

Data and Welfare in Credit Markets

Based on BFI Working Paper 2022-88, “[Data and Welfare in Credit Markets](#),” by Mark Jansen, University of Utah; Fabian Nagel, Chicago Booth; Constantine Yannelis, Chicago Booth; and Anthony Lee Zhang, Chicago Booth

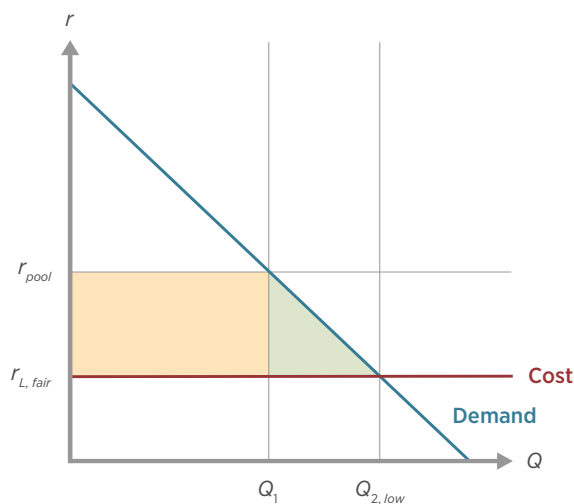
The removal of prior bankruptcy information from consumer credit reports increases the surplus of affected consumers substantially at a low cost to social welfare.

The explosion of data available to screen and score borrowers over the past half century has also raised important questions about whether to allow lenders to price that data. Put another way, to what degree should lenders be able to vary prices of their products, like home and auto loans, based on a consumers’ previous borrowing experience?

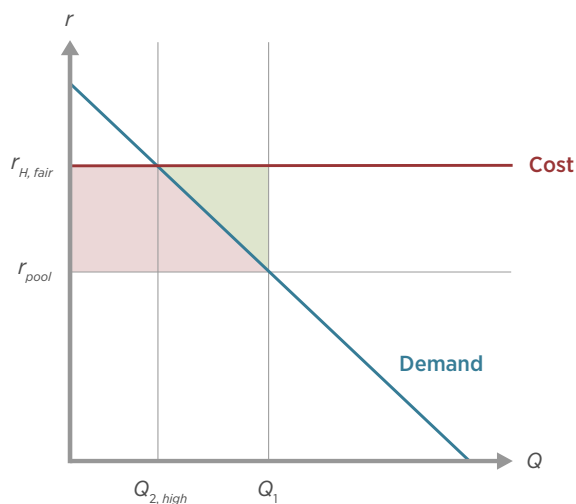
To examine this question, the authors construct a methodology to measure the welfare effects of increased data availability by treating changes in data availability as a form of third-degree price discrimination (or when companies charge different product prices to different consumers). They then apply this framework to a commonly studied event that leads to information removal under the Fair Credit Reporting Act (FCRA),

Figure 1 • Price Discrimination in Credit Markets

A) Credit: Low Cost



B) Credit: High Cost



Notes: This figure illustrates how third-degree price discrimination affects welfare in credit markets. Suppose there are two groups of prospective borrowers, with low costs (Panel A) and high costs (Panel B). The red lines show the cost of serving borrowers in each group, and the blue lines show borrowers’ demand curves. Lenders are initially unable to distinguish between these borrowers, so set the pool price r_{pool} . Once lenders are able to distinguish these prospective borrowers, they set $r_{L, fair}$ for the low cost group (A) and $r_{H, fair}$ for the high cost group (B). The green shaded areas illustrate the increase in social welfare for each group after the price change. In Panel A, the sum of the yellow shaded area and the green shaded area represents the increase in consumer welfare after the price change. In Panel B, the red shaded area shows the decrease in consumer welfare from the price change.

which requires that flags indicating the occurrence of consumer bankruptcy be removed after seven (10) years for a Chapter 13 (Chapter 7) bankruptcy. Using administrative data from TransUnion and focusing on auto lending, the authors find the following:

- Broadly, flag removal leads to discontinuous increases in credit scores, a corresponding drop in interest rates on new loans, and an increase in loan volume.
- Regarding social welfare loss and transfers in auto lending, the authors find that flag removal results in a 17-point increase in credit scores, a 22.6 basis point reduction in interest rates, and an \$18 increase in borrowing.
- Bankruptcy flag removals transfer approximately \$19 million to previously bankrupt consumers each year, at the cost of roughly \$598,000 in social welfare. Thus, for each dollar of surplus transferred to previously bankrupt consumers, only \$0.03 of social surplus is destroyed.

Bottom line: While flag removal is costly for social surplus, the distributional effects of flag removal are much larger than their impact on social welfare. This work suggests that flag removal is a relatively inexpensive way, in terms of social efficiency, to transfer surplus to previously bankrupt consumers. Finally, by providing a novel framework for studying the role of data acquisition in consumer credit markets, this work shows that prices and borrowing changes resulting from new data are sufficient statistics for welfare analysis; importantly, this framework is applicable to other lending markets.

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