

# Technology Solutions for PPP and Beyond

*Research Brief*

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Small businesses' struggles to obtain federal Paycheck Protection Program loans over the last two months underscore the substantial obstacles that they face in accessing capital and financial services more generally. Using data and technology to make small business lending faster, less resource intensive, and more accurate is critical to fostering a more rapid and inclusive economic recovery and to building a more resilient small business sector going forward.

Small businesses are experiencing severe hardships during the COVID-19 crisis. To help support businesses with fewer than 500 employees, Congress established the Paycheck Protection Program (PPP) in the Coronavirus Aid, Relief, and Economic Security Act (CARES Act).<sup>1</sup> The PPP is a temporary emergency Small Business Administration (SBA) 7(a) loan program with favorable terms, including a 100% government guarantee and potential forgiveness. However, PPP implementation has highlighted and in some cases exacerbated longstanding challenges faced by small businesses in accessing credit:

- » **Verification of identity.** Many small businesses did not have extensive relationships with participating banks at the start of the Paycheck Protection Program. To onboard new customers, lenders must comply with identity verification and due diligence requirements, which demand a certain level of rigor, time, and resources. No central information repository exists for businesses, and traditionally used data sources may not include certain companies, such as newly formed businesses.
- » **Insufficient information to evaluate loan applications.** Small businesses' financial information is not publicly available, less standardized than larger companies, and often not digitized. Lenders have historically devoted substantial resources to gathering and analyzing documents and data about small businesses. Although PPP origination criteria

are somewhat streamlined, data gathering also poses a challenge for lenders downstream in evaluating whether borrowers have met the program's forgiveness criteria.

- » **Costs of servicing small businesses.** In part because of the factors discussed above, processing small dollar loans and servicing small business borrowers is relatively costly and may not be as profitable for lenders as other business lines. In addition, providing technical assistance services to small businesses can require substantial time and resources.

The challenges of accessing financial services can be particularly acute for “nonemployer” businesses such as sole proprietorships and independent contractors, as well as “employer” businesses that are relatively new and/or located in low- to moderate-income areas. Businesses that are owned by women, racial minorities, and recent immigrants have historically faced even greater challenges in accessing credit. Data on PPP loans is limited but suggests many of these same patterns.

And given the critical role that small businesses play in the broader U.S. economy, these access problems are affecting not just the individual owners, employees, and their communities, but the country's broader recovery and growth. Small businesses employed nearly one half of the private workforce prior to the pandemic, and surveys indicate that a growing number have already closed permanently in response to COVID-19.<sup>2</sup> Beyond short-term PPP funds, access to capital and credit will determine which companies can weather lost revenues and staggered reopening processes, cover changes in expenses and operations, and rebuild their businesses and communities.

This Research Brief uses PPP implementation as a case study of how data and technology can address longstanding inefficiencies in small business lending. It catalogues uses of new data and technologies to verify identity, digitize application and underwriting processes, streamline analyses of what PPP moneys are forgivable, and reduce fraud and loan stacking. The brief also considers how industry and policymakers can build on lessons from PPP implementation to improve delivery of future pandemic-related aid and to create a more resilient and inclusive small business lending market going forward.

## Challenges Faced by Small Businesses—and Their Lenders

The U.S. small business sector is tremendously vital and tremendously volatile. Small businesses with fewer than 500 employees play a critical role in the broader economy,<sup>3</sup> yet face unique financial and operating challenges:

- » **Small businesses account for 44% of the nation's economic activity** and are vital to the fabric of local communities.<sup>4</sup>
- » **Small businesses employ nearly half of the private workforce** (60 million people as of 2019) and created millions of net new jobs over the last two decades.<sup>5</sup>
- » **Small businesses vary significantly in size.** Roughly 81% (24.8 million) of small businesses are sole proprietorships or other nonemployer businesses, such as independent contractors.<sup>6</sup>

- » **Small businesses are active in a large number of sectors**, including health care and social assistance; accommodation and food service; retail; manufacturing; construction; transportation; real estate; and arts, entertainment and recreation.<sup>7</sup>
- » **Small businesses have lower survival rates relative to larger businesses.** Less than half of all small businesses survive five years or longer.<sup>8</sup> Failure rates are higher for younger firms and smaller firms.<sup>9</sup>
- » **Small businesses operate on small margins.** Researchers have shown that small businesses typically hold enough cash reserves to continue operation for only 2 to 4 weeks; many businesses could not continue regular operations if they experienced a two-month revenue loss.<sup>10</sup>
- » **Small businesses are highly sensitive to changes in the economic environment.** During the Great Recession, businesses with fewer than 250 employees accounted for 62% of the net job loss from 2008 to 2009, disproportionately more than their share of total employment in the economy.<sup>11</sup>

In part because of these challenges, lending to small businesses is often riskier and more expensive than to larger businesses or to consumers. Although small banks have historically played the largest role as credit sources for small companies, the market has shifted over the last few decades. After the 2008 financial crisis, for example, a large number of non-bank fintech companies entered the market. Many fintechs have focused on the smaller, younger end of the broader small business spectrum, which banks struggle to serve efficiently due to their operating costs.<sup>12</sup>

The new economic crisis triggered by pandemic containment measures is also striking small businesses particularly hard.<sup>13</sup> Payroll data shows that employment decreased by more than 6.4 million jobs for businesses with fewer than 49 employees and by nearly 6 million for businesses with 50 to 499 employees in April and May.<sup>14</sup> Researchers using small business hourly time card data found that as of May 23 at least 30% of firms remain shut down entirely, down from a high of 45% at the beginning of April.<sup>15</sup>

Furthermore, these hardships have disproportionately affected minority communities and their businesses, as well as businesses owned by women and immigrants.<sup>16</sup> Minority-owned companies, representing about 30% of all small businesses, are especially vulnerable because they are concentrated in industries and communities that are being disproportionately affected by the pandemic; research shows they also tend to have less access to credit and less cash liquidity to withstand losses of revenues and income.<sup>17</sup> The number of working African-American business owners fell by 40% from February to April 2020, far more than other racial groups.<sup>18</sup>

Given the pandemic containment measures that were adopted in March, the need for government assistance to sustain small businesses was enormous. Congress structured the Paycheck Protection Program as an SBA 7(a) loan program that provides direct support for small businesses to maintain viability and pay their employees during the COVID-19 crisis. (See the Appendix for program details and history.) Because the Small Business Administration lacked capacity to receive and process the anticipated volume of applications directly, the program was structured to operate through private lenders.<sup>19</sup> However, while banks began processing loans on April 3, 2020, SBA did not

immediately approve non-bank lenders for participation. Accordingly, several online lenders such as Square, PayPal, and Intuit Quickbooks Capital were not approved to accept Paycheck Protection Program applications directly until about ten days later.<sup>20</sup>

The urgency of developing program parameters and disbursing PPP funds as quickly as possible has further complicated the broader challenges that small businesses face in accessing financial services generally and loans in particular. As noted above, there are three primary challenges:

## Verification of Identity

Under the Bank Secrecy Act (BSA) and anti-money laundering (AML) requirements, banks must verify the legal existence of small businesses and the identities of their beneficial owners, i.e. natural persons who own and control the companies, at account opening. SBA directed entities that are not currently subject to BSA regulations to establish AML compliance programs equivalent to that of a comparable federally regulated institution prior to making PPP loans.<sup>21</sup>

For purposes of the PPP, SBA stated that banks did not generally have to re-verify small businesses that already have an existing relationship, and some banks only accepted applications from existing lending and/or transaction account customers.<sup>22</sup> But many small businesses did not have pre-existing commercial lending relationships with banks at the start of the Paycheck Protection Program. For example, some surveys indicate that only 44% of employer respondents have used a bank for funding in the last five years; lending relationships are more common among larger businesses, businesses with better credit scores, and businesses with white ownership.<sup>23</sup> Younger businesses and businesses owned by women are also less likely to have relationships with traditional banks.<sup>24</sup> In addition, small businesses in low-and moderate-income areas often have less access to bank branches.<sup>25</sup>

To onboard new applicants, lenders may use documents, nondocumentary sources, or both methods to form a reasonable belief that they know the true identity of the business and its owners. To verify a business, a lender may compare the information provided by the borrower with information obtained from a small business credit bureau, such as Dun & Bradstreet, Equifax, Experian, and TransUnion. However, this requires that a business is both in the database and that the database is up to date. Some studies suggest that it can take a small business 3 to 5 years to appear in a traditional credit-reporting database,<sup>26</sup> making it more difficult to verify younger businesses or businesses that have recently relocated. Furthermore, if a customer provides an address that isn't found in the database, a risk flag would then require further investigative methods to match the address provided. This is time and resource intensive.

## Insufficient Information to Evaluate Loan Applications

Many lenders face challenges in underwriting loans because of information shortfalls on the financial condition, performance, and prospects of small businesses. There is very little publicly available financial information about small businesses because they rarely have publicly traded equity and debt securities.<sup>27</sup> The information that is available is less standardized because small businesses exist across many different industries, business models, and local market conditions, and tend to have fewer resources to devote to audits and other formal accounting mechanisms.

Historically, lenders have devoted substantial time to collecting information from diverse and often non-digitized sources to develop a detailed picture of small businesses' operations. Such information typically includes income statements, balance sheets, revenue projections, tax returns, bank statements, and credit history to the extent that it is available.<sup>28</sup>

The up-front loan evaluation requirements for the Paycheck Protection Program are limited but also relatively specialized compared to lenders' traditional underwriting criteria, and lenders are now looking ahead to consider the types of information they will need to gather to assess whether particular loan funds are forgivable. At application, lenders are required to perform a good faith review, in a reasonable time, of the borrower's calculated average monthly payroll costs. This is a unique requirement, and traditional bank systems are not necessarily set up to collect or analyze payroll documents. There were many specific questions about how to determine the maximum eligible loan amount for specific applicants, and lenders did not receive additional guidance until later in the process.<sup>29</sup> Although many national payroll providers and technology vendors have developed PPP-compliant reports to track payroll and benefits as discussed further below,<sup>30</sup> a number of small businesses may not be clients of these service providers. Some small businesses may simply use Excel spreadsheets or paper records and may have trouble gathering the documents, especially if they have not previously applied for credit.

