

From Survival to Revival: How to Help Small Businesses through the COVID-19 Crisis

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MISSION STATEMENT

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Our strategy calls for combining public investment, a secure social safety net, and fiscal discipline. In that framework, the Project puts forward innovative proposals from leading economic thinkers — based on credible evidence and experience, not ideology or doctrine — to introduce new and effective policy options into the national debate.

The Project is named after Alexander Hamilton, the nation's first Treasury Secretary, who laid the foundation for the modern American economy. Hamilton stood for sound fiscal policy, believed that broad-based opportunity for advancement would drive American economic growth, and recognized that “prudent aids and encouragements on the part of government” are necessary to enhance and guide market forces. The guiding principles of the Project remain consistent with these views.





From Survival to Revival: How to Help Small Businesses through the COVID-19 Crisis

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This policy proposal is a proposal from the author(s). As emphasized in The Hamilton Project's original strategy paper, the Project was designed in part to provide a forum for leading thinkers across the nation to put forward innovative and potentially important economic policy ideas that share the Project's broad goals of promoting economic growth, broad-based participation in growth, and economic security. The author(s) are invited to express their own ideas in policy papers, whether or not the Project's staff or advisory council agrees with the specific proposals. This policy paper is offered in that spirit.

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Abstract

The COVID-19 pandemic poses an existential threat to small businesses, with more than 400,000 lost since the crisis began. Many small businesses are financially fragile and not equipped to weather a prolonged period of substantially reduced revenues. Further widespread business failures would destroy jobs and firm-specific capital, and hamstring the recovery. The main existing source of support, the Paycheck Protection Program, has had mixed success, and is not well suited to what now looks to be a prolonged contraction. In its place, we should significantly expand the Employee Retention Credit to help cover small businesses' payroll costs, and introduce a new Small Business Survival Credit to help cover small businesses' fixed costs. Looking to the future, we should significantly invest in the capabilities of the IRS so it may better support small businesses in future crises.

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Introduction

With so much tragedy to absorb over the past six months, it has been easy to overlook an emerging crisis. While our attention has rightly been occupied by the mounting death toll and record unemployment rate, millions of America's small business owners have been facing the greatest threat to their survival in living memory. But they are not in a silo. These businesses employ almost half of all Americans. Their fate will affect how well our economy bounces back when the pandemic subsides.

The impact so far has been catastrophic. During the first two months of the crisis, from mid-March to mid-May 2020, more than 40 percent of all small businesses were closed. These closures caused revenues to plummet, down 40 percent on average. In leisure and hospitality revenues were down more than 70 percent. Businesses drew on what little cash they had to stay afloat. But by June, just three months into the crisis, more than 400,000 small businesses had already permanently closed—more than typically close in an entire year.

This recession is highly unusual. The scale and speed of the contraction are, of course, unprecedented. But more critical is the unevenness of its effects. Some businesses were forced to close, or lost customers who chose to stay home. Some were spared from the immediate effects, while others experienced a surge in demand.

In an ordinary recession, the textbook approach is to pump consumers' wallets full of cash and rely on the economy's plumbing to get it to the businesses and workers in need. But the pandemic has shut down much of that plumbing. No amount of household stimulus is going to open a bar that local authorities shut down, get its bartenders back to work, or pay its rent. And as those businesses and workers lose income, the contraction spills over onto the businesses and workers spared from the first-round effects.

It is possible to arrest this downward spiral, but doing so requires fiscal support of the small businesses affected. The case for acting is clear. This was an uninsurable risk for small businesses with effects that are highly uneven. Many small businesses lack the access to credit that would help them bridge the crisis. When large businesses fail, they tend to proceed through an orderly reorganization with much of

their capital preserved. When small businesses fail, they tend to dissolve.

A large volume of simultaneous business failures constitutes a systemic risk. The load would swamp bankruptcy processes, and add to an already over-burdened unemployment insurance (UI) system. And the businesses themselves represent tremendous value that would be lost. Much of their capital is intangible, and thus nontransferable. The firm-specific human capital, the matches between businesses and their workers, suppliers, and customers—all would be lost. Ending a business is far easier than starting one—a loss of businesses on a large scale would have a scarring effect that would slow the recovery.

And this is among otherwise-viable businesses that, with the support of insurance and adequate capital, would have been spared from such a fate. We should of course be wary of propping up otherwise-unviable businesses. The revenue required to support small businesses is not free—it comes at some cost to our future prosperity. And the longer the period of depressed activity goes on, the less generous the level of support should be. All of these considerations suggest some restraint.

The support provided to date has had mixed success. In late March 2020 Congress and the White House authorized the \$350 billion Paycheck Protection Program (PPP). By any normal standard, that is a lot of money. But it was insufficient to cover the demand for the program, and an additional \$310 billion had to be authorized just a few weeks later. And in total, that paid for a program that gave too much to those that did not need it, and not enough to those that did.

As problematic as the PPP and its rollout were, it succeeded in undergirding many small businesses. It replenished cash reserves. It brought confidence. Early estimates indicate it saved at least 2.3 million jobs for several months, with the final number likely to be far higher. But it was a program designed in a more optimistic time—back when we thought we could freeze every small business in America to buy time to suppress the virus, and then thaw them all out again as we resumed normal life.

But that is not what happened. Instead, it looks as though we will be living with the virus for some time. Small business revenues have plateaued substantially below precrisis levels. Many businesses are operating at much-reduced capacity, while facing higher costs in adapting to life with the virus. The single-most-effective measure to help small businesses remains suppressing the virus. There is broad agreement among public health experts on how to do that. Every other advanced country suppressed the virus at some point—we can too, if we choose.

Another critical measure to support small businesses is further broad stimulus. As the crisis has spread from the directly affected businesses to the broader economy, broad stimulus measures gain potency. Generous supplementary UI support, significant funding for state and local governments, and household cash stimulus all would boost demand, providing indirect support to many of the small businesses still operating.

As for direct support, the optimal policy today is very different from what it was in mid-March. It is feasible to fully cover businesses' revenue shortfalls for the duration of a short lockdown. But doing so for a year or more until we roll out a vaccine would be imprudent. The longer the support must last, the less generous it must be. Unfortunately, this will mean not every otherwise-viable business will be saved. But with more tightly targeted support, the businesses that remain will have a fighting chance.

Accordingly, the PPP should not be extended. In its place, the Employee Retention Credit (ERC), a refundable credit against the employer's payroll tax obligations, should be significantly expanded. The credit would apply for three quarters starting October 1, 2020. Any small business that has experienced a 30 percent year-on-year decline in revenues in a given quarter would be eligible. The credit would cover 80 percent of all wages up to \$15,000 per employee per quarter. In addition, eligible businesses would receive a Small Business Survival Credit (SBSC), which would provide \$5,000 per employee up to a maximum of \$50,000 per business per quarter to cover non-payroll expenses such as rent, interest, utilities, and COVID-19 mitigation costs.

By comparison, the PPP covered 100 percent of all wages up to the equivalent of \$25,000 per quarter, with additional support for non-payroll costs. But that support lasted only two months and was granted to almost three-quarters of all businesses. The support proposed here would be less generous, as demanded by a longer period of subdued activity, and it would apply to only the worst-affected businesses. But it would last almost four times longer, it would be easier to administer, and it would draw in and drop off businesses as local conditions change.

Many of the problems with the PPP arose from funneling the money through private banks. This is another respect in which the United States is an international outlier. In other countries, wage supports for small businesses were administered by their tax authorities. In the United States, we relied on private banks because we wanted to provide immediate liquidity during a crisis. There is no good reason why we should not be able to rely on the IRS to fill that role in future crises: it is the largest financial institution in the world and carries out trillions of dollars in transactions each year with hundreds of millions of counterparties.

The IRS has been starved of funding for decades, diminishing even its core functions. It lacks the systems necessary to implement a program like the PPP on short notice. Tax authorities in many other countries have such systems. This is yet another example of America's moribund state capacity being laid bare by the crisis. To better prepare for future crises—indeed, to help the IRS perform its core functions even in normal times—we should provide significant, sustained additional funding to the IRS. In particular, this should include funding for a real-time electronic payroll reporting system covering every American business and worker.

The first round of stimulus was an act of uncharacteristic bipartisanship, and one that was remarkably effective in helping to safeguard the livelihoods of millions of Americans. Now that those initial measures have run their course, it is past time for us to act again. Both the House and the Senate have passed bills that contain commendable elements. There is much common ground on small business support in particular. This proposal improves on those plans, exhibiting good qualities of both—generous support for payroll and adaptation costs, and strong hiring incentives—while adding the support for non-payroll costs that many businesses have called for.

Background: Before the Crisis, Small Businesses Were Financially Fragile

There are around 6 million small business employers in America, together responsible for more than 60 million jobs (US Census Bureau 2020a).¹ These small businesses make up more than 99 percent of all businesses, but account for 47 percent of employment due to their smaller size. This policy proposal does not consider the tens of millions of nonemployer small businesses such as the self-employed. They are best served by expanded UI, which this proposal recommends extending.

Contrary to some commentary, the sectors most exposed to COVID-19 are not served disproportionately by small businesses.² If anything, the opposite is true. While the overwhelming majority of businesses in the affected sectors are indeed small businesses, that is also true for the economy generally. Among big businesses, 63 percent serve the directly affected sectors, while among small businesses, only 46 percent do.

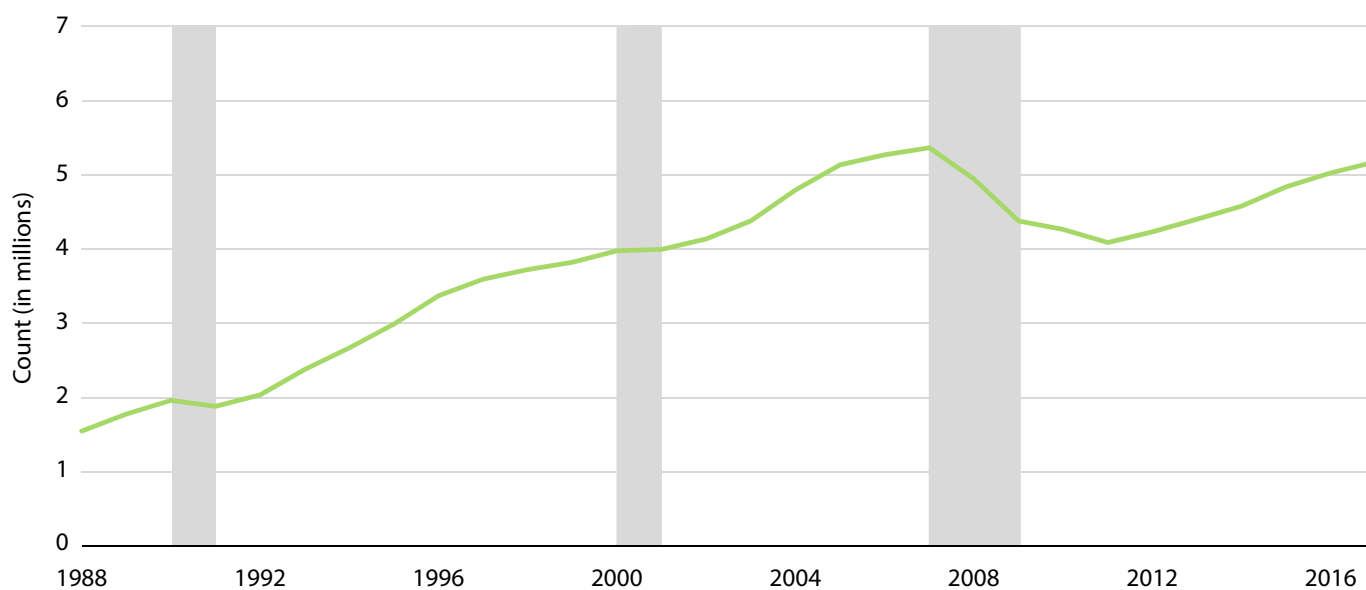
The special focus on small businesses is not because they are more exposed to COVID-19, but rather because they are much more financially fragile and therefore vulnerable to a

large and sustained hit to their profitability. Small businesses lack the access to capital markets of large businesses, and are much more likely than larger businesses to be dissolved instead of reorganized under bankruptcy.

