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# Alternate Data in Credit Underwriting: Potential Resolutions For the Unbanked and Underbanked

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## **Executive Summary**

The current credit landscape in the United States fails to provide essential financial services to many members of society. Across the United States, around 20% of the population is either unbanked or underbanked, and surveys carried out by agencies such as the Consumer Financial Protection Bureau show that systemic inequalities exist that have led to lower levels of credit access for minority groups. Historically, one's credit score is a weighted calculation that reflects payment history, amounts owed, age of credit history, credit mix, and new credit. This information is gathered by the three major credit bureaus: Equifax, Experian, and TransUnion, who then use algorithms provided by companies like FICO to create a credit score. However, the current credit scoring system falls short in assessing consumers accurately due to its limited scope, omitting crucial data like rent payments and utility bills, which are significant indicators of genuine payment capability, especially for financially vulnerable consumers.

The inclusion of alternative information — that is, any data beyond historical credit and transaction information — can help improve this problem as it provides a more comprehensive view of consumers. This data includes but is not limited to bank account data, rent payments, telecom payments, utility payments, nontraditional credit product consumer behavior, and more. This data has the opportunity to provide scoring models with key information that can boost individual credit scores, and with the assistance of artificial intelligence, there is an increased capacity for leveraging such data. According to FICO, there is legitimate value added to predictive models when it comes to including alternative information and there are also substantial benefits for consumers, as according to one source score increases of up to 50 points are possible from the inclusion of rent payments. Products and companies such as Experian Boost, Visa's Tink, MasterCard's Finicity, UltraFico, and Plaid are just some of the examples of how fintechs and traditional players are already aiming to either provide or utilize alternative information in the credit process. Lastly, open-banking, which is the process through which financial service providers electronically furnish account data to authorize the buying and selling of products and services for their customers, will be key in furthering access to financial services and credit as society continues to become more digital.

Even as alternative information has the potential to help both lenders and borrowers, it is important that policymakers understand the risks associated as there is potential for score decreases, data breaches, and continued marginalization of minorities in the event of unaccounted biases. To enhance potential benefits and minimize risks, policymakers should consider employing an opt-out strategy for credit services that report any behavior falling within the realm of alternative information for individual consumers. In order to improve access and regulation, they should experiment with pilot programs to live-test new regulation and create specific task forces and annual meetings to both centralize credit decision-making and to provide lenders, borrowers, and other affected parties with forums to voice their concerns. In the long term, policymakers should look to dissolve individual partnerships between bureaus and furnishers, provide incentives for lending businesses to increase the amount of data that is furnished and credit that is extended, create a global credit data set and standard to promote

information sharing, formulate nationwide data laws to protect consumers, and digitize all information in the credit system to enhance accessibility. Through these recommendations, the substantial benefits of alternative data can be realized and the credit landscape in the United States can be transformed and improved.

## **Introduction**

The global financial system has evolved rapidly in recent decades, but access to financial services remains a major challenge for billions of people around the world even in the current age of digitization. According to a 2022 report by the World Bank, about 1.4 billion adults worldwide are currently unbanked, meaning they lack access to formal financial services such as bank accounts, loans, insurance, and savings products.<sup>1</sup> In the U.S., a 2020 report from the Board of Governors of the Federal Reserve System indicated that 13% of American adults are underbanked and 6% are unbanked.<sup>2</sup> The Federal Reserve defines the “fully banked” as people who have a bank account and, in the past 12 months, have not used certain alternative financial services such as money orders, check cashing services, payday loans or payday advances, pawn shop loans, auto title loans, or tax refund advances. Those who have bank accounts but use or have made use of the alternative financial services listed are considered “underbanked” because the banking services they accessed appear to have been insufficient to meet their financial needs. Those in the “unbanked” category do not have a bank account at all, and only a portion of them have access to or are aware of alternative financial services. Despite a 50% increase in account ownership worldwide over the past decade, the demographic features of those who are underbanked and unbanked remain consistent. With its unique and diverse demographic makeup, race, ethnicity, gender, education level, and various other factors have become persistent barriers to further reducing these statistics within the United States. These statistics shed light on the struggle many Americans face, as the people in society who are most in need of credit are unable to attain it due to their perceived or actual riskiness, making it difficult to underwrite them or collect on delinquencies.

In the U.S., a major barrier to financial and credit services is a lack of credit history. Commonly, those with minimal credit are referred to as having a “thin credit” file and around 62 million Americans fall into this group. This group is defined by having fewer than five credit accounts on a credit report maintained by one of the three major credit bureaus: Equifax, Experian, and Transunion.<sup>3</sup> However, those deemed as credit invisibles — defined as having no NCRA credit records at all — are most disadvantaged. As of 2015, the CFPB reported that 26 million Americans were credit invisible, meaning 1 in 10 adults did not have a history with one of the three major credit bureaus.

Importantly, the report by the CFPB demonstrated that systemic inequalities have led to higher proportions of “thin files” and credit invisibility for certain demographics, even though bureaus do not collect information on a consumer’s race or ethnicity. This is troublesome as having a limited credit history negatively impacts one’s ability to gain access to credit, and without access to affordable credit it can be difficult to improve one’s score. Essentially placing minority groups into cycles of poor credit and a lower quality of life, since they lack proper financing to support their needs. The report found, “Black consumers, Hispanic consumers, and consumers in low-income neighborhoods are more likely to have no credit history or... enough

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<sup>1</sup> “Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19,” World Bank Group, June 2021.

<sup>2</sup> “Economic Well-Being of U.S. Households in 2020,” Board of Governors of the Federal Reserve, May 2021.

<sup>3</sup> White, Jennifer, “What is a Thin Credit File,” *Experian*, 5 May 2022.

credit history to produce a score.”<sup>4</sup> Even when such consumers have a credit score, 1 in 5 Black consumers and 1 in 9 Hispanic consumers have credit scores below 620, while only 1 in 19 white consumers have credit scores below 620. This is problematic as these low scores place consumers in the subprime credit category, complicating their ability to gain access to affordable credit. This low credit score severely impacts a consumer’s ability to obtain mortgages, student loans, car loans, and credit cards. For example, Black homeownership, “is just 44% compared to 74% for non-Latinx white consumers.”

Even if a consumer from this background is able to obtain one of these financial services, they will likely be faced with high-interest payments that reflect their poor credit scores or invariably come with small-dollar credit products. As a result, minority consumers can be caught in this cycle of debt, which otherwise could have been avoided if they had access to higher-quality credit products. The report finds that Black and Hispanic Americans are more than twice as likely as white Americans to be unbanked or underbanked, and families at the bottom of the income distribution are more than six times as likely as families at the top to be among the unbanked or underbanked. In the year 2018, Americans who fell into the unbanked and underbanked categories spent around 190 billion dollars on fees and interest associated with financial products.

These statistics shed light on the issue with current credit scoring models, as they disproportionately impact selected groups and have a limited scope for what data is considered. Consumers have access to their credit scores through the major credit bureaus, which gather financial and borrowing information to calculate a score that represents one’s creditworthiness. The most common scoring model the bureaus use is the FICO model, which considers a consumer’s payment history, credit use, credit history, types of credit, and new credit (these scores can range from 300 to 850). In an effort to provide more holistic scores, legislators and practitioners have raised the idea of “alternative data” or including other forms of data in calculating credit scores, broadening the scope of information that can be used in credit scoring. Such data includes but is not limited to bank account information, rent payments, utility payments, purchase data, social media data, short-term loan data, payroll data, banking data, telecom data, and nontraditional credit product consumer behavior. While the U.S. credit bureaus have yet to include such data in mainstream scoring, other countries like China and India have successfully included the underbanked or unbanked into the financial system by means of financial technology companies using alternative data. This paper will seek to better understand the alternative data landscape in the U.S., how alternative data is used in other countries, the role of financial technology companies (fintechs) in financial inclusion, and conclude with U.S. legislation recommendations.

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<sup>4</sup> “Data Point: Credit Invisibles,” THE CFPB Office of Research, May 2015.

## **Credit Climate in the United States**

This section of the paper will seek to better understand the current infrastructure surrounding credit reporting agencies, the historical regulation of such entities, recent legislation surrounding credit scoring, and other developments in the U.S. credit industry. This deep dive will allow for a smoother comparison to other nations and help inform legislative recommendations.

