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Meet the New Borrowers

Credit history is critical for credit access, and it's more than just a history of repayment.

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*The views expressed
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Financially responsible households benefit from access to credit.¹ The ability to borrow against future income helps these households buy their homes, invest in their education, and maintain their preferred level of consumption despite the occasional shock to their income.²

Credit access is an important part of the conversation when it comes to social inequality and discrimination. When certain social groups can't access credit, it contributes to and perpetuates inequality in overall economic outcomes. For example, exclusion from (affordable) mortgages is a barrier to homeownership and geographic mobility, both of which in turn affect children's educational outcomes and social mobility. Consequently, any discrimination in access to credit can have a long-lasting detrimental effect on communities subject to such discrimination.

Access to credit can be determined in no small part by one's credit history, which is often summarized

by a credit score (such as the FICO score). These scores are easy to read and compare.³ For example, discrimination can simply be defined as different treatment of two individuals with identical credit scores. However, when investigating the presence of discrimination in the marketplace, it may not be enough to check whether individuals from different social groups are treated equally conditional on their credit score. Sometimes, underprivileged borrowers fail to achieve a good credit score in the first place because of their inability to build a credit history.⁴

The traditional view is that a credit history is a history of repayment. But new borrowers (who are the focus of this article) have had little time to establish such a record of paying on time. This brings us to our Catch-22: You need a credit history to get credit, and you need credit to build a credit history. This Catch-22 is particularly pronounced at the initial stage of the credit life cycle, which is the

subject of this article. And it is likely to be especially pronounced for individuals from an underprivileged background because these individuals cannot “piggyback” on their parents’ credit histories.

With that in mind, I will highlight an additional role of credit history. A credit history is also a record of borrowing, that is, of loan approvals. In this article, I examine the initial stage of the credit life cycle to better understand how inequality manifests itself in individuals’ gaining access to credit, and I examine how emerging borrowers overcome our Catch-22.

The Unscored and the Invisible

Until recently, there was little academic research into the early stages of the credit life cycle and the dynamics of access to credit among emerging borrowers. But that’s changing thanks in part to researchers gaining access to anonymized credit records data. By using such data in their 2017 article, economists Kenneth P. Brevoort and Michelle Kambara, both then at the Consumer Finance Protection Bureau (CFPB), answer some of my key questions. (Later in this article I refer to their findings alongside my own.)

In important related work that also uses anonymized credit records data, Brevoort, Kambara, and economist Philipp Grimm, who was also at the CFPB at the time, studied “credit invisibles” and “unscorable” individuals. “Credit invisibles” are individuals who have no record with one of the three major credit-reporting agencies.⁵ It is difficult to study those you cannot see. But we can compare the population in credit bureau files with the population in the U.S. Census to figure out who is missing from the former. Unlike the credit invisibles, people who are unscorable have a record with the credit-reporting agency, but their file is “too thin” to generate a reliable credit score. Brevoort, Grimm, and Kambara rightfully refer to these individuals as “unscored,” highlighting the conceptual possibility of assigning a score, especially if alternative data sources are permitted.

A key takeaway from Brevoort, Grimm, and Kambara’s 2016 article is that neighborhoods with a greater share of underprivileged individuals have a greater prevalence of credit invisibility. Perhaps most notably, these economists also find that minority consumers are less likely to be credit visible, even when researchers control for (relative) income. This supports the idea that solely controlling for credit scores is not sufficient for identifying unequal access to credit.

Shortcuts to Credit History

For new borrowers who lack a history of repayment, there are two shortcuts to acquiring credit and building a credit history: secured credit cards and “piggybacking.”

