Driving Positive Innovations to Scale in the Financial Services Sector

Authors:
Allison Daminger
Katy Davis
Piyush Tantia
Josh Wright

August 2014

About ideas42

ideas42 is a non-profit organization that uses insights from behavioral economics—which helps us understand the choices and decisions people make—to design innovative solutions to tough social problems at scale. The consequences of the behavioral issues we tackle are often profound. All too often, the reasons for these failures turn out to be small and remediable, but also usually overlooked or dismissed as unimportant. We work, therefore, to identify subtle but important contextual details and design innovative solutions that overcome their effects.

We work in a number of areas: consumer finance, economic mobility and opportunity, health, education, energy efficiency, and international development. Our work involves a lot of observation, plenty of patience, and a willingness to be surprised. Most of all, however, it involves asking the right questions that others may not ask.

Acknowledgments

First and foremost, the authors would like to thank the Ford Foundation for their generous support of ideas42's work, and of this paper. Frank De Giovanni and Amy Brown have been great partners in our work and were early investors in the application of behavioral economics to improving financial access for low- and moderate-income people. Frank is always there to provide key points of wisdom, insight, and guidance; Amy has been an invaluable resource as our Program Officer, and we are grateful for her continual encouragement. A number of financial services industry leaders contributed insights that helped shape this paper. We're thankful for the time they took to share their expertise. Finally, attendees of the June 2014 Ford Foundation grantee convening "Exploring Pathways to Scale" provided insightful feedback on an earlier draft of this paper. The authors are particularly grateful to event speakers George Hofheimer and Cynthia Campbell (Filene Research Institute), Tim Flacke (Doorway to Dreams Fund), Michelle Scales (JP Morgan Chase), Steve Wendel (HelloWallet), and Steve Zuckerman (Self-Help Federal Credit Union).

Contact the authors

Allison Daminger	adaminger@ideas42.org
Katy Davis	katy@ideas42.org
Piyush Tantia	piyush@ideas42.org
Josh Wright	josh@ideas42.org

Executive Summary

In the United States, financial services innovations that are financially beneficial to customers at all income levels, financially sustainable to their providers, and reach a societal level of scale have been rare in modern history. As a result, lower-income Americans are disproportionately disengaged from the traditional financial system and the benefits it can provide.

By determining the realistic paths to scale in the financial services industry, identifying the biggest challenges that obstruct these paths, and developing concrete recommendations for both individual innovators and entities that influence structural factors, we have the potential to provide a fighting chance for these innovations to get to scale.

Paths

The realistic paths for this type of innovation are: large firm innovation; smaller player proof of concept leading to replication; start-up with rapid and disruptive growth; and government policy. These paths route through various distribution channels—employers, retailers, banks, mobile technology—and some innovations may begin on one path before switching to another on their way to scale. Still, these are the four main ways that innovations can achieve scale in the US financial services industry.

Challenges

In addition to the typical hurdles any innovation faces, such as operational execution, funder excitement, organizational leadership, and the like, there are a number of daunting (but surmountable) challenges specific to financial services in the US. Primary challenges include: achieving profitability; overcoming organizational impediments; moving beyond a limited understanding of consumer behavior; and navigating the complex regulatory environment. Simply managing these challenges may not be sufficient for innovations to scale, but each is necessary.

Recommendations

Identifying the distinct paths and outlining the set of challenges to scale enables us to generate recommendations for future action. The first set of recommendations centers on individual innovators: identify the path to scale from the outset; build the right organizational capacity and capability; construct a business model correctly from a profitability perspective; and delve deeply into customer behavior to drive product design. The second set addresses larger structural issues: reduce regulatory, reputational, and financial risks for innovators; develop a more constructive collaborative perspective on cost, profitability, and customer benefit; and adjust the focus of funding efforts.

The guidance and recommendations in this paper do not guarantee scaling success, but will give innovations a fighting chance. Our hope is that innovators, funders, and policymakers will find this discussion and guidance helpful in bringing to scale innovative products that serve the financial needs of low- and moderate-income individuals and households.

Table of Contents

INTRODUCTION

The Heart of the Matter

Vast numbers of Americans—particularly low- and moderate-income (LMI) households—are not well served by the modern financial system. Despite a great deal of attention from researchers, advocates, and policymakers, financial services innovations that are financially sustainable for their providers, financially beneficial to customers at all income levels, and widely available to interested customers, have been rare in modern history.

When it comes to financial services, there are two Americas: one that is engaged with and benefits from the traditional financial services sector, and one that does not.

Large numbers of people in the United States do not use or are not deriving direct significant benefit from traditional financial institutions such as banks and credit unions. The Federal Deposit Insurance Corporation (FDIC) 2011 National Survey of the Unbanked and Underbanked found that 8% of US households (10 million households) are unbanked and that 20% of US households are underbanked (24 million).[1] This means that almost a third of American households are unbanked or underbanked. The numbers are even more shocking for minorities and low-income households: 21% of Black and 20% of Hispanic households are unbanked, and 30% of those making less than $15,000 a year are unbanked.

On these and numerous other dimensions—the availability of credit and loan products, credit scores—the numbers tell a consistent and stark tale. When it comes to financial services, there are two Americas: one that is engaged with and benefits from the traditional financial services sector, and one that does not. Because many LMI households do not have access to standard financial products, they rely instead on costly, alternative financial services and products to meet their financial needs: check cashers, money orders, bill payment, payday lending, car title loans, and so on. These services often carry fees that are higher than those paid by mass-market or affluent customers, such that the poorest American households often end up paying the most for basic financial services.

The full cost of this two-tiered system of financial services is significant. The banking system and electronic commerce is the currency of the 21st century, the lubrication for our economic engine. The current financial services structure generates unnecessary costs and frictions for disadvantaged populations seeking to engage in a wide range of economic activities. Put another way, the current state of affairs is comparable to a system in which we gave 80% of the population physical cash and instructed the rest to use the barter system. If these populations are to participate fully in the larger economy, they need to have access to 21st-century currency and all of the efficiencies and conveniences it provides.

Despite the fact that our current system's shortcomings are well-documented, the causes well-researched, and proffered solutions numerous, it is rare that innovations in financial services for the low- and moderate-income (LMI) population go to scale. There is no shortage of good ideas; individual development accounts, employee financial stability packages, prize-linked savings, lending circles, and small dollar lending are just a few innovations from recent years. But nearly all have remained essentially at a proof of concept or pilot stage. None have reached a scale sufficient to put a substantive dent in the problem.

[1] "2011 Survey of Unbanked and Underbanked Households", last updated December 26, 2012, http://www.fdic.gov/householdsurvey/ . This is a 0.6% (821,000 households) rise in the unbanked and a 1.9% increase in the underbanked from the 2009 survey (although the underbanked section of the survey was slightly different, so these proportions are not directly comparable).

The Purpose of the Paper

In this paper, we tackle this issue precisely: how can financial innovations such as these go on to reach the millions of Americans whom they could benefit? How can they reach scale?