### **The Credit Ecosystem:**

Credit reporting agencies (CRAs) are entities responsible for aggregating consumer information into a centralized database, which is then utilized to generate credit scores that reflect a consumer's creditworthiness. While there are smaller bureaus that specialize in one aspect of consumer data, the three largest nationwide providers of credit reports are Equifax, Experian, and TransUnion.<sup>5</sup> These bureaus receive information from lending and debt-collecting companies known as furnishers, who regularly send reports cataloging consumer credit behavior.<sup>6</sup> Each consumer has a file at the credit bureau, and that file contains all the credit information that the bureau has compiled regarding the consumer. Within that file, there are tradelines, with each tradeline being the origination and payment history of an individual credit obligation. The information stored in tradelines serves as the input for credit scoring models, enabling the calculation of an individual's credit score. Importantly, furnishing tradelines are voluntary and furnishers are not required, unless otherwise regulated, to submit any or all tradelines to the CRAs. Thus, because alternative data sources like landlords, telecom companies, or utility companies are not federally mandated to furnish data, nor have great incentives to do so, it is not typical that this type of information is used in credit scores.

When it comes to arriving at a credit score, the credit reporting agencies share the information they have gathered on customers with credit scoring software companies. The two major credit scoring companies are the Fair Isaac Corporation (FICO) and VantageScore, which tabulate individual credit scores based on the information that is reported by the credit reporting agencies.<sup>7</sup> The most widely used FICO score versions are the FICO Score 8 and 9, which debuted in 2009 and 2014, and the VantageScore 3.0 and 4.0.<sup>8</sup> However, there are multiple other VantageScore and FICO scores that vary in their use depending on the specific creditor and other authorized users of personal credit data. These credit scores include scores for credit card decisions, mortgage lending, auto lending, and more. As a result, it is not possible for individual borrowers to identify the exact score that lenders will use, but across all scores, good credit behavior will lead to improvement over time.

The overall FICO calculation regardless of the score consists of approximately 35% payment history, 30% amounts owed, 15% age of credit history, 10% credit mix, and 10% new

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<sup>5</sup> "Consumer Credit Reporting, Credit Bureaus, Credit Scoring, and Related Policy Issues," Congressional Research Service, 12 October 2023.

<sup>6</sup> "Market Snapshot: Third-Party Debt Collections Tradeline Reporting," *Consumer Financial Protection Bureau*, July 2019.

<sup>7</sup> Akin, Jim, "What Are the FICO Score Versions," *Experian*, 7 September 2021.

<sup>8</sup> "The Complete Guide to Your VantageScore," *VantageScore*, 11 October 2019.

credit. For VantageScore the weights and segments are slightly different and are broken down as follows: 40% payment history, 21% depth of credit, 20% credit utilization, 11% balances, 5% recent credit, and 3% available credit. Both FICO and VantageScore provide consumers with a score between 300 and 850, and the CFPB breaks these scores into five different categories depending on creditworthiness.<sup>9</sup> Deep subprime consumers are those with scores below 580, subprime consumers score between 580 and 619, near-prime score between 620 and 659, prime score between 660 and 719, and super-prime score equal to or above 720.

While Equifax, Experian, and TransUnion are the traditional, large-scale credit bureaus that look to centralize consumer information for all potential borrowers, there is a network of subprime credit bureaus and consumer reporting agencies that aim to collect information regarding low credit quality consumers and smaller dollar financial tools. Companies that work in this area of credit include Clarity Services, DataX, and Factor Trust. All three of these companies collect information on short-term lenders, installment lenders, subprime auto lenders, leasing companies, and more.<sup>10</sup> This includes tools such as payday loans, which will be paid off once a borrower receives their next paycheck, and installment loans that typically have very short maturities and smaller dollar values. The information that is gathered by these companies helps subprime consumers gain access to credit and financial services that otherwise would not have been available. The current market size of payday loans in the United States is around \$12.5 billion and this constitutes around 12.5% of the financial services spend by underbanked consumers.<sup>11</sup> The share of adults in the United States who have used payday loans is 5.5%, and the most likely demographic are younger consumers who do not have a college degree and have an annual salary of less than \$40,000. Lastly, around 83% of the market consists of consumers who make less than \$50,000 per year.

Subprime credit bureaus operate in the financial landscape as information providers for lenders that provide loans to low-income and subprime borrowers, who usually are unable to gain access to traditional credit products due to a low credit score or the absence of one.<sup>12</sup> They serve an otherwise neglected part of society, facilitating credit access to those unable to otherwise have access to it, but the information they collect is not included among the data used by the traditional bureaus to assess creditworthiness.

Another key attribute of the credit landscape is that the credit bureaus are competitors, and as a result, they have access to different information, which means one's credit score usually varies between the three. For example, Equifax has a longstanding agreement with the National Consumer Telecom and Utilities Exchange (NCTUE), which means it has access to proprietary payment information for telecom, wireless, cable, paid TV, home security, and utility companies.<sup>13</sup> This process can be broken down into the following two steps, first, businesses that

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<sup>9</sup> "Borrower Risk Profiles," *Consumer Financial Protection Bureau*, December 2019.

<sup>10</sup> "Low-income and Subprime: FactorTrust," *Consumer Financial Protection Bureau*, 2022.

<sup>11</sup> Govdysh, Alexander, "Check Cashing & Payday Loan Services in the U.S.," *IBISWorld*, November 2023.

<sup>12</sup> "List of consumer reporting companies," *Consumer Financial Protection Bureau*, 2022.

<sup>13</sup> "Equifax Extends Service Agreement With National Consumer Telecom and Utilities Exchange," *Equifax*, 19 November 2019.

are a part of NCTUE share information on their customers to a centralized database owned by the NCTUE. Next, as a result of their partnership with NCTUE, Equifax can gain access to this database and the alternative data contained in it, meaning they have extra information unavailable to TransUnion and Experian on their customers. This proprietary information allows Equifax to include unique information when quantifying the lending risk of their customers since they have data available to them that the other bureaus do not have access to. Another example of such partnerships is Experian's acquisition of Corporate Cost Control, Tax Credit Co., and Emptech, to strengthen its payroll datasets.<sup>14</sup> This deal provides Experian with access to unique employee records and supplies Experian with proprietary information it can use to generate credit scores for consumers, in addition to the new services it aims to provide employers in their employee verification processes. Clearly, these partnerships complicate the credit landscape as certain bureaus have unique access to certain datasets, and depending on each bureau's access, an individual's credit score can greatly vary. According to an expert in the credit industry, around 60% of Americans with FICO scores below 680 observe their outstanding debt amounts to vary more than 25% between Equifax, Experian, and TransUnion. Unfortunately, there are no current incentives to solve this issue as the credit bureaus continue to attempt to differentiate themselves by acquiring unique data, only serving to lead to more confusion on the individual consumers' side.

### **Legislative History**

The contemporary credit industry has been heavily influenced by the laws regulators have passed over the past half-century. In particular, significant periods of legislative activity took place during the 1970s and after the Global Financial Crisis of 2007 to 2008. Therefore, it would be valuable to outline the most important bills and the corresponding issues they attempted to solve.

First, the Fair Credit Reporting Act of 1970 and its later amendments have been vital in ensuring fair scoring processes occur, and enabling consumers to advocate for themselves with bureaus. When it was originally enacted, the FCRA's primary goal was to require the bureaus to follow "reasonable procedures" to protect the confidentiality, accuracy, and relevance of credit information.<sup>15</sup> Before its passage, the industry suffered widespread abuse due to a lack of regulation, which did little to curb the malicious practices that commonly took place. Examples of these practices included: fabricating negative information to fill quotas, covertly collecting personal and private information (sexual orientation, drinking habits, marital status), and illegally providing credit file information to unauthorized parties, such as law enforcement. The passage of the law and future amendments provided consumers more transparency and security regarding their credit information, such as the right to be informed whether a credit file was used to deny a credit, employment, or insurance application, the right to request and access any information the

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<sup>14</sup> "Experian announces new employer services business and real-time income and employment verification solution," *Experian*, 2023.

<sup>15</sup> "The Fair Credit Reporting Act (FCRA) and the Privacy of Your Credit Report," *Electronic Privacy Information Center*, 2023.



bureaus had acquired regarding an individual, restricting access for unauthorized groups such as landlords or law enforcement, the right to dispute inaccurate information, and the right to acquire a short-term “security freeze” to prohibit interested parties (lenders) to view your information. In 2003, the FCRA was further amended to mandate the three major credit bureaus to provide consumers with a free annual credit report. This adjustment gives consumers free access to their credit reports, providing them the opportunity to verify the accuracy of their credit information and the ability to dispute any inaccuracies if necessary.