In his 2016 discussion paper, Philadelphia Fed economist Larry Santucci highlights the importance of secured credit cards as a gateway product and investigates how consumers graduate from secured to unsecured credit cards. Secured cards are a rather unusual credit product, because borrowers end up largely borrowing from themselves—a “lender” is secured by a cash deposit (or a locked savings account) that often matches the credit line on the card. Yet, since the card is reported to the credit bureaus, this product helps borrowers establish or repair a credit record. My findings confirm Santucci’s insight: The probability of having a secured card is 17 percent among new borrowers with credit cards, but less than a tenth of that for established borrowers.⁶

In their 2010 working paper, Brevoort, Federal Housing Administration economist Robert Avery, and Federal Reserve economist Glenn Canner point to another way for a new borrower to quickly establish a credit history: piggybacking, which refers to the practice of adding a new borrower to an existing (and established) credit card account, often that of a parent. This allows the new borrower to add the established card to their credit record. In their 2017 article, Brevoort and Kambara report that a quarter of new borrowers enter the credit market with someone’s help. (Fifteen percent enter with a joint account, and another 10 percent enter as authorized users—that is, they piggyback.) Importantly, if unsurprisingly, this number is smaller in poor neighborhoods. Although I cannot directly observe the prevalence of authorized users in the data, I can approximate their prevalence by seeing how often an old card—that is, a credit card more than nine months old—first appears on a borrower’s credit record.⁷ Surprisingly, piggybacking did not become more common following the implementation of the Credit Card Accountability Responsibility and Disclosure (CARD) Act of 2009, which made it harder for young people to get a credit card independently.

The New Borrowers

Like Brevoort and Kambara, I use anonymized credit bureau data to study new borrowers. However, the FRBNY Consumer Credit Panel/Equifax (CCP) data I use is distinct from the data set employed by Brevoort and Kambara.⁸ One peculiar aspect of the CCP data I use is that the sample expands unevenly over time (likely due to the household aspect of the data by design). As a result, I can’t safely define a new borrower as someone appearing in the data set for the first time. Instead, I define a new borrower as someone whose oldest credit trade (credit product) is no more than three months old.⁹ (The two data sets also categorize credit products slightly differently.)

New Borrowers

28

Average age of person

\$3,874

Average non-mortgage credit line

\$1,256

Average credit card limit

Established Borrowers

51

Average age of person

\$37,000

Average non-mortgage credit line

\$23,000

Average credit card limit

Source: Author’s calculations based on FRBNY Consumer Credit Panel/Equifax (CCP) data.

Note: New borrower is one whose oldest credit product is less than three months old.

Not surprisingly, new borrowers are much younger than established borrowers. The average new borrower is approximately 28 years old, while the average age of a person with a credit record is almost 51. And new borrowers' credit lines are a fraction of established borrowers' credit lines. The average nonmortgage credit limit of a new borrower is a mere \$3,874—just over a tenth the average nonmortgage credit limit of established borrowers. The average credit limit of a new borrower's credit cards is \$1,256, which is almost 18 times smaller than the average for established borrowers.

More surprisingly, new borrowers disproportionately live in poorer neighborhoods. This observation coexists with Brevoort, Grimm, and Kambara's observation that poorer neighborhoods have a greater share of credit invisibles. This could reflect either systematic differences in age composition across neighborhoods or a tendency of people who gain access to credit to move out of poorer neighborhoods (Figures 1 and 2).¹⁰

To determine whether households in disadvantaged neighborhoods struggle more to access credit, I compared the average age of new borrowers across neighborhoods. There is basis for concern: Individuals in disadvantaged neighborhoods gain credit visibility (and credit access) later in life than their counterparts in more privileged areas. When I conducted multivariate linear regressions of the average age of new borrowers on a set of neighborhood characteristics, I found that the regressions yielded positive and strongly statistically significant coefficients on the percentage of the neighborhood's population that belong to a racial minority, the percentage of the population that are noncitizens, and the percentage living below the poverty line; these coefficients get larger when the regression controls for the age composition of the neighborhood.¹¹ In other words, people in disadvantaged neighborhoods get credit access later in life than their peers in more privileged neighborhoods.

