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The euro exchange rate during the European sovereign debt crisis – Dancing to its own tune?[☆]

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This paper studies the determinants of the euro exchange rate volatility during the European sovereign debt crisis, allowing a role for macroeconomic fundamentals, policy actions and the public debate by policy makers. It finds that the euro exchange rate mainly danced to its own tune, with a particularly low explanatory power for macroeconomic fundamentals. The findings of the paper also suggest that financial markets might have been less reactive to the public debate by policy makers than previously feared. Still, there are instances where exchange rate volatility increased in response to news, such as on days when several politicians from AAA-rated countries went public with negative statements, suggesting that communication by policy makers at times of crisis should be cautious about triggering undesirable financial market reactions.

☆ This paper presents the authors' personal opinions and does not necessarily reflect the views of the Bank of Canada, the European Central Bank, the Bank of Estonia, the Eurosystem or the OECD.

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1. Introduction

The global financial crisis and the subsequent European sovereign debt crisis had substantial effects on global exchange rate configurations (see, e.g., Fratzscher, 2009). Compared to the years 2007–2009, the turbulence in foreign exchange markets has receded at the global level, but the exchange rate of the euro against many currencies has remained extremely volatile during the entire European sovereign debt crisis. Compared to the implied volatilities in the early years of European Monetary Union (EMU), those experienced during 2010 and 2011 were extreme, amounting to a 3-standard deviation event for the euro-U.S. dollar exchange rate, a 4-standard deviation event for the euro exchange rates against the British pound and the yen, and a 10-standard deviation event for the euro-Swiss franc exchange rate.[1]

Several commentators have attributed this exchange rate turbulence not only to the economic fundamentals, but also to the public controversy about the European sovereign debt crisis and the required policy actions. In particular, there had been the concern that the heated public debate among policy makers could instil unnecessary volatility in financial markets, to such an extent that the European Central Bank (ECB) President Jean-Claude Trichet, on July 18th, 2011, stressed the “absolute need to improve ‘verbal discipline’” and asked governments “to speak with one voice on such complex and sensitive issues as the crisis.”[2]

Against this background, the current paper studies the determinants of the euro exchange rate volatility during the European sovereign debt crisis. It allows for a role of macroeconomic fundamentals as well as for actions and statements by policy makers, and also analyses the impact of rating agencies' decisions. To study the role of the public debate on exchange rate volatility, the paper develops a unique database covering more than 1100 public statements about the sovereign debt crisis by policy makers at the national European and at the international level, covering the period from October 1st, 2009 until November 30th, 2011.

The paper first demonstrates the enormous intensity of the public debate about the European sovereign debt crisis, which involved politicians in virtually all countries of the euro area, central bankers and policy makers at the IMF and the European Union level. The intensity of the public debate and its controversy evolved in accordance with the severity of the crisis: with increasing government bond spreads of the countries under an EU/IMF adjustment program, the number of statements grew substantially, along with the dispersion of views. Generally, the level of dispersion across statements was rather high, pointing to a very heated public debate.

The paper also shows that fundamentals and the public discourse have generally very little explanatory power in describing the volatility of the euro exchange rate – all but two potential determinants appear unimportant. The ECB's actions have had *dampening effects* on exchange rate volatility; by contrast, public statements by politicians in AAA-rated countries are consistently found to have *increased* volatility. Interestingly, this increase was strongest if their statements expressed rather homogeneous (and negative) views, whereas it was less pronounced, the more dispersed their communication was.

Splitting the statements in terms of their content, effects on the euro's volatility were primarily, if not exclusively, triggered by comments about rescue packages to euro area countries and their likelihood and conditions, about a possible default of a country, or about private sector involvement. None of the other types of statements that we distinguish, namely those about the ECB's monetary policy, the EU's policy response to the crisis, structural measures or fiscal policy measures to be taken by countries under stress, are found to have affected the exchange rate or its volatility in a systematic fashion.

The main conclusions from the paper are therefore that the euro exchange rate was mainly dancing to its own tune, and that financial markets might have priced assets more independently from the public debate than previously feared. However, politicians' statements have had some effects on exchange rate volatility, suggesting that communication strategies by policy makers at times of crisis should be particularly cautious about triggering undesired financial market reactions.

[1] These figures are based on daily implied volatilities for the years 2002–2006 and 2010–2011.
[2] See Financial Times Deutschland, 18 July 2011.