Even in normal times, many small businesses face perilous conditions. While on net there is typically small business creation, this masks substantial turnover. Around a third of small businesses in US cities are unprofitable at any given time (Farrell, Wheat, and Grandet 2019), and around a third do not survive beyond the first four years (Farrell, Wheat, and Mac 2018).

Many small businesses have only limited access to credit and very little cash on hand to finance unexpected losses. Around half of small businesses in US cities have two weeks or less of cash on hand (Farrell, Wheat, and Grandet 2019). This differs considerably by the race of the business owner, with White-owned businesses having 19 days of cash on hand on average, compared to just 12 days for Black-owned businesses (Farrell, Wheat and Mac 2020).

FIGURE 1.
Total Number of Small Businesses, 1988–2017



Source: U.S. Census Bureau 2020e.

Note: Shading corresponds to periods of disrupted business growth coinciding with recessions.

Fifty-six percent of all small businesses have relied on funds from their personal savings, friends, or family to support operations in the past five years, and 47 percent say they would rely on personal funds if they needed to fill a two-month gap in revenues (Federal Reserve System 2020). Eighty-eight percent of small business owners rely on their personal credit score to secure financing, and only 44 percent of small businesses have obtained funds from a bank in the past five years.

In an economic crisis this fragility has economic consequences. During the Great Recession there was a net loss of 6 percent (around 375,000) of all small businesses (see figure 1) (US Census Bureau 2020e). At the same time, financial constraints are responsible for having reduced employment growth among small businesses by 4 to 8 percentage points relative to large businesses (Siemer 2019).

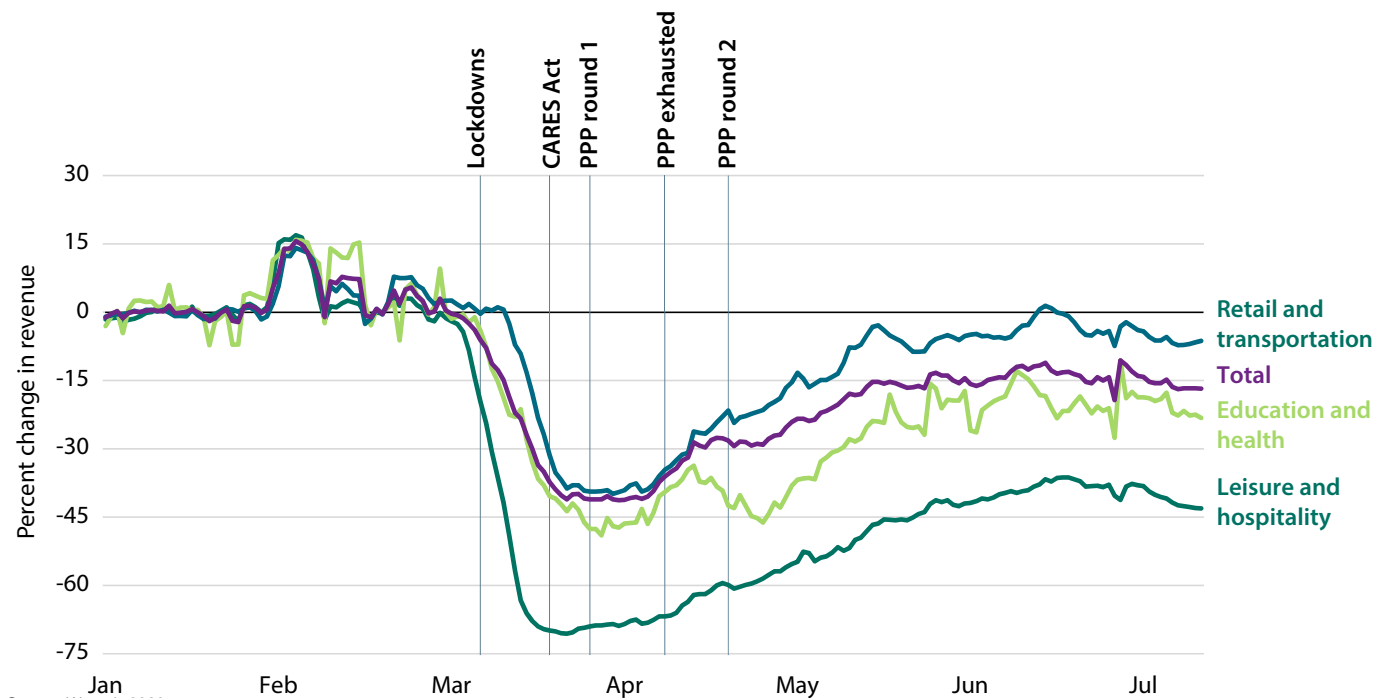
The sharpness and scale of the COVID-19 crisis makes it difficult to draw lessons from past experience about how small businesses might weather this crisis. However, the resilience of small businesses during natural disasters provides at least some context for their ability to withstand a sharp and systemic but temporary shock to revenues.

In 2017 Hurricanes Harvey and Irma hit Houston and Miami. The storms caused reductions in cash inflows of 63 percent and 82 percent for at least half of all small businesses, but most recovered within one to two weeks (Farrell and Wheat 2018). These cash shortfalls were substantially, but not completely, offset by reductions in cash outflows of 54 percent and 62 percent, with cash balances on net falling by 7.5 percent and 7.4 percent at the height of the disaster.

Though severe, the temporary nature of these disasters meant cash flows for most small businesses returned to normal within one to two weeks. And because the reduction in cash outflows lasted around a week longer than the reduction in inflows, most businesses exited the crisis with more cash on hand than they entered it with.

One lesson from those hurricanes is that many businesses can sustain a very large reduction in revenues provided it is short-lived. The flexibility that firms have in cutting variable costs can shield them substantially from revenue shortfalls, and modest net losses can be weathered by drawing on cash reserves if the disruption lasts only a matter of weeks. The initial impact of the COVID-19 crisis on small business revenues is similar in magnitude to that of a natural disaster. But rather than bouncing back in one to two weeks, revenues were well down for at least three months and even now remain substantially below their pre-crisis levels on average (see figure 2).

FIGURE 2.
Change in Small Business Revenue for Selected Industries, January–July



Source: Womply 2020.

Note: Percent changes in revenue are indexed to January 10 revenue.

The Challenge: COVID-19 Is an Existential Threat to Many Small Businesses

Over the six months since the crisis began, a remarkable volume of real-time data on the state of small businesses in America has emerged. The US Census Bureau has produced a new weekly survey gauging the experiences of more than 20,000 small businesses, as well as a number of other high-frequency data sets. Several academics have rolled out surveys gauging small business experiences, and a range of financial technology firms with access to small business data have made these available to researchers. Many of these data overlap; some cover certain time periods and not others. Once collated, a coherent story emerges about the experience of small businesses during the COVID-19 crisis.

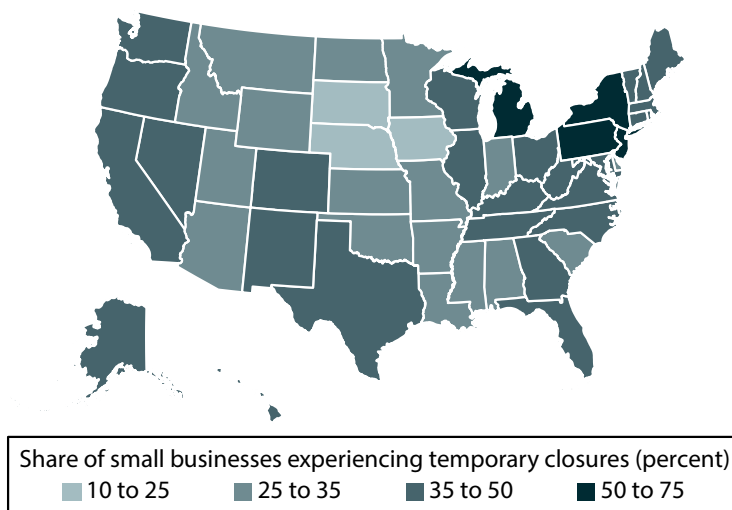
On March 16, 2020, the day before the first lockdowns began, 11 percent of small businesses had already closed (Waldman 2020). The following day, closures rose to 20 percent. By late March, more than 40 percent of small businesses were closed (Bartik, Bertrand, Cullen, Glaeser, Luca, and Stanton 2020). A month later, small business closures remained above 40 percent (US Census Bureau 2020d). Including

nonemployer businesses, the number of active business owners had fallen 22 percent by April, the largest drop on record (Fairlie 2020). The fall was most extreme among Black business owners, down 41 percent, because the industries in which those business owners were more likely to operate were those hit the hardest by the pandemic.

Although the closures were more prevalent in the areas hit worse by the virus, no region was spared (see figure 3). In late March 54 percent of small businesses were closed in the Mid-Atlantic region (the most affected area), but 39 percent were closed even in the Mountain region (the least-affected area) (Bartik, Bertrand, Cullen, Glaeser, Luca, and Stanton 2020). This was still the case for both regions a month later (US Census Bureau 2020d).

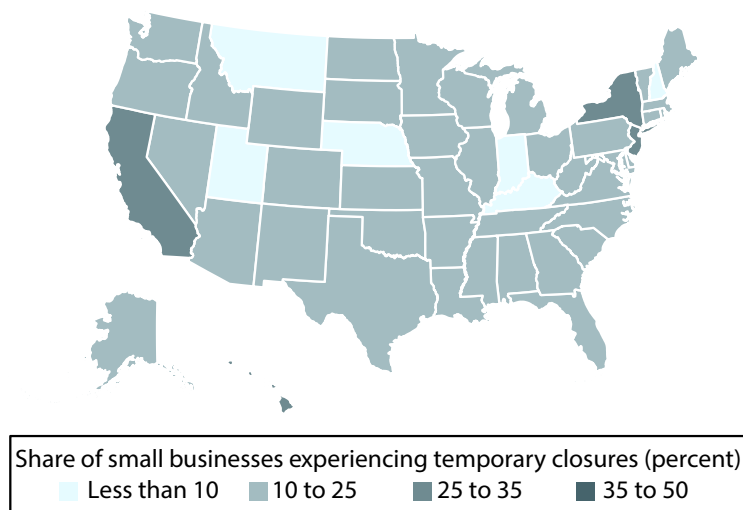
These widespread closures led to widespread revenue losses. At the end of March small business revenues were already down more than 40 percent (see figure 2) (Womply 2020). The drop was most extreme in the leisure and hospitality

FIGURE 3A.
Share of Small Businesses Experiencing a Temporary Closure Last Week by State, May 2



Source: U.S. Census Bureau 2020d.

