

# **The Evolution of the Lead-lag Markets in the Price Discovery Process of the Sovereign Credit Risk: the Case of Italy**

**Michele Anelli<sup>1</sup>, Michele Patanè<sup>2</sup>, Mario Toscano<sup>3</sup> and Alessio Gioia<sup>4</sup>**

## **Abstract**

Hedging and speculative strategies play a key role in periods of financial market volatility particularly during economic crises. In such contexts, liquidity problems tend to evolve into potential credit risk events that amplifies the volatility of several markets such as the CDS and the government bond markets. The former, however, generally embodies a higher sensitivity to volatility due to the operators' uncertainty about unstable and countercyclical counterparty risk.

The aim of this paper is to analyze the long-lasting dynamic relationship between credit default swap (CDS) premia and government bond yield spreads (GBS), by focusing particularly on sovereign credit risk, in order to evaluate the lead-lag markets in the price discovery process against the backdrop of a deep financial crisis. The focus of this study concerns the country of Italy, one of the major European countries that suffers from both weak GDP growth and high public debt, which subjects it to volatility and speculation during periods of financial stress.

**JEL classification numbers:** G01, G12, G14, G20.

**Keywords:** CDS spreads, Government bond spreads, Credit risk, Cointegration, Vector error correction model, Granger-causality.

---

<sup>1</sup> PhD, Department of Economics and Statistics, School of Economics and Management, University of Siena, Siena, Italy.

<sup>2</sup> Associate Professor, Department of Business and Law, School of Economics and Management, University of Siena, Siena, Italy.

<sup>3</sup> PhD, Department of Business and Law, School of Economics and Management, University of Siena, Siena, Italy.

<sup>4</sup> Portfolio Manager and Financial Analyst, Mantova, Italy.