Another relevant piece of legislation regarding consumer protection was the Equal Credit Opportunity Act of 1974, which prohibited creditors from discriminating against applicants based on race, color, religion, national origin, sex, marital status, or age.<sup>16</sup> This law protected against discrimination for car loans, home loans, student loans, and small business loans as well. The last of the bills from the 1970s was the Fair Debt Collection Practices Act which was passed in 1977 and aimed to protect consumers from debt collection malpractices. This bill prohibited debt collectors from harassing individuals over the phone, prohibited the use of electronic communications and public platforms to publicly disclose one's financial obligations, and restricted the specific times and locations for debt collectors to approach individuals, along with curtailing various other malicious practices.

Regarding terms and conditions related to credit cards and other financial instruments, the Truth in Lending Act of 1968 was the first federal law to promote honesty and clarity.<sup>17</sup> This bill forced lenders to disclose all terms and costs of the credit they supplied and standardized how such costs are calculated and disclosed. This bill was intended to facilitate the credit decisions of consumers, helping them decide whether they were financially secure enough for certain debt products. Under this legislation, mandated disclosures encompassed details such as the number of payments, monthly payment amount, late fees, prepayment options without penalties, and various other terms. While this law provided a solid regulatory foundation, in the aftermath of the Global Financial Crisis it was clear that the government needed to hold businesses to higher standards to ensure adequate protection for consumers. This led to the Credit Card Accountability Responsibility and Disclosure Act of 2009, which forced lenders to provide consumers with more detailed information regarding their products.<sup>18</sup> Such information included requiring credit card companies to inform consumers on the duration of time it would take for them to pay off their debt if they made the minimum payment every cycle, prohibiting companies from freely raising rates without notifying borrowers 45 days in advance, providing age limits for opening new card accounts, and adding limits to all fees (late, annual, monthly, activation, set-up, over-limit).

Most importantly, the Global Financial Crisis led to the Dodd-Frank Wall Street Reform and Consumer Protection Act, and the creation of the Consumer Financial Protection Bureau. The creation of the CFPB consolidated all consumer financial protection activities that had

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<sup>16</sup> “The Equal Credit Opportunity Act,” *U.S. Department of Justice*, 14 September 2023.

<sup>17</sup> “Truth in Lending Act,” U.S. Office of Financial Readiness, 2023.

<sup>18</sup> “Credit Card Accountability Responsibility and Disclosure Act of 2009,” Legal Information Institute, July 2022.

previously been dispersed across multiple branches of the government.<sup>19</sup> Today, the CFPB oversees banks, credit unions, and other financial institutions, ensuring the enforcement of federal laws related to consumer finance.<sup>20</sup> This agency regulates the providers of many financial products and services, including credit card, credit reporting, and debt collection companies. It is also tasked with assessing business procedures to confirm genuine intentions, monitoring the marketplace, taking action to ensure transparency for consumers, and establishing a platform where consumers can ask questions and submit complaints about the products and services they use.

Finally, transitioning to the present day, the Economic Growth, Regulatory Relief, and Consumer Protection Act of 2018 stipulates that the federal mortgage facilitators Fannie Mae and Freddie Mac must consider the merits of alternative versions of credit scores, potentially benefiting individuals with limited or no traditional credit history.<sup>21</sup> Furthermore, in 2019 the CFPB, the Federal Reserve Board, The Federal Deposit Insurance Corporation, and other offices released a joint statement in favor of using alternative data for credit underwriting. This positive movement towards alternative data being recognized as relevant in credit underwriting practices is indicative of legislators' increased interest. However, with the potential size and impact of alternative data, the process of legislation and regulation has only just begun.

### **Alternative Data**

Over the past decade, there has been significant growth in the alternative data landscape, with hundreds of fintechs providing services not previously available to personal consumers. These previously unavailable services allow consumers to illustrate their creditworthiness beyond the traditional scope of national credit reporting agencies which focus on purely financial metrics such as payment history, amount of credit owed, length of credit history, credit mix, and new credit.<sup>22</sup> As aspects of society continue to be digitized, there are an ever-increasing number of data points that can be pulled to arrive at a more comprehensive measure of personal creditworthiness. This abundance of data points has spurred the rise of fintechs dedicated to integrating this information into credit scoring calculations and reporting.

Alternative data is any information that falls outside the boundaries of a consumer's historically tracked credit behavior. This includes among other things, bank account information, transactional data, utility payments, telecom payments, rental data, clickstream data, audio and text data, social networking analysis, questionnaire data, nontraditional credit product consumer behavior, and more. Furthermore, since it expands the dataset companies use to calculate credit scores, this information can be helpful to demographics traditionally marginalized by credit reporting agencies which have been previously unable to gain access to high-quality, affordable credit.

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<sup>19</sup> "Building the CFPB: A Progress Report," Consumer Financial Protection Bureau, 18 July 2011.

<sup>20</sup> "Wall Street Reform: The Dodd-Frank Act," *National Archives*, 20 July 2010.

<sup>21</sup> "Economic Growth, Regulatory Relief, and Consumer Protection Act," U.S. Government Publishing Office, 24 May 2018.

<sup>22</sup> DeNicola, Louis, "What is a Good Credit Score," *Experian*, 2023.

Alternative data can be broken down into four different categories to better illustrate the specific information that is collected. The first category of information includes non-traditional credit data such as small-dollar loans, rent-to-own agreements, and installment loans. The information provided by these products is not typically included in contemporary credit scores and would help to show a consumer's financial responsibility through alternative financing. The second category of information would be bank data, as credit scores currently do not include checking and savings account information. Clearly, this information is useful in the context of creditworthiness as it shows a consumer's financial health more comprehensively. This information provides important insights into an individual's cash flows, financial management, and spending habits, which should clearly be reflected in one's credit score. The third category of information would be bill pay data, which consists of rent, utilities, and any other constantly recurring payments consumers make. Lastly, the final category of information would consist of identity verification data, such as phone ownership bills, which would allow the credit rating agencies to avoid fraud and ensure the information reflected in credit scores applies to the correct individual.

While credit rating agencies do use "transactional data" from credit and debit cards to evaluate creditworthiness, a deeper analysis could provide rating agencies with key insights into consumer creditworthiness. Advanced data analysis has shown that there are predictive characteristics regarding card use that are currently not being used when evaluating creditworthiness. Techniques include measuring the "number, frequency, and value" of purchases for different products as well as comparing the number and amount of transactions over a previous period to the most recent period. Even as the credit bureaus fail to fully exploit this information, fintechs are continuously looking to mine this dataset for business opportunities.

Next, telecom, utility, and rental payments are all consistent, recurring payments that people make throughout their day-to-day lives that can be leveraged and used in creditworthiness calculations. Yet, utilizing these payments as a metric for assessing creditworthiness presents challenges, as reporting can only occur if rent payments have been made through designated channels. For example, payments made by third-party use of Paypal, Venmo, or Zelle, or by cash, money order, or personal checks are not allowed.

To combat this issue, Experian Boost, which was launched in 2019, has partnered with over 1500 rent management companies including Zillow, Yardi, Buildium, and AppFolio to allow for quick and efficient reporting of rental payments. Some fintechs are already gathering data on telecom and utility payments, and their inclusion seems like a natural progression in the alternative data reporting space.

Not only are utility payments similar to rent, but they could be a significant help in showing creditworthiness since these types of items are part of every household's list of common expenses. Beyond telecom, utility, and rent, there has been a push to include information about subscriptions which demonstrate consistent payments, albeit of lower amounts to less vital services. These media services include YouTube Premium, Dollar Shave Club, Adobe Creative

Cloud, Nintendo Online, Apple Music, SoundCloud, Xbox Live, Amazon Prime, HBO Max, and DisneyPlus.

While these payments are markedly smaller than rent, they nonetheless could prove meaningful for consumers. Indeed, there are already companies in the space such as Altro that are looking to provide this sort of expense reporting service to consumers. With the growth of online media subscription services, the market for this sort of expense reporting has the potential to grow alongside increasing household spending on lower-value subscription services and products.

As technological analysis continues to become more sophisticated, alternative credit information has expanded into areas previously believed to be unaffiliated with one's financial characteristics. This includes artificial intelligence models that analyze social media and conduct analysis on individuals' networks which update in real-time as users interact on public platforms. This information helps credit models map out the associations the individual has with others, helping provide a picture for thin files based on their affiliates' credit ratings.