FIGURE 3B.
Share of Small Businesses Experiencing a Temporary Closure Last Week by State, June 27



Source: U.S. Census Bureau 2020d.

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industries, where revenues were down almost 70 percent. At the end of April, around six weeks after the lockdowns began, 74 percent of small businesses reported revenues were down (US Census Bureau 2020d), and by more than 30 percent on average (Wompley 2020). In hospitality and leisure, revenues were still down by almost 60 percent.

These revenue losses substantially depleted cash reserves through April. In late March, around a fortnight after the first lockdowns began, 25 percent of small businesses reported having insufficient cash on hand to cover more than a month of expenses, while 53 percent had only between one and two months' worth of cash on hand (Bartik, Bertrand, Cullen, Glaeser, Luca, and Stanton 2020). A month later, 41 percent of firms had less than a month's of cash on hand, and only 29 percent had between one and two months' of cash on hand (US Census Bureau 2020d).

The closures also resulted in widespread layoffs. Between March 28 and April 20, 65 percent of small businesses laid off at least one worker (Humphries et al. 2020b). In mid-April, on net, small business employment was down by around 60 percent (Homebase 2020). At the end of April, 28 percent of small businesses were continuing to lay off workers (US Census Bureau 2020d), with small business employment still down by more than 50 percent on net (Homebase 2020).

Based on all of these data, it is clear the COVID-19 crisis poses the greatest existential threat to American small businesses in memory. As of August, more than 18 percent of all U.S. small businesses—and more than 27 percent of those in leisure and hospitality—remained closed. The critical question for the medium-term prospects for the US economy and the path of further fiscal responses is just how many will remain closed forever.

GOVERNMENT SHOULD SUPPORT SMALL BUSINESSES WHERE MARKETS CANNOT

In an ordinary recession, broad cash stimulus can be dispatched to arrest the vicious circle of falling demand causing layoffs causing falling demand, and so on. If the economy's plumbing is functional, that cash can flow to where it is needed through the ordinary course of trade and commerce. The effectiveness of broad cash stimulus was a valuable lesson coming out of the Great Recession. In a standard recession, the justification for direct government support for businesses is lessened by the fact that cash stimulus serves to support businesses and their employees indirectly.

The COVID-19 crisis has produced a very different kind of recession. In this environment, the standard suites of economic analysis and policy tools have been found wanting (Hamilton and Veuger 2020a). Critically, the pandemic has clogged the economy's plumbing. The first-round effects of

social distancing (both government-enforced and voluntary) on economic activity in certain sectors cannot be offset by fiscal stimulus—that activity is impossible. Some sectors are not affected directly, while others in fact have experienced a surge in demand, causing shortages and price rises, and an increase in employment.

But for those firms initially spared from the demand contraction, the reprieve is short-lived. As the directly affected workers and business owners lose income, they reduce spending on goods and services across the whole economy, including in sectors not directly affected. Workers are then shed in those sectors, too, and on the vicious circle goes (Guerrieri et al. 2020). Just as the virus is passed from person to person, so too the economic contagion spreads from sector to sector. In the end, none is spared.

Because the contractions in demand are unevenly spread across the economy, conventional broad cash stimulus will find its way back to some businesses and workers but not to others. The clogged plumbing limits the ability of cash stimulus to arrest the downward spiral. Unlike in a normal recession, the only way to help directly affected businesses and their employees is with direct support.

Another unusual feature of this crisis is the very sharp but temporary nature of the economic contraction. The first phase of full-scale lockdowns lasted less than three months. There have been renewed restrictions in some cities, but these too will lift eventually. Given the temporary nature of the crisis, there is no clear reason why after the crisis much of the supply side of the economy could not in principle return to its pre-crisis state. Many businesses that were viable before should be viable after.

If private insurance to cover such a significant reduction in revenue were available, business owners would have been able to purchase such insurance, allowing them to bridge the crisis. Insurance coverage would have subsidized those businesses unlucky enough to have been adversely affected by a once-in-a-century pandemic, the effects of which were difficult to anticipate. In that case, significant government support would be less defensible. However, no such insurance was available.³ This lack of coverage prevents pandemic risk from being disbursed throughout the economy. Many of these same issues arise in insuring against natural disasters, but the pandemic is like a natural disaster occurring across the country for months on end.

Government-funded loans would help some firms, in particular those suffering as a result of limited access to credit, but for many they would not be enough. Millions of small businesses have taken a significant hit to their net worth, which will render many unviable. These businesses will rightly deem the resultant debt too great a burden to carry forward.

If these were large businesses, the equity holders would be dissolved, with the remaining assets reorganized under new ownership. Many smaller firms, on the other hand, would simply disappear. They might otherwise have grown into larger businesses, spurred innovation, and contributed to job and productivity growth (Decker et al. 2014). The lack of private insurance to cover these losses calls for the provision of social insurance that at least partly disperses them across the economy and over time.

Without a subsidy, the destruction of capital resulting from an economic contraction of this size and duration would be unprecedented. Much of this capital is firm-specific and thus nontransferable. The matches between firms and their customers, suppliers, and employees would be dissolved. Many unique products would vanish. Much of the learning-by-doing that is specific to each business would disappear. If we believe the value of all of this capital at stake exceeds the economic cost of the taxes and subsidies necessary to save it, then we should provide the necessary fiscal support.

If provided in a way that encourages businesses to retain their workers (Bishop and Bartik 2009), business support can have strong macroeconomic benefits too. Discouraging directly affected businesses from shedding workers, and encouraging them to maintain wages, would help arrest the downward spiral that would precipitate a very deep and long recession. Those workers would also take pressure off the UI system. In preserving the productive capacity of the economy, it would ensure a speedier transition to a steeper long-run growth trajectory. The businesses lost during the Great Recession, for example, left a persistent dent in employment (Sedláček 2020).

There will no doubt be some permanent changes in demand that will necessitate permanent changes in supply. Some businesses that were unviable before the crisis will be pushed over the edge. Such Schumpeterian creative destruction is one of the few silver linings of a recession. The nature of the crisis today means fiscal policy will not be able to save every small business from failure. In March it was reasonable to believe that most firms could be saved by very generous but sharply temporary support, formulated on an expectation of an effective public health response. But with the virus still spreading six months later, we must be realistic. The length of the crisis suggests some restraint in support for the affected businesses.

THE PAYCHECK PROTECTION PROGRAM

In mid-March, in light of the impending calamity, Congress and the White House formulated the \$2.2 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act, which provided three planks of fiscal support: broad cash stimulus to households, expanded UI, and direct support to businesses. The CARES Act was signed into law on March 27, roughly two weeks after the first lockdowns began.

The most prominent form of business support was the PPP, a subsidized small business loan program. The PPP was a bipartisan initiative to give small businesses relief through the crisis in exchange for retaining their workers and maintaining payroll. The program launched on April 3 with \$349 billion in initial funding.

The PPP was implemented by the Small Business Administration (SBA). It applied to small businesses with 500 or fewer employees, sole proprietors, independent contractors, self-employed persons, nonprofits, veterans' organizations, and tribal businesses that had been in operation on February 15.⁴ Businesses for which an owner was on probation or parole, had been convicted of a felony within the past five years, or was an undocumented alien were ineligible.⁵ To be eligible, an applicant had to certify "that the uncertainty of current economic conditions makes necessary the loan request to support the ongoing operations of the eligible recipient" (CARES Act 2020).

Under the program, the SBA guaranteed loans made by banks and other financial institutions to eligible recipients. The loan amount was limited to two and a half months of the recipient's average prior-year payroll costs (excluding any annual per employee compensation in excess of \$100,000), capped at \$10 million.⁶ The loans had a term of five years and an interest rate of 1 percent.⁷ Applicants did not have to provide collateral, and the loans were non-recourse.

The key feature of the PPP was that, under certain conditions, the loans would be forgiven entirely.⁸ The recipient had to spend at least 60 percent of the loans on payroll costs,⁹ and the remainder on only interest, rent, and utilities, all over a 24-week period.¹⁰ The proportion of the loans forgiven was equal to the number of full-time equivalent employees on payroll during the 24 weeks after the loan proceeds were disbursed as a proportion of those on payroll in 2019. If a business maintained full-time equivalent hours, 100 percent of the loan amount was forgivable. Allowances in forgiveness were given if a business faced difficulty rehiring or hiring. Any salary reductions in excess of 25 percent were deducted from the forgiven amount.

The initial funding allocation of \$349 billion was widely understood to be inadequate to meet the needs of the program. Two and a half months of payroll for all of America's small businesses totals more than \$500 billion (US Census Bureau 2020a), and the program also applied to a range of larger businesses in certain industries.

On April 16, less than two weeks after the program commenced, the initial funding allocation was exhausted. In response, on April 24 an additional \$310 billion in funding was added, which became available to applicants from April 27. The program was amended again on June 5 in response to criticisms of the loans' lack of flexibility.

AN ASSESSMENT OF THE DESIGN OF THE PAYCHECK PROTECTION PROGRAM

The COVID-19 economic crisis has a single source: a temporary fall in business revenues caused by a contraction in demand, due initially to government-imposed lockdowns and voluntary social distancing. The impact varies widely across affected businesses. And the affected businesses have a variety of cost structures. The problem is that revenues are too low, not that payroll costs are too high. Because of this, a subsidy equal to payroll inevitably oversubsidizes some businesses and under-subsidizes others. An alternative option would have been to cover revenue losses directly (Hamilton and Veuger 2020b).

Nevertheless, many countries, including Australia, the Netherlands, New Zealand, the United Kingdom, and the United States, tied business support to payroll. That is not ideal, but it still has the potential to help many businesses, and to do so in a way that encourages them to maintain links to their workers. It preserves the stock of businesses and worker–firm matches, which in turn preserves the productive capacity of the economy during the recovery phase. It also provides indirect support to millions of workers, which would spare them from an already overburdened UI system.

A drawback of tying the subsidy to payroll is that the support will inevitably be insufficient to keep some businesses afloat. Many businesses were operating at reduced capacity so they did not need to maintain payroll, but their ability to use the loans to defray other costs was limited. Some businesses could scale back to reduce their variable costs, but still faced large, unavoidable fixed costs like rent. For businesses with minimal staff, high fixed costs, and low margins, the program would have been of limited use.

Another drawback is an almost complete lack of targeting. While businesses had to declare in good faith that they required the support to maintain operations, this was a vague declaration and difficult to enforce. As a result, the PPP is likely to have made some recipients more profitable during the crisis than before it. To the extent those businesses might otherwise have laid off workers, the program will still have served a purpose. However, the lack of targeting would have been straightforward to address with an eligibility threshold tied to public health orders or revenue losses.

The United States is the only country in the world to implement a payroll subsidy via banks and financial institutions. In other countries support has been provided via the tax system. In Australia, for example, businesses experiencing revenue declines of more than 30 percent receive a per employee subsidy of around \$500 per week for six months (Hamilton 2020). The program relied on banks because the IRS is not capable of paying out large amounts of

money on very short notice to millions of businesses on the basis of certain criteria. Operating via the banks avoided the liquidity shortfall that would have resulted from any delay.

THE TROUBLED ROLLOUT OF THE PAYCHECK PROTECTION PROGRAM

The initial rollout of the PPP was plagued with problems (Morrell et al. 2020). The SBA, which in 2019 facilitated just \$28 billion in loans, was asked to expand more than tenfold in a matter of weeks. JPMorgan Chase, the largest US bank, initially indicated it would delay its launch because it had not received the necessary guidance from the Treasury Department. Bank of America, the second-largest US bank, initially said it would provide PPP loans only to its existing customers. Other big lenders such as Wells Fargo, Citigroup, and PNC delayed their launches.

