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Quarterly Review

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Classic Theory
of Financial Intermediation:
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In This Issue

One of the most disturbing features of monetary history is systemwide bank runs. In the United States, for example, before the creation of federal deposit insurance in 1933, the nation's banking system endured numerous bank panics, periods when depositors rushed to withdraw their funds because they thought their banks might fail. After the Civil War, the nation had major bank panics in almost every decade. Between 1929 and 1933 alone, the United States had three such panics, during which more than 8,800 commercial banks suspended operations.

What causes this instability in the banking industry? Do systemwide bank runs merely reflect problems in the broader U.S. economy? Or do these bank runs instead indicate that banking itself is inherently unstable? And if banking is inherently unstable, what is the best way for policy-makers to respond to this instability? Unfortunately, economists don't yet have definitive answers to these questions. We do have tentative answers, though, and to try to strengthen them, this issue of the *Quarterly Review* reexamines what many economists consider the most coherent model of bank runs, the 1983 model of Douglas W. Diamond and Philip H. Dybvig.

The Diamond and Dybvig model has clear answers to our questions: banking is indeed inherently unstable, and the appropriate policy response is deposit insurance. In a version of this model with aggregate uncertainty, agents optimize and markets clear, and yet an equilibrium with bank runs can occur. In the model, the bank run equilibrium can be prevented with deposit insurance, although not without the risk of moral hazard. (Just how costly moral hazard can be was demonstrated in the United States shortly after Diamond and Dybvig's article was published: about 1,000 banks failed, draining the deposit insurance fund, and about 1,000 savings and loan associations failed too, costing taxpayers roughly \$150 billion.) While some economists have found reasons to question certain aspects of Diamond and Dybvig's model, as well as its policy implications, no one has yet found a more convincing way to model bank runs.

In this issue of the *Quarterly Review*, Edward J. Green and Ping Lin reveal what's behind the Diamond and Dybvig model's results. In "Diamond and Dybvig's Classic Theory of Financial Intermediation: What's Missing?" (p. 3), Green and Lin point out that underlying the Diamond and Dybvig model are two assumptions about the environment,

assumptions intended to make the model mimic the real world in two key respects: a *simple deposit contract* allows depositors to fully withdraw their deposits on demand, and a *sequential service constraint* requires banks to honor those withdrawals in the order they are received. Green and Lin examine the significance of the simple deposit contract. They find that it is critical: confining agents to this type of contract is, in fact, the driving force behind the bank run equilibrium of the model. Green and Lin show that when agents in the Diamond and Dybvig model are allowed to use a more informationally rich contract, the bank run equilibrium disappears, even in the presence of a sequential service constraint.

The contribution of Green and Lin's work is not that it uncovers a flaw in the Diamond and Dybvig model. Rather, their work provides a better understanding of this model and focuses future research in a potentially fruitful direction. Clearly, to continue our search for answers to questions about bank runs, economists need to attempt to understand the economic and legal environment that produces the simple deposit contract in the real world. If we follow up on Green and Lin's insights, then ultimately policymakers may be able to design better policies to deal with the instability in the banking industry.

For the convenience of readers, in this issue we reprint the classic article of Diamond and Dybvig, "Bank Runs, Deposit Insurance, and Liquidity" (p. 14), with the kind permission of the University of Chicago Press.

Arthur J. Rolnick
Editor