Scale is required not just for innovations to reach the millions of consumers in need of these products, but also to make the products themselves work—by realizing the economies of scale necessary to make the financials work for both provider and customer. The products need to be affordable and appealing to customers, but they also need to be profitable for financial providers. We cannot expect financial providers to deliver these products at marginal profitability or a loss. Moreover, large scale is necessary for the distribution and market breadth that enables innovations to become widely available to, and known by, customers. Customers will not use products if they do not know about them or cannot access them.

Scale is required not just for innovations to reach the millions of consumers in need of these products, but also to make the products themselves work.

Our hope is that this paper helps financial services leaders and policy makers implement more effective strategies for promoting the scale of positive financial services innovations. In the following pages, we address several specific questions:

- What are the general paths for innovations to scale?
- How do these paths manifest themselves in the financial services sector?
- What roles does financial viability play in scalability?
- What do insights from behavioral economics tell us about scalability?
- What advice does this examination provide for those seeking to bring products to scale?

Before proceeding, we should note that this paper does not address a related but distinct line of inquiry focusing on the reasons that LMI households cannot or do not choose to utilize traditional banking services. We do not address all of the facts and theories about the financial services gap in this document, as a number of organizations have already covered that topic. For similar reasons, we do not devote substantial attention to the innovation process itself, except insofar as decisions made in the design of an innovation directly affect its potential to scale. Instead, we focus on what has inhibited the scaling of beneficial financial products intended to serve LMI customers, and what might be done to reverse this trend.

Our Approach

We used a three-part approach to answer the questions above. First, ideas42 undertook a literature review and scan of current programs and efforts in financial services. Second, we had discussions with twenty-three industry leaders about practices and approaches for shepherding a new idea to its full potential. Finally, we overlaid ideas42's behavioral expertise onto our findings to draw behavioral insights from the information collected.

The remainder of this paper reports our findings and synthesizes our conclusions in three parts: determining the realistic paths to scale in the financial services industry, identifying the biggest challenges that obstruct these paths, and developing concrete recommendations for both individual innovators and entities that influence structural factors.

Following the recommendations in this paper does not guarantee that innovations will scale.

There are a number of factors that can impact the success of an innovation in scaling, including operational execution, existing funders, timing, and even luck. However, following these recommendations will give promising innovations a fighting chance to reach scale.

I. PATHS TO SCALE

There has been a significant amount of literature written about innovation—where it comes from, how to do it, what environments foster it, and how it should be defined. We use a relatively straightforward definition for innovation: a new idea for a product or service, or a significant adjustment to an existing one. While innovation itself is important, it is not the focus of this paper; we are concerned with the paths that innovations take to get to scale. To understand how innovations scale in the financial services sector, it is first helpful to have a more general framework for understanding the typical paths that innovations take to scale regardless of industry (Figure 1).

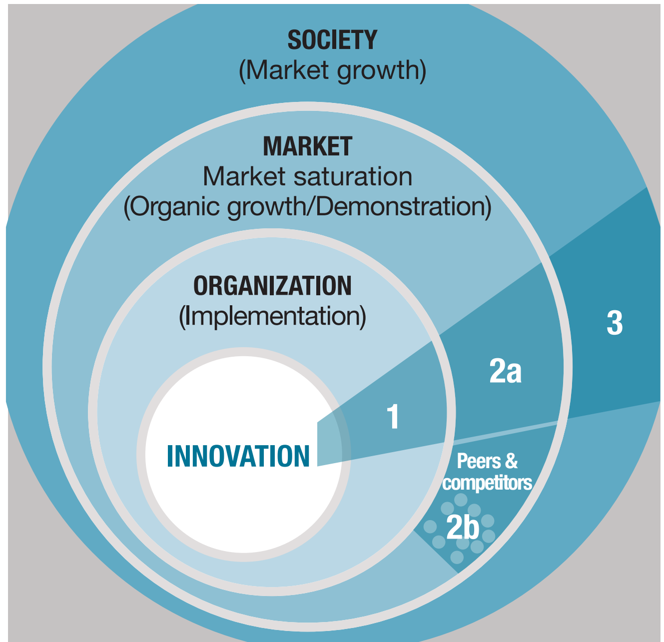


Figure 1 (1) Innovation can start at a single firm, or even a single individual, but only has social impact when the circle widens. The idea has to get off the drawing board, be implemented, become a viable product within a single business, and at least appear to have a decent chance of profitability. (2a) Then, innovations can scale through organic growth, or (2b) through peers or competitor organizations that copy the innovation. Ideally, market growth continues until (3) the market is the size of society as a whole.

This path is true for large companies or start-ups, although it plays out slightly differently in the two cases. Often a large company uses its existing size and customer base to drive organic growth (2a), a process some researchers have referred to as sustaining innovation.[2] For a small start-up company, implementation happens very quickly but does not reach a large number of customers. The focus then becomes trying to drive organic growth with new customers, often referred to as disruptive innovation.[3]

The specific potential for paths to scale in today's financial services sector are related to these same patterns. We identified the paths outlined in the following pages by studying previous innovations that have scaled in financial services, as well as innovations that have both scaled and failed to scale in other industries. The four potential paths to scale that we identified through this process are: large firm innovation; smaller player proof of concept leading to replication; start-up with rapid and disruptive growth; and government policy. Below we provide a summary of each, with the important caveat that it is also possible for an innovation to "switch" from one discrete path to another on its way to scale.

1. Large Firm Innovation

Large banks or financial services companies are in many ways ideally suited to scale a financial innovation because they already have the capacity, resources, and channels necessary to support the new product. Whether the innovation was designed in-house or adopted via acquisition of an innovative product or company, large banks benefit from brand name, large

[2] "Understanding Sustaining vs. Disruptive Innovation in Higher Education and Academic Libraries." http://www.culturalresearch.org/2010/05/-disruptive-vs-sustaining-innovation-in-higher-education-and-academic-libraries.html

[3] "Disruptive Innovation." http://www.claytonchristensen.com/key-concepts/

marketing budgets, and regular interactions with millions of existing customers across their extensive branch networks, online banking portals, ATM networks, call centers, and other distribution and customer service channels. The existence of numerous physical and virtual distribution and service platforms also makes it operationally easier to serve new customer segments.

When all is running smoothly, the extensive capabilities of a large bank make it extremely well-equipped to support the growth of a new innovation while avoiding the organizational growing pains that a small organization faces as it expands in tandem with a new innovation. Their massive size—the five largest US banks have 44% of market share as measured by assets[4]—means that if a big bank or financial service provider offers a product to all the potential customers, scale is built in.

However, we should not assume that large institutions are fully optimized to scale LMI products. Serving the LMI population and serving the mass-market or mass-affluent population can be quite different. While large institutions may have some back-office operations suitable for LMI customers (e.g. basic transaction processing will work, though collections may not be well suited), they won't necessarily have the front-office capacity. For many reasons—lack of trust in or experience with traditional financial service providers, for one—LMI customers may require a very different experience in the branch, website, or call center. If an institution builds their distribution channels for mass-market or -affluent customers they will not automatically be able to serve LMI populations well. Alternatively, if they build distribution to focus on LMI, they might lose the more affluent customers who are the most profitable.

The smaller players try out and prove the concept of an idea or new innovation. Then other institutions see the success that they are having and replicate this idea, which brings it to scale.