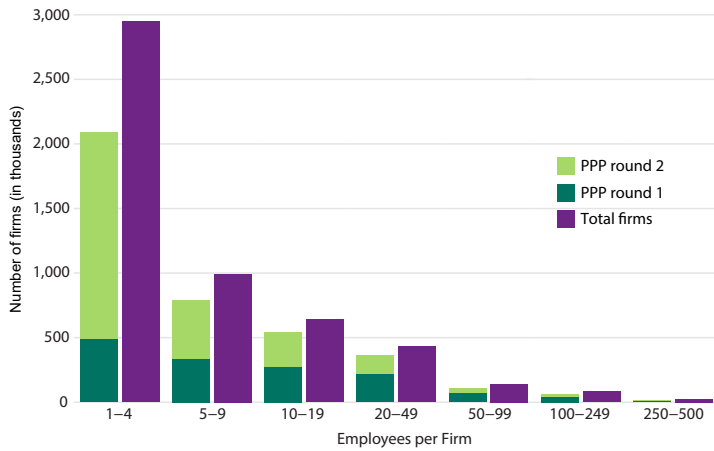
Despite these initial hiccups, over the 13 days following the April 3 launch the SBA processed 1.7 million loans via 4,975 lenders (SBA 2020a). The average loan amount was \$206,000, and 74 percent of the loans were for \$150,000 or less. However, businesses in the leisure and hospitality industries (i.e., accommodation and food services), seemingly the industries most adversely affected by the crisis, received 9 percent of all loans, while 13 percent went to businesses in construction; 13 percent to professional, scientific, and technical services; and 12 percent to manufacturing.

Moreover, the entire \$349 billion initial funding allocation was exhausted in less than two weeks. Predictably, it proved wildly inadequate, leaving more than 2 million small businesses hanging (US Census Bureau 2020d). And the access to first-round funding was strongly related to size (see figures 4a and 4b). As the first round was exhausted, almost three-quarters of the businesses with more than 100 workers that would eventually receive funding had received it. By contrast, fewer than a quarter of those with four or fewer workers had received funding, and fewer than half of those with between five and twenty workers had received funding. Overall, when the first-round funding ran out, 75 percent of small businesses had requested PPP funding, and only 38 percent had received it.

At least in the first round, funds did not flow on the basis of need. Among those worst affected, the proportion of applicants denied or still waiting for approval was more than double that among those unaffected (Bartik, Bertrand, Cullen, Glaeser, Luca, Stanton, and Sunderam 2020). Businesses with more cash on hand were more likely to be approved. And areas that experienced greater declines in hours worked and more business closures in fact received fewer PPP loans (Granja et al. 2020).

FIGURE 4A.

Total Number of Approved PPP Loans and Total Number of Small Businesses, by Firm Size



Source: U.S. Department of the Treasury 2020; U.S. Census Bureau 2020a.

Note: Firm size for the PPP loans is based on how many employees an applicant indicated it would retain under the program.

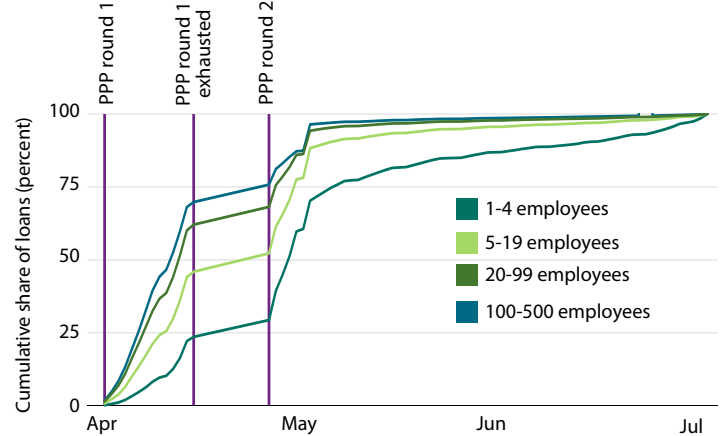
With the first round of funding so limited, frictions were critical to the rationing process. As intermediaries, the banks played the role of gatekeeper. The intensity of PPP lending varied widely among banks. If a business was lucky enough to be located near a bank processing a high volume of PPP loans relative to other kinds of loans, it was much more likely to obtain a loan (Granja et al. 2020). Having a preexisting loan with a bank raised the probability of being approved by 4.4 percent (Bartik, Cullen, Glaeser, Luca, Stanton, and Sunderam 2020).

Firm size was also an important factor. On March 28, the day after the CARES Act was passed, businesses with nine or fewer employees were much less likely to know about the PPP than those with 10–50 employees (Humphries, Neilson, and Ulyseas 2020a). By April 5, two days after applications opened, awareness among businesses with five to nine and a half employees had rapidly increased. Among businesses with four or fewer employees, awareness had increased only modestly, remaining below 80 percent through April 16 when first-round funding was exhausted. Smaller businesses were then much less likely to apply for the PPP, they applied later, they waited longer to be approved, and they were less likely to be approved.

Some small businesses simply were not interested in the PPP. Twenty-eight percent indicated they would not accept a PPP loan if it were offered to them, despite the generous terms (Bartik, Bertrand, Cullen, Glaeser, Luca, and Stanton 2020). Thirty-five percent of those who would refuse a loan said they did not need the cash, 30 percent said they did not think they would qualify, 19 percent said they did not trust the government to forgive the debt, and 11 percent thought it would be too much hassle.

FIGURE 4B.

Distribution of Approved PPP Loans, by Employment and Approval Date



Source: U.S. Department of the Treasury 2020.

Note: Firm size for the PPP loans is based on how many employees an applicant indicated it would retain under the program.



Having exhausted the first round of funding on April 16, the second round became available on April 27. In its first week, loans were disbursed to more than a million small businesses (US Census Bureau 2020d). Funding continued to roll out rapidly over the following two weeks. The second round went to much smaller businesses, with an average loan size of \$112,000, around half that in round 1 (see figure 4) (SBA 2020b). To date, 72 percent of small businesses—or around 4.5 million businesses—have received a total of \$512 billion in funding under the PPP. Less than 3 percent of small businesses that applied were not approved. In the end, around \$130 billion in funds remained unallocated.

There was some controversy about large public companies receiving funding. Under public pressure, Shake Shack returned the \$10 million it had received under the program. Following the public discontent, the Treasury Department released guidance advising that public companies receiving funding under the PPP were likely to have violated their good faith declaration of need and would be penalized if found to have improperly accessed the program. In reality, only 424 public firms accessed the PPP across both rounds, receiving a total of \$1.4 billion in funding through July 15 (Cororaton and Rosen 2020). Despite the public outrage, this constituted just 0.2 percent of funds disbursed.

THE EFFICACY OF THE PAYCHECK PROTECTION PROGRAM

It is still too early to comprehensively assess how many businesses and jobs were saved by the PPP. But the evidence to date is positive. On being told about the PPP ahead of its rollout, small businesses responded that they would lay off only 6 percent of their employees by December rather

than 40 percent without the PPP (Bartik, Bertrand, Cullen, Glaeser, Luca, and Stanton 2020). Learning of the PPP also led them to increase their expected probability of being open in December from 62 percent to 85 percent. In a survey conducted after the first round of funding but before the second, receiving funding increased a business' self-reported probability of survival by 14–30 percentage points (Bartik, Cullen, Glaeser, Luca, Stanton, and Sunderam 2020).

Only a few studies to date have considered the effect of the PPP on actual outcomes. The most compelling study, relying on high-quality, representative ADP payroll data covering 26 million workers, finds that the PPP saved 2.3 million jobs through the first week of June (Autor et al. 2020).¹¹ This implies a fiscal cost of \$224,000 per job directly supported for those months. Because the true number of jobs saved is likely to be much higher, the true fiscal cost is likely much lower.¹²

There is clear evidence that the rollout of the second funding round substantially improved the cash holdings of small businesses. Through the first three weeks of May, as second-round funding was being disbursed, an additional 31 percent of small businesses received funding (see figure 5) (US Census Bureau 2020d). Over those same three weeks, an additional 16 percent of small businesses had more than a month's worth of cash on hand. Four percent fewer firms had no cash on hand, while 11 percent fewer had less than two weeks of cash. Meanwhile, 6 percent fewer businesses reported missing a loan payment and 7 percent fewer reported missing other payments.

During the rollout of the second round, the self-reported outlook of small businesses was deteriorating substantially. As the rollout completed, the outlook stabilized. Limiting the

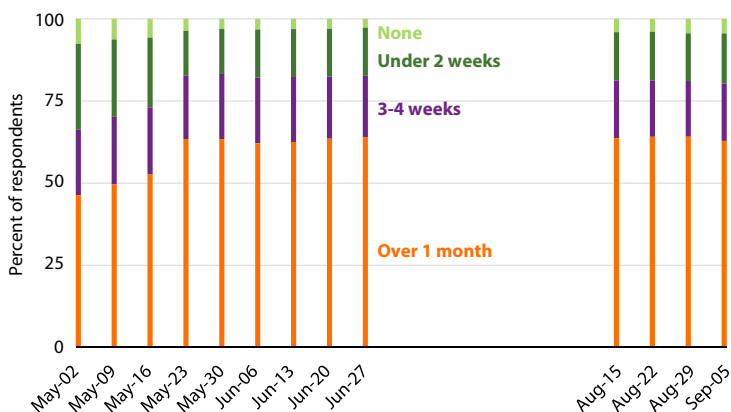
first round of funding to \$349 billion withheld funding from around 2 million of the smallest businesses for weeks. By the time the funding arrived, the initial lockdowns had been going for six weeks. Small businesses' limited cash holdings and access to credit is well documented. Many will not have been able to bridge that gap.

Moreover, while the PPP replenished small business cash holdings drawn down during the lockdowns, the support was temporary. The program was reformed to allow firms more flexibility in using the loans, and that is welcome. In particular, the SBA will be more lenient in forgiving loans where small businesses have faced difficulty in rehiring workers. And the previous Treasury guideline requiring firms to spend at least 75 percent of the money on payroll has been loosened to 60 percent. Businesses are now allowed to spread their loans over a much longer period.

But, ultimately, the subsidy each business received was limited. As the PPP was being designed, many policymakers did not expect the lockdowns to last as long as they did and public health capacity was expected to be built so the virus could be suppressed as the lockdowns lifted. This was the experience in many countries hard-hit by the virus, including Italy, Spain, and the United Kingdom. In the United States, the lockdowns went on for longer than many expected and the environment businesses have returned to is far worse than many expected. As the lockdowns have lifted, there have been renewed outbreaks across large swathes of the country. While the PPP will have helped many businesses get by at the height of the initial lockdowns, the support it provided will not have been nearly enough nor for long enough.

FIGURE 5A.

