Not all banking crises involve panics: study

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A banking crisis is often seen as a self-fulfilling prophecy: The expectation of bank failure makes it happen. Picture people lining up to withdraw their money during the Great Depression or customers making a run on Britain's Northern Rock bank in 2007.

But a new paper co-authored by an MIT professor suggests we have been missing the bigger picture about banking crises. Yes, there are sometimes panics about banks that create self-reinforcing problems. But many banking crises are quieter: Even without customers panicking, banks can suffer losses serious enough to create subsequent economy-wide downturns.

"Panics are not needed for banking crises to have severe economic consequences," says Emil Verner, the MIT professor who helped lead the study. "But when panics do occur, those tend to be the most severe episodes. Panics are an important amplification mechanism for banking crises, but not a necessary condition."

Indeed, in an ambitious piece of research, spanning 46 countries and going back to 1870, the study surveys banking crises that occurred with and without panics. When there is a panic and bank run, the research finds, a 30 percent decline in banking-sector equity predicts a 3.4 percent drop in real GDP (gross domestic product adjusted for inflation) after three years. But even without any creditor panic, a 30 percent decline in bank equity predicts a 2.7 percent drop in real GDP after three years.

Thus, virtually all banking crises, not just history's greatest hits, create long-term macroeconomic damage, since banks are less able to furnish the credit used for business expansion.

"Banking crises do often come with very severe recessions," says Verner, who is the Class of 1957 Career Development Professor and an assistant professor of finance at the MIT Sloan School of Management.

The paper, "Banking Crises Without Panics," appears in the February issue of the *Quarterly Journal of Economics*. The authors are Matthew Baron, an assistant professor of finance at Cornell University; Verner;

and Wei Xiong, a professor of finance and economics at Princeton University.

A rigorous, quantitative approach

To conduct the study, the researchers constructed a new dataset of bank stock prices and dividends in 46 countries from 1870 through 2016, using existing databases and adding information from historical newspaper archives. They also gathered nonbank stock prices, monthly credit spread information, and macroeconomic information such as GDP and inflation.

"People had looked historically at defining and identifying different episodes of banking crises, but there wasn't that much of a rigorous, quantitative approach to defining these episodes," Verner says. "There was a bit more of a 'know it when you see it' approach."

Scholars examining past banking crises divide roughly into two camps. One group has focused on panics, with the implication that if bank runs could be prevented, then banking crises would not be as bad. Another group has looked more at bank assets and focused on circumstances in which banks' decisions lead to big losses—through bad loans, for instance.

"We come down in the middle, in some sense," Verner says. Panics make bank troubles worse, but nonetheless, "There are a number of examples of banking crises where banks suffered losses and cut back lending, and businesses and households had a harder time getting access to credit, but there weren't runs or panics by creditors. Those episodes still led to bad economic outcomes."

More specifically, the study's close look at the monthly dynamics of banking crises shows how often these circumstances are in fact presaged by an erosion of the bank's portfolio, and recognition of this fact by its investors.

"The panics don't just come out of the blue. They tend to be preceded by bank stocks declining," Verner says. "The bank equity investors recognize the bank is going to suffer loses on the loans it has. And so what that suggests is that panics are really often the consequences, rather than the fundamental cause, of troubles that have already built up in the banking system due to bad loans."

The study also quantifies how impaired bank activity becomes in these situations. After banking crises with visible panics involved, the average bank credit-to-GDP ratio was 5.7 lower after three years; that is, there was less bank lending as a basis for economic activity. When a "quiet" banking crisis hit, with no visible panic, the average bank credit-to-GDP ratio was 3.5 percent lower after three years.

Historical detective work

Verner says the researchers are pleased they were "able to do some historical detective work and find some episodes that had been forgotten." The study's expanded set of crises, he notes, comprises "new information that other researchers are already using."

Formerly overlooked banking crises in this study include a welter of episodes from the 1970s, Canada's struggles during the Great Depression, and various 19th century banking failures. The researchers have presented versions of this study to an array of policymakers, including some regional U.S. Federal Reserve boards and the Bank of International Settlements, and Verner also says he hopes such officials will keep the work in mind.

"I think it's valuable going forward, and not just for historical perspective," he says. "Having a broad sample across many countries is important for recognizing what the lessons are when new crises happen."

The researchers are continuing their research in this area with further studies about patterns in the loans banks make before losing value—for instance, identifying the kinds of businesses who are less likely to repay bank loans. When banks start lending more heavily to certain kinds of companies—possibly including restaurant, construction, and real estate companies—it may be a sign of incipient trouble.

More information: Matthew Baron et al. Banking Crises Without Panics*, *The Quarterly Journal of Economics* (2020). DOI: 10.1093/qje/qjaa034

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