Beyond social media, metadata can be gathered about how individuals interact with webpages, surveys, and questionnaires to predict their credit scores and model their riskiness. Especially when paired with audio and text data from credit applications, it's possible to create stronger, more predictive models than with financial characteristics alone.<sup>23</sup>

Overall, the key to alternative data is that it provides a more comprehensive representation of an individual, so whether it is utility payments, social media analysis, or bank account information, this information can be helpful to both lenders and borrowers as it allows lenders to build more accurate models to reduce the riskiness of their loans, as well as help borrowers gain access to fairer, more affordable credit.

### **Regulation:**

Currently, the United States does not have a nationwide comprehensive data privacy law and there is little regulation prohibiting how companies use information, even that collected through the products people use on an everyday basis.<sup>24</sup> The only states with comprehensive consumer privacy laws are California (CCPA), Virginia (VCDPA), and Colorado (ColoPA), with companies operating in these states generally having to notify customers that the information they gather can be distributed. To satisfy their obligations, these companies provide notices and checkboxes that allow consumers to approve or disapprove of the distribution of their personal information during the use of specific products.

Other states have passed legislation regarding the protection of certain aspects of digital information, these include Missouri's ebook privacy rules and Illinois' Biometric Information Privacy Act. Additionally, Massachusetts, New York, North Carolina, and Pennsylvania have data privacy proposals currently in committee, and experts in the industry believe there needs to be further legislation in consumer visibility, opt-in consent, data minimization, and nondiscrimination regulation.

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<sup>23</sup> "Using Alternative Data in Credit Risk Modelling," *FICO*, 27 July 2023.

<sup>24</sup> Folks, Andrew, "U.S. State Privacy Legislation Tracker," International Association of Privacy Professionals, 17 November 2023.

Overall, this convoluted landscape complicates the operations of businesses as well as fails to protect consumers who fall outside of regulatory boundaries whether that be locationally or in regards to specific types of information.<sup>25</sup> Moving forward, it would seem that having a national law in place would be beneficial for both consumers and businesses, as it would protect consumers regardless of state politics, and provide a clearer roadmap for businesses to follow.

### **Major Fintechs:**

Ultra FICO was one of the earliest attempts by the credit industry to help consumers better reflect themselves in their credit score.<sup>26</sup> To achieve this, consumers would be given access to data that illustrated their responsible credit behavior so that they could acquire more accurate credit scores. Information that was of particular interest included the length of time one's checking and savings accounts had been open, the frequency and how up-to-date transactions were, the presence of cash on hand, and history of positive account balances. FICO estimated that around 15 million American consumers who could not generate a traditional credit score, would be able to generate an UltraFICO score due to its wider breadth of information sourcing.<sup>27</sup> UltraFICO's core idea of including a wider scope of consumer information has led to the popular Experian Boost program which is now used across the country to help improve individual credit scores for consumers.

Since its launch in 2019, Experian Boost has been helping people improve their credit scores and build their credit history by aggregating utility, telecom, rent, and streaming service bills from users' bank and credit card records.<sup>28</sup> The product includes on-time qualifying payments to boost scores produced by their scoring algorithm, helping both consumers with sound credit histories and those new to credit. Types of payments that qualify include mobile and landline, internet, cable, satellite, gas, electricity, residential rent paid online, video streaming services, water, power, solar, and trash expenses. Experian Boost only includes on-time payments, so while it cannot hurt your score, there is a possibility that no change will occur. Experian Boost provided an instant raise to FICO scores by an average of 13 points, and can also help improve FICO Score 3, 8, 9, and 10. From conversations with experts in the industry, one of the key concerns with including more tradelines into credit scoring was that it would pollute the credibility of the FICO score. However, from those interviewed for this paper, including Experian competitors, Experian has continued to operate with a fair restraint and included only characteristics that pertain to legitimate creditworthiness.

It is important to note that Experian Boost's benefits vary depending on the specific needs of each customer, and the credit file each customer has built. Boost is specifically designed for individuals that have thinner credit files, and is not particularly helpful for consumers with strong credit scores.<sup>29</sup> Additionally, there is the possibility that lenders will use a scoring model that is

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<sup>25</sup> Klosowski, Thorin, "The State of Consumer Data Privacy Laws in the U.S. (And Why It Matters)," *The New York Times*, 6 September 2021.

<sup>26</sup> "UltraFico," *FICO*, 7 December 2019.

<sup>27</sup> "UltraFICO\_Infographic\_Consumer", *FICO*, 2023.

<sup>28</sup> Stolba, Stefan L, "What is Experian Boost," *Experian*, 19 September 2022.

<sup>29</sup> Smith, Kelly A., "Experian Boost Review: Who Should Use It," *ForbesAdvisor*, 29 December 2022. <https://www.forbes.com/advisor/credit-score/experian-boost-review/>

incompatible with Boost, meaning Boost may not be able to help one access specific credit products. Furthermore, the average credit score increase of 13 points provided by the product is unlikely to make a meaningful impact for many customers. Although a 13-point increase can be beneficial, the intervals between each credit score category (deep subprime, subprime, near-prime, prime, and super-prime) typically span 40 to 60 points. This implies that for an individual to transition from one category to another, they would need to already have a score toward the upper range of their current category.

One alternative to Experian Boost is StellarFi, which allows consumers to add, automatically pay, and then report their bills to all three of the major credit bureaus.<sup>30</sup> StellarFi works through a mobile application where consumers can link a checking account, connect their different bills, and then automatically pay their bills on time to improve their credit score. StellarFi can connect and report rental payments, internet bills, cell phone bills, insurance bills, utilities, and entertainment subscription services (Netflix, Apple TV, Disney+, Roku, Spotify, and more), and mainly targets payment history and credit utilization. Depending on where each consumer's performance falls in those two categories, its services can provide credit score boosts of 10 to 50 points if consumers are able to pay on time.

With the continuing progress in financial data accessibility, open banking products seem to be the natural next step in product innovation, with products such as Visa's Tink, Mastercard's Fincity, and new companies like Plaid gathering momentum.<sup>31</sup> Open banking is the process through which financial service providers electronically furnish account data to authorize the buying and selling of products and services for their customers. There are inherent administrative time lags and inconveniences posed by the credit bureaus as they hamper companies from accessing financial information. Open-banking, at its best, enables users to access new financial products by sharing data from multiple financial accounts with firms whose services they hope to use. For example, banks can provide lenders with information on payroll data, mortgages, and a wide variety of other services. Direct access can streamline the transaction process by eliminating the need for physical bank statements, pay stubs, and any other physical documents.

Visa's acquisition of Tink and the growth of Fincity illustrate how traditional players in the payment ecosystem view open banking over the long term. Tink and Fincity provide financial data access through application programming interfaces (APIs), which create a path for financial information to be shared from banks to businesses that customers intend to use.<sup>32</sup> This includes many of the third-party apps that are used in the evolving world of digital payments and are available to consumers through mobile applications.

Visa's acquisition of Tink was fueled by its growth in Europe as it facilitated over 6,000 connections to major banks across users and helped to process over \$10 billion of transactions each year.<sup>33</sup> Visa is looking to deploy this service in America as, according to a 2023 report from Visa, around 87% of consumers connect their financial accounts to third parties, and around 30%

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<sup>30</sup> "How does StellarFi build your credit," StellarFi, 2023.

<sup>31</sup> Harrison, Hayden, "What is open banking? Your essential guide," Mastercard, 23 November 2022.

<sup>32</sup> "What is Open Banking," Visa, 27 January 2023.

<sup>33</sup> "Tink: A Visa Solution," Tink, 2023.

of consumers use at least 6 or more apps that are powered by open banking services. These statistics convey the relevance of the open banking services provided by Visa and Mastercard and underscore the importance of products like Tink and Finicity in the daily routines of many American and international consumers.

Another company in the open-banking space is Plaid, which allows consumers to share specific financial information from their banks to apps, services, and companies.<sup>34</sup> The company helps to share account and routing numbers, balances, transaction histories, personal plans and credit cards, and investment holdings from 11,000 different financial institutions to thousands of services to help consumers mobile bank, save, invest, build businesses, make payments, and lend. The products it provides are essential to the operation of a wide variety of financial applications people use today, including Venmo, NerdWallet, CashApp, Chime, Rocket Money, SoFi, Petal, and more. Plaid acts as an intermediary between a consumer's financial accounts and whatever financial tool or service they are looking to access. By encrypting financial data, it can provide applications with financial authorization to proceed with any given business process. Plaid allows consumers to give permission, control, or share any information that they want, focusing on providing value to consumers as opposed to data collectors. It aims to improve transaction conversions and transparency, as well as facilitate the underwriting processes within individual consumer finance. The company also provides consumers with the option to send positive information to financial institutions, but it is not a data furnisher that will automatically provide information to credit bureaus. Plaid is not a black box of information where lenders can purchase information to use in the credit analysis of consumers, it is a sophisticated, consumer-controlled intermediary that can be used as a consumer-led furnisher.