Distribution of Small Businesses' Description of Their Current Cash Holdings, May–September

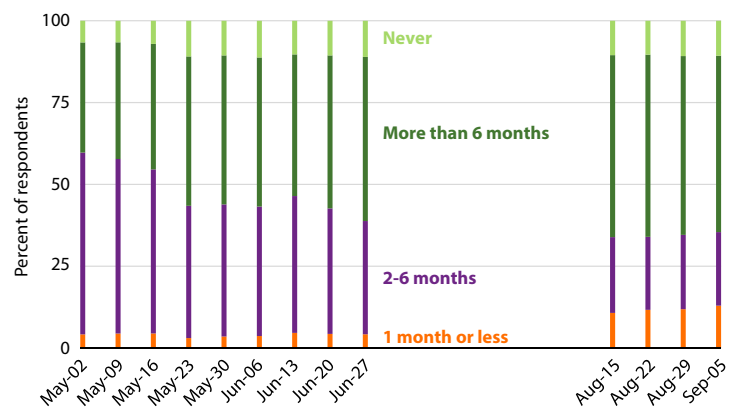


Source: U.S. Census Bureau 2020d.

Note: These are responses from small business owners to the question, "How would you describe the current availability of cash on hand, including any financial assistance or loans?"

FIGURE 5B.

Distribution of Small Businesses' Expectations Regarding When Their Business Will Return to Normal, May–September



Source: U.S. Census Bureau 2020d.

Note: These are responses from small business owners to the question, "In your opinion, how much time do you think will pass before this business returns to its normal?"



OTHER SMALL BUSINESS MEASURES

While the PPP was by far the highest profile support for small businesses, a range of other programs were available. A little-known alternative to the PPP was the ERC, which was unavailable to small businesses that opted for the PPP. The ERC is a refundable tax credit equal to 50 percent of qualified wages up to \$10,000 per employee paid between March 12 and the end of the calendar year. To be eligible, a business must either have been ordered to shut down or have experienced at least a 50 percent decline in revenues.

To receive funds immediately, firms could draw on their federal tax withholdings. Where these were insufficient to fund the eligible credit, employers could apply to the IRS for an advance. This program applied to businesses of all sizes, but firms with more than 100 employees received the ERC only against the wages of workers not currently working. Those with 100 or fewer employees were allowed to receive the ERC also for those still working.

The ERC provided a maximum of \$5,000 per employee versus a maximum of \$20,833 per employee under the PPP. This modesty will have limited its impact on employment and firm viability. But some small businesses may have preferred the simplicity and speed of delivery of the ERC relative to the PPP, particularly those without an established banking relationship, and the ERC is not subject to some of the eligibility criteria that might have excluded some small businesses from the PPP. There is not yet any available evidence on the efficacy of the ERC. But to date fewer than 0.4 percent of small businesses have received assistance under the program (US Census Bureau 2020d).

The Economic Injury Disaster Loan (EIDL) program, administered by the SBA, is typically used to provide liquidity to small businesses affected by natural disasters. Following the president's COVID-19 emergency declaration on March 13, EIDLs were extended to small businesses adversely affected by the pandemic. The loans may be used by small businesses to pay fixed debts, payroll, accounts payable, and other bills they cannot pay because of the disaster. The interest rate is 3.75 percent with available terms up to 30 years. To date, 22 percent of small businesses have received an EIDL (US Census Bureau 2020d), suggesting this has been an important source of liquidity for small businesses during the crisis.

The CARES Act also set aside \$10 billion to fund an immediate \$10,000 advance to small businesses applying for an EIDL, which they would not have to repay. The advance would be received within three days of applying for an EIDL, and the EIDL would not have to be approved in order for the advance to be paid. The amount of the advance would then be deducted from any loan amount approved under the program.

Businesses also received a payroll tax deferral. The employer's share of Social Security tax contributions (6.2 percent of wages up to \$137,700 per year) on wages paid during March 27–December 31 could be deferred, with half to be paid by December 31, 2020, and the other half by December 31, 2021. This is effectively over \$140 billion of interest-free loans of \$22,000 per business on average, or \$2,200 per employee.

The Federal Reserve has taken a range of actions to support small business liquidity during the crisis. It introduced the PPP Liquidity Facility extending credit to eligible financial institutions originating PPP loans, taking the loans as collateral at face value. As of August 5, 2020, the Federal Reserve held around \$70 billion of these loans on its balance sheet (Federal Reserve Board 2020).

The Federal Reserve also introduced the Main Street Lending Program, which provided five-year loans to small and mid-sized businesses with up to 15,000 employees.¹³ Interest is deferred for a year and repayment of the principal is deferred for two years. The interest rate is around 3.2 percent.¹⁴ Loans may be between \$250,000 and \$300 million.¹⁵ Banks retain 5 percent of the value of the loans, selling the rest to the Federal Reserve, which has agreed to purchase up to \$600 billion of the loans. Under the CARES Act, the Treasury Department provided \$75 billion in equity to cover potential losses. As of August 5, 2020, the Federal Reserve held only around \$38 billion of these loans on its balance sheet (Federal Reserve Board 2020), and only 0.2 percent of small businesses report having received a loan under the program (US Census Bureau 2020d).

DESPITE SUPPORT, SMALL BUSINESSES HAVE BEEN DECIMATED, AND THE OUTLOOK IS BLEAK

By the end of March, a fortnight or so after the first lockdowns began and right after the CARES Act was passed, 1.8 percent of small businesses had already permanently closed due to COVID-19 (Bartik, Bertrand, Cullen, Glaeser, Luca, and Stanton 2020). By June 15 that had risen to 6.8 percent, and by July 10 to 7.1 percent, or more than 420,000 small businesses.¹⁶ If these businesses are representative of national employment, this means we have lost at least 4 million jobs that will only return with the creation of new businesses. The situation is particularly bleak in certain industries. As of July 10, more than 57,000 restaurants (more than 13 percent of restaurants nationally), employing roughly 1.4 million workers, had already permanently closed. Another 42,000 restaurants remained at least temporarily closed.

In normal times, there is typically significant turnover among small businesses. From 2012 to 2014, after firm destruction during the Great Recession had stabilized, around 380,000 small businesses closed each year (US Census Bureau 2020c). This is consistent with the long-run average going back

decades (see figure 6). Over that same period, more than 400,000 new small businesses were created each year, with the stock of small businesses growing by about 25,000 per year on net.

In just the three months from March to June, 2020, more small businesses were lost than is typical during an entire year. Even if for the remainder of the year losses simply keep pace with those in previous years, we will see a doubling of the ordinary annual rate of small business losses to more than 700,000 (or 12 percent). That likely optimistic scenario would see around 50 percent more business losses than at the peak of the Great Recession, and the largest loss of small businesses since records began in 1977. During the lockdown period, there was a significant pause in the formation of new businesses, but this has since reversed. Through the year to date, the formation of new likely employer businesses of all sizes is consistent with the trend in the years since the Great Recession (US Census Bureau 2020b).

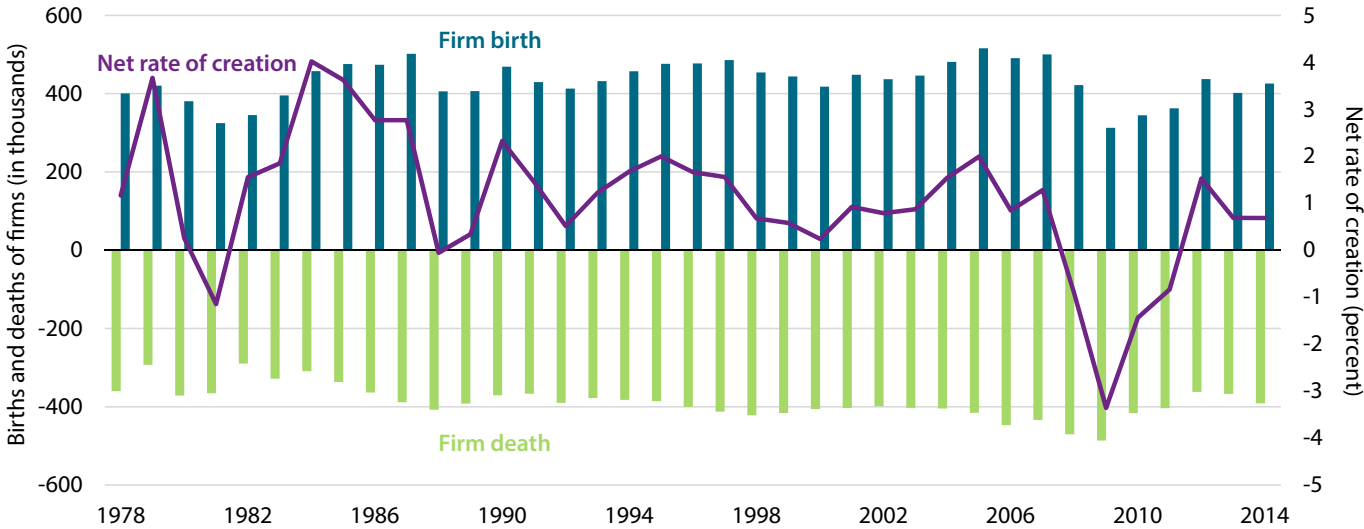
In net terms, therefore, we look set to lose at least as many small businesses in this year alone as over the four-year period from peak to trough during the Great Recession (see figure 1). That net loss was partly driven by exits, but more substantially by a large drop in entries (see figure 6), while the current crisis looks set to do the opposite. Given that the current crisis is more extreme than the Great Recession, we should be prepared for net business losses to mount in the months ahead. This is all the more likely if the deteriorating outlook among small businesses continues, which could dampen the formation of new businesses.

At the end of March, a fortnight after the lockdowns began and right after the CARES Act was passed, many small businesses reported what has turned out to be optimism about the path of the crisis. Twenty percent of small businesses expected the crisis to be over by the end of May, 30 percent between May and July, and 50 percent beyond July (Bartik, Bertrand, Cullen, Glaeser, Luca, and Stanton 2020). But as of mid-June, almost 40 percent of small businesses were reporting that the crisis was still having a large negative effect and almost 45 percent reported a moderate negative effect (US Census Bureau 2020d).

And the outlook deteriorated considerably in April, with 25 percent of small businesses reporting they did not expect to recover within a year, and 5 percent reporting a 90 percent chance they would permanently close or go bankrupt within six months (Humphries et al. 2020b). Between March 28 and April 20, the proportion of small businesses expecting to ever recover fell by 10 percentage points.

The outlook deteriorated further in May as businesses moved into their third month of lockdown (see figure 5b). Over the first three weeks of May, the proportion of small businesses expecting to recover within two to six months fell by 15 percentage points, from 52 to 37 percent (US Census Bureau 2020d). Meanwhile, the proportion expecting their recovery to take more than six months rose by 11 percentage points from 31 to 42 percent, and the proportion expecting never to recover rose by 4 percentage points from 6 to 10 percent. While from late May to mid-June the outlook stabilized, from mid-June through mid-August it resumed its decline, with more than half of all small businesses expecting not to recover within six months.

FIGURE 6.
Small Business Births, Deaths, and Net Rate of Creation, 1978–2014



Source: U.S. Census Bureau, 2020c.

The Proposal

The more time that passes, the less we should consider the policies we would institute in an “ideal” pandemic. American public health outcomes have been a disaster, and we should not pin our hopes on that being comprehensively addressed any time soon. Hopes for a V-shaped recovery should long have been abandoned. Ambitions to freeze every small business in the country while suppressing the virus, and then thawing them all out as the economy reopens, are well past their expiration date. We must respond to the crisis as it stands today.