2. Smaller Player Proof of Concept Leading to Replication

Note that large firms are often compelled to scale innovations by competitors, and those competitors are sometimes small firms. Smaller players are often willing to undertake and try out innovations. They are either more willing to take risks because they cannot compete in the traditional ways against larger players, or, following a social mission, they may explore paths that larger players may not see value in initially. The smaller players try out and prove the concept of an idea or new innovation. Then other institutions see the success that they are having and replicate this idea, which brings it to scale.

This is a path to scale that foundations and advocates have long hoped would result in improved products for LMI customers. However, this has not come to fruition in many notable cases. One exception, although not directly LMI-related, is Commerce Bank (now TD Bank). They were a visible new entrant that made a big deal about high-quality service and later hours. They often stayed open from 8am to 6pm, Monday through Friday, and sometimes on weekends. At the time, this was very rare, if not unheard of, in the banking industry. Eventually, other providers started offering evening and weekend hours, and some level of non-traditional hours has become almost standard among large banks.

[4] "5 Largest U.S. Banks Increase Market Share," last updated December 27, 2013, http://www.bizjournals.com/austin/news/2013/12/27/5-largest-us-banks-increase-market.html.

3. Start-up with Rapid and Disruptive Growth

Increasingly, start-up companies, which are often fueled by new technologies or a different use of an existing technology, can have a relatively fast and disruptive effect on existing industries. This has occurred on a few occasions in financial services, most notably with credit cards. Large banks introduced the cards initially, but it was start-ups that introduced direct mail marketing, balance transfers, rewards and everything else that we associate with cards today. They took massive market share and were eventually purchased (Providian, First USA, MBNA) or diversified into other parts of financial services (Capital One). A second example of rapid, disruptive growth is the pre-paid card. Pre-paid cards rely on existing large payment networks and are issued by member banks of the payment networks, but smaller players like NetSpend, Green Dot, and AccountNow were the ones to begin taking these products to scale. Larger players like Walmart and Amex have entered the market and further scaled this product.

The fact that this has transpired in other industries also supports the idea that it is a realistic possibility in financial services. The personal transportation industry was disrupted in 1908 by Ford Motor Company (just ask the wagon- and buggy- makers), and is now being disrupted by the likes of Uber and Zipcar. Likewise, digital camera-makers disrupted photography (just ask Kodak and Polaroid).

We should remember that the start-ups that begin the technological disruptions are not always the ultimate beneficiaries of this disruptive force. It is not unusual for larger existing players to be the beneficiaries, whether by acquiring the innovating company or building on its breakthrough. Napster first disrupted the music business, but it has really been Apple that has ultimately come up with a product and service mix that extracted the benefit. Digital reading devices were first attempted as technological disruption by Rocket Book but Amazon, with the Kindle, seems to be the current beneficiary.

Figure 2

	Intentional	Unintentional
Direct	Direct Express EBT Cards	
Indirect	IDAs ETA 30 year mortgage Opt out Retirement Savings	Tax Time Pre-paid RALs and RACs

■ Reached Scale ■ Have Not Reached Scale

4. Government

Government programs or policy changes, particularly at the federal level, are the last major potential path to scale. The federal government reaches large numbers of citizens, including LMI people, and can potentially deploy vast financial resources. It, like large banks, has scale baked in by its very nature. In the federal government context there are direct and indirect, as well as intentional and unintentional, paths to scale (Figure 2). In some cases the government can directly provide, or contract for the provision of, a product or service. In other cases, a program or policy might indirectly spur others to provide a product or service, whether by removing regulatory and logistical hurdles or incentivizing particular actions. In either scenario, the outcome—a socially-beneficial financial product reaching scale—could be intentional or unintentional.

Successful examples of this approach include the Direct Express card,[5] Electronic Benefits Transfer (EBT) cards, opt-out retirement savings, and 30-year amortizing fixed rate mortgages. However, there are also examples of efforts that did not succeed, including ETAs (Electronic Transfer Accounts) and IDAs (Individual Development Accounts). Finally, the government has on occasion indirectly and unintentionally promoted the scale of products with negative consequences for LMI populations. For example, the creation of the earned income tax credit (EITC), while itself very helpful to LMI populations, spawned a set of tax-time products whose benefit to LMI populations appears to be negative (e.g. refund anticipation loans and checks), as well as similar products that might have been beneficial had they been priced appropriately (e.g. tax-time pre-paid cards).

II. CHALLENGES TO SCALE

Innovations can scale along any of the four paths mentioned above, but regardless of path there is a set of challenges that inhibit the achievement of scale. These challenges fit into four broad categories: profitability, organizational impediments, consumer behavior, and regulatory landscape.[6] We discuss each of these issues in depth below, highlighting particular challenges and opportunities that each category poses for different paths.

Profitability is judged much more on short-term, fundamental financials. The focus is on whether a product is going to be profitable, how this will occur, and how quickly it will occur.

1. Profitability

It seems as though it would go without saying that a product has to be profitable for a provider to consistently and sustainably offer the product at scale. However, there are three important nuances to profitability. The first two nuances identified here create the biggest challenges for the smaller player proof of concept replication path and, to a lesser degree, for the start-up with rapid and disruptive growth path to scale. The last nuance is solely associated with the governmental path to scale.

A. Measuring profitability is complex

To begin with, financial services as an industry tends to take a strict and relatively short-term perspective on profitability. Profitability is a matter of income, based on realistic, concrete revenue and costs, not on potential and uncertain future revenue streams. Unlike technology firms, the financial services industry, with few exceptions, is one that markets and investors do not view as rich with high-growth companies. Therefore profitability is judged much more on short-term, fundamental financials. The focus is on whether a product is going to be profitable, how this will occur, and how quickly it will occur.

Some of the factors that may be considered beneficial by the smaller players do not factor into the profitability calculation of the larger players. For example, there is often a belief that there is value in "product migration" by LMI customers: the idea that if you start those customers off with a savings account or a transaction account, over time they will be more financially stable and advance economically, so that in future years you will be able to sell them a credit card, an auto loan, or even a mortgage. For large banks, however, there is no conclusive research that shows that this is true, and even if it were true the benefits may accrue only with such a delay as to be of little value. Larger

5 See http://www.usdirectexpress.com/edcfdtclient/index.html#.

6 Other items that can derail scaling of innovation (e.g. operational failures, lack of investment, bad luck) apply broadly to any field. The challenges highlighted here are particularly related to the scaling of innovations for LMI populations in the financial services sector.

institutions are more likely to base decisions on what they know will happen for certain in the next two to three years. The fact that after three years there may be some difficulty in projecting profit to be made from "product migration" is just not weighted heavily in their analysis. Certainly one could argue that this is a mistake or shortsighted on the part of larger players, but it does not change the fact that this is their reality.

Second, small versus large players may account for items differently when they calculate profitability. On the one hand, small innovating players sometimes fail to accurately measure costs or fail to recognize that revenue or benefits differ for the larger financial institutions. Many non-profits underestimate the true costs to provide the product. They may only allocate incremental costs from new staff working on a project and fail to accurately allocate overhead costs and opportunity costs of existing staff who contribute to an effort.