Altro is one fintech in the space that clearly shows how companies are trying to use small subscriptions to indicate creditworthiness.<sup>35</sup> The company allows customers to connect their bank accounts to a digital app, and use an Altro-issued card to pay for subscription services, which can include Dollar Shave Club, Adobe Creative Cloud, Apple Music, Nintendo Online, Audible, Hulu, Spotify, Xbox Live, Amazon Prime, Disney Plus, and LinkedIn Premium. At the end of the cycle, the customer then pays off the balance on the card, which – unlike payments made directly through the bank account – can then be included in the transaction information that is sent to the credit bureaus, boosting the customer's credit score.

While many of the products previously mentioned provide valuable services to consumers within the United States, they fail to directly help consumers new to the country. Nova Credit aims to address this problem by functioning as a global credit bureau, enabling immigrants to utilize their international credit history when applying for financial products in the United States.<sup>36</sup> The company has partnered with foreign lenders and credit bureaus to gather information on customers from countries across Europe, South America, Asia, and the Pacific Islands. Customers of Nova Credit can search for products they previously used abroad and share their corresponding credit histories as part of their application for domestic credit services. Their

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<sup>34</sup> "What is Plaid," Plaid, 2023.

<sup>35</sup> "How it Works," Altro, 2023.

<sup>36</sup> "Expand Your Credit-Eligible Universe," Nova Credit, 2023.

Credit Passport product is a proprietary API experience that consolidates a consumer's international financial history into a locally-equivalent credit score, consisting of risk attributes and tradelines. Furthermore, Nova Credit helps customers pick their optimal credit cards, apply for cellular phone financing at Verizon, pre-qualify for American auto loans, and check their eligibility for international student loans. In essence, Nova Credit bridges the gap for newcomers to the United States, ensuring they can access essential financial services in their new home, thereby fostering financial inclusion and facilitating a smoother transition into the United States.

**Potential:**

According to FICO, when alternative data is added to traditional information it can add legitimate value to predictive credit models.<sup>37</sup> FICO broke down how much relative predictive value was added to their models for customers based on their relationships with lenders. For new customers, the predictive value could be found from the inclusion of rental and utility (5%-10%), social profile (0%-15%), social network (10%-20%), and clickstream information (0%-10%). For customers with weak relationships, the predictive value could be found from the inclusion of transactional (0%-5%), rental and utility (5%-10%), social profile (0%-15%), social network (10%-20%), clickstream (0%-10%), and text (0%-5%) data. Lastly, for customers with strong relationships to lenders, the predictive value could be found from the inclusion of transactional (5%-10%), rental and utility (0%-5%), social profile (0%-5%), social network (5%-15%), clickstream (0%-5%), and text (0%-5%) data. FICO also did a project on a personal lending origination portfolio that illustrated the performance comparison between a model that provided traditional, alternative, and both sources of information. While there was overlap, the combination of both alternative and traditional data allowed for stronger performance than traditional alone when accurately determining the credit risks of individuals within the portfolio.

Due to the size and breadth of the housing market in the United States, rental data is widely viewed as one of the most beneficial forms of alternative data for credit bureaus. The inclusion of rental data is a huge opportunity as around 68% of all renters in the United States have made on-time payments throughout the past 12 months (the performance is higher among whites (72.8%) and Asians (77.6%), than Hispanics (62.9%) and Blacks (55.3%)). It is important to note the racial and ethnic composition of households by tenure in the United States plays a factor since the exposure is different among the demographic groups. Renter households are broken down into Asian (5.5%), African-American (19.7%), Hispanic (19.7%), white (51.7%), and other (3.4%). Furthermore, combining the information provided by the two previous statistics, the percentage of total renters who paid on time throughout the past 12 months is 6.4% Asian, 16.1% African-American, 18.4% Hispanic, 55.8% White, and 3.3% other. Overall, this information shows the broad scope and performance of renters across the United States and supports the cause for the inclusion of rental data as it can help people, albeit the benefit gained by minorities may be lower due to their lower rates of on-time payment.

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<sup>37</sup> "Using Alternative Data in Credit Risk Modelling," Fico, 2023.



According to a report from TransUnion in 2021, the inclusion of rental payments in credit files helped boost the average credit score of individuals by 60 points.<sup>38</sup> Additionally, it found that 50% of the renter population was deemed subprime or unscorable and that this segment has significant potential for score increases. From the population that was observed, around 9% of the sample that was deemed previously unscorable or subprime was able to achieve a score of 631, which placed them within the “near prime” range of 601 to 660. The study found that 12% of individuals improved their score to place them into a higher tier and that within one month of rent payment reporting, credit scores increased for 60% of renters. The results from this study support the adoption of rent reporting and provide evidence that the inclusion of rent payments in credit scoring models could be a key catalyst for broader creditworthiness, enabling more consumers to achieve financial success in the short and long term.

There are also potential benefits that can come from including utility and telecommunication information in credit scoring models. According to a 2012 study, from 2009 to 2010, using utility and telecom data lowered the percentage of thin-file consumers from 9% to 5% and of those deemed unscorable from 7% to 2%.<sup>39</sup> However, the effects on consumers who already possessed credit scores were not as substantive, as slightly more than 70% of this demographic experienced increases or decreases of less than 10 points, with around 5% experiencing either an increase or decrease of more than 25 points. Another study from 2012 found that only 3.1% of individuals had one or more moderate delinquencies for their utility or telecom accounts in their sample.<sup>40</sup> Furthermore, of the 5% of consumers who were placed in the lowest tier of income (below \$20,000), only 2% had 30-day delinquencies and 2.6% had 60-day delinquencies. Lastly, according to a survey from Experian from 2015 that looked specifically at the inclusion of positive utility payment data, 77% of customers saw an increase in their credit scores, with the average increase being 11 points, and the share of customers with subprime credit scores decreased from 30% to 16%.<sup>41</sup> However, only around 15% of individuals migrated to a higher risk tier, 3% generated lower scores based on the information that was added, and 2% saw declines in their score at an average value of 11 points.

Through conversations with experts in the industry, it is clear that the inclusion of bank account data, such as checking and savings account information, could be a key to improving credit scoring models. Cash flow data (which includes outflows, inflows, and accumulated amounts) can be helpful as it helps lenders observe how individuals manage their finances and thus their ability to repay their outstanding or future debts. Analysis from a recent study from the CFPB that focused on individuals with credit scores below 720, suggests that consumers who self-reported more positive cash flows outperformed their counterparts with less positive cash

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<sup>38</sup> “Alternative Data Such as Rent Payment Reporting Bridges the Gap for Unscorable Consumers and Increases Financial Inclusion Opportunities,” TransUnion, 15 July 2021.

<sup>39</sup> Chaudhuri, Sukanya and Michael A. Turner, “A New Pathway to Financial Inclusion: Alternative Data, Credit Building, and Responsible Lending in the Wake of the Great Recession,” Policy & Economic Research Council, June 2012.

<sup>40</sup> Chaudhuri, Sukanya et. al, “The Credit Impacts on Low-Income Americans from Reporting Moderately Late Utility Payments,” Policy & Economic Research Council, August 2012.

<sup>41</sup> “The Impact of Positive Energy-utility Reporting on Consumers,” *Experian*, 2015.

flows by 20%.<sup>42</sup> The findings from this report support the linkage that has been made between cash flow data and serious delinquency rates by other studies conducted in the field.

The CFPB study analyzed subjects on the following three cash flow proxies: accumulated savings, regularly saving and no overdrafts, and paying bills on time. The CFPB's analysis through the accumulated savings perspective found that consumers with high accumulated savings were 70% less likely to experience serious delinquency in the two years after the survey. Given the limited size of the study sample, it is more appropriate to interpret the superior performance of individuals with significant accumulated savings as a general trend rather than a precise measurement (individuals with high accumulated savings are expected to perform better, but not by 70%). Concerning the second proxy, individuals who indicated consistent savings habits and the absence of overdraft fees were approximately 40% less likely to encounter serious delinquency in the two years following the survey. Lastly, people who reported no difficulties with paying their bills were found to be around 20% less likely to experience serious delinquency in the two years after the survey was taken. Overall, this survey highlights potential connections between the cash flows of checking and savings accounts and the probability of individual debt repayment. This underscores how incorporating cash flow information can assist lenders in more precisely assessing an individual's creditworthiness.

