FINTECH, SMALL BUSINESS & THE AMERICAN DREAM

How Technology Is Transforming Lending and Shaping a New Era of Small Business Opportunity

SECOND EDITION

KAREN G. MILLS

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To Will, who was brave and wise

Preface

It was a cold day in Arkadelphia in the spring of 2010, and we were shivering out in the muddy grounds of the sawmill. As part of my new role in Washington, I had gotten up at 4 AM, taken two planes to land in Little Rock, then driven two hours south to visit Richie and his wife Angela at their business, Shields Wood Products. I was not in a good mood. Then Angela, who was also the business's bookkeeper, turned to me and said the words that changed my whole perspective on the day and probably led to the writing of this book. "You know," she said, "you saved our business."

I heard these words dozens of times over the next year as we worked to get capital flowing to small businesses that were suffering because credit markets had frozen during the 2008–2009 recession. Banks that had become overextended stopped lending, making loans guaranteed by the U.S. Small Business Administration (SBA) a lifeline for many. As the head of the SBA, I was the member of President Obama's Cabinet who was responsible for all of America's entrepreneurs and small business owners. It was a terrific job. But it sometimes required pounding the table to ensure the voice of small business did not get lost under the mass of other priorities.

I thought at the time we were facing the greatest small business crisis of my lifetime. I was wrong. In March 2020, the Covid-19 pandemic shut down the U.S. economy in a matter of weeks. Lockdowns for public health and safety forced small businesses to close their doors, and with an average of only 27 days of cash on hand, many faced the possibility that they would soon be permanently out of business. Fortunately, the U.S. government acted quickly, authorizing over $1.2 trillion in aid. Though far from perfect, the response kept millions of small businesses alive and protected our economy from a dark outcome.

I have always known how important small business was to the economy. My Grandpa Jack had come to America from Russia at the turn of the last century with nothing. Starting with two machines in the back of a shoe shop in Boston, he built a textile business that not only provided for his family and extended family but also grew to employ hundreds of people. When I worked for him in the mill during my college years, he would tell me not to go to work for a big company. "Our family," he would say, "doesn't work for other businesses. We build our own."

Grandpa Jack's story was the story of the American Dream. Our country is one of the few places in the world where it is possible to lift oneself and one's family to a new set of opportunities and a new life by starting and growing a small business. This path to opportunity, however, is not evenly distributed and is becoming more and more threatened. Access to capital for small businesses has been under pressure, not only during the recent crises, but also for decades, due to consolidations in community banks and the difficulty banks have in making profits with small loans, particularly those given to the smallest businesses.

Beginning around 2010, however, fintech entrepreneurs came on the scene. Using data and technology, they brought a new experience to small business borrowers, massively improving a process that had essentially not changed since the time when Grandpa Jack sought a loan. Though it has proven more complicated than originally anticipated, these innovators are transforming the small business lending market. Large global banks and small community banks have woken up to the fact that small businesses are looking for a more responsive, more innovative set of products and services focused on their unique needs. Platforms as varied as Square, Stripe, and Shopify have demonstrated the power of data to overcome the information opacity that has long made small businesses difficult to understand.

This book explores the current and future states of small business lending. It asks, "What do small businesses want? Who will be the winners and losers? And how should regulators respond?" It seeks to define a new state—Small Business Utopia—a world of innovative solutions that will help small businesses get the capital and financial insights they need to grow and succeed. But mainly this is a book about the role of small business, its importance to the economy, and the prospects that technology brings to overcome some of the fundamental barriers to a better small business lending market.

At the center of this book is a basic premise that small businesses matter. They matter for economic growth, they are fundamental to our communities, and they are critical to the future of the American Dream. This has been my experience as a venture capitalist and a small business owner, and during my time in government. And it is confirmed by the stories of Richie and Angela, Grandpa Jack, and the owners and employees of so many of America's 33 million small businesses.