Smaller players also may not accurately weigh the value of intangible resources, such as the trust or loyalty they have among people from a particularly community, that would be costly in both time and resources for a larger player to recreate. For example, if customer trust and loyalty can mitigate losses on a loan product for a community bank, a larger player taking that product to scale is likely to achieve lower returns on that product. Either the larger firm would need to spend the time and resources to build that trust and loyalty with a much larger customer base, or they would simply fail to achieve it. Lastly, smaller players might not think through the upfront costs required for a larger player to adjust their systems or processes to take a product to scale, or to replicate something the smaller player did manually or in a less complex system.

Alternative outlets for an organization's resources, efforts, and capital are often more profitable and lower risk than innovations for LMI customers, which can be more risky and promise less of a clear return.

B. Financial Services can require a relatively high threshold of profitability

The requirement that an innovation be "profitable" is perhaps better stated as a requirement that an innovation be "profitable enough". In financial services, just as in any industry, investments in innovation are judged to be profitable enough (or not) based on relative rather than absolute standards. Particularly at large firms, the relevant standard is not simple profitability, but the opportunity cost of capital—what is the most profitable way that they can deploy their resources? This can often lead to profitability thresholds that are well above breaking even. The decision to offer or expand product offerings, especially those targeted at LMI people, is considered not in isolation, but against available alternatives—say, expanding some other set of products, such as auto lending or credit cards. These alternative outlets for an organization's resources, efforts, and capital are often more profitable and lower risk than innovations for LMI customers, which can be more risky and promise less of a clear return.

The problem for the replication path is compounded when different players use different thresholds for profitability. Over the years and through these interviews, we have heard dozens of non-profits that have pilot-tested a product and advocates who have analyzed products say, "We have this great product and it is profitable; we do not understand why a financial institution won't offer it." This lack of understanding often results from a fundamental difference in the way smaller and larger firms think about profitability. Because of the alternative options available to large banks, the relevant threshold for profitability is often much higher than at non-profits, credit unions, and community banks. This can often explain the apparent contradiction of small firms viewing an innovation as profitable and large institutions not offering it: both are right, but they are applying different standards. What is profitable for the small firm can still fail to be worthwhile for the large firm.

Finally, large firms care about the total size of the profitable market. The LMI market is smaller from an overall profit perspective, making it less attractive as an overall growth market.

C. Governments consider costs and benefits broadly

Governments—particularly the federal government—can sometimes provide long-term subsidies that enable a product to be viable despite zero or negative profitability, because it enables them to achieve an important social or policy goal. That is, the government can take a broader view of accounting for costs and benefits. For example, the government might provide costly financial coaching to people while they are receiving welfare. If that product could enable people to leave welfare rolls more quickly and reduce the chance that they return, the government would be better off providing the service even if, narrowly accounted for, it was at a loss.

That said, under the current political climate and constrained budget environment at the federal level, there is little support for providing subsidized products for any length of time. Furthermore, there has been little willingness to undertake investments that yield returns across programs, particularly if the costs come now and the benefits accrue over time. This is especially true with financial services because there is no conclusive research about whether those benefits are likely to be realized. There is more of an interest in investments where there is a positive return that accrues right away and the benefit is certain. A good example is the Direct Express program. The Treasury Department is happy to provide a debit card for the payment of federally dispersed benefits such as Social Security payments, Veterans Affairs payments, and so on, because the government sees immediate and direct cost savings from not having to cut paper checks to those recipients. The cost of an electronic payment (10.5¢) is one-tenth the cost of issuing a paper check ($1.03).[7] Similarly, providing Electronic Benefits Transfer (EBT) cards for Supplemental Nutrition Assistance Program (SNAP) recipients aims to reduce fraud, waste, and abuse costs.

LMI: Career-wise, "Why bother?"

ideas42 spoke to a seasoned innovation leader at one of the US' largest financial institutions. When asked why innovation in the LMI space was not more common for large banks he responded with "You have to understand the reward system in the bank. A young executive is not going to try to make his name or impress people by coming up with innovations in this space. . The likelihood of success is low, success does not look like big profitability, and there are lots of potential headaches. They are just going to say why should I bother, I am better off trying to innovate in auto loans, credit cards, or the mass affluent population."

2. Organizational Impediments

Each of the paths depends on real organizations working to bring these innovations to scale. Organizations are complex organisms, and there are some challenges at the organizational level to scaling innovations for LMI populations.

A. Why take the risk?

The reward and risk norms at a bank, especially a large bank, can derail an innovation before it

7 "Electronic Funds Transfer: Overview," US Department of the Treasury, Financial Management Service, accessed November 2013, http://fms.treas.gov/eft/index.html

Witnessing the failure to roll out an internal pilot

An executive at a very large company described a failure involving an internal pilot. The company had developed an innovation with high growth potential, and they executed the pilot successfully. When it came time to hand off the innovation to another executive who would scale the innovation across the entire company, the executive instead killed the initiative. As our contact put it, the executive's approach was, "I don't want to adopt someone else's two-year-old; I want to start from scratch."

It was not that the idea was old, but simply that it was someone else's. The executive felt that if it were successful he would not get the credit, and if it failed he would get the blame. If he had been involved in the design and pilot stages of the project, he would have felt more ownership. Instead, he felt little commitment to the innovation and contributed to its demise.

even starts. Organizationally, employees within the bank (particularly management employees) are trying to advance in their careers. They often seek to generate, and are rewarded for generating, increased profits while limiting risk (e.g. risk of an unprofitable product, risk that a product draws regulatory ire, risk that a product creates reputational backlash from customers or advocates). When a management employee is looking for ideas to champion or ways to make a name for herself, products for LMI customers do not usually rise to the top as areas for focus. It is not seen as an area that has high margins or good profitability—and if a product does meet these criteria, banks may bear the reputational risk associated with being accused of overcharging people. Finally, there are perceived regulatory risks. As a result, managers do not usually even propose these types of ideas (See sidebar, "Why bother?").

Launching mobile banking innovations in global markets

ideas42 spoke to an industry leader responsible for establishing a global bank's strategy for rolling out mobile banking platforms internationally. Even the largest organizations must choose their priorities carefully, he noted: the bank selects the most promising markets to begin the rollout in hopes that early successes there will ultimately pave the way for the extension of mobile banking to all of its markets.

To determine the highest-priority markets, the bank uses criteria such as market size, growth rates, adoption potential, and regulatory pressures. What are the largest, fastest-growing markets? Where does mobile banking provide a clear appeal for consumers to use it? Which markets operate in a regulatory environment that is amenable and predictable to the new innovations, with sufficient standards to facilitate the technological shift?

Answers to these and other questions guided the bank in its identification of the best emerging markets for deployment. It hopes that the lessons learned there will enable it to expand to more challenging markets over time.