With regard to forgiveness, the full principal amount and any accrued interest are eligible if they meet certain standards established by the CARES Act and the SBA. Lenders will need additional details about how the PPP loan was used to cover payroll, mortgage interest, rent, and utility expenses. Lenders are required to make a good faith review of the calculations and documentation information submitted by the borrower for loan forgiveness.<sup>31</sup> In the event that the borrowed amount does not qualify for forgiveness, the remaining portion remains a loan.

Ideally, the PPP's minimal underwriting requirements make it easier to lend to small businesses compared to traditional credit underwriting models. However, continuing to service the unforgivable portion of the loans without having performed a more rigorous review is a concern to many lenders, and it is difficult to estimate what portion of PPP funds will not be forgiven for any one loan or across their portfolios for capital purposes. The PPP did not require that lenders analyze the borrower's financial capacity and willingness to repay the loan.

## Costs of Servicing Small Businesses

Even in good economic conditions, small business underwriting is relatively expensive and time consuming in part because of the breadth and diversity of information collected and analyzed and the high failure rates of small businesses.<sup>32</sup> Moreover, these costs do not scale; the cost of processing a \$100,000 loan is nearly the same as processing a \$1 million loan.<sup>33</sup> In part because of small businesses' own technology limitations and technical assistance needs and in part because of competing demands for information technology resources within banks, banks have also historically tended to use fairly staff-intensive methods to work with small businesses. For instance, one survey of bank practices as of 2015 found that only 23% of large banks and 11% of small banks were accepting small business applications online.<sup>34</sup>

Although the underwriting processes for the PPP are somewhat streamlined, it is easier to meet the fixed costs of processing PPP loans for larger loans. The SBA uses a sliding scale to pay fees to lenders as a percentage of loan principal, but the fee amounts are greater for loans above \$210,000 relative to smaller loans.<sup>35</sup> Many banks shifted personnel from other work to help process PPP loan applications, and some relied on manual reviews and phone calls, manually inputting data into the necessary forms, and calculating average payroll costs and potential forgiveness amounts. Many small businesses have required additional counseling in completing the application process given changing and updated guidelines in determining eligible payroll costs and forgiveness. An increasing number of banks ranging from Wells Fargo to small community institutions have stopped accepting applications or are approaching hard caps that they have set internally for how many PPP loans they are willing to process and service due to such factors as portfolio management and staffing demands.<sup>36</sup>

## Technology Solutions

Many of the specific challenges faced in PPP implementation and the broader obstacles to small business lending can potentially be solved through the use of data and technology to make onboarding and loan processing faster, less resource intensive, and more accurate. In particular, solutions are being implemented to:

- » **Broaden the data sources and methods available for verification and loan evaluation, whether up front or in connection with PPP forgiveness**
- » **Improve the efficiency of processing loans, and**
- » **Minimize fraud and loan stacking.**

In what follows, we feature several technology vendors and data sources that are being used to facilitate many PPP loans. Many of these kinds of resources could be useful for more general small business onboarding and lending as well. FinRegLab has not independently evaluated these tools, but rather offers them here as examples to illustrate areas in which new technology tools can bring value to the PPP and small business lending more generally. We include technology and data vendors with particular expertise in providing products to banks and non-bank lenders. We also include non-bank companies directly providing technology-based financial products and services to their customers, often online or through mobile applications.

## Broadening the Data Sources and Methods Available for Verification

Lenders need to verify businesses with which they have no existing relationship. Credit reporting agencies, such as Dun & Bradstreet, Equifax, Experian, and TransUnion, may not cover younger, smaller, recently relocated, and unincorporated businesses. No central information repository exists for all businesses, but secretaries of state can be an important resource. Businesses may file with these offices to establish a tax account and register business information, such as articles of incorporation, limited liability or partnership agreements, or “doing business as” notifications. Businesses need to maintain active status in states where they have employees, offices, and significant portions of revenue. This data source includes physical and mailing addresses, articles of

incorporation or other business agreements, ownership, management structure, officers' names and roles, the status of the business, registration date, registered name, and foreign entity registration.

Other alternative data sources include online marketplace listings and phone usage patterns. Although these different data sources are valuable, confidence in verification increases when data can be collected efficiently and corroborated with other data sources. This combination of data types can be time consuming and costly, as it requires access to many different data sources. Technology vendors are building tools to access, clean, and compile these different data sources to help minimize the burden to lenders.

For example, LexisNexis combines data from credit reporting agencies with government records and online, utility, and phone activity to verify identities. As another example, Experian Business Compliance Insight combines data from regulatory watchlists, legal filings, corporate registration data from the Secretary of State, and other sources. The technology and data vendor Middesk includes secretary of state data from all 50 states in its business verification services, augmented with additional data gathered from IRS tax identifier information, the digital identity of businesses, address verification services, and other sources. Middesk also applies machine learning techniques to the content extracted from the business' website to determine whether it is operating in high-risk or prohibited industries. Using webscraping tools and direct contacts, Middesk has compiled a database of over 60 million businesses.

By including other data types such as online marketplaces, crowdsourced review sites, social media websites, delivery services, payment processors, or business management tools, in combination with traditionally used identification sources and secretaries of state data, lenders can build a more detailed borrower profile in compliance with verification and due diligence requirements. Non-bank lenders like Kabbage, Square, and OnDeck have adopted some of these approaches.

Combining authentication methods with different data sources can help lenders achieve a greater level of confidence in the identities of the small business and its beneficial owners. For example, the technology vendor Payfone uses phone-based authentication methods to verify a customer's identity. The vendor ensures that the phone is in the possession of the owner by sending authentication links via texts. A customer is given a score that is generated by analyzing digital signals against multiple authentication factors. Basic signals can include how long the customer has had their phone and their activity with that phone number. The score captures the level of confidence the vendor has in confirming the customer's identity. As an example, a SIM swap on a phone number may lower a customer's score. Because the vendor accesses the core telecom network directly, it can capture phones that may be part of a family plan or prepaid phones. As of March 31, 2018, there were approximately 101.1 million total prepaid (branded and wholesale) subscribers in the U.S. That meant that prepaid customers accounted for about 24% of the big four mobile networks' 422.6 million lines of service.<sup>37</sup> For small businesses in particular, the vendor can also examine a business owner's personal credit reports, phone usage, and call history, all of which can serve as verification for the business' identity and credit standing.

New technology vendors like Alloy are building identity verification tools to help lenders utilize new data and set their own rules for building confidence in the identity of the small business. With Alloy's application programming interface (API),<sup>38</sup> lenders can verify customer information across

many different proprietary data sources in real time. These different data sources include public databases such as Whitepages, identity verification services such as LexisNexis, and new data sources such as Middesk. The system is designed to help lenders identify any inconsistencies in the customer's identity across multiple sources to combat identity-related fraud. It allows users to customize rules for flagging applicants, indicate thresholds to control onboarding based on their institutional compliance requirements and risk tolerance, and choose conditions under which an applicant will be approved, denied, or subject to manual review.

## Improving Efficiency of Loan Processing

By streamlining the digital application and onboarding process from beginning to end, lenders can improve their efficiency and ability to scale operations. This has been a particular pain point for the Paycheck Protection Program given unprecedented demand as waves of funding have been made available.<sup>39</sup>

Technology applications can be particularly useful in three aspects of the application process:

- » Reducing the need for manual input
- » Using more automated procedures to request and review documents, and
- » Providing guidance to applicants in a more efficient way.

Even if some solutions cannot be developed or implemented in time for subsequent waves of government assistance to small businesses, they could provide efficiency gains for other types of small business lending.

**Digitize the application.** Creating an online or mobile application that is simple, intuitive, and user-friendly can save time for both borrowers and lenders alike. This requires careful attention to the clarity and brevity of instructions and to limiting the application to key data points. Responses to these questions can then be used to populate the PPP borrower application form. Signing applications and submitting them to lenders can also be handled electronically.<sup>40</sup> Lenders can then review the application and choose whether to approve, reject, or request additional documentation from the borrower before submitting it to SBA's system.

**Allow for easy document upload.** Borrowers will need to upload documents to support their stated monthly average payroll costs under the PPP. For small businesses with non-digitized documents such as IRS form 1099-Misc or 1040 Schedule C, many vendors are building tools to parse scanned PDFs to extract the relevant data and populate the relevant fields on the application form. OcroLus, for example, uses a combination of optical character recognition software and human review to more accurately verify the documents. After the optical character recognition technology is applied, it sends anonymized snippets to trained reviewers to crowdsource for validation. Having a scaled human review component is especially useful for semistructured documents like payroll reports, as well as lower quality uploads like scans, or cell phone pictures. The results are then analyzed for fraud, and the synthesized data is sent to the lender's back-office system. The extracted data can be traced back to its original source documents, making it particularly useful for compliance and audits. OcroLus's portal can also be used to review a government-issued document such as a driver's license or passport.



**Integrate payroll data.** For the Paycheck Protection Program, lenders are required to make a good faith review of the borrower's average monthly payroll costs. Banks do not typically analyze monthly payroll costs in traditional underwriting models, but many small businesses use software services that may include the relevant payroll costs. For example, some surveys of small- to medium-sized businesses suggest that between 50% and 80% use business accounting software.<sup>41</sup> If borrowers can quickly access their payroll information from these services, it can speed up the application process for lenders.

Many vendors such as Intuit, ADP, Gusto, and Paychex have developed consolidated PPP reports for their customers. These vendors use the business' payroll data to automatically calculate the average payroll costs, eligible amount, and potential forgiveness amount. Borrowers can review the reports and share them with their lenders. For borrowers who are clients of Intuit and apply for PPP through Intuit QuickBooks Capital, making a good faith review of payroll information is relatively simple given the lender's direct access to the client's payroll data.

Data aggregator Plaid has also build a free product that lenders can embed in their application flow to simplify verification for small businesses.<sup>42</sup> Borrowers are able to provide permission to obtain information from their payroll provider in the course of the application process in order to speed up business eligibility and estimate their loan disbursement amount. This reduces reliance on manual calculations for both borrowers and lenders by pulling information directly from payroll providers to verify eligibility.

**Guide the borrower.** Small business owners have needed considerable guidance and counselling to complete PPP applications. Some of this is due to the fact that PPP rules have evolved substantially in the course of implementation, but much of it is related to calculating eligible payroll costs and determining forgiveness. Technology vendors have developed various solutions to guide borrowers in completing application forms:

- » Digitized forms can include tips or explainer videos to help the borrower complete each field.
- » Alternatively, the application interface can include a chat function with either live assistance from the lender or automated responses based on machine learning rules-based algorithms applied to data from traditionally asked questions.
- » Integrating interactive tools, such as calculators that let borrowers experiment with different ways of using the funds to maximize loan forgiveness, can reduce the need for additional guidance.