* * *

In October 2009, I was standing with President Obama in a warehouse in Landover, Maryland, filled with small business owners. The President finished his speech, looked into the faces of these entrepreneurs who were suffering in the aftermath of the 2008–2009 financial crisis, and said:

> I know that times are tough, and I can only imagine what many of you are going through, in terms of keeping things going in the midst of a very tough economic climate. But I guarantee you this: This administration is going to stand behind small businesses. You are our highest priority because we are confident that when you are succeeding, America succeeds.[1]

Small businesses are better off today than they were in the midst of recent crises, but obstacles remain. The rise of technology will help small businesses overcome these challenges, forging transformative new products and services and a renewed pathway to the American Dream. In this period of change, we must ensure that innovations flourish in ways that enhance the prospects and prosperity of small businesses. Because when small businesses succeed, America succeeds.

Boston, MA, USA Karen G. Mills

[1] President Barack Obama, "Remarks at Metropolitan Archives, LLC" (speech, Landover, Maryland, October 21, 2009), Government Publishing Office, https://www.govinfo.gov/content/pkg/PPP-2009-book2/pdf/PPP-2009-book2-doc-pg1555.pdf.

Acknowledgments

When my terrific publisher Tula Weis called with the idea of writing a second edition, I was reluctant. A book is a long effort, and I had written one that reflected my knowledge and experience regarding the possibilities for technology and small business lending. Yet, when I sat down that weekend and reread the book from cover to cover, I changed my mind.

Published in 2019, the first edition had come out before the extraordinary challenge of the Covid-19 pandemic and associated lockdowns that, while necessary for public health and safety, imperiled the small business community. In those difficult months, I had engaged in the government response from afar, pushing hard for modifications that ensured federal programs reached the smallest and most vulnerable businesses. Eventually, several rounds later, with the help of many fintechs, money reached about 13 million of America's small businesses and likely saved the nation from shuttered storefronts on Main Streets for years to come. That story, with all the proper facts, needed to be told.

The landscape of small business lending had also evolved. Platforms like Stripe and Shopify had grown, and financial products began to be embedded in the stream of a small business owner's daily activity. I had traveled around the world asking audiences who would be the winners and losers in small business lending. There were many opinions. Thus, we embarked on the second edition, which takes the core analysis of U.S. banks and small business lending markets and reexamines each aspect of how technology will change the game. This book includes two new chapters which assess the pandemic response, including issues of fraud, and chapters on competitors (old and new) in the marketplace, including a new playbook for banks.

The journey required more than a year and benefited from the input of many wise and generous colleagues. I thank Sophia Alj, Dane Atkinson, Jo Ann Barefoot, Ismael Belkhayat, Sean Carmody, Gilles Chelma, Charlotte Crosswell, Mercedes Delgado, Robert Fairlie, Isabel Casillas Guzman, Sabrina Howell, Pete Lord, Gabby MacSweeney, Chip Mahan, Ramana Nanda, Hicham Oudghiri, Jim Poterba and the NBER community, Peter Renton, Jackie Reses, Liz Reynolds, CeCe Rouse, David Snitkof, and Gina Taylor for their wise and helpful comments and ideas. I thank Morgane Herculano who traveled with me to London, Morocco, and Washington interviewing fintechs, bankers, and regulators and updated every graph and every page of the manuscript.

Brayden McCarthy had the original idea to write about the gap in small business lending, after working at the SBA and in the White House and was my coauthor on two Harvard Business School white papers that form the basis for Part I of the book. I thank Annie Dang and Aaron Mukerjee for their work on the first book. I am especially grateful to Annie for reading and editing every chapter of this second edition.

This book had its origins in the time I spent in Washington running the SBA during the 2008–2009 financial crisis. I want to thank the team at the SBA for their inspiration and dedication, particularly those in the field offices who spend every day getting capital into the hands of small business owners. The impact we made would never have been possible without the vision and hard work of the SBA leadership team, especially Jonathan Swain, Chief of Staff, who continues to work with me on these issues. Those that have worked in Washington know that nothing gets done without support from the White House and Congress. To this day, I am grateful to President Barack Obama and to Larry Summers, Gene Sperling, Valerie Jarrett, and Pete Rouse for their commitment to small businesses and to me. Senators Mary Landrieu and Olympia Snowe set an example of bipartisan leadership by working together to pass critical legislation that is still helping small business owners.