B. Managing the hand-off from pilot to wider scale implementation

For large institutions, bringing innovation to scale means grappling with the growth of innovations internally. Successful implementation of innovative pilots on a wider scale requires the transition of ownership from a subset of the organization to a larger pool of users. Large organizations pilot innovations on a small scale and then implement them more broadly throughout the organization (As depicted in 1 of Figure 1). This might entail testing a new customer-facing product or service with a small group of customers, or piloting a new internal process or technology at a subset of branches, before rolling out the innovation across the institution. A multinational bank executive offered an illustrative case from his own experience: the bank saw promise in a new self-service kiosk with video-chatting functionality that enabled customers to communicate with remote tellers. After initial testing in its internal innovation lab, the bank deployed the technology in a limited number of branches to test user experience on the front line. If the kiosks improve customer service and profitability in these pilot branches, the bank will plan to roll out the innovation in many more branches.

Since large organizations often have latent capacity available to accommodate a growing innovation, one of their primary challenges is to ensure a clean hand-off between smaller

Reaching a local organization's limits to spread innovation

ideas42 discussed a local government's efforts to share one of its successful programs. With very little staff or budget devoted to the program, the government took advantage of its unrivaled convening power to get the program off the ground. Local businesses and community advocates were enthusiastic, and the government used all its touchpoints with citizens (marketing through social services, transportation networks, billboards, and mailings) to encourage adoption. All the important stakeholders trusted the government to deliver a program that was mutually beneficial to everyone, and it was widely recognized as a local success. The program had reached the limits of the local organization to promote it, however, and there were no clear hand-offs planned for regional or national governments. One of the program's key leaders admitted that the government might have missed an opportunity for advocacy beyond the local environment. The gaps between the local government and the national regulator were too large, and in the absence of a governance model that could coordinate the transition from a local program to a national program, the program missed opportunities to spread.

units that test and manage the innovation in its infancy and broader units that can manage the innovation on a larger scale. A higher-capacity unit (often enterprise-level) takes on the task of replicating and adjusting the innovation for a broader set of users. In some cases, the smaller unit is tasked with identifying a promising sequence of local markets in which to deploy the innovation as a strategy for expansion (See sidebar, "Launching mobile banking innovations in global markets).

A number of things have to go right for this handoff to be successful. The larger entity within the organization, for example, must have aligned priorities with the smaller unit. If the new innovation requires some change to systems or processes, these changes may not align with other priorities that the larger group is trying to balance. The manager of the larger entity must also buy into the handoff. If the head of the larger group that must roll out the innovation has not been brought into the loop early enough to feel ownership over the idea, she may not feel she will get credit if the innovation is successful, and may choose not to focus on it or give it the proper resources to succeed.

Similar challenges are likely to arise when a large company acquires a smaller entity with the goal of incorporating its innovative product or service into the larger company's operations.

The task of aligning the priorities of formerly distinct institutions and achieving the buy-in of key leaders on both sides is a critical, if difficult, component of a successful transition.

C. Maintaining a champion

A related problem is one of "champion changes". New innovations often need a champion, someone who is going to fight for and guide them as they navigate their way from pilot to being rolled out across the larger institution. This process can often take two to four years. Executives within financial institutions move around quite a bit, either within their institution or across institutions. When new executives take over an area, they often want to have their name on the initiatives and efforts within their area. Existing initiatives are less appealing, because if the initiative is successful they will likely only get partial credit: it was someone else's idea, they just steered it across the finish line. But if the initiative fails, they will get all of the blame. As a result, executives often have incentives to kill existing efforts and start fresh with their own ideas.

D. Maintaining capacity, capability, and focus

Smaller organizations or start-ups, whether they are pursuing a fast and disruptive path to scale or are proving the concept in order to have it replicated by larger players, face organizational issues of their own.

Small organizations run into challenges when their capacity to implement an innovation does not grow in parallel with the innovation's potential for adoption. Such organizations can struggle to maintain service standards as demand for the innovation outpaces their capacity to deliver it. Small organizations have to grow to accommodate increasing adoption of an innovation: to support the innovation, young ventures build larger organizations with more resources (e.g. deeper financing, more employees) to reach and serve an expanding pool of end users. For example, a rural credit union with an innovative loan product must figure out how to reach new customers and expand its footprint; or, a new non-profit might have remarkable success translating financial counseling into improved outcomes. As an alternative to pursuing organic growth, a smaller organization could be acquired by a larger firm to access the resources it requires. But regardless of the growth route, as demand for services explodes, wider delivery channels are necessary to aid the growing ranks of financially distressed consumers.

New innovations often need a champion, someone who is going to fight for and guide them as they navigate their way from pilot to being rolled out across the larger institution.

E. Bureaucracy and innovation

Finally, government channels for innovation depend on a distinct set of conditions. Though often exaggerated, perceptions of government actors as bureaucratic and slow moving are grounded in organizational realities. Two forces stand out: First, government actions are constrained by unique political and institutional barriers. Unlike the private sector, there are few actions that can be taken by executive action or initiative alone, and promoting innovation is no exception. Especially where innovation from the public sector might require coordination across agencies or levels of government, these barriers can bind. Second, the internal incentives within government agencies tend to promote risk aversion and can fail to reward innovation.

3. Consumer Behavior

At the heart of many of the toughest problems associated with creating a successful product are human behaviors. Even where an innovation appears to present potential users with a clear and tangible value proposition, adoption, usage, and level of consumer benefit depend on the way in which humans actually engage with the product in the real world. This requires organizations to design products and services with a real—rather than idealized—user's needs, psychologies, and behaviors in mind. These details are not academic; they determine how users will engage with the innovation and oftentimes explain sluggish adoption, poor usage, and limited derived benefit.

While the focus of this paper is the process of scaling innovations, there is a close connection between good design and scaling success. Often, it is during the scaling process that poor design becomes both apparent—if, for instance, consumers are not taking up or using the product in large numbers—and critical to the innovation's long-term profitability. Equally pressing is the need to preserve good design throughout the scaling process. Few products or services are "turnkey"; tradeoffs similar to those made in the course of product design are likely to arise as the innovation is rolled out, and it is important that the customer's needs and behaviors are not overlooked at this later stage.

Product designers are well intentioned; they want to create innovations that will help people, but they usually fall short for one of two reasons. First, the providers that design products are locked into their own perspective as the dominant frame for the inevitable trade-offs that must be made as product design comes together. These trade-offs must often be made between meeting the needs of the customer and meeting the needs of the operational team that is implementing the innovation. Often many of these small decisions are made in favor of the operations team (e.g., close the branch a little earlier because it is hard to staff longer hours; require an additional page of information to be filled out on the application so we are sure we "know" the customer; wait just 12 more hours to make sure that a check has cleared before crediting the account; etc.), without thinking about how such decisions, in aggregate, can result in a product that is unappealing to customers or does not serve their needs.

Organizations must design new products and services with a user's real needs, psychologies, and behaviors in mind, rather than design innovations based on idealized notions of user behavior.

Second, product design is based on a traditional economic model of the way people make decisions. This model makes two big assumptions:

- People decide to take up a product or use a product feature because they have fully weighed all the benefits and costs of the decision. If the benefits outweigh the costs they will decide yes, and if they do not, they will decide no; and
- Once a person decides to do something, her actions naturally follow from this decision.