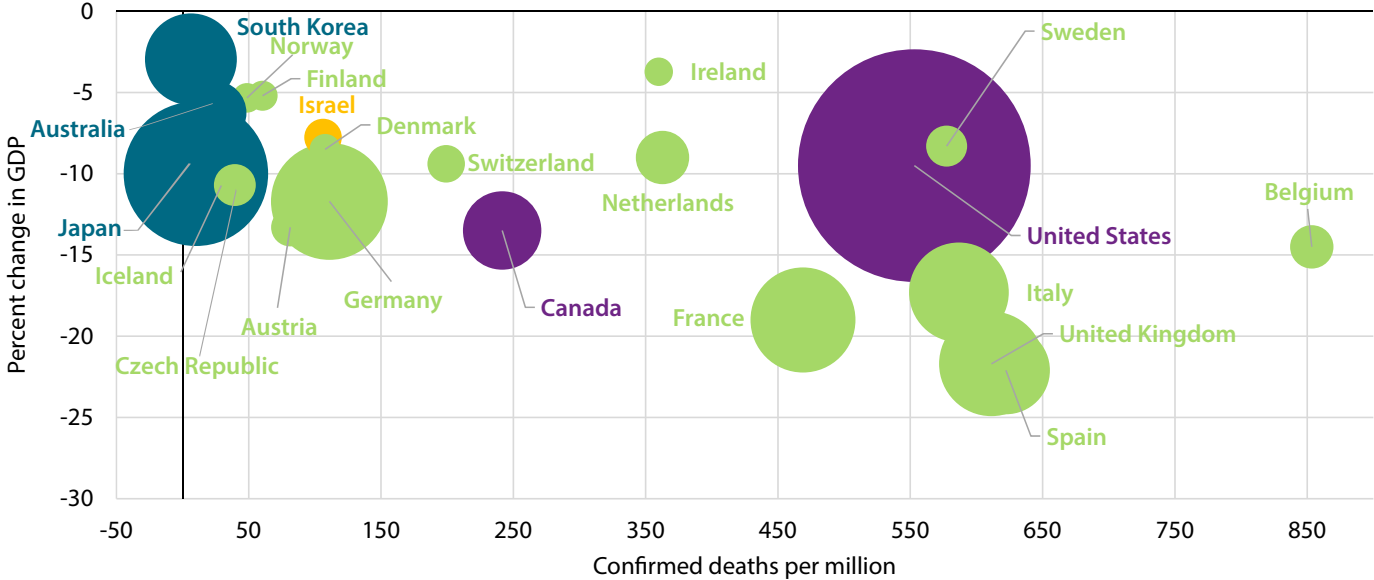
Many hundreds of thousands of small businesses—and the millions of jobs they are responsible for—are gone. There is nothing we can do about that now. But there are millions of other small businesses teetering on the brink, and there are lots of things we can do to help them. In doing so, we must recognize that every dollar of fiscal support comes at a cost. And we should be sure our policy responses do not unduly constrain the recovery. In time, economic resources must be allowed to flow to where they will be of most use.

In configuring small business support, we should aim for responses at two margins. First, we should aim to minimize the failure of otherwise-viable small businesses, which will preserve valuable firm-specific capital, reduce employment losses today and in the medium term, and mitigate a systemic shock caused by a large volume of simultaneous firm exits. And second, we should aim to maximize employment by small businesses, which account for roughly half of all jobs. These goals apply to those businesses directly affected by the pandemic, but also to those hit by the second-round effects of the economic crisis.

ECONOMY-WIDE MEASURES TO SUPPORT SMALL BUSINESSES

The single-most-effective measure to support small businesses would be to suppress the virus. Evidence from the United States suggests that much of the economic contraction has come from voluntary social distancing measures rather than from the lockdowns themselves (Goolsbee and Syverson 2020). As shown in figure 7, countries that took more-

FIGURE 7. Change in GDP and COVID-19 Deaths for Selected OECD Countries



Source: Hassel 2020; author’s calculations.

Note: Data include the top 22 OECD countries by GDP per capita (excluding New Zealand and Luxembourg due to data limitations). Observations are colored by region. Change in GDP reflects the change in GDP between the second quarter of 2019 and the second quarter of 2020.

aggressive steps to suppress the virus—meanwhile financially supporting people and businesses—have had less-severe economic contractions (Hamilton 2020). Because the United States did not take adequate steps to suppress the virus, we have the worst of both worlds: many deaths and a severe recession.

There is broad agreement among public health experts on strategies to suppress the virus. There is a general consensus on the value of improved testing—in scale but also in speed. Barriers to improving testing and therapies should be dismantled. Mask use should be mandated where social distancing is impossible. State governments should roll out contact tracing apps that leverage the Apple–Google API, which has been designed to maximize utility while protecting privacy. Some have proposed a renewed temporary national lockdown to bring the contagion down to a manageable level (Osterholm and Kashkari 2020). These are just a few among many measures recommended by experts.

Another critical measure to support small businesses is to support the broader economy via aggressive fiscal stimulus.

The federal government should continue to provide significant additional support to UI recipients, in the order of \$400 per week. Incentivizing states to develop their systems to better match workers’ replacement rates is a good idea, but should not prevent the support from being provided. This additional amount should be phased out slowly over time at a constant rate so that support is gradually withdrawn as the economy recovers. The government should also provide additional cash support to households, and a significant funding boost to state and local governments.

The economic contraction has spread beyond the small businesses directly affected to those in the broader economy. Broad stimulus can support demand for these businesses’ products and services. With many businesses operating at necessarily reduced capacity, the demand for labor is unavoidably weak. There is no evidence that businesses are struggling to find workers, much less that a shortage of available labor is driven by the generosity of UI. This will become an emerging concern if the current, very high levels of UI are maintained well into the recovery phase, but it is too soon to worry about that. In this climate, we should be far more concerned about the welfare of the unemployed and the macroeconomic effects of a loss of income than about any disincentive to work.

EXPANDED REFUNDABLE SMALL-BUSINESS TAX CREDITS

The current Employee Retention Credit (ERC) should be expanded as follows:

- The ERC, which provides a refundable credit against the employer’s payroll tax obligations, should apply to all small

business employers (those with 500 or fewer employees) with revenue during the relevant quarter down at least 30 percent relative to the most recent corresponding pre-crisis quarter.

- The condition tying the ERC to public health orders should be removed.
- Businesses that received forgivable loans under the PPP should be eligible.
- It should cover all workers, regardless of whether or not they are “providing services,” which is a restriction under the current ERC for businesses with 100 or more employees.
- It should cover 80 percent of eligible wages up to \$15,000 per quarter (for a maximum subsidy of \$12,000 per employee per quarter).
- The ERC should operate for the three quarters beginning October 1, 2020. The end date of the existing credit should be brought forward to September 30.
- The IRS should continue to allow businesses to request an advance, and it must build the capacity necessary to fulfill what may be a large volume of such requests.
- An amount equal to the businesses’ regular Social Security tax payments that are credited should be paid into the Social Security Trust Fund out of general revenues.

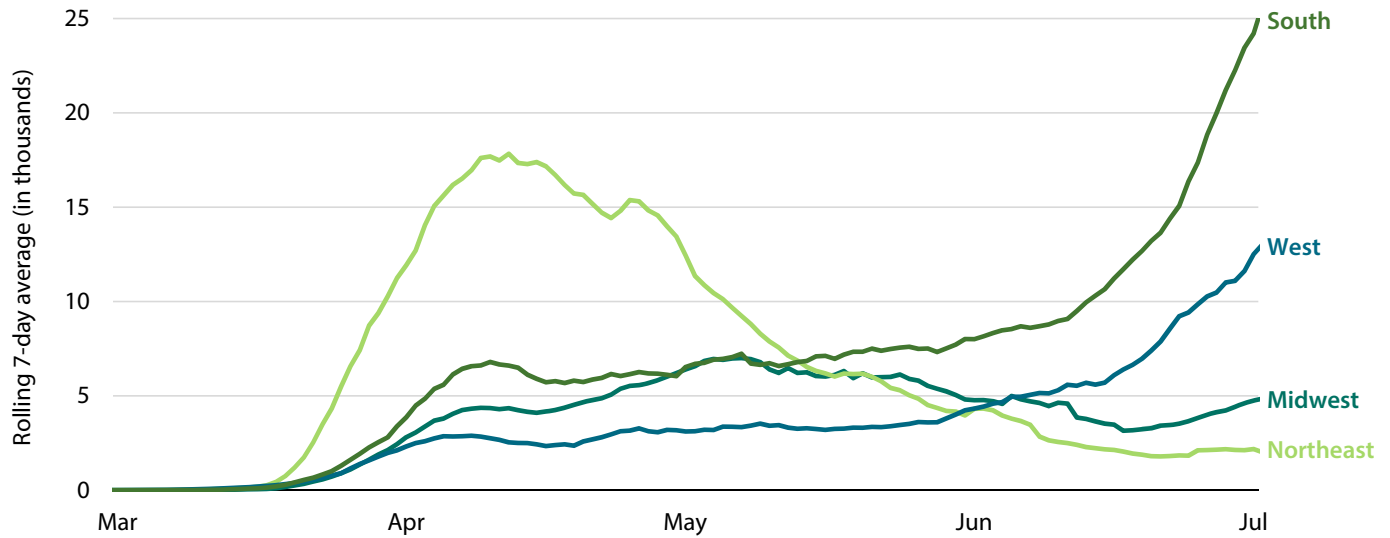
In addition, a new Small Business Survival Credit (SBSC) should be introduced to provide additional support for non-payroll costs. Under the same revised eligibility conditions as above, this would provide an additional \$5,000 per employee per quarter, up to a maximum of \$50,000 per business per quarter, to cover rent, utilities, interest, and COVID-19 mitigation costs.

The existing ERC is effectively a wage subsidy, covering 50 percent of wages up to \$10,000 between March 12 and December 31, 2020. But this amounts to a maximum subsidy of just \$5,000 per worker over a nine-month period and could not be used in conjunction with the PPP. Moreover, for businesses with more than 100 workers, it could be used only to cover the wage costs of idled workers.

The changes I propose would transform the ERC into the business support policy we need today. In its first iteration, it was ill-suited to serve as immediate but temporary life support for locked-down businesses. But with these proposed changes, it offers generous, targeted support for the small businesses suffering through the crisis. This new design is similar to that used in other countries, including Australia, where it has been found to be effective in supporting employment and minimizing business exits (Australian Treasury 2020).

FIGURE 8.

COVID-19 Cases by U.S. Region, March–July



Source: Centers for Disease Control and Prevention 2020; author's calculations.



The PPP has monopolized discussion of small business support during the crisis. Though imperfectly designed and implemented, the PPP was in principle the right kind of tool for providing substantial up-front support to small businesses during a national lockdown to suppress the virus. But outside that environment, even if lockdowns still occur in certain locations and to varying degrees, the PPP is inappropriate. As such, it should not be extended.

By contrast, the existing ERC received almost no attention. But with improvements it is far better placed to support small businesses in this new environment. Rather than providing money up front via banks and for a prespecified time, with rigid employee retention and other forgiveness conditions, the existing ERC piggybacks on the payroll tax system to provide ongoing quarterly support for payroll, and much more flexibility. This expanded ERC would do the same.

Targeting is critical. Any future fiscal response will inevitably be capped. We cannot afford to provide aid to the almost three-quarters of all businesses that received funding under the PPP. Many of those businesses will in fact have profited from the pandemic with this support. Meanwhile, those most in need of support did not receive enough. But the 50 percent revenue-loss threshold under the existing ERC is too high for an ongoing program intended to support a broader set of firms.

