

Access to Credit Reduces the Value of Insurance

Based on BFI Working Paper No. 2024-43, “[Access to Credit Reduces the Value of Insurance](#),” by Sonia Jaffe, Microsoft; Anup Malani, University of Chicago; and Julian Reif, University of Illinois

Insurance is less valuable when people can also smooth their spending using loans. Access to a five-year loan decreases the average value of insurance by \$232–\$366, or 58–61%.

One of the primary goals of insurance is to help consumers manage unexpected costs. Insurance is not, however, the only tool available for **consumption smoothing**. Consumers can also respond to **financial shocks** by borrowing through loans. In this paper, the authors analyze how access to credit affects the value of insurance. Essentially, they ask: Are people willing to pay less for insurance when they have greater access to credit?

The authors create a model where consumers facing financial shocks can choose to smooth consumption with either insurance or borrowing. They apply their model to annual, individual-level survey data on medical spending from 1996–2014 to measure the drivers of value from health insurance. They find the following:

- The availability of loans reduces the value of insurance. Access to a five-year loan reduces the values of **community-rated insurance** for the average beneficiary by \$366 (61%) and **experience-rated insurance** by \$232 (58%). Even for the sickest 10% of the population, access to a five-year loan reduces the value of community-rated insurance by \$1,099 (17%).
- Increasing the ease of borrowing by increasing the length of the payback period or reducing interest rates further reduces the value of insurance. While access to a two-year loan reduces the value of experience-rated insurance by 40%, access to a five-year loan reduces the value by 58% and access to a ten-year loan reduces the value by 64%.

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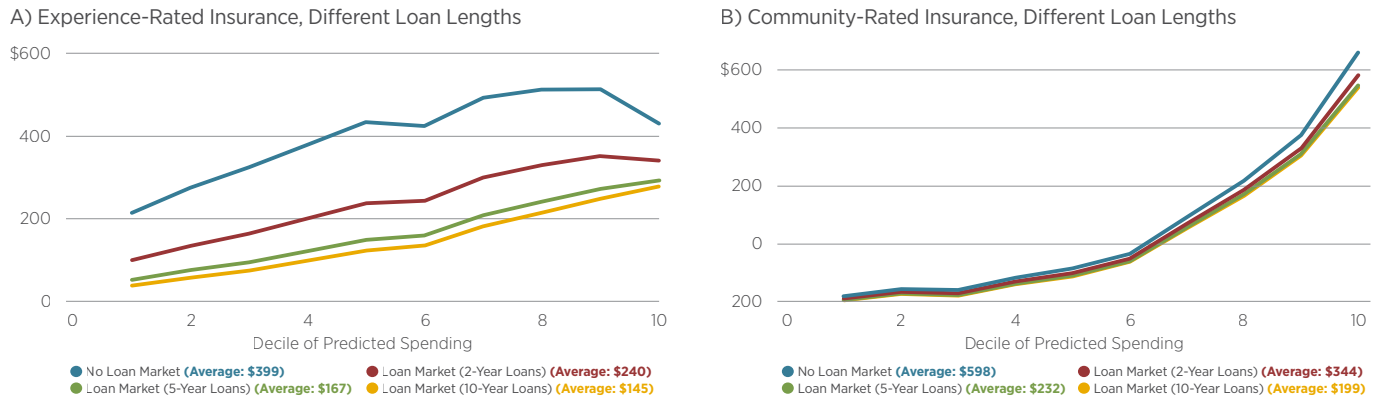
Consumption smoothing: maintaining stable consumption levels in response to unexpected financial shocks.

Financial shocks: sudden, disruptive changes in economic conditions or personal finances.

Community-rated insurance: a type of insurance policy where the premiums are set at the same level for all policyholders within a specific group, regardless of individual claims history or health status.

Experience-rated insurance: a type of insurance policy where the premiums are adjusted based on the claims history of the policyholder.

Figure 1 - The Value of Actuarially-Fair Insurance When Loan Markets Are Present, for Different Loan Lengths and Loan Markups



Note: These graphs plot the average dollar value of experience-rated health insurance (left) and community-rated health insurance (right) by decile of health-expenditure risk. The blue line shows the conventional value of insurance when credit markets are absent, and each additional line illustrates the effects of actuarially-fair loans with repayment terms ranging from 2-10 years.

In addition, reducing the interest rate on a five-year loan from 8.40% to 2.78% reduces the value of community-rated insurance by 25%.

- Access to loans reduces the value of insurance more for low-income households than for high-income households. The introduction of a five-year loan reduces the value of insurance by \$851 (67%) for lower-income households, but only by \$54 (49%) for higher-income households.

The research presented here has direct implications for policy, especially in healthcare markets. First, it suggests that some of the gains

associated with insurance can be obtained by improving access to credit. Extension of this analysis to debtor protections such as bankruptcy would have implications for those protections. Second, it affects cost-benefit analyses of public health insurance expansions, as insurance expansions are less valuable when credit markets are well-developed or when interest rates are low. Third, it shows how different health care policies can undermine each other. For example, the Emergency Medical Treatment and Active Labor Act reduces uptake of insurance because it functionally offers low-interest health loans.

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