Harvard Business School has been my intellectual home for almost 10 years and created the opportunity for this journey. I thank Srikant Datar, Nitin Nohria, Jan Rivkin, and my colleagues in the Entrepreneurial Management Unit for their ideas and encouragement. The Division of Research and Faculty Development provided significant and much appreciated support. I am grateful to Tula Weis and the team at Palgrave Macmillan for the opportunity and for all their help. Glenn Kaplan and Rebecca Uberti provided design and wise counsel on the book cover.

The inspiration for this work on small businesses comes from watching my family, particularly my parents Ellen and Melvin Gordon, and my grandparents, go to work each day in offices just off the factory floor and build businesses. I am grateful to them, and to those who work in those businesses for all they do.

I am especially thankful for Barry and for our family. To Henry, Annie, Molly, George, and Grace, each of you is strong and wise, and in your work and how you live, you make the world a better place. I am grateful for your support and encouragement in this book and in all endeavors. To Will, who was brave and wise, we will miss you forever.

Contents

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The Story of Small Business Lending

Almost half of the people who work in America own or work for a small business. These 33 million small businesses underpin not only our economy, but the fabric of our society.[1] Small businesses are everywhere. They operate across all the states and exist in every industry, from retail to oil and gas exploration. The small business owner might be the community-minded citizen who supports the local Little League or the immigrant entrepreneur who builds a life of opportunity. Each one has a story.

Every small business is different, but they face a common challenge: it is often difficult to get access to the capital they need to operate and succeed. Until recently, lending to small businesses hadn't changed much for over a century. A small business owner would compile a stack of paperwork, go to their local banker, and often wait weeks for a response. If the answer was "no," they would go down the street to the next bank and try again.

While this might sound like a frustrating process, there are many who say that there is no serious problem. They argue that many of the small businesses that have trouble accessing capital should not actually get it because they are not creditworthy, and that most small businesses don't want to grow, so have no need for external financing. They also argue that banks are fully meeting the needs of creditworthy borrowers in the marketplace. These statements have some truth to them. Not every business who wants a loan should get one, and many businesses don't want to grow. However, these views are blind to the significant market failures in small business lending, which have only worsened over recent decades. The problems are the most intense for the smallest businesses, particularly those that are minority and women owned.[2]

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Small business lending is hard. In this book, we will meet small business owners—from Miami to Manhattan to Maine—who are struggling to get the right loan in the right amount at the right cost. We will meet lenders—from New England to North Carolina to Silicon Valley—who are trying to figure out which small businesses are creditworthy and how to lend to them profitably. These are not just isolated anecdotes, but rather, they represent the experiences of small business borrowers and lenders in a market filled with frictions. According to the International Finance Corporation (IFC), small businesses globally face over $5 trillion in unmet credit needs.[3] Using the best available research and data, we will identify the gaps in access to capital for creditworthy small businesses in the United States, and the barriers that have made many traditional lenders less willing or able to meet their needs. And we will describe how innovations in financial technology are creating new solutions that address these problems.

Transforming Small Business Lending

Many industries, from music to telecommunications, have been transformed by technology, but small business banking has been slow to evolve. That is changing. Financial technology, or "fintech," has become a common term, but it represents a very broad category that includes innovation across banking, insurance, and financial services, as well as activities like crypto-currency. This book uses a narrow fintech lens: we focus just on the way technology will affect small business lending.

Lending does not happen in isolation. Other fintech products, particularly those in payments, will have a related impact as they evolve. But, for the purposes of this narrative, the innovations in lending, and in data and intelligence related to lending, provide a rich environment for exploring the ways in which technology will bring transformational change to the world of small businesses.

The cycle of fintech innovation in small business lending is not yet complete, but we can already see its promise. As technology opened the doors to vast troves of data, opportunities emerged to create new insights on a small businesses health and prospects. These inputs have the potential to resolve two defining issues that have faced lenders and borrowers in the sector: heterogeneity—the fact that all small businesses are different, making it difficult to extrapolate from one example to the next—and information opacity, the fact that it is hard to know what is really going on inside a small business.[4]

From a lender's point of view, the smaller the business, the more difficult it is to know if the business is actually profitable and what its prospects might be. Many small business owners do not have a great sense of their cash flow, the sales they might make, when customers will pay, or what cash needs they could have based on the season or a new contract. Small businesses have low cash buffers, and a miscalculation, late payment, or even fast growth could cause a life-threatening cash crunch.

