Systemic Risk Measures and their Viability for Banking Supervision

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Abstract

We propose a criteria-based framework to assess the viability of systemic risk measures (SRMs) as a monitoring tool for banking supervision and investigate which bank characteristics determine systemic risk at the banking system level. Comparing three prominent SRMs we find that these possess substantial forecasting power for distress in the banking system and potential spillovers to the real sectors, however, they vary in their predictive accuracy at large. Furthermore, we find that the market-to-book (MTB) and loan-to-deposit (LTD) ratios act as fundamental drivers of systemic risk. Our results have paramount implications. First, MTB can be used as an effective early warning indicator to monitor systemic risk. Second, the systemic importance of LTD underlines the critical role of funding liquidity and supports recently proposed regulatory initiatives such as the Liquidity Coverage Ratio. Third, the inclusion of balance sheet and stock market valuation data is crucial for systemic risk measurement.

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1. Introduction

How should supervisors monitor systemic risk? In the aftermath of the Lehman bankruptcy that triggered an unprecedented international financial crisis this question has become of vital interest. Systemic financial crises often have substantial adverse effects on the real economy, such as drops in asset prices, output, and employment levels (Reinhart and Rogoff, 2009).

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