North American Journal of Economics and Finance 40 (2017) 103–115

Contents lists available at ScienceDirect

North American Journal of Economics and Finance

journal homepage: www.elsevier.com/locate/ecofin

The (de-)anchoring of inflation expectations: New evidence from the euro area

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ARTICLE INFO

Article history:
Received 9 January 2016
Received in revised form 3 February 2017
Accepted 6 February 2017

JEL classification:
E31
E52
E58
C22

Keywords:
Anchoring of inflation expectations
Break-even inflation rates
News-regressions
Multiple structural break tests

ABSTRACT

Well-anchored inflation expectations are a key factor for achieving economic stability. This paper provides new empirical results on the anchoring of long-term inflation expectations in the euro area. In line with earlier evidence, we find that euro area inflation expectations have been anchored until fall 2011. Since then, however, they respond significantly to macroeconomic news. Our results obtained from multiple endogenous break point tests suggest that euro area inflation expectations have remained de-anchored ever since.

1. Introduction

There is a growing consensus among both, central bankers and academics that well-anchored inflation expectations are a key factor for achieving economic stability. Consequently, inflation expectations are increasingly used as an indicator for the credibility of monetary policy and the central bank's inflation target. In the empirical literature, the predominant criterion to test the anchoring of inflation expectations is based on the idea that firmly anchored expectations should be insensitive to the announcement of macroeconomic news, see e.g. Gürkaynak, Swanson, and Levin (2010). If long-term inflation expectations remain unaffected by incoming economic surprises, economic agents apparently trust the ability of the central bank to maintain its inflation target in spite of the unexpected economic developments. By contrast, if the credibility of the central bank is only weak and inflation expectations are de-anchored, surprises in macroeconomic announcements can lead to unwanted changes in expectations, away from the given inflation target.

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[1] We thank an anonymous referee for helpful comments. Financial support from the Deutsche Forschungsgemeinschaft (DFG) through CRC 649 Economic Risk is gratefully acknowledged.

http://dx.doi.org/10.1016/j.najef.2017.02.002
1062-9408/

Many central banks have adopted an inflation-targeting system as a tool for anchoring long-term inflation expectations.[2] A leading example is the European Central Bank (ECB) which is very clear about her inflation target of "below, but close to 2%".[3] In the aftermath of the financial crisis and, particularly, during the following European sovereign debt crisis, there has been a heated debate about the credibility of the ECB's inflation target. Galati, Poelhekke, and Zhou (2011) and Autrup and Grothe (2014) show that inflation expectations in the euro area are well-anchored. However, these results are based on data ending March 2009 and July 2012, respectively. To the best of our knowledge, more recent evidence on the anchoring of long-term inflation expectations in the euro area is not available. The current paper tries to fill this gap by providing new empirical evidence on the impact of the recent European sovereign debt crisis on inflation expectations anchoring in the euro area.

In the course of the ongoing European sovereign debt crisis, the challenges for monetary policy have increased tremendously. After Mario Draghi's announcement in July 2012 that the ECB would do "whatever it takes" to save the Euro (Draghi, July 2012), government bond yields stopped rising but economic risks remained high in several euro area countries. As a consequence, more unconventional monetary policy measures followed. In order to stabilize markets and engage investment activity, the ECB changed its communication strategy by implementing forward guidance in July 2013, thereby breaking with a long-kept tradition to never pre-commit to a future interest rate path (ECB, 2014). Interest rates were lowered continually, reaching negative deposit facility rates and a fixed refinancing rate as low as 0.05% in October 2014. Finally, the ECB announced the implementation of a quantitative-easing (asset purchase) program, feeding a monthly amount of €60 billion into European markets until March 2016, see ECB (2012b).

Interestingly, the direction of the effect of the crisis-related uncertainty on inflation expectations is not obvious. On the one hand, the vast amount of additional liquidity provided by the ECB may lead to expectations that inflation will rise above 2% eventually. On the other hand, the possibility that currently very low or even negative inflation rates induce a deflationary spiral could trigger strong downward corrections of inflation expectations. In either case, inflation expectations in the euro area would be less anchored, reacting more sensitively to macroeconomic news.

The aim of this paper is twofold. First, we examine whether there has been a recent de-anchoring of inflation expectations in the euro area. And second, if that is the case, we test whether inflation expectations have been successfully re-anchored ever since. Following Nautz and Strohsal (2015), we address these questions by applying the multiple endogenous break point tests of Bai (1997) and Bai and Perron (1998). In accordance with Galati et al. (2011) and Autrup and Grothe (2014), our empirical results show that the sensitivity of euro area inflation expectations to macroeconomic news is only weak until September 2011. However, the break point tests and the corresponding news regression suggest that euro area inflation expectations have been de-anchored ever since. These results indicate that the credibility of the ECB's inflation target may have suffered significantly from the protracted European sovereign debt crisis and that it has not been re-established so far.

The rest of the paper is structured as follows. Section 2 briefly reviews the literature on inflation expectations anchoring. Section 3 discusses the measurement of inflation expectations and introduces the data employed for macroeconomic news. Section 4 presents the empirical results based on news-regressions and endogenous break tests. This section also contains a number of robustness checks. Finally, Section 5 concludes.

2. Anchoring of Inflation Expectations in the euro area: a brief review of the literature

A natural starting point for a review of the literature on inflation expectations anchoring is Friedmann (1961). He already emphasized that there are lags in the consequences of monetary policy actions implying that they should be based on expectations about future inflation and not on current inflation. Until recently, a characteristic feature of traditional economic theory has been the assumption of rational expectations that are based on a fixed and known structure of the economy. In these models, surprises about macroeconomic variables can only lead to transitory deviations of the inflation rate from its target level implying that macroeconomic news do not affect long-run inflation expectations.

The impact of macroeconomic news on inflation expectations increases, however, if economic agents are uncertain about the model's structure, its time invariance or some of its parameters. Orphanides and Williams (2005) propose a model where agents have only imperfect knowledge of the economy's structure including the central bank's inflation target. Yet they learn perpetually and update their expectations about the structure of the model by evaluating the observed economic shocks and their expectational errors. In this framework, higher uncertainty about the central bank's inflation target implies that inflation expectations become more sensitive to macroeconomic news. Orphanides and Williams (2005) show that the sensitivity to macroeconomic news can be reduced by successful central bank communication.

Demertzis and Viegi (2008) argue that an explicit inflation target provides a focal point for agents to form expectations when their information is imperfect. In their initial model, expectations are formed on the basis of three aspects: Firstly,

[2] During the financial crisis, inflation targeting has often been blamed for preventing monetary authorities from appropriately responding to financial systemic risk. Recent evidence shows, however, that inflation targeting countries have, on average, a more stable financial system, see Fazio, Tabak, and Cajueiro (2015).

[3] Inflation targets are used by an increasing number of central banks all over the world. The information about the target is, however, provided in very different ways. For example, there are several central banks, including the Reserve Bank of New Zealand, the Bank of England, or the Bank of Sweden, that have published their intended level of the inflation rate for many years. By contrast, the U.S. Federal Reserve (Fed) had only an implicit inflation targeting regime without an explicit, numerically expressed inflation target up till the end of January 2012.