

ECONOMIC FINDING

Liquidity, Pledgeability, and the Nature of Lending

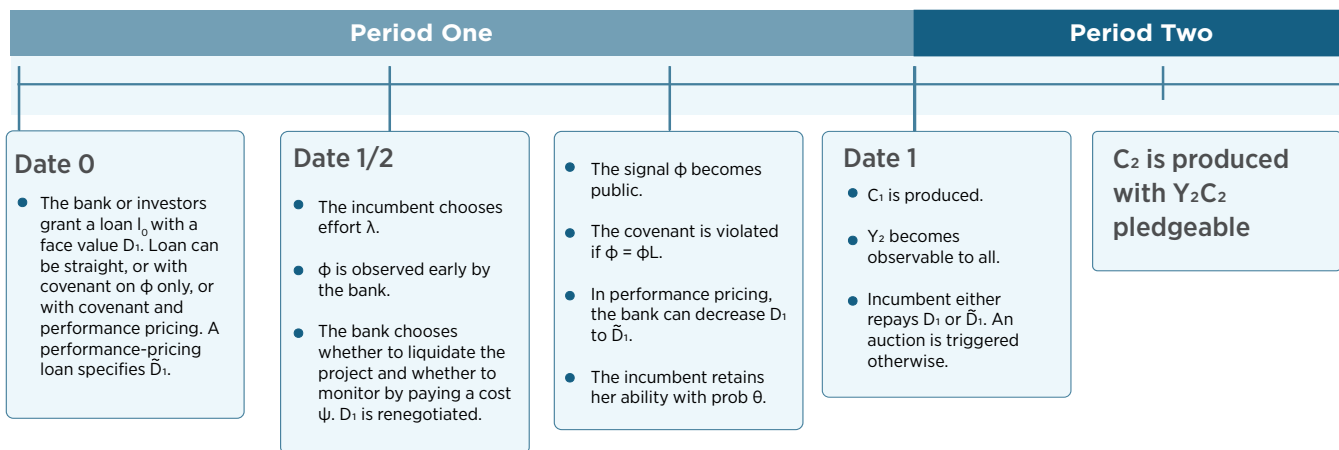
Douglas W. Diamond, Merton H. Miller Distinguished Service Professor of Finance, Chicago Booth; Yunzhi Hu, Assistant Professor of Finance, University of North Carolina; and Raghuram G. Rajan, Katherine Dusak Miller Distinguished Service Professor of Finance, Chicago Booth.

Variation in prospective liquidity in an industry or economy induces changes in corporate lending and banking, including the level of corporate borrowing, the type of debt contracts issued, and the embedded covenants. The role and leverage of banks also changes.

The nature of business lending in an economy changes over a financial cycle, including the amount and type of debt that a borrower can take, as well as the role of banks and other lenders involved. Not only does this affect borrowing by firms, it also affects the capital structure of intermediaries. While much research has examined various aspects of lending, there is relatively little theory explaining how easy financing conditions might accentuate certain aspects over others. In this paper, the authors offer a theory explaining why and how the nature of lending changes with the environment in which lending takes place.

The authors' model describes the various factors that affect outcomes, including exogenous factors like broad economic and financial conditions, and endogenous factors like improvements in firm governance. To summarize their main findings: Starting from a low level, higher prospective corporate liquidity will initially reduce monitored borrowing from a bank in favor of arm's length borrowing, and eventually reduce the need for internal corporate governance to support corporate borrowing, leading to covenant-lite loans. In parallel, higher prospective corporate liquidity will allow both corporations and banks to operate with higher leverage.

Figure 1 • Timeline and Decisions



Notes: After funding the project at date 0, the incumbent expert chooses her pledgeability effort λ . The noisy and verifiable signal ϕ on y_2 is realized. If the lender is a bank, it observes the signal early. The bank may monitor the incumbent to learn realized pledgeability and/or may demand repayment without further monitoring. If not repaid, the bank may raise the face value or liquidate. Subsequently, the incumbent's ability in period 2 becomes known to all. If the project is not liquidated, the cash flows (if any) are produced. At date 1, the incumbent either pays the remaining debt due or enters the auction. The period ends with potentially a new incumbent in control.

Beyond these insights into financial intermediation, the authors' work sheds light on the role of liquidity in diminishing the consequences of moral hazard over repayment, and hence the quality of the corporation's internal governance. For example, internal governance matters little if the firm can potentially be seized and sold for full repayment in a chapter 11 bankruptcy, which happens in an environment with high levels of liquidity. Therefore, prospective liquidity encourages leverage at both the borrower and intermediary level, even while requiring less governance. Equivalently, because the intermediary performs fewer useful functions, high prospective liquidity encourages disintermediation.

Risky loans to highly leveraged borrowers, made by highly leveraged intermediaries, may therefore not be evidence of moral hazard or over-optimism, but may simply be a consequence of high prospective liquidity crowding out the monitoring role of financial intermediation. Such crowding out may have adverse consequences. As prospective liquidity fades and the demand for intermediation services expands again, the need for intermediary capital also increases. To the extent that intermediary capital is run down in periods when liquidity is expected to be plentiful, it may not be available in

sufficient quantities when liquidity conditions turn and demand for capital ramps up. Prospective liquidity breeds a dependence on continued liquidity for debt enforcement as it crowds out other modes of enforcement, especially corporate governance. This will make debt returns more skewed - that is, enhance the possibility of very adverse outcomes along with good ones.