But what if technology had the power to make a small business owner significantly wiser about their cash flow, and a lender wiser as well? What if new loan products and services made it easier to create what one investor calls a "truth file"—a set of information that could quickly and accurately predict the creditworthiness of a small business, much like a consumer's personal credit score helps banks predict creditworthiness for personal loans, credit cards, and mortgages?[5] What if a small business owner had a dashboard of their business activities, including cash projections and insights on sales and cost trends that helped them weave an end-to-end picture of their business's financial health?

This future is appealing because it responds to the fundamental need of small business owners to be able to see and more clearly interpret the information that already exists, helping them navigate the uncertain world of their businesses on their own terms and plan accordingly. And it provides an opportunity for lenders to better understand the creditworthiness of their potential customers and provide lower lending costs as a result. But what if there was more?

What if this dashboard was part of a portal from which the business owner could operate all their financial activities? What if this intelligent platform knew when the business might need credit and could offer relevant options which were prequalified? And better yet, what if the platform came with a digital small business assistant who knew all about the business, including the goals and preferences of the owner. What if this bot could respond to requests in plain English to perform daily tasks and improve sales and marketing. Marshaling the predictive power of artificial intelligence and machine learning amassed from data on thousands of business owners in similar industries, what if this bot could help a business owner head off perilous trends and chart a plan for success?

We call this future state "Small Business Utopia."

It may be that this name overpromises the outcome. Small businesses are perhaps too varied to be predictable, and entrepreneurs run their businesses with so much ingenuity and peculiarity that their insights cannot be replaced or augmented by artificial intelligence. It could be that small business owners are too set in their ways and will resist the new technology driven solutions. Yet, evidence suggests the opposite.

If new intelligence is developed that will help them succeed, small businesses will find a way to adopt it. Small businesses are hungry for new solutions. They responded so positively to the early fintechs' quick turnaround times on loans and the ease of online applications that they spurred traditional lenders to action. The next set of advances are proving to be even more accessible. Platforms are built in the cloud and come ready to help a business owner do everything from paying their bills to building their website. AI-powered intelligence can engage in a comfortable format and quickly provide valuable assistance. And credit options are being embedded in the workflow of their existing systems and are tailored to the needs of the business.

Many of these advances are not fully available, but the path to their arrival has been set. In this book, we trace the progress of the fintech innovation cycle and explore what will be next and who will provide it. We build these predictions for the future on a fundamental foundation of elements we can see today: the needs of small businesses as they access the capital they require, the challenges traditional lending has faced in meeting these needs, and the opportunities that technology is providing for new solutions.

Three Myths of Small Business Lending

In the course of this journey, this book takes on three commonly held misconceptions about small businesses and small business lending. There are often good reasons why countervailing narratives exist. Sometimes, they are partly true. Often, there is not enough data to know definitively what the actual situation is or to prove causality. This is often an issue with small business, as data sources are scarce. Fortunately, in the last several years, more research and analysis has been conducted on the importance of small business to the economy, the role of access to capital for small businesses, and the gaps that exist in the market. We take advantage of this new research as we explore three myths of small business lending.

The first myth is the view that small businesses aren't that important to the economy, and that most small businesses fail and probably shouldn't be financed. This narrative argues that the small businesses that succeed largely don't need external financing, and those that should get financing are already well served by the market. In contrast to this narrative, the early chapters of this book pull together evidence of the barriers which are preventing small businesses from getting the financing they need and describe the underlying market gaps in small business lending.

The second myth is that traditional lenders were "dinosaurs" that fintech start-ups would soon replace. Subsequent events have shown that this initial expectation about fintech disruption was too simplistic. Technology is revolutionizing small business lending, but the landscape of players and solutions is much more complex than we originally anticipated. The contribution of this book is to pull apart where disruption will occur and where it will have the most impact, both on the health and well-being of small businesses and their finances, and on small business lenders. Based on an understanding of the kinds of products that will best serve small businesses and their needs, we predict what will determine the winners in the future small business lending environment.

