This article is published in The International Journal of Central Banking. Please use the link below to access and view this article in its entirety.

View Full Article

Unconventional Monetary Policy and the Great Recession: Estimating the Macroeconomic Effects of a Spread Compression at the Zero Lower Bound*

Christiane Baumeister[a] and Luca Benati[b]
[a]Bank of Canada
[b]University of Bern

We explore the macroeconomic effects of a compression in the long-term bond yield spread within the context of the Great Recession of 2007–09 via a time-varying parameter structural VAR model. We identify a "pure" spread shock defined as a shock that leaves the policy rate unchanged, which allows us to characterize the macroeconomic consequences of a decline in the yield spread induced by central banks' asset purchases within an environment in which the policy rate is constrained by the effective zero lower bound. Two key findings stand out. First, compressions in the long-term yield spread exert a powerful effect on both output growth and inflation. Second, conditional on available estimates of the impact of the Federal Reserve's and the Bank of England's asset purchase programs on long-term yield spreads, our counterfactual

*We wish to thank Pierpaolo Benigno, Jeffrey Campbell, Marcelle Chauvet, James Hamilton, Lutz Kilian, Mathias Trabandt, John Williams, and our discussants Tino Berger, Gabriel Bruneau, Márcio Garcia, and Domenico Giannone as well as seminar participants at the Bank of England, Bundesbank, Carleton University, ECB, IMF, Norges Bank, Universidade do Minho, Universiteit van Pretoria, and University of California at San Diego for useful comments and suggestions. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the Bank of Canada. Part of this paper was written while Christiane Baumeister was visiting the European Central Bank, which she thanks for its kind hospitality. Author contact: Baumeister: International Economic Analysis Department, Bank of Canada, 234 Wellington Street, Ottawa, Ontario, K1A 0G9, Canada. E-mail: cbaumeister@bankofcanada.ca. Benati: Department of Economics, University of Bern, Schanzeneckstrasse 1, CH-3001 Bern, Switzerland. E-mail: luca.benati@vwi.unibe.ch.

simulations suggest that U.S. and U.K. unconventional monetary policy actions have averted significant risks both of deflation and of output collapses comparable to those that took place during the Great Depression.

JEL Codes: C11, C32, E52, E58.

> "The decisive policy easing by the Fed and the ECB during the crisis, and the adoption of unconventional measures by the two central banks, was crucial in countering the threat of deflation in the current episode."
>
> —Athanasios Orphanides[1]

1. Introduction

In response to the 2007–09 financial crisis, all major central banks aggressively lowered their policy rate. Once the effective zero lower bound on the short-term nominal interest rate was reached, policymakers resorted to unconventional tools to provide further stimulus in light of the significant deterioration of economic conditions and the perceived risks of deflation. Among these non-standard monetary policy operations, the large-scale asset purchases conducted by the Federal Reserve and the Bank of England from early 2009 onwards attracted considerable attention. These operations entailed withdrawing large quantities of longer-term Treasury securities from the private sector through purchases in the secondary market, thereby changing the relative supplies of short-term and long-term bonds and other assets available to the public. The primary objective of these quantitative easing policies, as they are commonly referred to, was to put downward pressure on long-term interest rates in order to support private borrowing of households and businesses, thus spurring aggregate demand and real economic activity. This paper addresses two questions. First, we investigate how effective central banks' unconventional monetary policy actions in the form of government-bond purchases were in countering the recessionary

[1]Keynote speech by Athanasios Orphanides, Governor, Central Bank of Cyprus, at the International Research Forum on Monetary Policy, Federal Reserve Board, March 27, 2010.