Tying support to revenue losses each quarter ties that support to local conditions. The PPP was predicated on the basis of a temporary, national lockdown, but the virus does not spread uniformly across the country. What appears at a national level to have been a second wave was in fact mostly a series

of initial significant waves in a number of different locations (see figure 8). In the period ahead there will inevitably be renewed outbreaks in certain locations. Some businesses may not qualify in earlier quarters, but will enter the program in later quarters; as local conditions improve, businesses will drop out.

The credit would provide support that is much more generous than the existing ERC, covering 80 percent of wages for most workers. This provides businesses with a strong incentive to retain their existing workers and to hire new ones. To the extent that an increased demand for labor leads to a tightening of the labor market, workers will benefit both in greater employment and higher wages. By covering a large portion of payroll, the program frees up cash to defray other costs, which will help stem business exits.

For businesses with a high level of non-payroll costs relative to payroll costs, the SBSC provides additional support to cover those costs. This was a major criticism of the PPP by small businesses. The contraction in demand has led many businesses to scale back operations, necessitating layoffs. But other expenses such as rent, utilities, interest, and COVID-19 mitigation costs are unavoidable.

Provided an employer has sufficient non-payroll costs to exhaust the SBSC, for the first 10 employees the ERC and SBSC combine to provide a \$5,000 per employee base subsidy, rising at a rate of 80 cents per dollar of wages up to a maximum of \$17,000 (see figure 9a). Providing the SBSC on a per employee basis generates a powerful retention and hiring incentive for the 80 percent of small businesses with nine or fewer employees. A full-time worker on the federal minimum

FIGURE 9A.

Maximum Quarterly Tax Credit Per Employee, by Salary



Source: Author's calculation.

wage earns \$3,872 per quarter—the SBSC would more than offset the cost of such a worker.

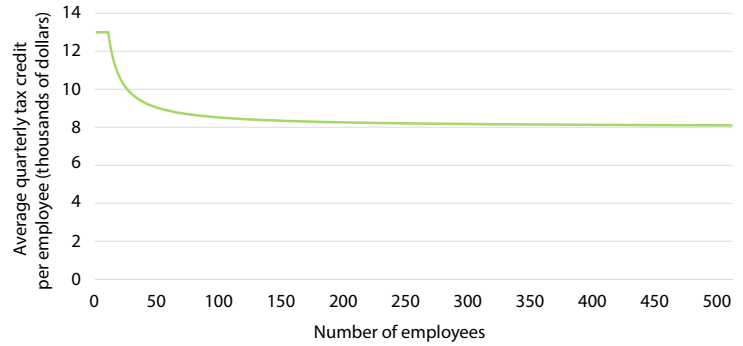
By being capped, the design also allocates support disproportionately to businesses with fewer employees or employees on low wages. A business with five full-time employees earning the federal minimum wage and with sufficient non-payroll costs would receive \$25,000 per quarter to cover non-payroll costs and around \$15,000 per quarter to cover payroll costs. This amounts to around \$8,000 of quarterly support per employee, or around \$2.70 in support for every dollar of payroll. If each of those workers earned the national median wage, which is more than double the minimum wage, the business would receive around \$12,000 per employee, or only around \$1.70 in support for every dollar of payroll.

For most businesses, the 30 percent revenue-drop threshold would require a decline in revenue per employee per quarter of at least \$15,000, and for many eligible businesses the drop will be much larger. Some will be made up for by cost reductions in payroll and other variable costs, and by negotiating lower rent. But the ERC and SBSC would together help substantially narrow—though not completely close—that revenue gap.

Quarterly payroll per employee is around \$10,000 on average, so the ERC would provide a bit less than \$8,000 per employee per quarter on average (it covers 80 percent of wages only up to \$15,000 per quarter). The SBSC would provide businesses with 10 or fewer employees up to an additional \$5,000 per employee per quarter, taking average total support for these firms to \$13,000 per employee per quarter, or around 80 percent of the minimum revenue loss. For the 20 percent of businesses with 11 or more employees, the SBSC would provide less support per employee (a business with 50 employees would receive only an additional \$1,000 per employee, for example) so larger firms would not have as much of their revenue losses covered (see figure 9b).

FIGURE 9B.

Average Quarterly Tax Credit Per Employee, By Firm Size



Source: Author's calculations.



Since the measure depends on the distribution of revenue losses and expenses across firms, it is difficult to predict take-up. But if 10 percent of all small businesses suffered revenue losses exceeding 30 percent, the ERC would cost around \$47 billion per quarter.¹⁷ If all eligible small businesses had sufficient expenses to exhaust the SBSC, it would cost around \$13 billion per quarter.¹⁸ Accordingly, for every 10 percent of small businesses that qualify for all three quarters, the ERC and SBSC combined would cost up to \$180 billion. The \$130 billion in unused PPP funds could be used to help fund this spending.

Even if 30 percent of small businesses were to qualify in all three quarters, the two credits would cost around the same as the PPP. This is because in this scenario the credits would go to fewer than half the number of firms that received PPP funding. While the PPP replaced 100 percent of salaries up to the equivalent of \$25,000 per quarter (versus this ERC proposal, which replaces 80 percent up to \$15,000) and provided more-generous support for fixed costs on a monthly basis, it covered less than a quarter of the timespan of this proposal. By prolonging the spread of the virus, we have prolonged the contraction in demand, which necessitates a longer duration of support. This reduces the generosity of support that can be provided.

The ERC and SBSC are refundable tax credits. Businesses could draw on their own employer-side payroll tax payments to partially finance them in advance, or apply to the IRS for an advance as under the existing ERC. The IRS must be given the capacity to fulfill what may be a large volume of such requests. Without an advance, businesses would receive the payments trailing each quarter. The CARES Act also allowed businesses to defer their 2020 Social Security tax payments from March 12, with the first half to be paid on December 31. This ERC proposal would then implicitly be partly funded by these deferred tax payments.

BUILDING CAPACITY IN THE IRS OVER THE LONG TERM

There should be a significant, sustained increase in investment in the IRS, in particular in a real-time electronic payroll reporting system.

Having reflected on what went wrong in the crisis, it is important to consider how we might better prepare our infrastructure for the future. Many of the problems with the PPP stemmed from the delivery mechanism. The Treasury Department was too slow in providing guidance to the banks, and then updated their guidance repeatedly. Having the banks act as intermediaries introduced frictions. Many of the biggest banks extended loans only to their existing customers. The forgiveness process is only beginning, but is sure to be fraught. Under the circumstances, the SBA and the banks performed about as well as can be expected. But we should not have had to rely on them.

The IRS is the largest financial institution in the world, collecting more than \$3 trillion in annual revenue. Through the withholding system, the IRS lends to and borrows from hundreds of millions of businesses and people every year. The IRS holds the financial records of all of these taxpayers. It knows their bank details. With the necessary infrastructure, the IRS is uniquely placed to implement a large-scale wage subsidy program, and provide immediate liquidity to every small business in the country.

The United States was unique in taking the private bank route to deliver a wage subsidy. Other countries, such as Australia, the Netherlands, New Zealand, and the United Kingdom all delivered their wage subsidies via the tax authority. In fact, the United States did as well, albeit in the limited form of the original ERC. The reason the ERC could not be the primary delivery mechanism—why we instead had to rely on the banks—is liquidity, or a lack thereof.

Under the ERC, the IRS directed businesses in the first instance to draw on their tax withholdings (for both the employers' and employees' shares of the payroll tax and the employees' income tax) to fund the subsidy. Payroll taxes constitute around 15.3 percent of payroll, and income taxes a little more. But these add up to far less than the liquidity required to fund a more ambitious program like the PPP. If a business participating in the ERC wanted an advance, it had to fill out and submit a form to the IRS. Given the cumbersome nature of this process, it seems unlikely the IRS could have managed a large volume of such requests in the mere days it took to get the PPP up and running.

Ultimately, the IRS should have been capable of implementing the PPP, remitting the necessary funds to small businesses in advance. In an ideal world, the IRS would simply have shifted business tax withholding into reverse—instead of receiving

money from businesses in advance (implicit borrowing), they would have paid it out to them in advance (implicit lending). With knowledge of prior-year payroll, it would have been straightforward to remit two and a half months' worth to every eligible small business in the country.

If in possession of real-time payroll information, the IRS could then easily have assessed loan forgiveness (based on worker retention and pay) over the relevant eight-week period. Any non-forgiveness (because workers were not retained or were underpaid) could be reconciled at tax time, which happens quarterly for most businesses. The amount not used for payroll could be taxed back through the ordinary business tax filing process.

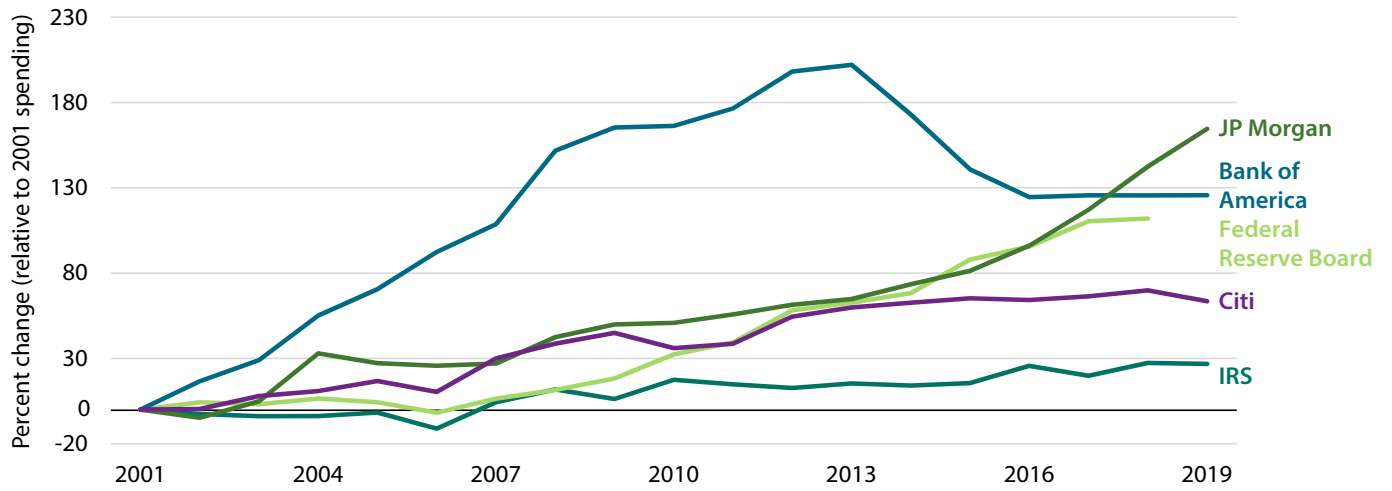
But the value of having the IRS run something like the PPP is not only a matter of efficient administration, important as that is. A key advantage the IRS has over the SBA and private banks is that it is far better placed to overcome the information asymmetries that make it difficult for the banks and SBA to assess loan forgiveness. Much of the necessary information is already known by the IRS as a matter of course. Obtaining additional information could only enable it to better perform its collection and enforcement functions. And, importantly, the IRS is better placed than the SBA to enforce the loan forgiveness terms.