This leads to solutions and product designs that are about changing the incentives (making benefits greater or costs lower) or providing more information so people better understand the costs and benefits. Behavioral economics has taught us that neither of these assumptions is consistently true. Humans often have fallibility in decision-making. They can suffer from present bias or tunneling and do not factor in all of the cost and benefits that occur a short time in the future. For low-income people, we know that these types of fallibility are consistently exacerbated by general financial scarcity.[8] People may also place different values

[8] Mullainathan and Shafir, Scarcity: Why having too Little Means so Much.

on particular choices. For example, they might be valuing convenience over cost (as in the case of an individual who chooses the check casher over the credit union, based on hours of operation), a preference that might not make sense from the cost-focused product designer's perspective.

Choosing a credit card

ideas42's conversation with a bank executive who used to manage the bank's credit card business shed light on the way banks now think about how people choose a credit card. "We would mail people regularly, almost indiscriminately, if they were in the right credit risk bandwidth, because people do not think I need a new credit card let me go and shop for all the potential options. Instead they suddenly realize that they need more credit, usually to buy something or meet some need, then they take a look at what offers are in their mail box. You wanted to be in their hand when the need for credit was on their mind."

Yet it is not only about decision-making; it is also about follow-through on those decisions. Think about all the times you have made a decision or have an intention to do something that is good for you or that you need to do, only to end up not doing it. We all know this from our own lives, better than any study can ever teach us, but we often seem to forget about it when we design products for others. Whether it is increasing your retirement savings, filing your taxes without an extension so you get a refund soon, going to the gym three times a week, eating fewer deserts, opening a 529 college savings account for your child, paying all your monthly bills on time consistently, remembering to send in the receipt for a rebate on an electronic purchase, taking an important medication… The list is endless.

Despite the importance of these activities and your intention to perform them, you have trouble following through for a variety of reasons. Maybe a form or the process to set up the account seems complex. You think of it as a hassle so you put it off, not thinking that putting it off "for now" can easily become permanent procrastination. Maybe your plans to skip dessert evaporate when the smell of chocolate cake is wafting into your nostrils. Likewise, going to the gym is a great idea for the person who made the decision to exercise three times a week, but not such a good idea for the same person who is finishing up a 10-hour work day.

A. Making innovations attractive to consumers

Innovations will not find a path to scale if consumers do not find them attractive, even if the product is by some standard "good" for consumers. There can be a misconception among innovators that this is sufficient—that users will flock to innovations in droves because it is "better" for them. The funny thing about this mindset is that we all know this is not how humans make decisions, yet we somehow forget important details and behavioral implications in the design process.

Financial institutions have a simultaneously great and poor understanding of consumer behavior. On one hand, they understand very well the many nuances of human decision-making about some products. For example, consider credit cards: issuers realize that consumers do not do a great deal of comparison shopping to determine which credit card to choose; instead they are likely to choose the offer that came in the mail most recently (See sidebar, "Choosing a credit card”). With this in mind, they design credit card offers that have a lower teaser rate, fully aware that human tendencies toward shortsightedness and overconfidence lead consumers to focus on the lower, teaser rate rather than the higher, long-term rate in making decisions.

However, financial firms have less often considered how an understanding of human behavior could be used to design a successful product for LMI customers. In part, this stems from an understandable, but unfortunate, reluctance to employ behaviorally-informed techniques that have come to be associated with consumer exploitation. There is a key distinction, however, between means and ends: appealing to a consumer’s short-term self, rather than her long-term self, can often be effective. In the case of credit card offers, this tactic might leave consumers worse off, but these same types of appeals can be used to market innovations that leave consumers (including LMI consumers) better off.[9] Take the example of the Save More Tomorrow program, in which individuals pre-commit future pay raises to retirement savings—a program like this appeals to the short-run self to the benefit of the long-run self.[10]

Figure 3 - Hours of Operations Low-Income Credit Unions vs. Check Cashers and Pay Day Lenders

Low-income Credit Unions												
	LICU #1		LICU #2 - Location 1		LICU #2 - Location 2		LICU #3		LICU #4		LICU #5	
	Open	Close	Open	Close	Open	Close	Open	Close	Open	Close	Open	Close
Monday	9:00 AM	4:00 PM	9:00 AM	7:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	4:30 PM
Tuesday	9:00 AM	4:00 PM	9:00 AM	7:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	4:30 PM
Wednesday	Closed		9:00 AM	7:00 PM	10:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	4:30 PM
Thursday	9:00 AM	6:00 PM	9:00 AM	7:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	4:30 PM
Friday	9:00 AM	4:00 PM	9:00 AM	7:00 PM	10:00 AM	6:00 PM	9:00 AM	5:00 PM	9:00 AM	6:00 PM	9:00 AM	5:30 PM
Saturday	10:00 AM	2:00 PM	9:00 AM	1:00 PM	Closed		Closed		9:00 AM	1:00 PM	9:00 AM	1:00 PM
Sunday	Closed		Closed		Closed		Closed		Closed		Closed	

Check Cashiers								
	Ace Cash Express -DC		Ace Cash Express - DC		Ace Cash Express - San Jose		Walmart - Money Center	
	Open	Close	Open	Close	Open	Close	Open	Close
Monday	9:00 AM	7:00 PM	9:00 AM	7:00 PM	9:00 AM	7:00 PM	7:00 AM	9:00 PM
Tuesday	9:00 AM	7:00 PM	9:00 AM	7:00 PM	9:00 AM	7:00 PM	7:00 AM	9:00 PM
Wednesday	9:00 AM	7:00 PM	9:00 AM	7:00 PM	9:00 AM	7:00 PM	7:00 AM	9:00 PM
Thursday	9:00 AM	7:00 PM	9:00 AM	7:00 PM	9:00 AM	7:00 PM	7:00 AM	9:00 PM
Friday	9:00 AM	8:00 PM	9:00 AM	9:00 PM	8:00 AM	8:00 PM	7:00 AM	9:00 PM
Saturday	10:00 AM	6:00 PM	9:00 AM	6:00 PM	9:00 AM	7:00 PM	7:00 AM	9:00 PM
Sunday	Closed		Closed		10:00 AM	4:00 PM	7:00 AM	9:00 PM

Pay Day Lender						
	Ace Cash Express - Hampt		Advance America in N. VA		Ace Cash express in Mobile	
	Open	Close	Open	Close	Open	Close
Monday	9:00 AM	7:00 PM	10:00 AM	6:00 PM	8:00 AM	8:00 PM
Tuesday	9:30 AM	6:30 PM	10:00 AM	6:00 PM	8:00 AM	8:00 PM
Wednesday	9:30 AM	6:30 PM	10:00 AM	6:00 PM	8:00 AM	8:00 PM
Thursday	9:30 AM	6:30 PM	10:00 AM	6:00 PM	8:00 AM	8:00 PM
Friday	9:00 AM	8:00 PM	9:00 AM	7:00 PM	8:00 AM	8:00 PM
Saturday	9:00 AM	5:30 PM	9:00 AM	2:00 PM	9:00 AM	6:00 PM
Sunday	Closed		Closed		Closed	

When customer uptake of an innovation is slow at large banks, it is usually because the behavioral factors that drive adoption take a backseat to economic considerations. Due to pressure from investors seeking a return, the first task of product development is to design an innovation that will be profitable. No new product is launched without a robust business case to back it up. With this as the chief concern, product developers frequently get distracted from the behavioral factors that make an innovation more likely to succeed.