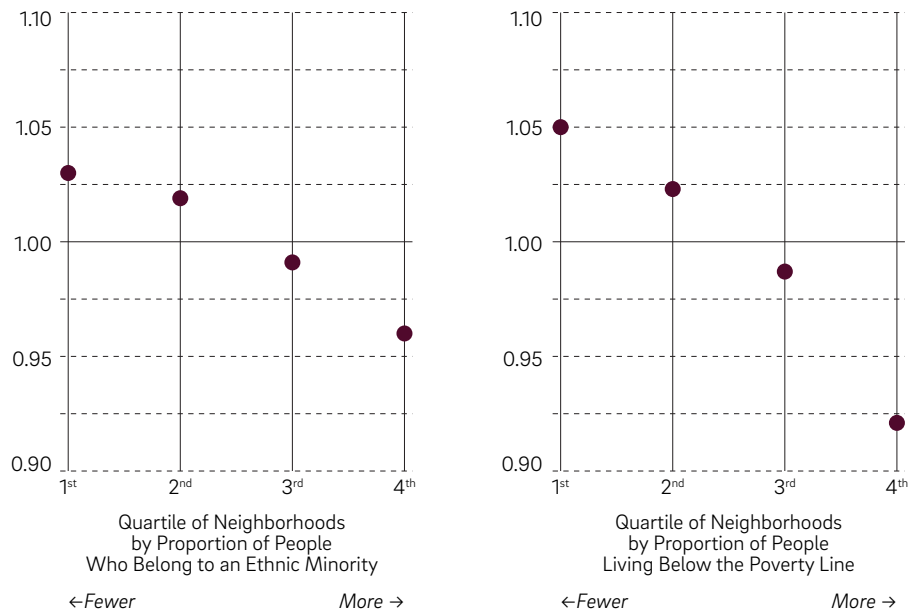
We can also analyze the credit products new borrowers use to enter the credit market. Again, Brevoort and Kambara have already looked into this.¹²

See Credit Card: The Gateway Product.

FIGURE 1

Credit Invisibles Disproportionately Live in Disadvantaged Neighborhoods

Share of credit invisibles in neighborhoods divided into quartiles, by ethnicity (left) and poverty (right), from lowest (1st quartile) to highest (4th quartile)



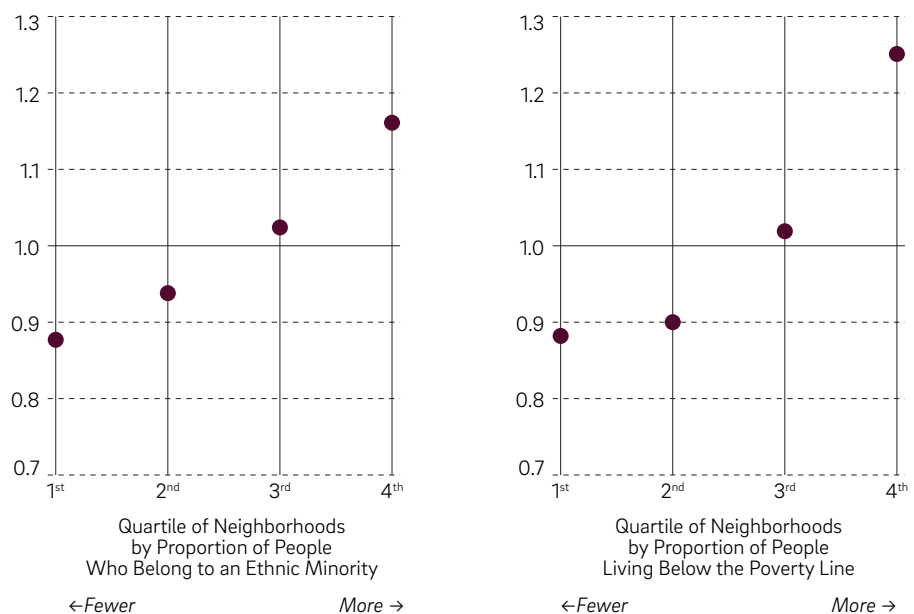
Source: Author's calculations based on FRBNY Consumer Credit Panel/Equifax (CCP) and U.S. Bureau of Census (Census) data. Ethnicity data are from Census.