The third myth is that regulation is the enemy of small business lending, and that the Dodd-Frank reforms had a particularly negative effect.[6] Some have argued that if these regulations were reduced or eliminated, community banks would return to their former role as the critical providers of small business loans, particularly through relationship lending. There is truth to the claim that small banks suffered disproportionately from the burdens of regulations post the 2008–9 financial crisis and that changes that were subsequently made did ease the regulatory burdens on small banks. However, these reductions in bank oversight also contributed to more recent crises such as the failure of Silicon Valley Bank in 2023.

The future we have imagined for small business lending will never be achieved without a stable foundation of rules and safeguards. The new world involves large flows of highly sensitive data traveling continuously between third parties and financial institutions, which must be kept secure. At the same time, lending will be highly automated through algorithms that will need to be monitored for bias and transparency. The arguments for more versus less regulation must be replaced by striving for "smarter" regulation—regulation that promotes the safety and security of customers and the underlying banking system, while still encouraging innovations that fill market gaps.

Taking on these three arguments is an ambitious journey because it requires delving into the data and evidence in three distinct areas of economic work. First is the macroeconomic and microeconomic debate over the importance and role of small business and the gaps in small business lending. Second is the innovation literature, which helps explain how cycles of innovation work and what outcomes we can predict for the fintech revolution. Third is the policy and regulatory arena, which requires an understanding of both the current state of financial regulation and the debates over the future of regulation as it relates to data and artificial intelligence. The constant thread in this journey is the narrow lens of small businesses and their need for capital.

Small businesses are the key actors in our narrative, but not all small businesses are the same. This heterogeneity is the source of much of the complexity in small business lending, and in future solutions. In this book, we introduce a new categorization of the country's 33 million small businesses. We define four distinct segments: sole proprietors with no employees, Main Street businesses, suppliers, and high-growth start-ups. This book focuses on bank-dependent small businesses that fall mostly into the first three groups. We do not cover the capital needs of the relatively small number of high-growth firms that are backed by venture capital. They are vitally important, as they are the firms that could grow to be the next Google or Amazon, but they largely operate in a different market for equity capital.

There are a few other areas that are not covered. *Fintech, Small Business, & the American Dream* is the story of U.S. small businesses and their available capital markets. The United Kingdom and China play a small role as examples of countries with different regulatory approaches, but the promising developments in global fintech, particularly in developing nations, is largely left for future exploration. Additionally, this book is about innovation activity in the lending markets and how technology might help these markets operate more efficiently. Government policy is covered in reference to the response to the 2008–2009 recession as well as the Covid-19 Pandemic, and recommendations regarding the regulatory environment receive substantial attention. However, this effort does not suggest specific government interventions to further close market gaps or fully explore how technology might optimize government efforts to improve lending options to underserved segments, an area with much potential.

Book Overview

This book is organized into five parts. Part I begins with the problem: small businesses are important to the economy and access to capital is important to small businesses, but banks, which have been the traditional lenders to small businesses, face both cyclical and structural pressures. The result is a gap in access to credit, particularly for the smallest businesses, who seek the smallest loans. Part II describes the rise of fintech innovations and the new and old players who have stepped up to fill this gap. Although the fintech innovation cycle has moved in fits and starts, it is now accelerating and shows the potential to be truly transformative, for both small businesses and their lenders. The section ends with a review of the Covid-19 Pandemic government programs designed to help small businesses through this extraordinary crisis, and the important role fintechs played in those interventions.

Part III envisions the future of small business lending, the environment we call “Small Business Utopia” where new data and artificial intelligence create transformational products and services. We explore which actors have the potential to be the winners in the new small business lending landscape, and what a successful playbook for banks might look like. Part IV takes on regulation, discussing issues with the current state of regulatory oversight, and the principles on which a better, more efficient regulatory scheme can be built. The book concludes with a look at eternal truths about small business lending and predictions for the future.

Part I—The Problem

Small businesses are the backbone of the U.S. economy. While most politicians and the public say they agree with this statement, small businesses are excluded from many economists’ models and exert little influence in Washington policymaking circles. Yet small businesses contribute disproportionately to job creation and innovation. Moreover, the ability to start and own a small enterprise embodies the American Dream. Small businesses support a vibrant middle class, strong communities and provide a pathway for social mobility. However, small business policy is difficult because not all small businesses are the same. This section describes four distinct small business segments, each of which has different needs, particularly with regard to access to capital.