9 Bertrand, Mullainathan, and Shafir. “Behavioral Economics and Marketing.” Journal of Public Policy and Marketing.

10 Thaler and Benartzi. “Save More Tomorrow.” Journal of Political Economy.

B. Ensuring consumer intentions translate into actions

Small differences can be a big deal: providing financial services when they fit in with the workweek and financial needs of consumers can be the determining factor in where people bank and what services they use.

"Build it and they will come." This is probably the best way to summarize the most common behavioral mistake that many would-be financial services innovators make. Even innovations that would be best for a LMI customer—and are attractive to them as consumers—can fail to achieve scale if they are not easy for consumers to use. Consider the financial innovation of employer-sponsored retirement plans, such as 401(k) plans. The product itself, a vehicle providing a tax-preferred mechanism for saving and investing for retirement, provides a clear value to consumers. Nearly everyone whose employer offers such a plan should find it attractive and be willing to enroll. And, when asked, most people say they intend to save more for retirement.[11] But humans are sensitive to hassle costs and inertia—many workers simply never bother to enroll. It took the additional process innovation of automatic enrollment to drive the resulting increases in participation and savings among many workers.[12]

A key insight for scaling innovations is recognizing that hassle factors—the seemingly small costs or inconveniences that we might not think matter—actually have an outsized impact on consumers' actions. For financial services firms, a closer examination of hours of operations supports this conclusion. The figure below presents the hours of operation of a few well-regarded credit unions that focus on serving low-income consumers (that is, they would meet National Credit Union Administration's Low-Income Credit Union, or LICU, designation). The actual credit unions are not identified here to avoid singling them out, but also because these hours are fairly representative: look at just about any other LICU credit unions, even those considered among the best, and the hours of operation will be similar. By way of comparison, Figure 3 also presents the hours for a few well-known alternative financial service providers: selected check cashing establishments, payday lenders, and Walmart Money Centers.

It is probably not shocking to see that alternative financial service providers are open for more hours than credit unions trying to serve a similar population; others in the field have made this observation repeatedly. However, the really interesting thing to note is that, with the exception of the Walmart Money Center, the alternative firms do not have drastically different hours every day. The check cashers and payday lenders generally open at the same time in the morning as the credit unions, though they usually stay open a few hours later in the evening. But notice how the check cashers and pay day lenders stay open much later on Fridays and are open for longer hours on Saturdays. These are times when people are less likely to be working, have just received their paychecks, or have realized that they are going to be financially short that week. What hassle factors tell us is that this small difference can be a big deal—that providing financial services when they fit in with the work week and with consumer financial needs can be the determining factor in where people bank and what services they use. Financial services innovations have to consider these details, including the hassle or convenience of products or services, to ensure their adoption by LMI consumers.

C. Connecting consumer behavior and profitability

Finally, how consumers respond to and engage with financial innovations will relate back to another condition for scale—profitability—in a way that merits separate discussion. The key factor here is that the profitability of financial services is often sensitive to behavior along a margin that

[11] Laibson, Repetto, and Tobacman. "Self-Control and Saving." BPEA.

[12] Madrian and Shea. "The Power of Suggestion." Quarterly Journal of Economics.

does not affect other consumer products: profitability depends not just on demand for the product or service, but also on longer-term utilization. For a firm selling, say, breakfast cereal, the profit is realized at the point of sale. By contrast, the profitability of a loan product is intimately related to the consumer's behavior after take-up: will the consumer pay back the loan on time; will she become delinquent, and to what degree; will she default?

Conditions are most conducive for financial services innovations to scale when firms employ or take advantage of behavioral insights not just to promote the attractiveness and convenience of their products, but also to consider the products' overall viability. In the case of loan products, for example, small firms or informal lending arrangements may be able to take advantage of consumer responses to reciprocity, social norms, and trust to lower loan default rates. Where financial services innovations are designed at scale to elicit these same kinds of behavioral responses—potentially through methods such as using single points of contact in loan servicing to make the product more personal—the potential for scale is more promising.[13]

4. Regulatory and Reputational Landscape

Finally, each path to innovation exists within a regulatory landscape that determines, explicitly or implicitly, how innovations do or do not get to scale. Because it plays a primary role in the creation and evolution of this landscape, the government is frequently in a position to hinder or hasten the scaling of innovations, whether intentionally or unintentionally.

A. Perceived regulatory risk

The financial services industry is a highly regulated sector. This regulation exists for good reasons: providing consumer protection, limiting prudential risk to protect depositors, preventing the use of the financial system for criminal activity, limiting systemic risk, and so on. Still, regulation carries a cost. Importantly for scaling innovation, regulations might lead firms to be more risk-averse, erring on the side of caution to avoid violating regulations and bearing the financial or reputational costs. If there are high potential regulatory or reputational risks, projected profitability will likely need to be higher to convince organizations to act despite this risk. This issue is particularly germane to products for the LMI market because profitability is rarely high (if the product is also beneficial to and affordable for the customer) and regulatory risk has historically been perceived as relatively high.

Putting in and taking out: testing trust

ideas42's conversation with a pre-paid card provider was quite interesting. The provider noted that in the first couple months of usage, customers would put a small amount of money on the card but often take it off very soon after. These customers--not including those who do what is referred to as "pump and dump", or putting money on the card once, using it up, and then throwing the card away--would then start increasing balances over time and spending them back down, often keeping a small amount on the card in between the deposits (often paychecks) and the spend-down. When they talked to customers like this, the provider learned that these customers did not trust the provider at first. They needed to put money on the card and see that it was available before they believed it was legitimate.

[13] Schoar, "The Personal Side of Relationship Banking". http://siteresources.worldbank.org/EXTLACOFFICEOFCE/Resources/870892-1265238560114/ASchoarPaper.pdf

The regulatory landscape, which the large banks know very well, can thus serve as an inhibitor of innovation, risk taking, and scaling of products for LMI people. These play into and feed off of the profitability and organizational issues outlined above. From a profitability perspective, these issues increase risk. If an innovation is already on the borderline of meeting the bank's profitability threshold, anything that adds to its risk of failure makes the profitability calculation less appealing. If a bank is concerned that innovation will cause regulators to investigate them more closely, they may opt not to deviate from the status quo. Large banks in particular are wary of trying out new products because of a fear that regulators will crack down on them—a reasonable concern, given that regulators have often enough taken a very hard line on particular products or approaches.[14] While regulators undoubtedly act with the objective of protecting consumers, the net effect may be reduced innovation. In the recommendations section we propose a few ways that regulators can spur innovation while still protecting customers.

B. Impact of regulatory complexity on smaller players

The regulatory landscape, which the large banks know very well, can thus serve as an inhibitor of innovation, risk taking, and scaling of products for LMI people. These play into and feed off of the profitability and organizational issues outlined above. From a profitability perspective, these issues increase risk. If an innovation is already on the borderline of meeting the bank's profitability threshold, anything that adds to its risk of failure makes the profitability calculation less appealing. If a bank is concerned that innovation will cause regulators to investigate them more closely, they may opt not to deviate from the status quo. Large banks in particular are wary of trying out new products because of a fear that regulators will crack down on them—a reasonable concern, given that regulators have often enough taken a very hard line on particular products or approaches.[14] While regulators undoubtedly act with the objective of protecting consumers, the net effect may be reduced innovation. In the recommendations section we propose a few ways that regulators can spur innovation while still protecting customers.