Note: This figure depicts the ratio of each quartile's average of the statistic to the overall average of the statistic.

FIGURE 2

New Borrowers Disproportionately Live in Disadvantaged Neighborhoods

Share of new borrowers in neighborhoods divided into quartiles, by ethnicity (left) and poverty (right), from lowest (1st quartile) to highest (4th quartile)



Source: Author's calculations based on FRBNY Consumer Credit Panel/Equifax (CCP) and U.S. Bureau of Census (Census) data. Ethnicity data are from Census.

Note: This figure depicts the ratio of each quartile's average of the statistic to the overall average of the statistic.

I find that credit cards are even more important for initiating credit records than Brevoort and Kambara suggest (Figure 3), even though I omit piggybackers from my definition of new borrowers. Overall, credit cards account for about half of all credit market entries. Student loans, retail credit, and auto loans are the other important contributors. Not surprisingly, mortgages account for just a small fraction of new entries, since a typical first-time homebuyer has a well-established credit history.

Figure 3 further illustrates another important point: Credit market entry is very sensitive to aggregate economic conditions. An economic downturn (such as the Great Recession) leads to tighter lending standards that dramatically curtail the entry of new borrowers. A notable exception to that rule is student loans, which may boom in downturns as more people choose to pursue a formal education while labor markets slump.

I conclude with a few key observations regarding the evolution of credit access for new borrowers in the first year after entering the credit market. As already noted, their average initial credit limit is a fraction of that of established borrowers. But this average credit limit grows rapidly.¹³ The average (total) credit line of new borrowers' credit cards more than doubles in the first year.

The growth of credit access is particularly dramatic among borrowers who gain additional credit cards: Their aggregate credit line quadruples in the first year. This is unsurprising—more credit cards typically mean more available credit. What is surprising is that a significant share of this expansion of credit comes from an increase in the credit limit of their original credit card. In 2021, Arizona State University economist Natalia Kovrijnykh, Carnegie Mellon University economist Ariel Zetlin-Jones, and I documented this fact using a distinct (customized) anonymized data set from a different credit reporting agency. (We ran a regression analysis to confirm the statistical significance and robustness of this observation.) Notably, although the observation is robust among new borrowers, it is not statistically significant among established borrowers. These facts point to the importance of borrowing from multiple lenders, particularly for new borrowers.

New Borrowers and Borrowing from Multiple Lenders

My ongoing research with Kovrijnykh and Zetlin-Jones starts with the question: Why do new borrowers who obtain an additional card see a disproportionate increase in the credit line from their original lender? This goes against conventional wisdom, which states that the original lender should be concerned about debt dilution (where an additional loan decreases the value of pre-existing debt). The new loan increases the overall repayment burden of the borrower and should thus lead to a greater likelihood of default. Why then would the original lender extend the credit line even further?

This increase in aggregate credit is not driven solely by the demand channel (that is, by a borrower's request for more credit from all lenders, old and new). New borrowers who try but fail to get an additional loan do not see the large increase in the credit line of their original credit card.

It appears that incumbent lenders interpret the fact that a new borrower obtains additional credit as a positive signal

about the borrower's underlying risk (that is, the borrower's quality). This signal appears to be particularly important when it applies to a new borrower. Incumbent lenders respond positively to new credit when a borrower has a very short credit history, but this response is not evident when it comes to established borrowers. In other words, these signals from other lenders appear to be particularly valuable when a long history of repayment behavior is absent from a credit record.

Aggregating Information Across Lenders by Building Credit History

Because lenders seem to interpret other lenders' decisions about an individual borrower as informative, I focus on the signaling component of credit histories. Although repayments are an important component of credit histories, so too is the information-aggregation aspect of these records, particularly as it applies to emerging borrowers. Lenders appear to respond to the granting of credit to a new borrower before the borrower establishes any pattern of repayment. That's strong evidence in support of the information-aggregation mechanism.