Technology vendors offer solutions for streamlining PPP applications that may require integrating an API with the bank's core system or working with a cloud-based platform. Blend is a digital lending platform that offers a streamlined service. The application process includes a guided intake of data for the PPP application form, contextual help powered by machine learning algorithms, business verification integration, and document upload and electronic signature for borrowers. The intake includes guidance on whether the business is eligible and for how much. Blend can package the information pursuant to SBA requirements and feed the data into SBA's system. nCino is another technology vendor offering lenders a cloud-based platform for PPP loan application processing that includes an online application, calculations, document management, and integration with SBA's system.<sup>43</sup>

## Processing Loan Forgiveness Applications

Although the up-front underwriting requirements for PPP loans are more streamlined than for traditional loans, PPP requires lenders to make back-end evaluation in order to determine whether borrowers have in fact met the criteria for forgiveness. Some banks have limited PPP lending to applicants with transaction accounts or encouraged borrowers to establish separate accounts solely to hold PPP funds to make it easier to monitor expenditures. Others are looking for other technology solutions to digitize submission of the 11-page application, allow for easy upload of supporting documentation, and provide borrower guidance at this second stage.

Fiserv, which provides core platform services to many banks, has partnered with fintech StreetShares to offer a service that preloads the information from the original PPP loan application, limits questions to those required to update and complete the forgiveness application, and automates all of the calculations. They also have developed FAQs, a loan forgiveness guidebook, and a digital calculator that lets the borrower run different scenarios to maximize forgiveness before the covered period ends.<sup>44</sup>

Some technology vendors are also providing applications to pull spending data from small businesses' transaction, accounting, or payroll accounts into lenders' online forgiveness applications. Gusto offers its customers a report that can be used to complete the PPP loan forgiveness application, including tracking information and potential adjustments to reach full forgiveness. Gusto simplifies the process by showing the customer the key numbers required to complete the form, but the customer must complete the form on their own. When the user has inputted information that Gusto does not track, such as rent and utilities, the report highlights that field to indicate to the lender that the information needs to be verified.

## Minimizing Fraud and Loan Stacking

Although lenders are allowed to rely on borrower certifications, the need to effectively combat fraud and limit criminal activity has been a broader policy concern for the Paycheck Protection Program given the speed at which loans needed to be processed, the volume of applications that were processed online, and the streamlined underwriting requirements.<sup>45</sup> Borrowers must certify that the information in their PPP application is true and correct.<sup>46</sup> If borrowers knowingly use the funds for unauthorized purposes, they will be subject to additional liability, such as charges for fraud. Nevertheless, some experts have predicted that fraud rates could exceed 10% based on initial reviews of loan files and experience with emergency loan and aid programs following prior disasters.<sup>47</sup>

Stakeholders have identified three main areas of concern in connection with both initial applications and ongoing operations:

- » Identity-related fraud
- » Falsified payroll information, and
- » Loan stacking by obtaining multiple PPP loans from different lenders.

Many of the services discussed above in connection with AML and KYC requirements can be helpful with regard to identity-related fraud as well. Several of the companies that provide identity verification services such as LexisNexis, Experian, IDology, Iovation, Socure, Payfone, and Zoot also specialize in detecting and preventing fraud.

There are also technology vendors that focus on particular fraudulent behaviors, such as synthetic fraud. With synthetic fraud, criminals use some elements of genuine identity to create a new identity.<sup>48</sup> Synthetic fraud is far more sophisticated and difficult to detect because unlike traditional identity fraud, the name, date of birth, address, and taxpayer identification number do not correspond to a single real person.<sup>49</sup> To combat synthetic fraud, SentiLink and other technology vendors collect different types of data from various sources and combine machine learning methods with statistical searches for anomalies to identify behavior patterns that potentially indicate fraud. With frequent evaluation, SentiLink uses these tools in real time to identify suspicious behavior, such as multiple people in the same address or multiple accounts uploading the same driver's license. Experian also offers a product to combat synthetic fraud in particular.<sup>50</sup>

Many of the PPP fraud cases detected to date have involved misrepresenting payroll costs by creating fake employees.<sup>51</sup> Business employee count is a new data point that banks have not previously had to verify. However, as discussed above there are financial institutions and technology vendors that do have transaction, payment, and payroll history that can be used to confirm small business employees.

Besides fraud, another serious concern is that borrowers may engage in loan stacking. Lenders are expected to provide real-time updated loan application information in SBA's E-Tran (electronic loan processing) database. However, borrowers may be able to use different methods to evade E-Tran's duplicate application measure, which relies primarily on taxpayer identification numbers.<sup>52</sup> Spring Labs is a technology vendor that proposes to minimize loan stacking by including additional business attributes in the methods used to identify multiple applications from the same business entity. This proposed solution would complement the E-Tran infrastructure. Tradle is another vendor that has proposed a complement to the E-Tran infrastructure. The company would use AI and blockchain to more accurately flag duplicate applications. These various services could function as a utility infrastructure for lenders, or potentially offered or leveraged by the SBA.

## Market and Policy Considerations

The discussion above demonstrates that the range of data and technology solutions available to facilitate PPP onboarding and small business lending more generally have expanded even since the onset of the pandemic. But the pace and scale of future adoption will depend on what lessons industry and policymakers take away from the implementation process and the extent to which they commit further resources both to disaster assistance and to resolving longstanding inefficiencies in how small business lending markets operate in both good times and bad. These inefficiencies make the small business sector as a whole less resilient, and they now threaten to undermine the nation's broader quest for a rapid and inclusive financial recovery. They are also causing many small businesses to rethink their choice of financial institutions because of frustration with PPP processing.<sup>53</sup>

The following section does not provide a comprehensive analysis of lessons learned from all aspects of PPP implementation, but rather identifies selected considerations that bridge between delivery of future federal aid to the broader process of adopting data and technology to strengthen small business lending markets going forward. Whatever the future of the PPP—which SBA and Treasury have stated will close for applications on June 30, 2020, absent further action by Congress—these considerations are critical to addressing longstanding concerns about the health of small businesses and small business lenders going forward.

## Overcoming Technology and Business Model Barriers

Virtually every group of stakeholders we have spoken to agrees that data and technology holds substantial promise for increasing efficiency, predictiveness, and inclusion in small business markets. Yet adoption in practice is often slowed by both technology and economic barriers. For traditional lenders, the biggest obstacles are often technology and operational challenges to integrating new products and services with legacy systems. Although many bank operating systems rely on COBOL, an operating system widely adopted by financial institutions in the 1960s and 1970s, IT systems vary widely across and within banks. Maintaining legacy systems is expensive, but replacing them can involve substantial fixed costs. Data is also often not organized in a way that permits banks to mine the information using machine-learning techniques without substantial reconfiguration.<sup>54</sup>

There may be other technological barriers to building capacity, adopting a vendor's platform, or combining disparate sources of data and technology. For example, lenders might find it valuable to have a more comprehensive aggregation of these technology services. Moreover, banks frequently rely on "relationship lending" models in small business markets to gather soft information and provide substantial technical assistance, and may value designing digital technologies with an eye toward supporting human interaction.

Competition for resources can be a related problem. Because IT resources are limited, banks must decide whether to allocate them to facilitate improvements in small business lending operations as compared to other business lines. And smaller institutions face particular challenges in attracting technical expertise relative to larger banks or fintech companies. Small banks also tend to be heavily dependent on vendors that manage their core platforms, which can affect their ability to adopt new technologies and new partnerships with other companies. Although core processors that already offered SBA lending support to their customers have worked to adapt those platforms to PPP activities, their ability to adapt quickly to banks' changing business and technology needs and support other vendor partnerships remains a broader long-term concern for many stakeholders.<sup>55</sup>

Among fintech lenders and vendors, technology adoption is far less of a problem, but liquidity challenges have limited their scope to date. Because they do not have access to bank deposits, fintech lenders are generally dependent on less patient and more expensive forms of capital and often must sell off or securitize loans immediately in order to sustain operations.<sup>56</sup> This has made it difficult for a number of lenders that have been major sources of smaller business loans to continue originations during the pandemic. Although the Federal Reserve Board created a Paycheck Protection Program Liquidity Facility (PPPLF) to supply liquidity to participating lenders through term financing backed by PPP loans, some fintechs and other small lenders are finding it hard to access PPPLF funds

because they lack the capital to cover several days between approving a loan and receiving funds back from PPPLF and/or because of restrictions imposed by their existing funding sources.<sup>57</sup>

Solving these longstanding challenges going forward may well require increased partnerships and/or acquisitions that allow the strengths of both banks and non-banks to be combined in order to reach the scale necessary to realize the full benefits of using data and technology to facilitate lending, particularly in delivering relatively small loans. PPP implementation has spurred substantial interest in pursuing such arrangements among many market actors, but more sustained attention from both industry and regulators will be needed to overcome these broader obstacles.

## Regulatory Support for Data Uses, Technologies, and Partnerships

Regulators can play an important role in encouraging the adoption of new data and technology solutions and partnerships between companies in the way that they react to market developments. In particular, banks tend to be highly sensitive to the signals (or lack of signals) from regulatory agencies, since they have to be able to explain how new systems and partnerships work to their examiners. Thus, the pace of adoption often depends not just on how quickly banks get comfortable with new technologies and partners, but their regulators as well.

In particular, under “third party service provider” obligations, banks are required to ensure that the technology and data vendors they work with are compliant with applicable laws and regulations and have insurance, current capital, funding sources, and an ownership structure in place to ensure stability and long-term viability.<sup>58</sup> In using models, algorithms, or other types of automated decision-making systems, banks may have specific risk modeling requirements for third party vendors, and must assure themselves that they will be able to satisfy consumer protection and other regulatory requirements in the course of relying on the vendor’s services.

