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Systemically important banks: an analysis for the European banking system

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Abstract In this paper we perform an empirical analysis to identify systemically important banks by a few individual bank characteristics that are easy to observe in practice. This analysis builds on a new method to construct measures of systemic relevance of individual institutions that are consistent with a risk analysis at the level of the banking system, taking correlations in bank asset returns into account. We derive asset return correlations for a sample of European publicly traded banks from market data and construct two risk measures: incremental value at risk and conditional expected shortfall. Incremental value at risk quantifies the individual contributions of banks to the system's Value-at-Risk. Conditional expected shortfall measures the increase in the expected system wide deposit insurance liability that would follow from the default of an institution. The analysis of hypothetical defaults of institutions is performed consistently with the observed distribution of asset returns by using the conditional distribution. Both measures are then analyzed in a panel regression where individual characteristics are used to explain incremental value at risk and conditional expected shortfall.

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