For the theoretical portion of our research, we put forward a simple model that captures this information-aggregation mechanism (Figure 5). In the model, as in real life, lenders are heterogeneously informed—that is, they differ in what information they have about a borrower, or in how they interpret the information available to them. An example of differing access to information: My first credit card came from a lender that verified my enrollment as a university student—information not directly available to other lenders. An example of differing interpretations of information: the proprietary credit-scoring models employed by credit card lenders. However, our theoretical analysis does not distinguish between these two sources of information dispersion. We simply model multiple lenders receiving separate informative signals regarding a borrower's underlying risk type (that is, their likelihood of being able to repay loans of various sizes). Lenders in the model recognize the fact that their competitors receive additional information that is useful above and beyond the signal they received themselves. Consequently, lenders have a reason to read into their competitors' credit approval decisions, as these may reflect the competitors' information about the borrower.

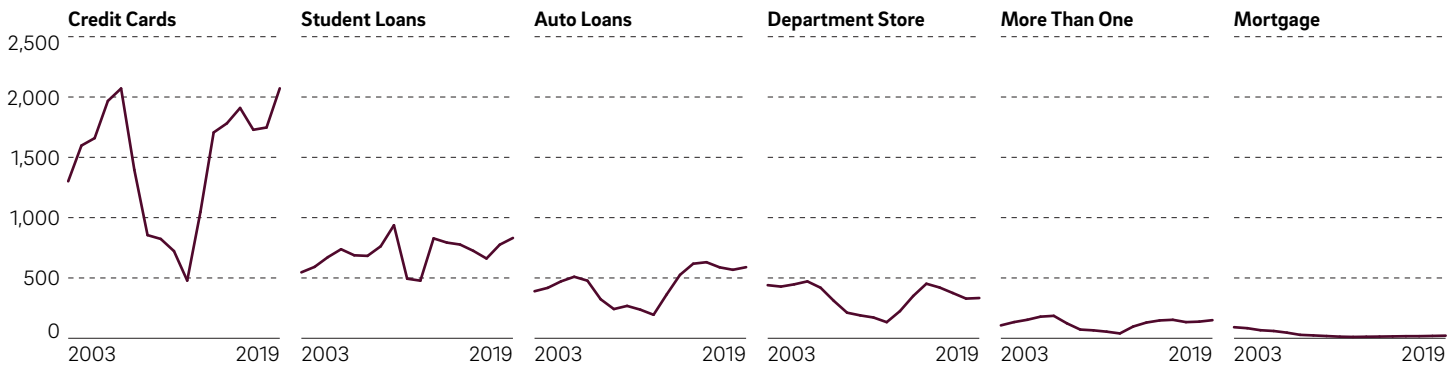
In order to capture the mechanism described above, the model features borrowing over multiple stages. Early-stage loans are recorded in a publicly visible credit history. This credit history then affects the loan offers a borrower receives in the late stage of borrowing. Our theoretical analysis abstracts from learning from repayment: All of the loans are advanced before any repayment takes place. Yet borrowing over multiple stages permits the model to capture both credit-history building and debt dilution.

As intended, the model yields credit-history building. Specifically, only lenders with positive signals about a borrower offer a loan to that borrower at the early stage of borrowing. An early-stage loan thus informs other lenders of the positive signal the early lender has received. As a result, the dispersed information across lenders is aggregated in the late borrowing stage. That is, late-stage loan contracts reflect both the information (signal) of

FIGURE 3

Credit Cards Are the Dominant Form of Credit Market Entry

When it comes to initiating a credit record, credit cards are the most important product. Estimated count of borrowers by first credit product, thousands, 2003–2019



Source: Author’s calculations based on FRBNY Consumer Credit Panel/Equifax (CCP) data.