Stakeholders say that regulators could facilitate faster data and technology adoption both by signaling support for new types of data for know your customer and underwriting purposes and working to make third party service provider management more efficient. With regard to the first topic, the Customer Identification Program rule, released in 2003, allows for considerable flexibility in the types of documentary and nondocumentary data that a lender or bank can use to form a reasonable belief that it knows the true identity of the customer. In addition, the CIP rule also identifies examples of the types of documents that are considered reliable. Yet, as the descriptions above suggest, the types of documents, online sources, and digital information that may help lenders evaluate and confidently onboard customers has changed considerably since 2003. Regulatory recognition of those changes could encourage industry to pursue new and efficient ways to verify potential customers’ identities for purposes of providing credit and other financial products and services. Stakeholders also say it could be helpful for regulators to issue additional guidance acknowledging that alternative data sources such as transaction account information may be useful for small business underwriting purposes.<sup>59</sup>

On vendor management, stakeholders say it would be helpful to expand further on agencies’ issuance of Frequently Asked Questions to address specific issues and scenarios relating to vendor management, as well as increasing information flows within agencies to ensure that examiners and other field staff are communicating with centralized staff focusing on innovation issues. There is also

a strong interest in finding ways to centralize basic due diligence across institutions on issues such as information security and vendors' financial stability, so that each bank and examiner does not have to duplicate others' efforts. With regard to PPP specifically, stakeholders have taken note of the fact that the Office of the Comptroller of the Currency's Office of Innovation hosted several listening sessions on various aspects of program implementation and published summaries to further publicize market developments and emerging practices.<sup>60</sup>

## Targeted Outreach to Underserved Populations

Although demand for PPP funding has cooled substantially in the second round, it does not mean that all small businesses' needs have been met. Rather, there is substantial evidence that improving the delivery of aid and credit to remaining small business owners may require combining the creative use of data and technology with targeted initiatives that account for the special needs and challenges facing historically underserved populations.

As of May 30, a U.S. Census Bureau's Small Business Pulse Survey of "employer" small businesses found that 75.1% of respondents had requested PPP loans and that 71% had received one.<sup>61</sup> Yet participation rates among nonemployer small businesses and independent contractors are believed to be far lower,<sup>62</sup> and an online survey commissioned by two equal rights organizations in mid-May found that only 38% of African American and Hispanic small business applicants had received some or all of the federal funds they had requested, 21% had been denied, and 41% were still waiting to hear back. Approximately half of those who applied requested less than \$20,000. Of those who did not apply, 32% believed they were ineligible for assistance, 26% that they would be denied, and 19% that the application process was too long or difficult.<sup>63</sup>

These patterns are broadly consistent with more general small business lending research. For example, surveys by Federal Reserve Banks show that nonemployer respondents are substantially less likely to report adequate funding than employer companies, yet they are also less likely to seek credit.<sup>64</sup> Research has also found that women and minority-owned businesses are less likely to apply for credit, tend to apply for smaller loans, and in some categories are substantially less likely to obtain approvals than comparator businesses.<sup>65</sup>

Accordingly, questions about how best to help additional businesses are critical going forward. For PPP specifically, some stakeholders warn that making program parameters more flexible and appropriating additional funds are necessary but not sufficient steps; rather, they suggest that ensuring greater and more inclusive participation will also require sustained engagement by lenders to convince business owners to apply if they have been previously rejected, given up hope in light of news coverage about previous implementation challenges, and/or concluded that they would not be able to satisfy PPP's complexities.<sup>66</sup> Stakeholders point to similar outreach needs to facilitate access to more traditional forms of credit, but note that it will be harder for companies that have missed out on PPP funding to date to qualify where their financial situations have been worsening for several weeks.

## PPP Loan Counts and Average Loan Sizes

Data Source: SBA Paycheck Protection Program (PPP) Report: Approvals through 6/6/2020



\* Many fintech loans have been counted as originated by their partner banks and thus do not appear in the fintech statistics

\*\* Some CDFIs and MDIs may also be counted in other categories

### IMPROVING FLEXIBILITY IN PPP REQUIREMENTS

The Paycheck Protection Program Flexibility Act was signed on June 5 and is expected to make PPP funding more attractive to business owners who worried that they could not meet the original requirements for forgiveness due to high overhead or public health restrictions.<sup>67</sup> For example, the law:

- » Extends the period for forgivable expenditures from eight weeks after loan origination to 24 weeks after loan origination or December 31, 2020, whichever is earlier.
- » Reduces the percentage of funds that must be spent on payroll expenses for borrowers who want their entire loan amounts to be forgiven from 75% to 60%.
- » Permits loan forgiveness even if businesses reduce employment levels or salaries, so long as they:
  - › Rehire employees or restore salaries by December 31, 2020 (rather than June 30, 2020, as in the original legislation);
  - › Document their inability to rehire individuals or similarly qualified employees for unfilled positions; or
  - › Document their inability to return to pre-February 15 business activity due to compliance with federal requirements or guidance related to worker or customer safety requirements related to COVID-19
- » Extends the minimum loan repayment period for unforgivable amounts from two years to five years for all loans made on or after the date of enactment, though lenders and borrowers can agree to modify loan maturity terms of loans covered in the current PPP.

Although the law appears to extend the period for making PPP loans to December 31, SBA and Treasury issued a statement on June 8 indicating that the application period will end on June 30.<sup>68</sup> Thus, small businesses that have not yet applied will have only a few weeks to take advantage of the more flexible terms. Agency officials announced on June 10 that they were planning to relax rules to make it easier for business owners with previous criminal records to access PPP funds.<sup>69</sup>

Congress is expected to consider additional funding and further amendments later this summer.<sup>70</sup> A growing range of banking and small business trade organizations have argued that all PPP loans under \$150,000 should be forgiven in their entirety.<sup>71</sup> Some stakeholders have also urged revision of program guidance that prohibits use of PPP funds for retirement and health benefits unless a company has employees, arguing that the requirement discourages applications by nonemployer businesses.<sup>72</sup>

These challenges further underscore questions about what lenders are willing and able to serve small business markets effectively and efficiently, particularly the smaller end of the market. In this regard, it is notable that both depository institutions with less than \$1 billion in assets and in particular fintech lenders have substantially lower average PPP loan sizes compared to the program as a whole.<sup>73</sup> As discussed in the Appendix, various steps were set aside for disbursement by community development financial institutions (CDFIs), which specialize in working with underserved communities.<sup>74</sup> Some other lenders are also reportedly planning a concerted push to increase PPP lending before the June 30 deadline.<sup>75</sup> Although stakeholders hold conflicting views on whether further set-asides for particular types of lenders or loan sizes would boost participation in any future PPP rounds, there is widespread agreement that improving the fees for smaller balance loans and making it easier for non-banks to access the PPPLF going forward would make it easier for lenders that are the most focused on the smaller end of the small business market to expand their activities.<sup>76</sup>

## Building Toward Longer-Term Recovery and Resiliency

The experience of implementing PPP on such a tight timeline continues to present serious challenges for all participants, but it has shone a spotlight on the ways that data and technology can reduce longstanding friction points and inefficiencies in small business lending more generally. As the initial focus on emergency triage shifts to how best to support small businesses through a potentially protracted and uneven recovery process, it is important to consider how industry, policymakers, and advocates can sustain and increase the momentum that has built in the last few months toward the adoption of new partnerships, processes, data, and technologies.

Program design of future installments of the PPP or other federal aid initiatives can have a significant effect on technological adoption depending on the programs' size, duration, compliance requirements, and compensation structures. Consideration of how to efficiently deliver assistance to smaller businesses and historically underserved populations is particularly important.

But stakeholders have also emphasized the need to rethink how data and technology can facilitate more efficient and inclusive delivery of financial services to small businesses more broadly. For example, in addition to automating information flows and processes for various steps in the lending and servicing process, an increasing number of market participants view the provision of transaction accounts, payment processing, and accounting services to small businesses as a way to build long-term relationships and to develop and access data that can also facilitate credit underwriting.<sup>77</sup> Some observers have also pointed to the potential for financial institutions to build more comprehensive financial management tools that would help small businesses harness their own data by providing ongoing monitoring, analysis, and technical assistance.<sup>78</sup>

Overcoming the technological, business model, regulatory, and market challenges described above is not an easy process—if it were, market participants would have already solved these issues. But the pandemic has underscored the potential consequences of continuing to fail to solve long-term process inefficiencies for the nation's economy as a whole, in addition to individual business owners, employees, and communities. The lessons learned from PPP implementation could be critical to fostering a more rapid and inclusive recovery and to creating a more resilient and inclusive small business lending market going forward.



# APPENDIX

## *Overview of the Paycheck Protection Program*

The Paycheck Protection Program is an SBA 7(a) loan program that provides a direct incentive for small businesses to pay their employees during the COVID-19 crisis. To qualify for a PPP loan, a business must have been operating on February 15, 2020. The first applications were accepted on April 3, one week after the CARES Act was signed into law.<sup>79</sup>

The program originally authorized \$349 billion in forgivable loans, including administrative costs, to any small business meeting the standards set by the SBA. Lenders approved 1,661,367 loans before that funding was depleted on April 16. Loans in excess of \$150,000 constituted 83% (\$284.0 billion) of first round funding spread among 431,474 businesses. The remaining 17% (\$58.3 billion) of Round 1 funds were spread across more than 1.2 million loans for smaller amounts. Some borrowers ultimately decided to return the funding, for instance in response to public concerns that they had access to alternative sources.<sup>80</sup> Independent contractors and self-employed individuals could not apply for PPP loans until April 10, and additional guidance on funding sole proprietorships was not issued until April 14, two days before Round 1 funds were depleted.<sup>81</sup> Several large online lenders also were not approved to accept applications directly until about April 13.<sup>82</sup>

A new round of PPP funding was approved on April 24, creating \$310 billion in additional PPP loans and bringing the total appropriated amount to \$670.3 billion, including administrative costs.<sup>83</sup> Congress set aside \$60 billion for particular categories of lenders, with half going to credit unions and insured depository institutions with consolidated assets of less than \$10 billion and community financial institutions (CDFIs) of any size, and half to credit unions and insured depository institutions with between \$10 billion and \$50 billion in assets.<sup>84</sup> The SBA resumed accepting applications on April 27 and created an exclusive eight-hour window to accept applications from financial institutions with less than \$1 billion in assets. On May 28, the SBA and the Treasury announced that \$10 billion would be set aside for disbursement by CDFIs, which specialize in working with underserved communities.<sup>85</sup>

Banking industry representatives initially predicted that the second round of PPP needed about \$1 trillion to meet demand, but average loan size dropped substantially in May.<sup>86</sup> As of June 6, 5,458 lenders had approved PPP loans to more than 4.5 million applicants for over \$511 billion.<sup>87</sup> Treasury and SBA officials have announced that applications will not be processed after June 30.<sup>88</sup>

