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The most recent episode of market turmoil exposed the limitations resulting from the traditional focus on too-big-to-fail institutions within an increasingly systemic-crisis-prone financial system, and encouraged

the appearance of the too-connected-to-fail (TCTF) concept. The TCTF concept conveniently broadens the base of potential destabilizing institutions beyond the traditional banking-focused approach to systemic risk, but requires methodologies capable of coping with complex, cross-dependent, context-dependent and non-linear systems. After comprehensively introducing the rise of the TCTF concept, this paper presents a robust, parsimonious and powerful approach to identifying and assessing systemic risk within payments systems, and proposes some analytical routes for assessing financial authorities' challenges. Banco de la Republica's approach is based on a convenient mixture of network topology basics for identifying central institutions, and payments systems simulation techniques for quantifying the potential consequences of central institutions failing within Colombian large-value payments systems. Unlike econometrics or network topology alone, results consist of a rich set of quantitative outcomes that capture the complexity, cross-dependency, context-dependency and non-linearity of payments systems, but conveniently disaggregated and dollar-denominated. These outcomes and the proposed analysis provide practical information for enhanced policy and decision-making, where the ability to measure each institution's contribution to systemic risk may assist financial authorities in their task to achieve payments system's stability.

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