Credit Card: The Gateway Product

In their 2017 article, Brevoort and Kambara highlight the increasing importance of credit cards as the gateway product, but as they point out, this observation does not apply to borrowers under 25. They point to the restrictions imposed by the Credit CARD Act of 2009 as the likely explanation for this dichotomy. The Credit CARD Act explicitly restricts the marketing of credit cards to college students and individuals under 21. Unsurprisingly, the average age of a new borrower increased significantly following the act’s implementation (Figure 4). In their 2021 working paper, Boston Fed economists Daniel Cooper and María José Luengo-Prado and University of Delaware economist Olga Gorbachev also document this fact. They argue that this restriction of credit has slowed the growth in overall consumption.

Figure 4 also illustrates the seasonality of credit market entry. The average age of entrants plunges in the third quarter of every year, just when the entry rate spikes (for both student loans and credit cards).¹⁵ In their 2013 discussion paper, the Philadelphia Fed’s Keith Wardrip and Robert M. Hunt suggest that the composition of new borrower cohorts is also affected by the business cycle, as lending standards tend to tighten during recessions.

FIGURE 4

The Average Age of a New Credit Card Borrower Increased Significantly Following the Credit CARD Act of 2009

The act restricts the marketing of credit cards to college students and to borrowers under 21 years old.

Average age of new borrowers whose first credit product is a credit card, 2003–2020



Source: Author’s calculations based on FRBNY Consumer Credit Panel/Equifax (CCP) data.

Note: A new credit card borrower is one whose oldest credit card and oldest credit trade are at most two months old.

the late lender and the signal of the early lender. We thus have an environment in which the “best” new borrowers build a credit history by taking on (rather than repaying) an early-stage loan. Doing so facilitates information aggregation across lenders—that is, it convinces late-stage lenders of their creditworthiness.

But there are costs associated with building a credit history. One such cost is having to pay inflated interest rates at the early stage of borrowing. This is a result of cross-subsidization, as the (best) borrowers who are building their credit histories are pooled with riskier borrowers who are taking advantage of an interest rate that does not fully reflect their true risk of default. Another possible cost of credit-history building is overborrowing—that is, ending up with a larger-than-optimal loan. Borrowing over multiple stages (and from multiple lenders) gives rise to debt dilution, which is familiar from both corporate and international finance literature, though it is rarely emphasized in consumer

credit literature. In our theoretical environment, borrowers’ inability to commit not to overborrow, combined with the debt dilution motive at a late stage, may result in the best borrowers taking on inefficiently large loans.¹⁴

Yet, despite the costs associated with building a credit history, the best borrowers still find it worthwhile to take early loans in order to facilitate information aggregation across lenders. That is, they still use the early loan to signal to their later lenders the favorable signal of the early lenders. The alternative to building a credit history in this way is either a smaller overall loan or one at a less-favorable interest rate.

Our model highlights the importance (and the favorable side) of borrowing from multiple lenders. This is in contrast to how this is normally viewed in the literature: as simply debt dilution.