Capital is the lifeblood of small businesses that depend on credit to start, operate, and grow. Historically, small businesses relied on banks to access capital. But during the 2008–2009 financial crisis, credit markets froze, and banks temporarily stopped lending even to businesses with good credit. This crisis hit small businesses hard and credit conditions were extremely slow to recover. The economic downturn significantly devalued collateral—especially home equity—that small business owners use to secure credit. Lenders and business owners became risk averse due to lost sales and the trauma from the crisis. Short-term cyclical factors made securing credit particularly hard for small businesses during the recovery, opening the door for the entry of new technologies and lenders.

After the recovery, there was still a gap in access to capital for small businesses. It is tempting to blame this on regulation or other cyclical issues, but longer-term structural factors had been putting pressure on banks for decades. Community banks, which traditionally devoted a disproportionate amount of their capital to small business lending, had been declining since the 1980s. The concentration of assets in large banks reduced the focus on small businesses. Larger banks tend to prioritize consumer banking, mortgages, and investments, often viewing small business loans as less appealing. Indeed, small business loans are riskier, have transaction costs that do not scale, and are difficult to securitize. These structural factors have reduced small business access to capital over several decades and do not seem likely to disappear.

Against this background, we ask several crucial questions: What do small businesses want? Why do small businesses seek capital, what kind of capital do they need, and where are the market gaps? The majority of small businesses are looking for small-dollar loans, but the lending market is plagued with frictions that make it difficult for banks to deliver small loans efficiently and profitably. The gaps in the bank-focused small business lending ecosystem and the nature of the capital challenges small businesses face set the scene for the transformative role of fintech.

Part II—The New World of Fintech Innovation

In Part II, we explore how technology is changing the game in small business lending. Joseph Schumpeter, an influential twentieth-century economist, posited that innovation was the fuel that energized the economy through a process of "creative destruction." In his theory, new inventions would be applied in economically useful ways that disrupted traditional industries. Later scholars built the theory of the innovation S-curve, where new innovations live for some time in a stage of ferment, as markets become accustomed to new products and services, followed by a period of acceleration and market adoption. Fintech entrepreneurs, when first entering the market, appeared to have an opportunity to dramatically change the landscape of small business lending at the expense of banks. The process, however, proved to be more complicated.

The second phase of the innovation cycle, takeoff, did not occur as expected. The initial excitement around the entry of hundreds of new fintechs produced rapid growth and a loosely regulated environment that allowed for high prices and hidden fees, which caught some small business borrowers unawares. While the first fintech wave laid the foundation for greater changes, it soon became clear that the innovations brought by the new entrants were largely linear improvements focused on customer experience and could be replicated by traditional lenders more easily than initially anticipated. Banks and other existing lenders also had significant advantages over the newcomers, particularly in the form of large customer bases and low-cost pools of capital from deposits.

The aborted takeoff phase led to a second rich period of market development. Newly available data streams created game-changing insights and reduced some of the frictions that have made small business lending so difficult. With these new tools, it became easier to see inside a small business and predict its future cash flows and ability to repay a loan. And with data on thousands of companies in each sector, it was easier to create a model that determined whether the coffee shop in question was a high, or not so high, performer. The new age of small business lending began to take shape. Then in March 2020, the unthinkable happened.

Part II concludes with a detailed look at the government aid programs for small businesses impacted by the Covid-19 Pandemic and the related lockdowns. Over $1.2 trillion was distributed in a series of massive small business relief efforts, through government agencies and financial institutions. Fintechs played a critical role in increasing access to these programs, particularly for smaller businesses and those underserved by traditional banks. Many have criticized these programs for being costly and vulnerable to fraud. However, a review of the available economic research reveals that these programs were highly effective in meeting their stated objectives.

Part III—Technology Changes the Game

In Part III, we explore the future world of small business lending and the products and services that comprise "Small Business Utopia." These offerings are truly transformational thanks to the application of advanced data analytics and artificial intelligence. The solutions in small business lending involve advances in three distinct areas: the creation of (1) streams of standardized, relevant data available securely through Application Programing Interfaces (APIs), (2) new underwriting models that are highly predictive across different small business segments, and (3) customer interfaces that are easy to use, individualized and available in a platform that is already part of the business owner's routine.