### PPP Borrower Requirements

Many businesses with 500 or fewer employees can apply for a PPP loan. This includes 501(c)(3) non-profit organizations, 501(c)(19) veterans' organizations, Tribal business concerns, sole proprietorships, self-employed individuals, and independent contractors. Businesses in certain industries can have more than 500 employees if they meet applicable SBA employee-based size standards for those industries.<sup>89</sup>

To apply for the PPP loan, the applicant must submit SBA Form 2483 (Paycheck Protection Program Application Form) and payroll information, such as payroll processor records, payroll tax filings, Form 1099-Misc, Form 1040 Schedule C, or other supporting documentation, to demonstrate qualifying payroll costs. A small business can request up to 2.5 times the average monthly qualifying payroll costs, and no more than \$10 million. Qualifying payroll costs for employees include salary, wages, or commissions; cash tips; vacation, parental, family, medical, or sick leave; allowance for separation or dismissal; health care coverage and retirement; and state and local taxes; for an independent contractor or sole proprietor, they include wages, commissions, income, or net earnings from self-employment, or similar compensation. Certain limitations apply for employees whose annual salaries exceed \$100,000.<sup>90</sup>

## Borrower Certifications

An authorized representative of the applicant must certify that the business was in operation and paying employees on February 15, 2020; that current economic uncertainty makes the loan necessary to support ongoing operations; that the funds will be used for authorized purposes, such as paying payroll, mortgage interest, rent, and utility costs; that documentation verifying payroll information has been provided to the lender; that the qualified costs of the loan forgiveness are understood; that the applicant will not receive another loan under the PPP; that the information provided is true and accurate; and that tax documents match those submitted to the Internal Revenue Service. If borrowers use the loans for unauthorized purposes, the SBA will direct them to repay those amounts. If borrowers knowingly use the funds for unauthorized purposes, they will be subject to additional liability, such as charges for fraud.<sup>91</sup>

## Loan Forgiveness

The PPP loan has a fixed interest rate of 1%. It was originally structured so that borrowers did not have to make any payments for six months after disbursement of the loan and had two years to repay, but recent changes now allow 10 months for deferral and five years for repayment.<sup>92</sup> However, the full principal amount of the loan and any accrued interest may qualify for forgiveness depending on how the money is spent.

Forgiveness is generally based on the employer maintaining or quickly rehiring employees and maintaining salary levels. To qualify for full forgiveness, initial SBA requirements mandated that at least 75% of PPP funds be used for payroll costs. The agency updated its loan forgiveness instructions to simplify the process, such as giving borrowers the option to use an "alternative payroll covered period," flexibility to include eligible payroll and non-payroll expenses, statutory exemptions based on rehiring by June 30, and an exemption for borrowers who have made a good faith effort to rehire workers.<sup>93</sup> As described above, legislation signed on June 5 provides further flexibility by reducing the threshold for payroll expenses to 60%, giving businesses more flexibility to rehire and restore salaries through December 31, and allowing forgiveness where businesses have been unable to rehire due to various circumstances.

To request loan forgiveness, a borrower must submit documentation of the number of full-time equivalent employees and pay rates, as well as of payments on eligible mortgage, lease, and utility

obligations. The borrower must certify that the documents are true and that the forgiveness amount was used to keep employees and make eligible mortgage interest, rent, and utility payments.<sup>94</sup>

For self-employed individuals, the qualified forgiveness amount focused originally on eight weeks' worth of owner compensation replacement based on 2019 net profit. The SBA concluded that limiting forgiveness to eight weeks of net profit from the owner's 2019 Form 1040 Schedule C was consistent with the Paycheck Protection Program's goal of keeping workers paid and prevents windfalls that Congress did not intend. The agency has not yet addressed how the recent flexibility legislation will affect forgiveness standards for this category of businesses.<sup>95</sup>

## PPP Lender Requirements

Lenders are expected to comply with the Currency and Foreign Transactions Reporting Act of 1970 and its amendments, including the USA Patriot Act of 2001, when processing PPP applications.<sup>96</sup> These comprehensive anti-money laundering laws, known as the Bank Secrecy Act (BSA), require banks to take a number of precautions to detect and prevent money laundering.

The Customer Identification Program rule requires a bank to verify the true identity of each customer to the extent reasonable and practicable. At minimum, a bank must obtain and verify the name, date of birth (for individuals), address, and taxpayer identification number for each customer before opening an account. If the customer is a qualifying legal entity, the bank must also identify the legal entity's beneficial owners, i.e. natural persons with a 20% or more ownership stake, and verify the identities of such beneficial owners. The bank must also determine whether the customer is on any federal agency lists of known or suspected terrorists or terrorist organizations.<sup>97</sup>

SBA directed entities that are not currently subject to BSA regulations to establish AML compliance programs equivalent to that of a comparable federally regulated institution prior to making PPP loans, including:

- » **Establishing a customer identification program.**
- » **Verifying beneficial ownership information.**
- » **Understanding the nature and purpose of their PPP customer relationships to develop customer risk profiles.**
- » **Identifying and reporting certain suspicious activity to federal regulators.**<sup>98</sup>

Lenders do not have to determine whether applicants have tried to obtain funding from other sources or to collect collateral or personal guarantees to secure the loan. The SBA has established a sliding fee scale to compensate lenders for processing PPP loans.<sup>99</sup>

## Loan Forgiveness

Lenders are required to make a good faith review of the calculations and documentation information submitted by the borrower for loan forgiveness, but need not independently verify reported information if the borrower submits documentation supporting its request for loan forgiveness and attests that it accurately verified the payments for eligible costs.<sup>100</sup>

## Acknowledgments

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## Endnotes

<sup>1</sup> Pub. L. 116-136, § 1102 (Mar. 27, 2020).

<sup>2</sup> Facebook & Small Business Roundtable, State of Small Business Report 7, 10 (May 2020) (survey of 86,000 owners, managers, and employees of small to medium businesses in which 31% had shut down in April 2020 and that 34% of those respondents did not expect to reopen); Global Strategy Group, Federal Stimulus Survey Findings Prepared for UnidosUS & Color of Change (May 2020) (survey of 500 African-American and Latino business owners in early April in which 22% and 12%, respectively, reported that they had closed permanently); Alexander W. Bartik et al., How Are Small Businesses Adjusting to COVID-19? Early Evidence from a Survey, National Bureau of Economic Research Working Paper No. 26989 (Apr. 30, 2020) (survey of 5800 small businesses in late March in which 2 percent of respondents reported that they had closed permanently); see also Beth Ann Bovino, The Paycheck Protection Program Impact On Jobs: (More) Help Wanted, S&P Global (May 27, 2020) (reporting April survey results suggesting that 30% of respondents expected to close permanently within one to two months if conditions did not improve significantly).

<sup>3</sup> The 500-employee threshold is perhaps the most common for defining what is a small business, but other definitions are used for various purposes and may be based on employees, revenues, or other metrics depending on the circumstances. Definitions of what constitutes a small business loan also vary, although commercial loans of less than \$1 million are often assumed to be extended to small businesses. FinRegLab, The Use of Cash-Flow Data in Underwriting Credit: Small Business Spotlight 4 (2019) (hereinafter FinRegLab, Small Business Spotlight).

<sup>4</sup> Kathryn Kobe & Robert Schwinn, Small Business GDP, 1998-2014, U.S. Small Business Administration Office of Advocacy 4-5 (2018); American Independent Business Alliance, The Multiplier Effect of Local Independent Businesses, [amiba.net](http://amiba.net) (undated) (linking to multiple studies); Institute for Local Self-Reliance, Key Studies: Why Local Matters, [ilsr.org](http://ilsr.org) (undated) (linking to multiple studies).

<sup>5</sup> U.S. Small Business Administration Office of Advocacy, Frequently Asked Questions 1 (2019) (hereinafter SBA, Frequently Asked Questions). From 2000 to 2018, for example, small businesses created 9.6 million net new jobs. *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> U.S. Small Business Administration Office of Advocacy, United States Small Business Profile 3-4 (2019); Board of Governors of the Federal Reserve System, Report to the Congress on the Availability of Credit to Small Businesses 15-16 (2017) (hereinafter FRB, Availability of Credit).

<sup>8</sup> SBA, Frequently Asked Questions at 2.

<sup>9</sup> FRB, Availability of Credit 16-17.

<sup>10</sup> Diana Farrell et al., A Cash Flow Perspective on the Small Business Sector, JPMorgan Chase & Co. Institute 6-9 (2020); Claire Kramer Mills & Jessica Battiso, Can Small Firms Weather the Economic Effects of COVID-19?, Federal Reserve Bank of New York (2020).

<sup>11</sup> Joseph Parilla & Sifan Liu, Blog, What the Great Recession Can Tell Us About the COVID-19 Small Business Crisis, The Brookings Institution (March 25, 2020).

<sup>12</sup> FinRegLab, Small Business Spotlight at 5-9, 19-22.

<sup>13</sup> U.S. Census Bureau, Small Business Pulse Survey: Tracking Changes During the COVID-19 Pandemic (updated June 4, 2020); Elisabeth Newcomb, Early Reports Show Deep and Immediate Effects of COVID-19 on Small Business, U.S. Small Business Administration Office of Advocacy (May 1, 2020); Daniel Wilmoth, Small Business Facts: Early Data Shows Severe Disruptions, U.S. Small Business Administration Office of Advocacy (April 2020).

<sup>14</sup> Although the bulk of the losses occurred in April, overall employment continued to trend downward in May by about 500,000 for small businesses with 49 or fewer employees and 750,000 for businesses with 50 to 499 employees. ADP Research Institute, ADP National Employment Report (May 2020); ADP Research Institute, ADP National Employment Report (April 2020).

<sup>15</sup> Alexander W. Bartik et al., Week 3 and 4: Labor Market Impacts of COVID-19 on Businesses: Update with Homebase Data through April 25, Rustandy Center for Social Sector Innovation, Chicago Booth School of Business (April 28, 2020).