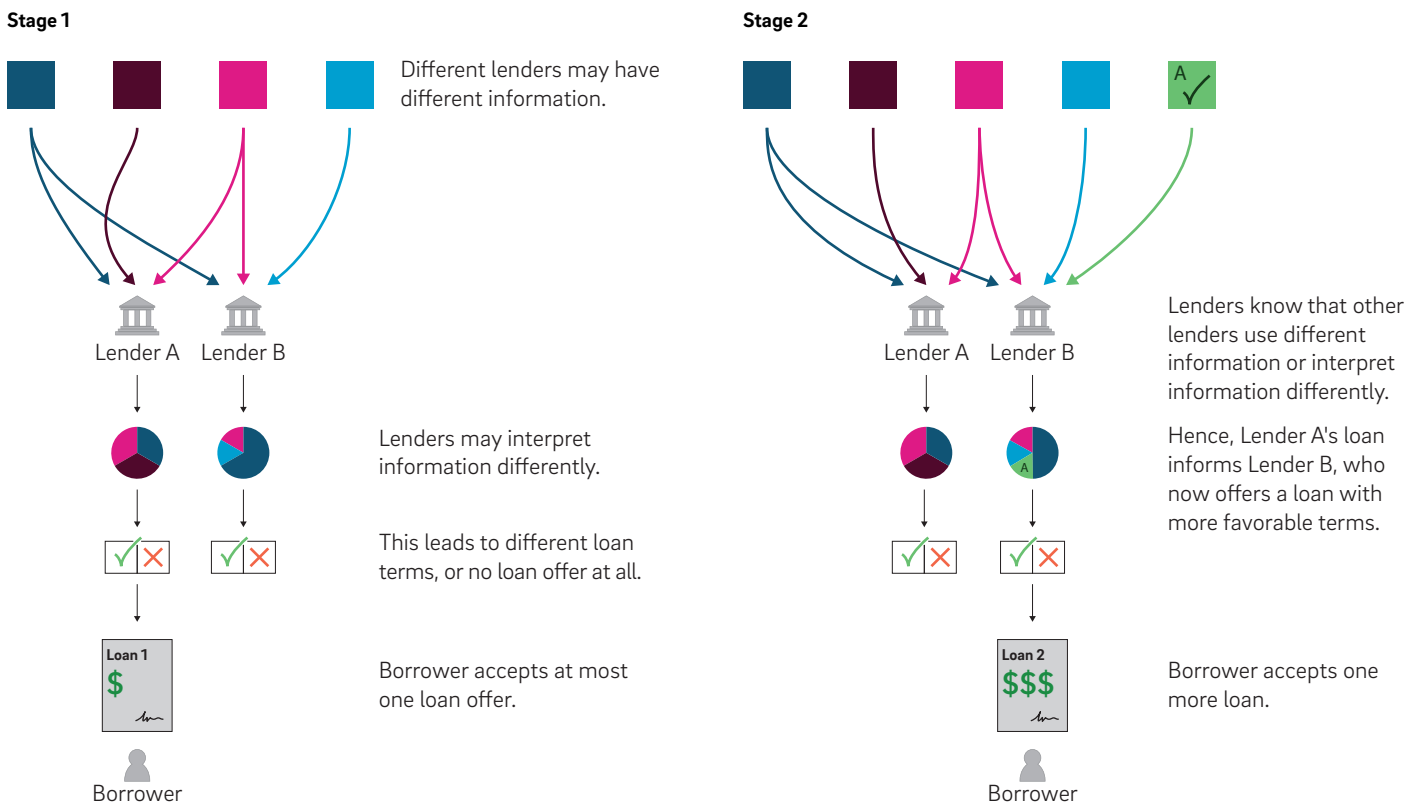
This theory also has a surprising implication: More dilution is better. In the late stage, the early lender would rather

see a larger top-up loan than a smaller top-up loan. (A top-up loan is a loan added to a preexisting loan.) In the model, this loan comes from a later lender. And that later lender has an additional piece of information (signal) about the borrower, beyond what was available to the early lender. As a result, the size of the top-up loan is informative. Although a larger loan to a given type of borrower is bad news for lenders (because it increases the probability of default in the repayment period), a counteracting force dominates in our model: Only the best borrowers get a large top-up loan, while borrowers with smaller top-up loans have less-favorable signals. This selection effect dominates the dilution effect explained above.

Strikingly, we find that this model prediction is borne out in the data. Delinquency rates are indeed lower among new borrowers with larger top-up loans than among new borrowers with smaller top-up loans. Notably, this observation does not apply to established borrowers,

FIGURE 5

A Simple Model of the Information-Aggregation Mechanism



which suggests that the informational content (or rather, spillover) of a lending relationship is less important for that group.

Conclusion

To analyze and address issues related to (unequal) access to credit, we need to understand how new borrowers gain and expand their access to credit, and how policies and external circumstances affect their ability to do so. My research highlights the importance of aggregating dispersed information regarding borrowers' creditworthiness and the role played by credit history in that aggregation.

