

Mapping Heat in the U.S. Financial System

David Aikman, Michael Kiley, Seung Jung Lee, Michael Palumbo,
and Missaka Warusawitharana^{*,†}

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Abstract: We provide a framework for assessing the build-up of vulnerabilities to the U.S. financial system. We collect forty-four indicators of financial and balance-sheet conditions, cutting across measures of valuation pressures, nonfinancial borrowing, and financial-sector health. We place the data in economic categories, track their evolution, and develop an algorithmic approach to monitoring vulnerabilities that can complement the more judgmental approach of most official-sector organizations. Our approach picks up rising imbalances in the U.S. financial system through the mid-2000s, presaging the financial crisis. We also highlight several statistical properties of our approach: most importantly, our summary measures of system-wide vulnerabilities lead the credit-to-GDP gap (a key gauge in Basel III and related research) by a year or more. Thus, our framework may provide useful information for setting macroprudential policy tools such as the countercyclical capital buffer.

JEL classification: G01, G12, G21, G23, G28.

Keywords: Financial vulnerabilities; Financial crisis; Financial stability; Systemic risk; Early warning system; Heat maps; Data visualization; Macroprudential policy; Countercyclical capital buffers.

* David Aikman: Bank of England, London, UK; Michael Kiley, Seung Jung Lee, Michael Palumbo, and Missaka Warusawitharana: Board of Governors of the Federal Reserve System, Washington, DC. This paper was written while David Aikman was visiting the Federal Reserve Board. The views expressed are those of the authors, and do not reflect those of the Federal Reserve Board, the Bank of England, or their staff.

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