- <sup>16</sup> Centers for Disease Control & Prevention, COVID-19 in Racial and Ethnic Minority Groups, [cdc.gov](https://www.cdc.gov) (undated); Robert Fairlie, The Impact of COVID-19 on Small Business Owners: Evidence of Early-Stage Losses from the April 2020 Current Population Survey, National Bureau of Economic Research Working Paper No. 27309 (June 2020).
- <sup>17</sup> Fairlie; Hanna Knowles, Number of Working Black Business Owners Falls 40 Percent, Far More Than Other Groups Amid Coronavirus, *Wash. Post* (May 25, 2020); Jens Manuel Krogstad et al., U.S. Latinos Among Hardest Hit by Pay Cuts, Job Losses Due to Coronavirus, *Pew Research Center* (Apr. 3, 2020); Farrell et al., at 9; Mills & Battiso; Federal Reserve Bank of Atlanta, *Small Business Credit Survey: Report on Minority-Owned Firms 3-8* (2019); SBA, *Frequently Asked Questions* at 2; Michael McManus, *Minority Business Ownership: Data from the 2012 Survey of Business Owners*, U.S. Small Business Administration Office of Advocacy Issue Brief No. 12, at 9-10 (2016). Minority-owned businesses are those owned by African Americans, Hispanics, Asians and Pacific Islanders, or American Indians and Alaska Natives. The top minority industries by share of businesses minority owned are in home health care, child day care, personal care services; drycleaning and laundry services; transportation systems such as taxi and limousine, urban transit, interurban and rural bus, and charter bus; seafood product preparation and packaging; and grocery stores. McManus at 7.
- <sup>18</sup> Fairlie (reporting declines in the number of active small businesses between February and April of 41% among businesses owned by African-Americans, 32% among Latinos, 26% among Asians, 17% among whites, 36% among immigrants, 25% among women, 20% among men, and 22% overall).
- <sup>19</sup> U.S. Small Business Administration, *SBA Agency Financial Report, Fiscal Year 2019* (2019) (reporting that the agency approved approximately 58,000 loans worth \$28 billion through its 7(a) and 504 loan programs in fiscal year 2019).
- <sup>20</sup> Penny Crosman & John Reosti, *Fintechs OK'd to Make Emergency Small-Business Loans*, *Am. Banker* (Apr. 13, 2020). Some fintechs worked with bank partners to originate loans prior to their approval as direct PPP lenders.
- <sup>21</sup> U.S. Small Business Administration, *Interim Final Rule, Business Loan Program Temporary Changes; Paycheck Protection Program*, 85 Fed. Reg. 20,811, 20,815 (April 15, 2020). Bank Secrecy Act requirements apply to "financial institutions," including a "loan or finance company," but many categories of non-bank lenders have been excluded from current regulations by the Financial Crimes Enforcement Network. 31 U.S.C. § 5312(a)(2)(P); U.S. Department of the Treasury Financial Crimes Enforcement Network, *Final Rule*, 77 Fed. Reg. 8148, 8148-49 (Feb. 14, 2012).
- <sup>22</sup> 85 Fed. Reg. at 20,815; see also Caroline Hwang, *PPP Loans: Lender List and Requirements*, *SmartAsset.com* (updated June 11, 2020) (listing requirements from approximately 125 banks and other lenders); Mark Fahey & Jessica Menton, *Small Banks and Small Business Turned Out to be a Good Combination When It Came to PPP Loans*, *USA Today* (June 2, 2020).
- <sup>23</sup> Federal Reserve Banks, *Small Business Credit Survey: 2020 Report on Employer Firms 8-9* (2020) (reporting 2019 data) (hereinafter *Federal Reserve Banks, 2020 Employer Small Business Credit Survey*); McManus at 9-10.
- <sup>24</sup> FRB, *Availability of Credit* at 19-30, 51-56; Federal Reserve Banks of New York & Kansas City, *Small Business Credit Survey: 2016 Report on Women-Owned Firms* 21, 24 (2017).
- <sup>25</sup> For example, nearly 10% of bank branches closed in the U.S. between 2008 and 2017, with 18% of closures in rural "banking deserts." *FinRegLab, Small Business Spotlight* at 10.
- <sup>26</sup> LexisNexis Risk Solutions, *Small Business Credit Report with SBFE Data Brochure 2* (undated).
- <sup>27</sup> FRB, *Availability of Credit* at 17.
- <sup>28</sup> *FinRegLab, Small Business Spotlight* at 6.
- <sup>29</sup> U.S. Small Business Administration & U.S. Treasury Department, *Paycheck Protection Program: How to Calculate Maximum Loan Amounts—By Business Type* (Apr. 24, 2020); see also U.S. Small Business Administration, *Paycheck Protection Program Loans, Frequently Asked Questions (FAQs), Question 1* (updated May 27, 2020) (hereinafter *SBA, PPP FAQs*).
- <sup>30</sup> See e.g., ADP, *Guide to the Paycheck Protection Program (PPP)*, [adp.com](https://www.adp.com) (undated); Gusto, *Paycheck Protection Program Report*, [gusto.com](https://www.gusto.com) (undated).
- <sup>31</sup> U.S. Small Business Administration, *Interim Final Rule, Business Loan Program Temporary Changes; Paycheck Protection Program—SBA Loan Review Procedures and Related Borrower and Lender Responsibilities*, 85 Fed. Reg. 33,010, 33,013 (June 1, 2020); see also 85 Fed. Reg. at 20,815-16.
- <sup>32</sup> *FinRegLab, Small Business Spotlight* at 5-9.
- <sup>33</sup> *Id.* at 6; see also Karen Gordon Mills & Brayden McCarthy, *State of Small Business Lending: Credit Access During the Recovery and How Technology May Change the Game*, *Harvard Business School Working Paper 15-004*, at 6-7 (July 22, 2014).
- <sup>34</sup> The survey also found that practices that outsource or automate small business lending were relatively unpopular among banks. *Federal Deposit Insurance Corporation, FDIC 2018 Small Business Lending Survey* 23, 29 (2018).

- <sup>35</sup> Specifically, the fees are 5% for loans of not more than \$350,000; 3% for loans of no more than \$350,000 and less than \$2,000,000; and 1% for loans of at least \$2,000,000. 85 Fed. Reg. at 20,816. Thus, loans under about \$210,000 receive the least compensation. Certain large banks have been sued by customers alleging that they prioritized early applications for larger loans in order to maximize fee income rather than processing on a first-come, first-served basis. Victoria Guida, *Small Businesses Sue Wells, JPMorgan, Other Banks over PPP Loans*, Politico (Apr. 20, 2020).
- <sup>36</sup> Stacy Cowley, *\$130 Billion in Small Business Aid Still Hasn't Been Used*, N.Y. Times (June 10, 2020); Paul Davis & John Reosti, *The Reasons Some Banks Have a Hard Stop on PPP Lending*, Am. Banker (May 29, 2020).
- <sup>37</sup> Dennis Bournique, *Blog, First Quarter, 2018 Prepaid Mobile Subscribers by Operator*, prepaidphoneneews.com (May 16, 2018).
- <sup>38</sup> An application programming interface (API) is a software intermediary that allows two websites or applications to exchange information. See, e.g., Bryan Yurcan, *Open Banking's Early Adopters Bet on 'Tremendous Value'*, Am. Banker (Feb. 1, 2018).
- <sup>39</sup> Even before the crisis, small businesses expressed dissatisfaction with wait times for credit decisions. Speed of decisionmaking and perceived chance of funding were top reasons firms applied to online lenders. Federal Reserve Banks, *2020 Employer Small Business Credit Survey* at 16, 19.
- <sup>40</sup> For the PPP, lenders are allowed to accept signed scanned copies of signed loan applications and documents containing the information and certifications required by the application. Lenders may also accept any form of e-consent or e-signature that complies with the requirements of the Electronic Signatures in Global and National Commerce Act. SBA, *PPP FAQs*, Question 29.
- <sup>41</sup> Riley Panko, *Why Small Businesses Lack Accounting Resources in 2018*, clutch.co (Oct. 1, 2018); Viewpost, *Viewpost SMB Emerging Trends in Accounting Report 2017* (Mar. 21, 2017); Statista, *Which of the Following Tasks Are Performed Using Software in Your Enterprise?* (Oct. 7, 2016).
- <sup>42</sup> Aggregators are intermediaries that serve small business lenders by collecting data from banks, software vendors, or other sources. Historically, they have operated by obtaining permission and log-in credentials from the applicant, using the credentials to log on to the data source's digital platform, and using a method called "screen scraping" that relies on proprietary software to copy information displayed on the data source's customer-facing webpages. More recently, aggregators have migrated to using APIs to collect data. FinRegLab, *Small Business Spotlight* at 22-23; see also note 38 and accompanying text.
- <sup>43</sup> For other discussions of automation vendors and services, see Penny Crosman, *The Tech Sunrise Bank Used to Quickly Dole Out PPP Loans*, Am. Banker (June 10, 2020); Angus Loten, *Banks Use Software Bots to Process Surge of Pandemic-Related Loans*, Wall St. J. (June 9, 2020).
- <sup>44</sup> Miriam Cross, *Fintechs Help Banks Manage Deluge of Emergency Small-Business Loans*, Am. Banker (Apr. 14, 2020).
- <sup>45</sup> Kevin Wack & Kate Berry, *Bankers Fear Massive Borrower Fraud in PPP*, Am. Banker (May 7, 2020).
- <sup>46</sup> Borrowers are also required to certify that they understand that if the funds are knowingly used for unauthorized purposes, the federal government may hold them legally liable such as for charges of fraud and that knowingly making a false statement to obtain a guaranteed loan from SBA is punishable under various laws. 85 Fed. Reg. at 20,814.
- <sup>47</sup> Wack & Berry.
- <sup>48</sup> *Id.*; see also Prepared Remarks of FinCEN Director Kenneth A. Blanco, delivered at the Federal Identity (FedID) Forum and Exposition (Sept. 24, 2019).
- <sup>49</sup> Some industry experts believe that synthetic fraud is the fastest-growing type of financial crime and estimate that it cost U.S. lenders \$6 billion in 2016. Most traditional identity fraud tools are ineffective at detecting synthetic identity behaviors and characteristics. Federal Reserve Banks, *Payment Fraud Insights: Synthetic Identity Fraud in the U.S. Payment System 3* (2019).
- <sup>50</sup> Experian, *Press Release, Experian Announces Breakthrough Solution in the Fight Against Synthetic Identity Fraud*, businesswire.com (May 22, 2020).
- <sup>51</sup> See, e.g., U.S. Department of Justice, *Press Release, Texas Man Charged with \$5 Million COVID-Relief Fraud* (May 19, 2020); U.S. Department of Justice, *Press Release, Two Charged in Rhode Island with Stimulus Fraud* (May 5, 2020).
- <sup>52</sup> Some inadvertent duplication appears to have occurred in round 1 where businesses submitted multiple applications after they did not hear back from particular lenders or were actively encouraged by lenders to seek funding from other sources because their systems were overwhelmed. Larger banks reportedly found that as many as 20% of their applications were duplicates, while smaller banks found that half their applications were rejected because the businesses had also applied through other sources. While the SBA reportedly caught most of the duplication, at least 1000 loans slipped through where applicants may have used a Social Security Number on one application and an Employer Identification Number on another. Michelle Price & Pete Schroeder, *Exclusive: U.S. Small Business Program Handed Out Virus Aid to Many Borrowers Twice*, Reuters (June 2, 2020); Yuka Hayashi, *Demand for Small-Business Loans Cools*, Wall St. J. (May 8, 2020).

