on the link between *cyclical* **unemployment and** *cyclical* **inflation, see the related blog post by Jardet and Schmidt, 2017).**

In order to preempt deflationary risks, the Eurosystem eventually had to cut the nominal short-term interest rate into negative territory. The policy floor rate in the euro area is now -0.40%. The exact level of the Effective Lower Bound (ELB) on nominal interest rates is still uncertain, and other central banks have indeed cut rates to even lower negative values. Nevertheless, there is a broad consensus that the short-term nominal interest rate cannot go much below this level. Unconventional policies were put in place to help lower the yield curve. However, it took time for them to be implemented and to feed through to the macro-economy.
Overall, the ELB constraint on monetary policy delays the adjustment to crises and, with demand below its potential over the long run, inflation may stay below its target for a long time.

Lowering the inflation target would constrain monetary policy more often

The nominal interest rate is the sum of the real interest rate - determined by forces such as productivity growth and demography- and the expected inflation rate – which should coincide in the long run with the inflation target. Everything else being equal, lowering the inflation target reduces expected inflation, and thus mechanically leads to a decline in the nominal interest rate.

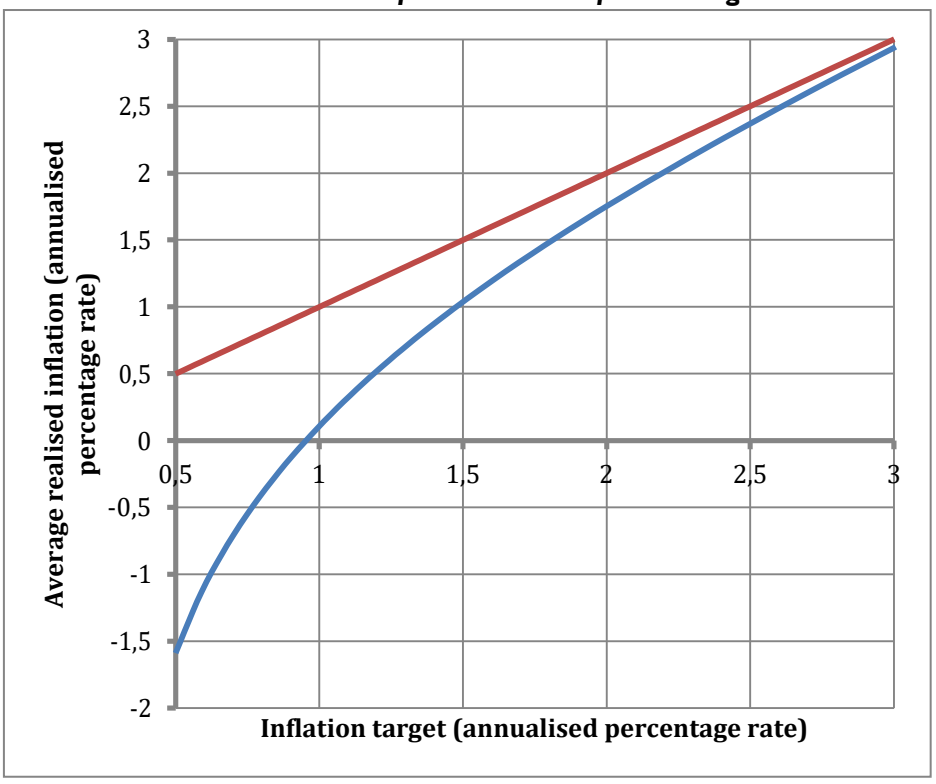
As a consequence, there is a greater likelihood of the economy hitting the ELB. To illustrate why, assume the macroeconomic outlook calls for lowering the short-term real interest rate to -2%. In an economy with a 2% inflation target, this is achieved by setting the nominal interest rate at 0%. Now consider the same economy with an inflation target of 1% instead. A real interest rate of -2% would require setting the nominal interest rate at -1%, well below the lowest rates deemed feasible by central banks.

Frequent ELB episodes imply that, on average, inflation undershoots the target

More frequent ELB episodes mean more frequent periods where monetary policy cannot counter headwinds to aggregate demand at full steam. The consequence is more frequent episodes of unemployment above its structural level and inflation below target. By contrast, episodes of above-target inflation, or above-trend output, are not more frequent, as there is no upper bound in the adjustment of policy rates.

The resulting asymmetry is illustrated in Chart 3 which shows the average inflation rate obtained by simulating an estimated macro model of the euro area for various inflation targets (See Andrade, Galí, Le Bihan, and Matheron, 2017). The model describes the euro area economy in a way that is consistent with the data and taking into account the sluggishness of price and wage adjustments, together with the existence of the ELB. For targets around 2%, inflation is on average 'below but close to 2%'. However, lowering the inflation target to 1% would result in a realised inflation rate of about 0%. This average inflation is clearly below the new and lower inflation target, so that the credibility of the central bank remains at stake.

Chart 2-Actual inflation vs the inflation target



Note: The chart shows average realised inflation, as a function of the inflation 'target' (blue curve) compared to the 45-degree line (red curve). The inflation target is the value in the monetary policy reaction function that defines the triggers for a change in the short-term interest rate. Results are based on simulations drawn from an empirical structural model of the euro area wherein the long-term real interest rate is set to 1.5% per annum.

Beyond the current lowflation episode

While we disagree with the view that structural changes that create downward price pressures should call for a reduction in central banks' inflation target, we acknowledge that central banks

should not disregard structural changes. Structural changes in either productivity growth (the "technological secular stagnation" view, see, e.g. Gordon, 2014) or the propensity to invest in relatively low-risk assets (the "safe asset" view, see, e.g. Caballero et al., 2017) are also widely discussed in academic and policy fora these days. A drop in potential growth or a higher propensity to save would imply a drop in the long-term interest rate (see the related blog post by Marx et al. 2017). Keeping the inflation target constant, a lower natural interest rate would imply a lower average nominal interest rate, hence a higher frequency of hitting the ELB. As discussed in a current US policy debate, this situation would call for an increase rather than a decrease in the inflation target (see, e.g. Blanchard et al., 2010 or Williams, 2016). However, there is a lot of uncertainty about whether the natural interest rate structurally declined in the main economies (see the related blog post by Penalver, 2017). At the same time, the costs of increasing the inflation target are known and include credibility issues, volatility of inflation, misallocation of resources, etc. In the absence of further evidence that the probability of hitting the ELB has structurally increased, changing the inflation target does not seem warranted so far.