Working Papers on Economics - Designing an Expert Knowledge-based Systemic Importance Index for Financial Institutions

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Defining whether a financial institution is systemically important (or not) is challenging due to (i) the inevitability of combining complex importance criteria such as institutions' size, connectedness and substitutability; (ii) the ambiguity of what an appropriate threshold for those criteria may be; and (iii) the involvement of expert knowledge as a key input for combining those criteria.

The proposed method, a Fuzzy Logic Inference System, uses four key systemic importance indicators that capture institutions' size, connectedness and substitutability, and a convenient deconstruction of expert knowledge to obtain a Systemic Importance Index.

This method allows for combining dissimilar concepts in a non-linear, consistent and intuitive manner, whilst considering them as continuous –non binary- functions. Results reveal that the method imitates the way experts them-selves think about the decision process regarding what a systemically important financial institution is within the financial system under analysis.

The Index is a comprehensive relative assessment of each financial institution's systemic importance. It may serve financial authorities as a quantitative tool for focusing their attention and resources where the severity resulting from an institution failing or near-failing is estimated to be the greatest. It may also serve for enhanced policy-making (e.g. prudential regulation, oversight and supervision) and decisionmaking (e.g. resolving, restructuring or providing emergency liquidity).

Fuente: https://www.banrep.gov.co/en/publications-research/working-papers-economics/designing-expert-knowledge-based-systemic