- <sup>53</sup> Greenwich Associates, Press Release, Many Small And Mid-Sized Businesses Likely To Switch Banks After PPP Frustrations (May 12, 2020) (reporting results of a survey of 750 business executives in late April and early May finding that 20% of small business respondents and 14% of mid-sized business respondents were considering switching banks because of frustration over PPP processing). Some banks are reportedly using PPP lending as an opportunity to solicit more small business transaction account business. John Reosti, As PPP Deadline Approaches, a Few Lenders Make a Final Push, *Am. Banker* (June 9, 2020) (reporting that one lender was experiencing a 25% conversion rate when it asked PPP borrowers if they wanted to switch banking relationships); see also Ron Shevlin, The Looming Paycheck Protection Program Forgiveness Nightmare, *Forbes* (May 4, 2020) (arguing that PPP presents an opportunity for smaller banks to increase market share based on pre-pandemic survey results showing many large bank customers are open to switching banks).
- <sup>54</sup> Steve Hassett, How to Solve the Legacy Mainframe Skills Gap, *Forbes* (Apr. 29, 2020); Rene M. Stulz, FinTech, BigTech, and the Future of Banks, Ohio State University Fisher College of Business Working Paper No. 2019-03-020, at 15-16 (Sept. 2019); FinRegLab, Small Business Spotlight at 33-34; Anna Irrera, Banks Scramble to Fix Old Systems As IT 'Cowboys' Ride into Sunset, *Reuters* (Apr. 10, 2017). For a description of one bank's scramble to evaluate technology vendors to facilitate PPP lending, see Crosman.
- <sup>55</sup> Chan; FinRegLab, Small Business Spotlight at 33-34. At least one core processor is developing a new program to make it easier for small business owners to access unused credit lines to pay for rent, procurements, and other recurring expenses that would not ordinarily be paid using credit cards. John Adams, Fiserv Sees Existing Credit Lines as Cure for PPP Limitations, *Am. Banker* (June 5, 2020); see also note 44 and accompanying text.
- <sup>56</sup> Fintechs also often have higher customer acquisition costs than banks because they lack brand recognition. FinRegLab, Small Business Spotlight at 33-34.
- <sup>57</sup> See Board of Governors of the Federal Reserve System, Paycheck Protection Program Liquidity Facility (PPPLF), [federalreserve.gov](https://www.federalreserve.gov) (undated). Only depository institutions were eligible to borrow from the PPPLF initially. The Federal Reserve announced that it would extend eligibility to all PPP lenders on April 30, but access for non-banks has been challenging due to the factors discussed in main text as well as the need to develop correspondent banking relationships with depository institutions that have Federal Reserve master accounts. Haoyang Liu & Desi Volker, The Paycheck Protection Program Liquidity Facility (PPPLF), Federal Reserve Bank of New York, Liberty Street Economics (May 20, 2020); Testimony of Lisa Mensah, President & CEO of the Opportunity Finance Network, to the House Committee on Financial Services Subcommittee on Consumer Protection and Financial Institutions (June 3, 2020).
- <sup>58</sup> 12 U.S.C. § 1867; Board of Governors of the Federal Reserve System, Supervisory & Regulation Letter 11-7 (Apr. 4, 2011); Federal Deposit Insurance Corporation, Financial Institution Letter 22-2017 (June 7, 2017); Office of the Comptroller of the Currency, Bulletin 2011-12 (Apr. 4, 2011); Federal Deposit Insurance Corporation, Conducting Business with Banks: A Guide for Fintechs and Third Parties (February 2020).
- <sup>59</sup> Federal regulators have issued two interagency statements in recent months that discuss the use of alternative data generally and bank transaction account information more specifically. Both made brief references to small business lending. Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, National Credit Union Administration, & Office of the Comptroller of the Currency, Interagency Lending Principles for Offering Responsible Small-Dollar Loans 1 (May 2020); Board of Governors of the Federal Reserve System, Consumer Financial Protection Bureau, Federal Deposit Insurance Corporation, National Credit Union Administration, & Office of the Comptroller of the Currency, Interagency Statement on the Use of Alternative Data in Credit Underwriting 1-2 & nn.4-5 (December 3, 2019).
- <sup>60</sup> Office of the Comptroller of the Currency, Summary of the OCC's Paycheck Protection Program Listening Session on Backend Processes held on April 21, 2020 (May 7, 2020); Office of the Comptroller of the Currency, Summary of the OCC's Paycheck Protection Program Listening Session on Fraud Identification and Solutions held on April 20, 2020 (May 7, 2020); Office of the Comptroller of the Currency, Summary of the OCC's Paycheck Protection Program Listening Session on Payroll Verification held on April 16, 2020 (May 7, 2020).
- <sup>61</sup> U.S. Census Bureau, Small Business Pulse Survey: Tracking Changes During the COVID-19 Pandemic (updated June 4, 2020). A survey by the NFIB in late May found that 77% of respondents had applied for PPP loans and that 93% had been approved. NFIB, Press Release, Most Small Businesses Nearing the End of the PPP 8-Week Forgiveness Period (June 2, 2020).
- <sup>62</sup> For example, if the U.S. Census Bureau's Pulse Survey statistics are representative of the entire population of employer small businesses, they suggest that roughly 3.5 million of those companies had received PPP funding out of a total of roughly 4.5 million loans by May 30. Given that there are nearly 25 million nonemployer businesses, this suggests that at most about 4% of such businesses have received PPP funding. U.S. Small Business Administration, Paycheck Protection Program (PPP) Report: Approvals Through 5/30/2020 (2020); see also note 61 and accompanying text. Nonemployer businesses and independent contractors can choose between applying for PPP funding and seeking unemployment insurance benefits, which has some advantages given that use of unemployment funds is not restricted and does not require forgiveness or repayment. However, although the CARES Act provided \$600 per week in supplemental federal benefits on top of state unemployment insurance through July 31, 2020, the overall funding available is capped relative to PPP and many states' systems have been overwhelmed with claims. Self-employed applicants have also reported particular registration challenges, in part because they are not normally eligible. Darla Mercado, Self-Employed Workers Face an Uphill Battle on PPP Loan Forgiveness, *cnbc.com* (May 22, 2020); Brian Thompson, Self-Employed and Struggling? How to Choose Between Unemployment and the Paycheck Protection Program, *Forbes* (Apr. 19, 2020); Vanessa Romo, Self-Employed and Gig Workers Face Long Waits for Coronavirus Relief Checks, *npr.org* (Apr. 17, 2020); James N. Boudreau et al., The CARES Act and the Self-Employed: A Primer, *Nat. L. Rev.* (Apr. 14, 2020).