Within the context of this changing technology environment, we review the evolving landscape of small business lending and assess who might be the winners and losers. We identify four key categories: Traditional Banks and other financial institutions such as credit card providers; Big Tech; Challenger Banks; and Infrastructure Players. Each one has a robust story of competitive advantages and challenges. We chart the rise of new platform players like Shopify and Stripe and show how embedded financial offers and the evolution of "Banking as a Service" will change the competitive landscape.

We then return our attention to the traditional banks and develop a playbook for existing lenders to innovate in the new ecosystem. Using Massachusetts-based Eastern Bank as an example, we address the key question: How should banks and traditional lenders evolve their small business lending products and services? This section also discusses the difficulties of bringing disruptive ideas into a traditional institution and proposes structures through which to overcome these obstacles.

Part IV—The Role of Regulation

In Part IV, we ask how the regulators should respond to these changes. The fragmented "spaghetti soup" of the current U.S. regulatory system is ill equipped to support the future of small business banking. While these problems have long existed, the emergence of fintech has made solving them more urgent. Drawing on lessons from the United Kingdom and China, we propose a set of principles for oversight of the future of small business lending, particularly in the era of big data and artificial intelligence. A new regulatory framework should both protect small businesses and encourage innovation while recognizing that many of the new players will look different from traditional lenders. Regulators must also confront thorny questions such as data security and algorithmic bias raised by the use of new technology in lending products and services. Collecting timely data on the small business loan market is a lynchpin of any new system, allowing regulators to identify market gaps and "bad actors."

Part V—Conclusion

This book is the story of the transformation taking place in small business lending, and the impact these changes will have on the financial sector and the small business economy. The new technology is more powerful than we ever imagined, but the problem is more complex. There is great variation in the kinds of small businesses, the loans they need and the objectives of lenders. It will take longer to see the full picture, but we predict that there will be more than one winning strategy. A wide variety of products and lending solutions will be successful, each filling different parts of the current market gaps.

In the optimum market, there will be more lenders and more lending options each serving different small business needs. But across the entire landscape, improved data and intelligence will allow lenders to identify and serve more creditworthy borrowers, and small businesses will gain key insights to manage their cash and operate their companies. The right regulation will enhance borrower protections for small businesses and create a more transparent environment. An ideal future does not mean that all small businesses will get loans. Instead, the ultimate goal is a better small business lending market with fewer stresses, frictions, and gaps. As this small business lending transformation occurs, the prospects will improve for more small business owners to succeed and achieve the American Dream.

Part I

The Problem

2

Small Businesses Are Important to the Economy

In 2017, late night star John Oliver began a segment by noting something interesting about politicians and small business. First, he showed former Democratic presidential candidate Hillary Clinton saying, "Small business is the backbone of the American economy." Cut to former Republican vice-presidential candidate Sarah Palin making almost the same statement. Then a split screen of former presidents Barack Obama and George W. Bush intoning the same small business mantra in tandem. More screen mitosis followed until, in total, 34 politicians from across the political spectrum appeared, each touting the importance of small business in almost exactly the same words (Figure 2.1). In an increasingly partisan political arena, support for small business is a rare point of bipartisan agreement.

It's not just politicians who express support for small business—it's also the public. According to a Gallup survey, 65% of Americans have a "great deal" or "quite a lot" of confidence in small business—twice the average rate for all major institutions surveyed. Only 7% said they had "very little" confidence. Small business has consistently ranked first in public trust, ahead of the military, media, government, religious and criminal justice institutions, and large businesses.[1]

Americans have great affection for small businesses and believe in their importance. But what exactly does it mean to say that "small business is the backbone of the American economy?" Are we referring to the importance of innovators and entrepreneurs who develop new ideas and start companies that grow rapidly to become the next tech giant? Or are we describing the Main Street shops and other small businesses that make up the fabric of our communities? How do we measure the impact of small businesses on