Lastly, according to a source from a prominent fintech, the use of traditional models with non-traditional data for the subprime and near-prime segment provided underwriters with better credit decisions. While the incorporation of alternative information such as rent payments provided a marginal benefit for models when scoring those with expansive credit histories, this information provided significant benefits when it came to scoring those with only a few tradelines in their credit profile.

### **Potential Risks:**

While the potential for alternative data is clear, there are inherent risks when it comes to the utilization of consumer data. These risks include the possibility that more information can harm scores, data privacy breaches, and that potential alternative data could reinforce the constraints placed on current credit-maligned demographics. While the benefits outweigh the negatives of alternative data, it is important to be cognizant of the consequences and potential issues of this innovation. It is vital that with this innovation in the credit space, the government maintains appropriate regulation and compliance measures to protect both businesses and consumers from costly mistakes.

First, the inclusion of alternative data has the potential to hurt consumer credit scores if their historical performance in certain areas is poor. When it comes to calculating credit scores, a credit score is representative of one's creditworthiness relative to the population, and if sub-par information is furnished, this will undoubtedly damage one's credit score even though they are supplying more information.<sup>43</sup> According to a 2019 report by the U.S. Department of Housing

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<sup>42</sup> Alexandrov, Alexei, et. al, "Looking at credit scores only tells part of the story – cashflow data may tell another part," *Consumer Financial Protection Bureau*, 26 July 2023.

<sup>43</sup> Beer, Rachel, et. al, "Are Income and Credit Score Highly Correlated," Board of Governors of the Federal Reserve System, 13 August 2018.

and Urban Development, the inclusion of full file rental data, which includes on-time and late payments, caused credit scores to decrease across both models for 20% or more of the population.<sup>44</sup>

The first model saw 23% of tenants having score increases and 20% having score decreases, and the second model saw 61% of tenants having score increases while only 22% had score decreases. Interestingly, even when only on-time payment data were included, some people experienced score decreases, but there were 16.5 and 2.5 times as many increases as decreases. Additionally, across both models, the share of consumers who achieved a score over 620 increased from 23% to 38% and 28% to 43%. Overall, the percentage of the population that was left unscored after including rental data did fall across both models, from 49% to 7% and 11% to 0%. So while some customers experience unavoidable score decreases, there is convincing evidence supporting the benefits of providing more information to the national credit reporting agencies.

Before implementing alternative information in credit scoring models, it is important to consider the role of fair lending laws that aim to protect consumers from being taken advantage of or discriminated against. All credit choices must comply with the Equal Credit Opportunity Act which “prohibits creditors from discriminating against credit applicants based on race, color, religion, national origin, sex, marital status, age, because an applicant receives income from a public assistance program, or because an applicant has in good faith exercised any right under the Consumer Credit Protection Act.” With the addition of more information and more synthetic analyses, access and transparency can become more of a challenge.

With artificial intelligence experiencing significant tailwinds in the past couple of years, issues such as explainability, discrimination, and prejudice remain when it comes to applying this new technology to the credit space. Explainability is an issue since credit bureaus must be able to explain to regulators how and why certain customers are denied access to credit, known as “adverse action”. As AI is particularly skilled at recognizing trends, it can be difficult to pinpoint specific variables, in this case, credit ones, that lead the models to make specific choices. The bigger issue however is maintaining unbiased models that will be able to make fair credit decisions. If models are trained on a dataset that does not accurately reflect the broader population, the decisions made by the dataset will undoubtedly contain bias. Specifically, certain branches of AI such as natural language processing which works to understand human language, have shown racial, gender, and disability biases. It is important that these models are trained on clean datasets, which can be difficult to find as subtle biases can easily occur from decisions that are not usually thought of as having direct sampling effects.<sup>45</sup>

One facet of this issue is that there are few widely used metrics to measure fairness in AI models, forcing the companies that use them to monitor their processes to determine which biases they need to check. In line with leading experts in the space, to most effectively govern

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<sup>44</sup> Turner, Michael and Patrick Walker, “Potential Impacts of Credit Reporting Public Housing Rental Payment Data,” U.S. Department of Housing and Urban Development, October 2019.

<sup>45</sup> Best, Mitra and Anand Rao, “Understanding Algorithmic Bias and How to Build Trust in AI,” PricewaterhouseCoopers, 18 January 2022.

bias, it is imperative companies identify their specific vulnerabilities, understand the depth of the data they use, continually update their AI governance, bring diversity into the modeling process, and use third party teams to audit the process.

Despite the apprehensions surrounding artificial intelligence, there is potential for it to facilitate credit access for individuals, serving as a potent catalyst for data analytics that can bolster credit underwriting models. Pagaya is one current example of this process, as the company looks to utilize artificial intelligence with traditional segments of credit information to make more accurate credit decisions for its partners. The increasing sophistication of credit underwriting models, supported by artificial intelligence, can help identify trends and patterns amongst consumers that can serve as critical data points when it comes to determining creditworthiness. This can help ensure that lenders receive a fair return on extended credit even when lending to those individuals traditionally deemed as risky borrowers. As lenders are economic actors who seek returns for their shareholders, the powerful analytical abilities of artificial intelligence are useful tools that should be used to support their underwriting processes. Additionally, these businesses would benefit from incentives such as lower capital charges that would incentivize lending to the underbanked and unbanked segments of society.

### **Country Case Study**

In order to better understand the United State's state of financial inclusion and financial technology companies, it may be helpful to take a global perspective. Both India and China have upgraded their infrastructure, financial technology sector, and governance to promote rapid financial inclusion in the past decade. Digital technology has enabled India to shrink its credit under and unserved population from 67% to 50% over the past four years, whereas 80% of Chinese individuals and 96% of Chinese enterprises now have banking accounts.<sup>46</sup> By comparing and contrasting the approaches of these countries, it is possible to better understand the environments that best promote financial inclusion and what issues legislators must address when introducing alternative data.

#### **India:**

With India's burgeoning economy and population, the country has begun to transition from a debit to a credit card market, with this change being greatly supported via new products and services offered by financial institutions and technology companies. Credit card issuance from 2017 to 2021 grew at a 20% CAGR, with the number of cardholders increasing from 29 to 62 million as of March 2021, and the country has four main credit bureaus assessing lending risk: CRIF High Mark, Experian, Equifax, and TransUnion CIBIL.

India's credit-eligible adult population comprises 814 million individuals, who can be broken down into four distinct categories: 22% are credit served (179 million), 50% are credit unserved (408 million), 8% are newly acquired (63 million), and 20% are credit underserved (164 million).<sup>47</sup> Underserved are those consumers who have had only a single type of credit card,

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<sup>46</sup> Chen, Weidong and Xiaohui Yuan, "Financial Inclusion in China: An Overview," SpringerOpen, 22 March 2021.

<sup>47</sup> "More than 160 Million Indians are Credit Underserved," TransUnionCIBIL, 25 April 2022.

hold two accounts or less, and have been active for over two years. The study aimed to separate underserved and newly acquired individuals by whether they have been active for at least two years or less, as those first-time holders of cards recently activated have a high conversion rate to the fully credit-served demographic. This is important as about a quarter of the total adult population of India is below 30, and so a large number of the credit-eligible population are newcomers to credit.

The key changes spurring credit user growth across the country are fintech disruption, improved access to financial information via better mobile apps, new risk models catering to thinner files, and the growth of contactless payments. Fintech disruption is being led by the implementation of buy now pay later (BNPL) and consumer durable loans (equated monthly installment loans). BNPL is a financing option that allows consumers to pay little or no initial payment, and then pay off the balance of a purchased product in 4 or fewer payments over a short period of time. BNPL has “captured around 3% of the market share in the online e-commerce payments segment and the number could go up to 9% by 2024.” Key features of consumers' use of this product include 1,500-25,000 Indian rupees (INR) transaction limit and repayment cycle ranges of 15-45 days.<sup>48</sup> Credit EMI (equated monthly installments) products allow customers to convert larger payments (over 10,000 INR) into fixed installment loans. This option helps consumers who are unable to pay off their balance at the end of their period and protects them from the high interest rates they otherwise would have faced by converting otherwise overdue balances into lower-interest-bearing loans.<sup>49</sup>

India's digital lending landscape is expected to reach a market size of \$350 billion by the end of 2023 and a key player in this growth will be non-banking financial corporations (NBFCs) which are connecting finance and technology for consumers. These corporations have reduced regulatory scrutiny, as they do not have to maintain the same liquidity and reserve requirements of chartered banks, allowing them to extend more loans. As of February 2023, 29.1% of the total credit extended in the Indian economy comes from NBFCs, who are also helping provide credit to the under and unserved population.