Why did every other country in the world that delivered a wage subsidy rely on its tax authority while the United States relied on private banks? This choice reveals a lack of capacity in the IRS to deliver such a program. This is not to denigrate the IRS, which among other functions performed admirably in distributing stimulus payments in record time. But for decades, it has been hamstrung by a lack of funding. Since 2010 the IRS budget has declined by 20 percent in real terms (Weinberger 2020). This has diminished even its core functions, with the audit rates on both personal and corporate returns having nearly halved over that decade. Critically, information technology spending at the IRS has lagged behind private-sector financial firms and even the Federal Reserve (see figure 10).

In Australia, as in many other countries, payroll information for every employee is transmitted to the tax authority in real time (Australian Taxation Office 2020). As soon as an employee is paid, all of the relevant payroll information is accessible by the taxpayer on the tax authority's website. This real-time information is critical to delivering a program like the PPP quickly. It also supports compliance and enforcement, and provides a flow of real-time data to the national statistical authority, which are then made available to the public. All of these should be well within the capabilities of the tax authority of the world's richest nation.

FIGURE 10.

Change in Annual Technology Spending for Selected Institutions, 2001–19



Source: Internal Revenue Service (IRS) 2001–19; Federal Reserve System 2001–18; Securities and Exchange Commission (SEC) 2001–19a; SEC 2001–19b; SEC 2001–19c; author's calculations.

Note: Relative spending growth adjusted for inflation.



Questions and Concerns

1. What are the drawbacks of tying eligibility to revenue losses?

The revenue-loss threshold will inevitably encourage some businesses at the margin to reduce their revenues in order to qualify for the credit. A broad literature studying bunching around tax thresholds suggests this is likely to be confined to only a limited set of firms located close to the threshold, and that this manipulation will mainly occur via reporting or time-shifting of revenues rather than changes in real output. The other drawback is that small business revenues are volatile even in the absence of the pandemic, which means support will inevitably be provided to businesses for which revenues would have declined anyway. When targeting fiscal support, there is always a tradeoff between efficiency and equity. The policy proposed here is a far better tradeoff in this regard than the PPP, and is more easily implemented and more transparent than more elaborate eligibility schemes.

2. Is there a risk that the program will cost more than indicated?

Because eligibility is tied to revenue losses within a given quarter, any cost estimate will be subject to significant uncertainty. In the three months from mid-March to mid-June, small business revenues were down by around 20 to 25 percent on average, while around 40 percent of small businesses on average indicated revenues were flat or up (US Census Bureau, 2020d). This puts a very conservative ceiling of perhaps 50 percent on the proportion of businesses qualifying during a worst-case-scenario quarter. If 50 percent of businesses were to qualify in all three quarters, the program would cost around \$900 billion, but this is highly unlikely. If 50 percent qualified in one quarter, 40 percent in another, and 30 percent in another, the program would cost around \$720 billion. With 30 percent qualifying in each quarter, the program would cost \$540 billion, almost exactly the cost of the PPP.

3. How will new businesses that have not been around for at least a year but have been adversely affected qualify?

Roughly 7 percent of businesses are less than 12 months old (US Census Bureau, 2020c), so this is likely to be fairly limited. But for this small fraction, an alternative eligibility measure could be defined. For example, in the Australian wage subsidy, such businesses were allowed to provide evidence to the tax authority that revenues were down relative to the period immediately preceding the crisis, and something similar could be applied in the United States.

4. The PPP was applied at the establishment level for some industries—should the ERC and SBSC be applied in that way as well?

The PPP was primarily an employee-retention program, designed for a short lockdown period. The program was made available to larger businesses in certain industries (e.g., hotels and restaurants) as long as their employee count at the establishment level was below the 500-employee threshold. This was designed to encourage the retention of workers in these industries. The ERC and SBSC proposed here have different goals to the PPP, and as such the same conditions should not be applied. Rather than employee retention, the primary goal of the ERC and SBSC is to maximize small business survival through the prolonged period of reduced revenue ahead. Businesses in the industries given special treatment under the PPP do not face the risks to which many small businesses are exposed, discussed in great detail in this paper. It is important also to emphasize the funding limits that are likely to constrain any program—these limited funds must be allocated to those most in need and those most likely to be saved by them.

Conclusion

Given the necessary resolve, there is still time to avert further catastrophe. We can suppress the virus. We can roll out additional stimulus. We can build a bridge to help small businesses traverse the abyss. But we must act quickly—the window is closing rapidly. The second wave of cases has peaked; this time we must not allow them to plateau at an unacceptably high level. The massive boost to incomes that came with the first round of stimulus payments—in expanded UI, cash transfers, and small business support—has enabled consumption to coast in recent months, but it will soon ebb. The PPP and emergency lending have been a crutch for small businesses, but before long they will resume drawing down their cash reserves.

The first round of stimulus was born from uncharacteristic bipartisanship—Congress and the White House bridged the partisan divide to deliver for America in its hour of need. It was a historic achievement, safeguarding the livelihoods of

millions. Now we must do it again. Both parties—in both chambers of Congress—have put forward plans containing commendable elements. On small business support, at least, the gap between the two is not that great.

My key proposal—to provide radically expanded refundable tax credits for small businesses—improves on the plans put forward to date. It offers both the generosity of payroll support advocated by Democrats and the support for COVID-19 mitigation costs and hiring incentives advocated by Republicans. It will support millions of small business owners and their tens of millions of employees. It will encourage small businesses to retain their current employees and hire new ones. It will help protect the economy so that we can bounce back once we have beaten the virus. It is modest in fiscal terms relative to many of the other proposals floated. The case is clear. We owe it to the millions of struggling small businesses to act.

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Steven Hamilton is assistant professor of economics at The George Washington University. Steven's primary area of research is public finance, where he studies the effects of taxes on behavior with a view to designing better tax policy. Steven has provided extensive commentary on the economy and small business support during the COVID-19 crisis to outlets such as the New York Times, Slate, The Hill, The Atlantic, the Los Angeles Times, Time Magazine, Newsweek, The Bulwark, The Dispatch, and NPR. Steven is a former economist at the Australian Treasury, where he worked on the federal budget, corporate and international taxation, and government reviews of climate change policy and flood insurance. Steven holds a doctorate and a master's in economics from the University of Michigan, and a bachelor of economics with First Class Honours and bachelor of business management from the University of Queensland.

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Endnotes

1. The standard definition of a small business is one with 500 or fewer employees. These businesses are sometimes known as small and medium-sized enterprises, or SMEs.
2. Those sectors are retail trade; education; health care and social assistance; arts, entertainment, and recreation; accommodation and food services; and other services (except public administration).
3. See French (2020) for legal arguments for and against business interruption insurance coverage of pandemic losses, and Organisation of Economic Co-operation and Development (OECD) for policy proposals on extending pandemic insurance coverage (OECD 2020).
4. The program did not apply to passive businesses such as hedge funds or private equity firms. For businesses operating in certain industries, the 500-employee threshold was applied on a per establishment basis. This extended eligibility to many large hotel and restaurant chains that would otherwise have been ineligible.
5. Veuger and Grawert (2020) argue against these restrictions.
6. The payroll calculation included health insurance and retirement benefits, and withheld federal, state, and local income taxes but not employer-side payroll taxes.
7. The loan term was originally two years.
8. For an examination of the forgiveness process, see Congressional Research Service (2020).
9. The program originally required 75 percent to be spent on payroll costs.
10. The program originally covered expenses for eight weeks.
11. Chetty et al. (2020) find that the PPP saved 1.64 million jobs in April and May with a fiscal cost per job saved of \$319,000, but they rely on data from Earnings that is highly unrepresentative of the population of firms. Bartlett and Morse (2020) consider the effect of the PPP on small businesses in Oakland, California, and find that application success increased the probability of survival by 20.5 percent, but only among the smallest businesses.
12. The study did not account for the fact that employers that did not participate in the PPP were instead eligible for an ERC subsidizing 50 percent of wages up to \$10,000 per employee, which will have encouraged some firms not eligible for the PPP to lay off fewer workers. This would bias downward the apparent effect of the PPP. Also, the estimate does not include the jobs saved in the medium term by preventing permanent business closures, nor the jobs saved throughout the broader economy due to the stimulatory effect of the 2.5 percent of GDP in PPP support. These all result in fiscal savings due to reduced UI payments.
13. The loan term was originally four years.
14. The interest rate is LIBOR (currently around 0.2 percent) plus 3 percent.
15. The loan range was originally \$500,000–\$200 million.
16. Womply (2020) reports that, as of June 15, 16.7 percent of all businesses were closed, either temporarily or permanently, while Yelp (2020) reports that 41 percent of businesses that were closed had indicated it was permanent. As of July 10, these figures were 12.9 percent and 55 percent, respectively.
17. The revised ERC covers 80 percent of wages up to \$15,000 per quarter, which is around the 70th percentile of the U.S. wage distribution. Assuming this applies to small businesses, 1.8 million of the 18 million employees earning above this amount would attract a subsidy of \$12,000 per quarter, totaling \$21.6 billion. Then 4.2 million of the 42 million employees earning less than this amount would attract a subsidy equal to 80 percent of their salary. If we assume that the wage distribution rises linearly to that point, the fiscal cost would be \$25.4 billion. Given employment has fallen significantly, and not all of the laid off workers will be rehired, this is likely an overestimate of the fiscal cost.
18. There are 1.3 million businesses with 10–500 workers, 10 percent of which would receive \$50,000 per quarter, totaling \$6.3 billion. Pre-pandemic there were 13 million workers at businesses with nine or fewer workers, 10 percent of whom would attract a credit of \$5,000 per quarter, totaling \$6.3 billion.

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Highlights

The COVID-19 pandemic poses an existential threat to small businesses, with more than 400,000 lost since the crisis began. Many small businesses are financially fragile and not equipped to weather a prolonged period of substantially reduced revenues. In this proposal, Steven Hamilton of The George Washington University calls for a significant expansion of refundable tax credits to help support small businesses through this crisis.

The Proposal

Engage in important economy-wide measures to support small businesses. Noting that the single-most-effective measure to support small businesses would be to suppress the virus, the author supports calls for effective social distancing measures, improved testing capacity, and increased mask use. Another critical measure to support small businesses is to support the broader economy via aggressive fiscal stimulus. Broad stimulus can support demand for these businesses' products and services.

Significantly expand the Employee Retention Credit (ERC) to help cover small businesses' payroll costs. The ERC should apply to all small business employers (those with 500 or fewer employees) with revenue during the relevant quarter down at least 30 percent relative to the most recent corresponding pre-crisis quarter. The credit should cover 80 percent of eligible wages up to \$15,000 per quarter (for a maximum subsidy of \$12,000 per employee per quarter).

Introduce a new Small Business Survival Credit (SBSC) to help cover small businesses' fixed costs. To help address small businesses' need to cover non-payroll costs, the SBSC would provide an additional \$5,000 per employee per quarter, up to a maximum of \$50,000 per business per quarter, to cover rent, utilities, interest, and COVID-19 mitigation costs.

Invest in the capabilities of the IRS so it may better support small businesses in future crises. Following decades of underfunding, the IRS was unable to administer large-scale small business support, like the PPP. The proposal calls for increasing IRS funding—especially on technology necessary to accurately and efficiently administer some of these support programs—so that the IRS is prepared to act quickly in a future downturn.

Benefits

Through this proposal, the author provides policymakers with a bridge to help small businesses get through these difficult times. The proposal offers both generous payroll support as well as support for the non-payroll costs that are a burden for many small businesses. It will encourage small businesses to retain their current employees and hire new ones. Lastly, it will help protect the economy so that we can bounce back once we have beaten the virus.



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