- <sup>63</sup> UnidosUS, Press Release, First COVID-19 Survey of Black and Latino Small-Business Owners Reveals Dire Economic Future, Inaccessible and Insufficient Government Relief Funds (May 18, 2020). The survey involved 500 African-American and Latino business owners with annual revenues of less than \$7 million. Global Strategy Group. The SBA did not include material on its initial application materials to solicit optional demographic information about business principals, but after criticism by the agency's inspector general the agency included such forms as part of forgiveness applications. 85 Fed. Reg. at 33,013; SBA Inspector General, Flash Report: Small Business Administration's Implementation of the Paycheck Protection Program Requirements 2 (May 8, 2020). The Equal Credit Opportunity Act generally prohibits the collection of race, gender, and data about other "protected class" status more generally. Amendments to the law adopted in 2010 would require business lenders to begin collecting such information, but the provision has not yet been implemented by the Consumer Financial Protection Bureau. 15 U.S.C. . § 1691c-2; 12 C.F.R. § 1002.5(b); FinRegLab, Small Business Spotlight at 27-28.
- <sup>64</sup> In 2018, for example, only 39% of nonemployer respondents reported having adequate funding, compared with nearly 50% of employer companies. Yet only 26% of the nonemployer respondents had sought credit within the previous 12 months, compared with 43% of employer firms. Federal Reserve Banks, Small Business Credit Survey: 2019 Report on Employer Firms 10 (2019); Federal Reserve Bank of New York, Small Business Credit Survey: 2019 Report on Nonemployer Firms 11, 13, 15 (2019).
- <sup>65</sup> For example, using 2018 Small Business Credit Survey data, researchers found that creditworthy black-owned businesses were less likely to obtain credit from banks (20% at large banks, 17% at small banks) when compared with white-owned firms even after accounting for profitability, credit risk, and other factors. Mels de Zeeuw & Brett Barkley, Mind the Gap: Minority-Owned Small Businesses' Financing Experiences in 2018, Board of Governors of the Federal Reserve System, Consumer & Community Context (Nov. 2019); FinRegLab, Small Business Spotlight at 9-11.
- <sup>66</sup> News reports indicate that some borrowers who received PPP funding relatively early in the process grew so worried about meeting forgiveness parameters that they hesitated to spend the money and in some cases have returned it. Cowley; Ann Saphir & Howard Schneider, U.S. Small Firms Leave \$150 Billion in Coronavirus Stimulus Untapped, Reuters (May 23, 2020); Jeanne Sahadi & Vanessa Yurkevich, These Small Business Owners Got PPP Loans, But They're Afraid to Use the Money, *cnn.com* (May 13, 2020); Stacy Cowley et al., Some Small Businesses That Got Aid Fear the Rules Too Much to Spend It, *N.Y. Times* (May 2, 2020); see also note 80 and accompanying text.
- <sup>67</sup> Paycheck Protection Program Flexibility Act of 2020, Pub. L. 116-142 (June 5, 2020).
- <sup>68</sup> Joint Statement by Treasury Secretary Steven T. Mnuchin and SBA Administrator Jovita Carranza Regarding Enactment of the Paycheck Protection Program Flexibility Act (June 8, 2020). Several members of Congress submitted a letter to SBA stating that the legislation was not intended to extend the application period. Natalie J. Kraft, Paycheck Protection Program Flexibility Act Passes, Increasing PPP Accessibility for Businesses, *Nat. L. Rev.* (June 8, 2020); Credit Union National Association, Compliance: What Does New PPP Flexibility Mean for Borrowers, Lenders?, *news.cuna.org* (June 8, 2020).
- <sup>69</sup> Joseph Zeballos-Roig, Treasury Secretary Mnuchin Announced 3 Big Changes to the PPP Small Business Loan Program as \$130 Billion in Aid Sits Unused, *Business Insider* (June 10, 2020). Agency officials also confirmed that they interpret the June 5 legislation to allow business owners that do not meet the 60% threshold for payroll expenses to seek partial forgiveness, which some lawmakers had questioned. *Id.*
- <sup>70</sup> The Health and Economic Recovery Omnibus Emergency Solutions Act that passed the House of Representatives on May 15 would increase PPP funding by another \$659 billion as well as allocating more funds to other federal small business loan programs. H.R. 6800. A bipartisan group of Senators expressed support for expanding and revising the program at a committee hearing on June 10 at which administration officials testified in favor of additional support for small businesses. Neil Haggerty, Key Senators Support More Small-Business Relief, *Am. Banker* (June 10, 2020).
- <sup>71</sup> Cowley; Kevin Wack, Big Banks Call for Blanket Forgiveness of PPP Loans under \$150,000, *Am. Banker* (June 2, 2020). Although the more flexible terms are viewed as making it more likely that more PPP borrowers will be able to qualify for full forgiveness under current terms, both lenders and borrowers have reported concerns about the forgiveness process, which involves an 11-page application. Paul Davis et al., After PPP Reform, More Flexibility But Same Complexity, *Am. Banker* (June 5, 2020); see also notes 66, 76, and accompanying text.
- <sup>72</sup> LanePowell, PPP Loan Forgiveness: SBA Invents New Limits on 'Owner-Employees', *lanepowell.com* (updated June 4, 2020); Darla Mercado, Self-Employed Workers Face an Uphill Battle on PPP Loan Forgiveness, *cnbc.com* (May 22, 2020); Center for Responsible Lending, The Paycheck Protection Program Continues To Be Disadvantageous to Smaller Businesses, Especially Businesses Owned by People of Color and the Self-Employed (updated May 2020).
- <sup>73</sup> Blanca Chan, Banks Prep for PPP Forgiveness as Fintechs Brace for Changing Regs, *bankinnovation.net* (June 4, 2020); Milken Institute, FinTech in Focus (May 18, 2020); Miles Kruppa & Robert Armstrong, Kabbage Rebounds after Accessing US Loan Programme, *Financial Times* (May 18, 2020); Julien Courbe, Blog, Banks, FinTechs, and the PPP: Lessons Learned, *pwc.com* (May 14, 2020). Because fintechs have sent many loans to bank partners for processing particularly prior to the date that they were eligible to participate directly in the program, SBA's direct tallies undercount their impact. Milken Institute. As of May 15, 2020, many banks that work with fintech lenders,



such as Cross River Bank, WebBank, Radius Bank, and Celtic Bank, appeared among the top 25 banking units accessing the PPPLF. Zach Fox, Blog, PPP Lending Tops \$500B with Community Banks Leading the Way, [spglobal.com](https://spglobal.com) (May 19, 2020).

<sup>74</sup> U.S. Small Business Administration & U.S. Treasury Department, Press Release, SBA and Treasury Department Announce \$10 Billion for CDFIs to Participate in Payment Protection Program (May 28, 2020).

<sup>75</sup> Reosti.

<sup>76</sup> Some news coverage of the first wave of PPP funding emphasized that banks made \$10 billion in fee income despite the fact that some underwriting requirements were streamlined and the risk of loss was minimal due to government guarantees. See, e.g., Laura Sullivan et al., Small Business Rescue Earned Banks \$10 Billion In Fees, [npr.org](https://npr.org) (Apr. 22, 2020). Stakeholders have responded by pointing out that loan processing imposed severe demands on staff, that overall yields from the loans are low due to the 1% interest rate, and that banks have used the fee income to shore up loan loss reserves. *Id.*; Jim Dobbs, PPP Fee Income Will Go Straight to Loan-Loss Reserves at Many Banks, *Am. Banker* (Apr. 30, 2020). They also note that servicing the loans through processing of forgiveness applications and for up to five years for unforgivable amounts could be challenging, particularly for lenders who were not SBA-approved lenders prior to the pandemic. Some estimates suggest that loans under \$50,000 could cost banks about \$500 million to service. Wack; Shevlin.

<sup>77</sup> FinRegLab, Small Business Spotlight at 11-13, 19-22.

<sup>78</sup> Karen G. Mills, *Fintech, Small Business and the American Dream*, Chapter 9 [eBook] (2019).

<sup>79</sup> Pub. L. 116-136, § 1102 (Mar. 27, 2020). For a general history of implementation challenges over the course of the program, see Jonathan O'Connell et al., Following Messy Start, Enormous Paycheck Protection Program Shows Signs of Buttressing Economy, *Wash. Post* (June 10, 2020).

<sup>80</sup> For example, after more than 230 publicly traded companies received PPP funding, federal regulations were changed in late April to state that it was unlikely that a public company could meet program eligibility standards. Companies were given until May 14 to return the funds, but at least 30 such borrowers announced that they had decided to keep the money despite the likelihood of audits or other public scrutiny. Inti Pacheco, At Least 30 Public Companies Say They Will Keep PPP Loans, *Wall St. J.* (May 19, 2020); Jeanne Whalen, Vague Rules for Paycheck Protection Program Complicate Treasury Effort to Claw Back Money, *Wash. Post* (May 5, 2020). Several private colleges also gave back PPP funding. Michael Stratford et al., Elite Colleges Back Away from Rescue Cash Amid Criticism of Endowments, *Politico* (Apr. 23, 2020). Some borrowers also returned funds because they were approved by multiple lenders. See note 52. Overall, approximately \$12 billion of PPP funding has been returned, reportedly by thousands of companies. Ryan Tracy & Amara Omeokwe, Mnuchin Backs More Aid to Hard-Hit Small Businesses, *Wall St. J.* (June 10, 2020); Cowley.

<sup>81</sup> U.S. Small Business Administration, Interim Final Rule, Business Loan Program Temporary Changes; Paycheck Protection Program—Additional Eligibility Criteria and Requirements for Certain Pledges of Loans, 85 Fed. Reg. 21,747 (April 20, 2020).

<sup>82</sup> Crosman & Reosti. Some fintechs worked with bank partners to originate loans prior to their approval as direct PPP lenders.

<sup>83</sup> Paycheck Protection Program and Health Care Enhancement Act, Pub. L. 116-139 (Apr. 24, 2020).

<sup>84</sup> *Id.*

<sup>85</sup> U.S. Small Business Administration & U.S. Treasury Department, Press Release, SBA and Treasury Department Announce \$10 Billion for CDFIs to Participate in Payment Protection Program (May 28, 2020).

<sup>86</sup> Kate Rogers, After a Rush for More Small Business Funding, PPP Loan Money Remains Untapped, [cnbc.com](https://cnbc.com) (June 2, 2020); Danielle Kurtzleben, Why The Small Business Rescue Program Has Slowed Way Down, [npr.org](https://npr.org) (May 28, 2020); Zachary Warmbrodt, Banks Warn That New Small-Business Funding Could Evaporate in 2 Days, *Politico* (Apr. 20, 2020); see also pages 14-15.

<sup>87</sup> U.S. Small Business Administration, Paycheck Protection Program (PPP) Report: Approvals Through June 6, 2020 (2020). The number and amount of loans have fluctuated over time because substantial numbers of borrowers have returned funds. See note 80 and accompanying text.

<sup>88</sup> Joint Statement by Treasury Secretary Steven T. Mnuchin and SBA Administrator Jovita Carranza Regarding Enactment of the Paycheck Protection Program Flexibility Act (June 8, 2020). See note 68 and accompanying text.

<sup>89</sup> SBA, PPP FAQs, Question 2. An application can be declared ineligible if the business is engaged in any activity that is illegal under Federal, state, or local law; if it is a household employer (for example, individuals who employ nannies, housekeepers, etc.); it has an owner of 20% or more equity that is facing criminal charges, incarcerated, on parole, or has been convicted of a felony in the past 5 years; or any of the owners are currently delinquent or have defaulted within the last seven years on a direct or guaranteed loan from SBA. 85 Fed. Reg. at 20,812. Agency officials have announced that they intend to shorten the time period in which business owners who have previously been convicted of crimes are excluded from the program. See note 69 and accompanying text.

<sup>90</sup> 85 Fed. Reg. at 20,812-13.

<sup>91</sup> *Id.* at 20,814-15. See notes 46-47 and accompanying text.

<sup>92</sup> 85 Fed. Reg. at 20,813; Paycheck Protection Program Flexibility Act of 2020, Pub. L. 116-142, § 3 (June 5, 2020).

<sup>93</sup> U.S. Small Business Administration, Interim Final Rule, Business Loan Program Temporary Changes; Paycheck Protection Program—Requirements—Loan Forgiveness, 85 Fed. Reg. 33,004 (June 1, 2020).

<sup>94</sup> *Id.* at 33,005, 33,009.

<sup>95</sup> The SBA believed that many self-employed individuals have few of the overhead expenses that qualify for forgiveness under the Act because they may operate out of their homes, vehicles, or sheds. As a result, it assumed that many of their receipts constitute net income. 85 Fed. Reg. at 21,750.

<sup>96</sup> Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism of 2001, Pub. L. 107-56 (Oct. 26, 2001).

<sup>97</sup> 31 C.F.R. Pt. 1020.

<sup>98</sup> 85 Fed. Reg. at 20,815. See note 21 and accompanying text.

<sup>99</sup> Specifically, the fees are 5% for loans of not more than \$350,000; 3% for loans of no more than \$350,000 and less than \$2,000,000; and 1% for loans of at least \$2,000,000. 85 Fed. Reg. at 20,816. Thus, loans under about \$210,000 receive the least compensation. See note 35 and accompanying text.

<sup>100</sup> 85 Fed. Reg. at 33,013; 85 Fed. Reg. at 20,815-16.