There do remain questions regarding asset quality for these institutions as a result of the lower regulation they face, and NBFC critics continue to question how stable these corporations would be in the event of an economic downcycle.<sup>50</sup> Other innovations shaping the landscape in India are the national Account Aggregator and the use of the Unified Payments Interface. To help facilitate smoother transactions as well as centralize consumer data, the Reserve Bank of India in 2021 unveiled its Account Aggregator Framework. The two main players in this environment are Financial Information Providers (FIPs), which are companies providing services such as banking, lending, insurance, etc., and Financial Information Users (FIUs), which are “organizations under the supervision of one of the financial sector regulators”. FIPs send data to FIUs with the consent of consumers, creating a centralized information database that FIPs can

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<sup>48</sup> “The Changing Landscape of India’s Credit Industry,” PricewaterhouseCoopers, August 2021.

<sup>49</sup> Joad, Ulfath, “What is Credit Card EMI and How Does it Work,” Fi, 1 December 2022.

<sup>50</sup> “How Fintech is Driving Change in India’s Lending Landscape in Sub-Urban Regions,” Financial Express, 17 June 2023.

access to authorize their customers. This saves customers time having to open accounts and furnish their data using physical documentation at institutions they do not currently have an account at, and allows FIPs to conduct business with a larger set of quality clients.<sup>51</sup> The Unified Payments Interface allows users to access multiple accounts from different participating institutions via a single mobile app. Each user is provided an individual UPI ID that authorizes payments across any of their accounts, providing users the ability to make transactions quickly and easily. In July of 2022, UPI facilitated 6.28 billion dollars (522.74 billion INR) worth of transactions and more than 260 million Indians have used this system since it was launched in 2016. As the process scales, it is expected that by 2025, 500 million Indians will use the service, and new innovations such as voice-recognition software will be able to understand over 20 languages providing authorization for payments to 400 million rural, low-income citizens across the country.<sup>52</sup>

India's fintech regulation is carried out by the Reserve Bank of India, the Securities and Exchange Board of India, and a couple of other insurance and pension fund authorities who monitor a wide variety of companies innovating across the payments, transactions, gateways, lending, trading, and securities spaces. The country is monitoring companies inside regulatory sandboxes, which allow them to field test products in controlled environments and collect information regarding the benefits and risks of new financial innovations.<sup>53</sup>

In 2021 the RBI also began an Integrated Ombudsman Scheme to simplify and centralize the complaint process for consumers regarding any financial service, including credit issues. This new plan allows for tracking of compliant status, detailed and unique compliant responses, and improved user interfaces allowing for efficient communication with deputies processing complaints. Over the next 1-3 years, the level of regulation is expected to increase as the proliferation of unlicensed lenders and limited government resources make enforcement difficult across the country.<sup>54</sup>

### **China:**

According to the Ernst & Young fintech Adoption Index published in 2019, the adoption rate of consumer fintech in China reached 87%, meaning that 87% of China's digitally active population uses at least one fintech service. In comparison, this measure was only 47% for the U.S. market in the same year.<sup>55</sup> This heightened level of activity is largely driven by the low use of banks and the broad adoption of mobile payments in the country. By the end of 2021, around 903.6 million people utilized mobile payments in China, which is approximately 64% of the overall population.<sup>56</sup> The COVID-19 pandemic, which resulted in extended and repeated lockdowns for many cities there, only accelerated the adoption of consumer fintechs and access to financial services through fintech platforms in general.

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<sup>51</sup> "Account Aggregator-India's Next Digital Innovation," Invest India, 24 February 2023.

<sup>52</sup> Pandit, Sharwari, "Unified Payments Interface: India's Digital Highway to Speedy Financial Inclusion," Cornell SC Johnson College of Business, 11 July 2023.

<sup>53</sup> "Fintech Laws and Regulation," *International Comparative Legal Guides*, 12 July 2023.

<sup>54</sup> "The Reserve Bank-INtegrated Ombudsman Scheme, 2021," *Reserve Bank of India*, 20 January 2023.

<sup>55</sup> "Global Fintech Adoption Index 2019," Ernst & Young, September 2019.

<sup>56</sup> Fang, Zhou, "2021 Mobile Payment Security Survey Research Report", UnionPay, 2021.

Ant Financial Group has been a leader in building an ecosystem that extends to even the most rural populations in the country with its various financial products through its flagship product Alipay as well as other products like Zhima Credit and Yu'e Bao. Founded in 2014, Ant is a fintech company with a large and well-integrated system whose mission is to improve everyday financial management capabilities for both individuals and smaller businesses. Efforts to reduce frictions lowered barriers for individuals to manage their personal finances. The idea of "FinLife," as Ant Financial's former Chief Strategy Officer Chen Long puts it, embeds finance seamlessly into the everyday life of consumers through credit rating, data analytics, and cloud-based IT systems.<sup>57</sup> The interconnectedness of Ant Group's financial solutions creates a coherent ecosystem that brings together merchants and consumers. Additionally, Ant Group sought to tap into the rural areas with underserved populations despite growing financing demands.

As previously discussed, the lack of trust from consumers is one significant friction for financial access and one that fintechs should seek to address. Ant Financial sought to address this issue between the merchants and customers by acting as a mediator between them. Yu'e Bao, the money market investment product, allowed individuals to easily invest their money in Alipay accounts with no minimum requirement. This gave customers an alternative to investing their savings and dealt with the problem of idle cash left in their Alipay accounts, and an array of alternative investment products also followed.

Another major friction Ant Financial addresses is the hurdle of credit rating and credit history. Prior to its innovations, there were few credit records for Chinese banks to assess individuals' creditworthiness and maintain credit histories, meaning a large swathe of consumers found it hard to obtain financing. Huabei, which became an important leader in establishing credit records, calculated personal credit scores based on the users' activity and reputations on Alipay, Taobao, and Tmall instead of relying, as previously, on demographic information.

While Ant Financial has certainly been a leader in promoting financial inclusion in China, many other fintech companies have also made significant contributions to this effort. WeChat Pay, a mobile payment service operated by Tencent, for example, has been instrumental in promoting financial inclusion in China by providing a convenient and accessible way for people to make payments and access financial services. The service allows users to link their bank accounts to their WeChat accounts and make transactions using their smartphones.

Other similar fintechs include JD Finance which offers services for loans, insurance, and investment products; Lufaxa, a peer-to-peer lending platform providing loans to individuals and small businesses who were previously excluded from traditional banking services; and CreditEase which focuses on providing loans and other financial services consumers in rural areas.

Recognizing the potential for fintech to bridge gaps between traditional banking services and excluded segments of the population, the Chinese government has implemented various

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<sup>57</sup> Chen, Long, "From FinTech to Finlife: the case of FinTech Development in China," *China Economic Journal*, 21 September 2016.

measures and incentive programs to create a supportive regulatory environment in which fintechs are encouraged to participate in the effort of financial inclusion. The Chinese government also has directly invested in fintechs such as Ant Financial through various channels, including the China Investment Corporation, a sovereign wealth fund, the National Social Security Fund, China Life, China Post Group, and China Development Bank Capital.<sup>58</sup> Investments from these various channels have helped Ant Financial expand its services and reach more underserved communities, specifically in rural areas.

In terms of support through infrastructure, in 2018, the People's Bank of China launched the Credit Reference Center. This acts as a national governmental credit report agency that collects and analyzes credit information from banks, non-bank financial institutions, and other sources to generate credit reports for individuals and businesses. This inclusive national credit reporting system enables fintech companies to make more accurate credit assessments and provide loans to individuals and small businesses who were previously excluded from traditional banking services.

While Chinese regulators have implemented measures and incentive programs to encourage fintech companies to promote financial inclusion and have taken a relatively hands-off approach to regulations, we must concede that some of the most recent regulations have hindered the growth of financially inclusive fintechs. As signaled by the suspension of Ant Financials' \$37 billion IPO in November 2020, the Chinese government is beginning to implement stricter regulations on data collection, privacy securitization, and keeping a closer eye on tech giants that are hindering the competitive landscape for fintechs. Nevertheless, China has witnessed unprecedented growth in terms of financial access, achieved through the wide adoption of mobile payments and varied digital financial service offerings.

