

Getting FIT with Imperfect Policy Credibility

2022-10-31

Central Bank of Armenia
Working Paper 2022/04

Getting FIT with Imperfect Policy Credibility

DYNARE/JULIA Workshops with an Application for the US Economy

A. Kostanyan, A. Matinyan, A. Papikyan*
October 31, 2022

Abstract

The Covid-19 pandemic highlighted the need for analytical tools and frameworks that can better deal with significant uncertainty and crucial nonlinearities. This paper explores the foundational elements of such an analytical framework that are relevant for policy analysis today with an emphasis on the role of endogenous policy credibility. We present a simple workhorse model of Flexible-Inflation Targeting (FIT) under imperfect credibility, known as the “ENDOCRED” model. It modifies the canonical models used in Forecasting and Policy Analysis System (FPAS) Mark I central banks in three ways: an endogenous policy credibility process, by which monetary policy can gain or lose credibility over time; nonlinearities in the inflation equation and in the credibility-generating process; and an explicit quadratic loss minimization function. We illustrate the logic of this prototypical ENDOCRED model through policy simulation exercises 1 Additional authors include V. Avagyan, H. Avetisyan, M. Galstyan, M. Gevorgyan, J. Gilbert, E. Hovhannisyan, H. Igityan, H. Karapetyan, D. Laxton, J. Laxton, A. Nurbekyan and N. Yeritsyan. The views, opinions, findings, analysis, conclusions and/or recommendations expressed in these working papers are strictly those of the authors, and do not necessarily reflect the views or official position of the Central Bank of Armenia. The Central Bank of Armenia takes no responsibility for any potential errors or omissions in the information contained in the working papers. 3 via applications to the US economy.

The model highlights problems with implementing monetary policy under imperfect credibility where the costs of delaying interest rate hikes increase in response to excess demand shocks or even unfavorable supply shocks. We illustrate this using the 2021

“transitory” versus “persistent” inflation debate. We also discuss potential implications of persistently higher-than-expected core inflation in 2022 for policy outlook in light of highlighted nonlinearities and potential credibility losses. In this paper, we also develop a methodology for generating indices for central bank performance and credibility using the Atlanta Fed’s sticky price measure of inflation for the US.

[Getting FIT with Imperfect Policy Credibility](#)