Climate change and monetary policy in the euro area, European Central Bank, Occasional Paper Series, Work stream on climate change, No. 271, September 2021.

Abstract This paper analyses the implications of climate change for the conduct of monetary policy in the euro area. It first investigates macroeconomic and financial risks stemming from climate change and from policies aimed at climate mitigation and adaptation, as well as the regulatory and fiscal effects of reducing carbon emissions. In this context, it assesses the need to adapt macroeconomic models and the Eurosystem/ECB staff economic projections underlying the monetary policy decisions. It further considers the implications of climate change for the conduct of monetary policy, in particular the implications for the transmission of monetary policy, the natural rate of interest and the correct identification of shocks. Model simulations using the ECB's New Area-Wide Model (NAWM) illustrate how the interactions of climate change, financial and fiscal fragilities could significantly restrict the ability of monetary policy to respond to standard business cycle fluctuations. The paper concludes with an analysis of a set of potential monetary policy measures to address climate risks, insofar as they are in line with the ECB's mandate.

JEL classification: E52, E58, Q54.

Keywords climate change, monetary policy, environmental economics, green finance, sustainable growth economics.

 $[\]ensuremath{\mathsf{Website}}\GT\ecb2021abs.tex$ 26.5.2022