India and China's achievements in terms of financial inclusiveness may rely on their relative demographic homogeneity compared to the U.S. Important lessons about building the digital infrastructure and providing regulatory and incentivizing support on the part of the government can, nevertheless, be drawn. Together with experience gained from Europe, which is another booming playing field for financially inclusive FinTechs, we believe that the U.S. case for greater regulatory support can be devised.

## **Policy Recommendations:**

### **Short-term**

#### **1. Use Opt-In and Test Opt-Out**

One way to increase the use of alternative credit services is to make them opt-out instead of the more traditional opt-in approach. Opt-in requires customers to take charge of their access to reporting services but provides the opportunity for individuals to educate themselves on the nuances of credit reporting. However, there is potential that credit-reporting services will be underutilized in the event of an unmotivated consumer base in this scenario. On the other hand, opt-out will mean that all consumers will start

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<sup>58</sup> Yen, Sophia, "China's PayPal Rival is Now Worth \$60 Billion," CNN Business, 26 April 2016.



out reporting data, and will have to un-enroll in the reporting services if they wish to do so. The potential in this scenario is that a larger percentage of people will automatically report more information and will be able to receive the benefits associated with alternative data. The best approach for policymakers would be to implement the opt-in approach now, and test opt-out. This will provide consumers the ability to share more information and allow for a smooth transition to opt-out in the event no issues occur in testing.

## **2. Regulatory Sandboxes and Pilot Programs**

Setting up government-approved regulatory sandboxes similar to those in India will allow policymakers to field test and gather information on alternative information products and services. This data would have the potential to determine which products and services provide the most benefit to society, as well as to allow policymakers to make more informed decisions on the legislation that governs the space. Additionally, in 2021, both Colorado and the District of Columbia started programs where tenants were allowed to include rental payments in their credit bureau reports<sup>59</sup> Furthermore, California has implemented the SB1157 Bill, which requires multifamily property operators to provide rental reporting for any apartment complexes that consist of over 15 units. To ensure implementation, landlords are required to disclose the reporting agency that they will be working with. Similar pilot programs to the new Californian experiment could be placed into effect to stimulate reporting of other alternative data information, including utilities, as the California state law is proof of their potential to enact significant change.

## **3. Credit Task Forces and Annual Meetings to Centralize Decision Making**

Due to the quantity of fintechs operating in the space, there are many new products and innovations in the space that must be properly assessed and monitored to maintain a level of security and responsibility. To do this it would be beneficial for regulatory agencies to create specific task forces that look to evaluate the safety of new credit sharing products. Annual meetings could bring together key regulators, reporting agencies, and lenders to develop a concise and comprehensive strategy for incorporating alternative information. This group would promote cooperation among all parties in the credit environment, and continually adjust their recommendations depending on the newest trends and innovations in the space. Furthermore, having representatives from different players in the credit ecosystem will ensure that all concerns will be addressed and weighed, removing the potential for unfair decisions. This specific group will centralize decision-making, as the credit landscape is extremely diverse and there are many new financial products and services that must be considered.

### **Long term**

#### **1. Dissolve Partnerships Between Bureaus and Furnishers**

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<sup>59</sup> Campion, Grace and Evelyn Immonen, "Mapping Rent Reporting for Credit Building: A Landscape Scan of the Affordable Housing Industry," *Enterprise Community*, 8 August 2022.

Regulators should dissolve the partnerships between specific credit bureaus and data furnishers that allow unique access to customer information. As outlined earlier, Equifax has proprietary access rights to the National Consumer Telecom and Utilities Exchange (NCTUE) information databases. While this allows Equifax to use more information in determining credit scores, it places the other bureaus at a disadvantage as they are unable to account for transactions that would be useful in determining consumer creditworthiness. Allowing all bureaus to have access to as many data furnishers as possible will help the bureaus catalog more customer information and better reflect consumer creditworthiness in the credit scores sourced from the information they have gathered. Further, this standardization of information would help minimize the variation in credit scores across bureaus, limiting the potential confusion customers have as a result of different personal scores and statistics across Equifax, Experian, and TransUnion.

## **2. Incentivize Lending Businesses to Furnish Data and Lend**

One key issue that if addressed would vastly benefit the credit space would be the expansion of credit information sharing. Currently, there are no laws that incentivize businesses to share information that could be useful for the credit bureaus. Policymakers should consider soliciting ideas for promoting the use of alternative data to help expand lending to near prime and subprime consumers. The implementation of legislatively-backed mandates would force companies to comply with stricter reporting rules, increasing the volume of information that would be sent to reporting agencies. It would also be helpful if minimum thresholds were lowered, as some smaller-sized lenders and businesses have been unable to contribute to CRA databases due to their relatively lower volumes of information. This is problematic since it means a segment of lenders are not being included in the lending information that is being compiled in datasets at the credit bureaus, impairing the accuracy of credit decisions that are made. Lastly, policymakers should consider lowering capital charges to banks, loss sharing, and raising the cap on interest rates. This will enable businesses to extend loans to subprime consumers without the burden of holding on to excessively high amounts of capital. Overall, information reporting mandates, lowered minimum thresholds, and government-supported incentives and changes would improve credit information sharing across the United States.

## **3. Harmonization of Global Standard and Shared Data Set**

When it comes to combating the issues faced by marginalized credit groups, the implementation of cross-border credit information sharing could greatly help new immigrants in the United States. An internationally shared data set would allow for efficient transfers of information between countries and help people new to the United States, a historically maligned credit group, gain access to affordable and fair credit.<sup>60</sup> To effectively implement this practice, it would be necessary for collaboration between

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<sup>60</sup> “Use of Alternative Data to Enhance Credit Reporting to Enable Access to Digital Financial Services by Individuals and SMEs operating in the Informal Economy,” Global Partnership of Financial Inclusion, 28 June 2018.

foreign governments to standardize data regulation, specifically regarding alternative information. It would be helpful to determine a fundamental set of data attributes, encompassing financial information and credit performance aspects, intended for domestic and international sharing on micro, small, and medium enterprises (MSMEs), as attempting to standardize all data attributes may be too extensive a task from the start. One possible example of global information sharing is the Global Legal Entity Identifier program, which assigns a 20-digit code to entities that operate in the financial services industry across the globe. This system creates a “quasi” global directory that allows for governments to accurately identify lending organizations which aids in the verification of financial transactions. This system or a similarly planned program would provide governments access to observe the credit network of other countries and maintain standards to efficiently and effectively share information across borders. It would also be beneficial for countries to participate in international surveys to collect information on the issues and benefits of certain products, as product timelines across nations can vary. As previously mentioned, India has established multiple regulatory sandboxes to field test the effectiveness of new credit innovations and practices, sharing this information with other countries would allow other nations to make more informed decisions, and perhaps encourage them to set up frameworks to test products in a similar fashion to the sandbox approach India has used. The sandbox approach is valuable as it allows governments to observe the real effects of new innovations while eliminating the exposure to real-world risk. Collaboration and information sharing across national regulatory agencies will allow for best regulatory practices to be discovered and eventually broadly enacted.

#### **4. Nationwide Data Laws**

As outlined in the data privacy section of this paper, it would be beneficial for the business environment surrounding alternative credit to establish nationwide privacy laws. These laws would provide the foundation for more widespread rules regarding proper sourcing and processing of alternative information. Not only would this provide a disincentive for businesses to break fair lending rules, but it would also protect consumers from experiencing potential side effects that can come from data breaches and malicious business practices carried out by companies looking to take advantage of both non-permissioned and permissioned consumer information. The use of clear and strictly monitored laws will enable the system to function seamlessly and ensure the accuracy of the information provided by data furnishers to the credit bureaus.

#### **5. Digitization of All Data**

Policymakers should mandate the digitization of all credit information so that it can be shared efficiently and at low costs between entities in the credit industry. This would lead to a system similar to open-banking, where information can be accessed at one central point from multiple different sources. Policymakers should promote the use of automated systems which will allow companies to accurately and consistently update their information to reflect the most recent actions carried out by their customers. This will

provide companies with a secure, digital record of information on their customers. Furthermore, this will provide companies with a unique digital footprint, as individual nodes within the broad network of the entire credit industry.

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