These insights should complement the recent findings of researchers who document that lenders can benefit from alternative data (ranging from noncredit bill payment to social media behavior) in loan underwriting decisions. For example, in their 2020 article, Frankfurt School of Finance & Management economists Tobias Berg and Ana Gombović, Humboldt University (Berlin) economist Valentin Burg, and Duke University economist Manju Puri point out that the digital footprint of an online shopper can be as informative about their future default rate as the information contained in their credit records.

But information improvements may not be a "free lunch." The same information that convinces lenders that a subset of borrowers is creditworthy likely leads them to reject other potential new borrowers. [\[4\]](#)

Notes

1 The pricing of loans may be just as important as their availability. Thus, "access to credit" really means "access to affordable credit."

2 On the other hand, there are concerns about excessive indebtedness. These concerns motivated some of the restrictions in the Credit CARD Act, which explicitly limit the marketing of credit to young (new) customers, thus limiting their access to credit. In this article, I focus on the positive (in every sense of the word) aspects of credit access, including positive analysis of the effects of the Credit CARD Act. Normative concerns, as well as the specific behavioral biases that lead to financial mistakes, are the subject of my 2020 *Economic Insights* article.

3 Theoretical analysis conducted by Kovrijnykh, Livshits, and Zetlin-Jones (2019) highlights an important distinction between building one's credit history and improving one's credit score. Borrowers with the most favorable income prospects build their credit history in order to convince lenders to grant them large (and riskier) loans. Thus, these "best" borrowers end up with a higher probability of default (and a lower credit score) than borrowers without a credit history, who do not qualify for the riskiest loans.

4 Both this distinction and the critical importance of the credit history are highlighted in a new article by Stanford University economist Laura Blattner and University of Chicago economist Scott Nelson.

5 Although mainstream lenders, as a rule, report their loans (and their repayment) to credit bureaus, some fringe lenders do not. Payday loans, for example, are typically not reflected in the credit records that we consider here. This explains why a nontrivial fraction of credit records begin with a record of a collection, even though the loan that led to that collection was not itself in the credit record.

6 The data set used is the FRBNY Consumer Credit Panel/Equifax data (CCP).

7 I do not observe whether an account is jointly opened with another borrower. This is another way to facilitate credit market entry, as pointed out by Brevoort and Kambara (2017).

8 I use data from the first quarter of 2019 for my regression analysis, whereas for the summary statistics I aggregate a full year's worth of data (ending in that quarter) because the characteristics of new borrowers have pronounced seasonal fluctuations.

9 In contrast to Brevoort and Kambara (2017), I exclude from the definition of "new borrowers" consumers whose first entry with a credit bureau is when they are in collections. My definition also excludes borrowers who enter the credit market by piggybacking on older cards.

10 These statistics are computed based on representation in the CCP compared with the adult populations of census tracts reported in the American Community Survey (ACS). These levels of credit visibility are implausibly high across the board (likely due to the household aspect of the data by design), but our focus is the comparison across different clusters of neighborhoods. These comparisons are robust to various ways of addressing bias in the levels of visibility.

11 The table of regression results is available from the author upon request: igor.livshits@phil.frb.org.

12 Our findings differ slightly, most likely due to our different definitions of new borrowers, our different data sets, our different time periods, or a combination thereof.

13 Another aspect in which new borrowers differ from established ones is their riskiness — that is, the probability that they will fail to pay their debts in a timely manner. When new borrowers first appear in the data set, their delinquency rate is very low, but that is largely mechanical—they haven't had debts long enough to miss many payments. Within a couple of years, the delinquency rate of a cohort of new borrowers overtakes that of established borrowers. That means lenders may have good reason to be reluctant to advance credit to individuals without an established credit history.

14 See Eyigungor (2013) for an excellent discussion of debt dilution.

15 Because the entry rate is seasonally volatile, I plot Figure 4 at the annual frequency.

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