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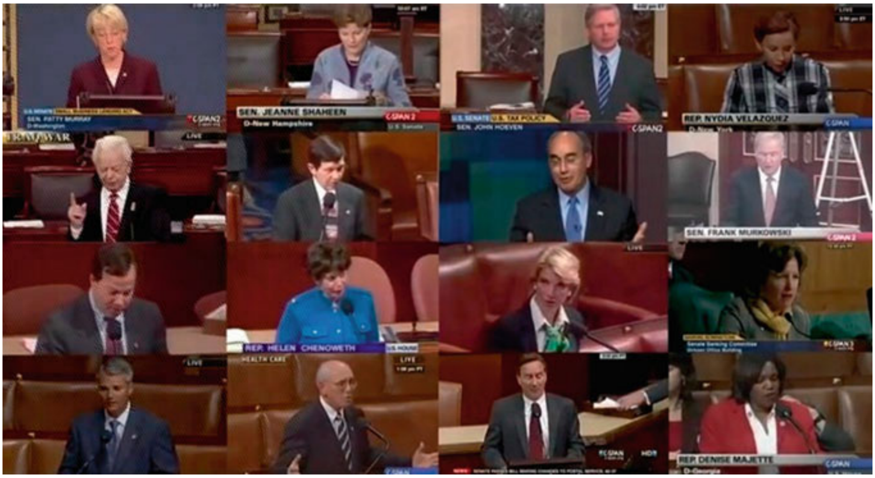

Figure 2.1 "Small Business is the Backbone of the Economy" from John Oliver's Last Week Tonight
Source: "Corporate Consolidation: Last Week Tonight with John Oliver (HBO)," September 24, 2017.[2]

economic growth and on the quality and quantity of employment? Since half of U.S. employment is in small businesses, we know they are important, but exactly how relevant are they, and why?

To understand how small businesses fit into both the economic growth and employment picture, we must focus on an issue that often leads to confusion among policymakers: not all small businesses are the same. High-growth tech businesses play a different role in the economy than the dry cleaner or restaurant on Main Street, yet each has an important place in helping America prosper. Supporting each type requires a different policy perspective, as each one has different needs, including for capital.

In this chapter, we draw up a new way to categorize small businesses and quantify the different types of firms that make up the small business sector. This construction helps us better understand the significance and role of America's small businesses and sets the stage for exploring the markets where they access capital and evaluating how technology is changing those markets.

Is Small Business Important to the American Economy?

Surprisingly, economists have no analytical framework to understand the contribution of small businesses to the economy. Macroeconomists tend to focus on broad indicators, such as GDP, average wages, and the unemployment rate. In Keynesian models, consumption, investment, and government spending drive the economy. Since so much spending power lies with consumers, and larger businesses drive most of the investment, small businesses receive little attention from these economists. In fact, the contributions of small businesses are largely absent from most macroeconomic models.

Monetary economists pay attention to inflation and what the Federal Reserve (Fed) does. In their assessments, small businesses are not relevant, as small business policy does not drive monetary flows or outcomes. That is the province of global markets, where small companies seldom participate.

When macroeconomists think about the contribution of entrepreneurs, it is often through the lens of innovation or productivity. As one economist observed, "No amount of savings and investment, no policy of macroeconomic fine-tuning, no set of tax and spending incentives can generate sustained economic growth unless it is accompanied by the countless large and small discoveries that are required to create more value from a fixed set of natural resources."[3] In this framing, the contribution of entrepreneurs who invest in and market new products and services should be captured as inputs to innovation and reflected as improvements to productivity.[4] But this contribution is difficult to measure. For example, it is hard to know how the advances that allow us to Google information instead of reading a newspaper—or order on Amazon instead of shopping at a brick-and-mortar store—translate into productivity measures. Arguably, posting on social media and binging shows on streaming services have reduced productivity for many of us. Nonetheless, we know that entrepreneurs and the innovations they produce are important because they contribute to the "creative destruction" of the status quo that economist Joseph Schumpeter once argued was the price for a nation to keep or attain leadership in the global economy.[5]

Even with accurate productivity measures, this analysis of small businesses' contribution to the economy would be incomplete. There are only a relatively small number of high-growth small businesses, the ones we often think of as the influential innovators in the U.S. economy. Some economists have argued that these are the only ones that truly matter and should therefore constitute the majority, or even be the sole focus, of government policy. For