If a bank is concerned that innovation will cause regulators to investigate them more closely, they may opt not to deviate from the status quo.

C. Reputation issues for smaller players

The reputational landscape is also very different for smaller institutions. Start-ups are not as worried about bad publicity or marring their reputation. Instead, the issue is that they do not have a reputation at all. Trust and familiarity are often important for customers when it comes to financial services. And it is an industry where the perception of scams is quite high, such that customers are not going to trust a provider right off the bat. That trust and reputation can take time to build up (See sidebar, "Putting in and taking out").

III. PROMOTING SCALE

In this last section, we discuss recommendations for increasing the chances that innovations reach scale. The challenges to innovations for LMI customers getting to scale, as laid out above, are daunting. Fortunately, there are significant lessons to glean from existing and past efforts, giving us hope that these issues can be addressed. Pursuing these recommendations does not guarantee that every innovation will get to scale, but it will increase the probability that some of them do reach scale. The recommendations break down into two categories: direct recommendations for individuals or companies that are trying to innovate and take those innovations to scale, and recommendations that are about larger structural issues and require actions by funders, advocates, or regulators.

[14] A good example of this is the recent OCC and FDIC guidance on cash advance products.

1. Recommendations for Innovators

The recommendations for innovators follow from the paths and challenges identified above, but not always directly. For this reason, we develop these recommendations with additional clarity and specificity here. These recommendations are general but details will vary depending on the path to scale—whether you are sitting in a large firm or bank, small start-up, non-profit organization, community bank, or credit union.

A. Think about your path to scale from the beginning

To achieve scale, innovators should plan for scale. This is really about starting with the end in mind and pursuing it with intentionality. This can seem obvious once stated, but it is surprising how often people do not think concretely about the path and the details of how an innovation is going to get to scale. And while there is no definitive road map for each innovation because the product and circumstances will vary, intentionally thinking about the path to scale will help avoid pitfalls.

This is often particularly true for people or entities starting from a social sector perspective, where the focus is often on developing or identifying the innovation rather than scaling it. But socially beneficial innovations will only reach scale through some path, and success is more likely with preparation. Is the idea that the innovation is going to follow a disruptive, fast-growth path? Then keep in mind the need to figure out a distribution channel strategy for reaching tens of millions of people and obtain a large investment of patent capital (e.g., the prepaid card industry took 10 years to get to where it is). Alternatively, is the intention for replication or acquisition by larger players after the concept is proven? If so, understanding how the larger players are going to view profitability and operational feasibility will be critical. If it is an approach that involves government, understanding the politics, bureaucracy, and statutory and regulatory limitations will be among the most important things to plan for right from the start.

That said, thinking through the path to scale is no less important starting from a large firm or bank, which could reach scale using its own infrastructure and distribution. There you will need to map out how the path to scale is going to work within the organization. Considering from the outset how to navigate the challenges identified above (how to secure the handoff from the pilot team to the implementation team, to ensure there is a champion for the idea who will be able to exert influence for the duration of the effort, to generate buy-in from relevant players, to ensure quality as the innovation replicates, to involve the regulators early, and to manage reputational risk) will be crucial to the product's eventual success.

Socially beneficial innovations will only reach scale through some path, and success is more likely with preparation.

B. Delve deeply into profitability

Delving deeply into profitability is most important for the path of replication by larger players. There are two main components to delving deeper into profitability.

First, take a very hard-nosed, traditional business approach to calculating profitability. This means:

- Be conservative about revenue projections for the core product. This includes pricing for your product or service and overall volume of customers, as well as timing of volume.

- Avoid counting revenue sources that are not directly associated with the core product. If the revenue is not from the core product, be extra conservative (e.g., be careful about revenue from upselling, customer migration, cross promotions, or other indirect monetization approaches).
- Include all costs associated with the innovation, considering both short-term costs and costs at scale (for you or for someone else, if your path is a replication strategy). Do not fail to consider how costly it may be for a larger player at scale to reproduce intangible items a smaller player may take for granted, such as consumer trust or reciprocity.

Second, think about profitability from the perspective of other players in the industry. This is most important for innovators pursuing the replication path, which is typically pursued by foundation-funded efforts, either explicitly or implicitly. If you want other players to replicate your efforts, you have to think about profitability from their perspective. This includes how you calculate profit, as noted above, but also thinking about what their hurdle rates are for profitability. Just being profitable is not enough--there often needs to be significant profit margin. Keep in mind that investments in innovation are judged as profitable enough, or not, based on relative standards, not absolute standards. Particularly at large firms, the relevant standard is not simple profitability but rather the opportunity cost of capital.[15]

Investments in innovation are judged as profitable enough, or not, based on relative standards, not absolute standards.

C. Build organizational capacity and capability

Particularly for small- and medium-sized companies, it is critically important to build the capabilities and capacity required for their chosen path to scale (probably either rapid, disruptive growth or proof of concept for replication).

Capacity is a bigger issue for those hoping to have rapid and disruptive growth. This approach requires having the people and technology in place to scale before the volume arrives, as well as the resources to generate that volume. The exact nature of the capacity needed depends on the structure and timing of the business model. For example, if the business model requires physical locations, this will be costly and time-consuming to build out, and significant resources will be needed. If the business model is technology-based, it will be important to invest in the systems architecture that enables the technology to be successful and stable when it takes on large numbers of additional users.

As noted previously, being acquired by a larger firm is a common alternative pathway for smaller organizations seeking additional resources and capacity. However, acquisition should not be considered a silver bullet for getting an innovation to scale. Firms considering a merger or acquisition must carefully examine the potential fit not just between their business models and customer bases, but also systems, processes and even corporate culture. All too often, overconfidence about integration potential between two firms can make a transaction value destructive rather than value creative, and can even more easily derail individual projects that are on the pathway to scale.

Even if the entity is pursuing a proof of concept and replication strategy, capacity is an important issue to deal with. Organizations often underestimate the amount of capacity it will take to get to a successful proof of concept. What we have observed is that innovators often try to

[15] For this reason, smaller innovators might find hiring a consultant who understands how larger players think about profitability and product viability to review their profitability models to be an investment worth making.

undertake the initial effort by dividing up responsibility among existing staff or only adding staff in a very limited way. They end up having people working on too many things at once and therefore unable to focus on building and making the innovation successful at the proof of concept level. Often obvious only in retrospect, it is surprising the number of entities that either do not think far enough ahead on this, or do not find and commit the resources to address it.

A related recommendation is that organizations should devote attention to developing the human capital necessary for scale. Organizations need to hire the right people for the tasks involved in developing and scaling innovations. This means recruiting people with relevant entrepreneurial experience and needed technical skills.* All too often in the non-profit sector, the person assigned to a new venture is an existing staff member who does not have the appropriate set of skills or experience. Even for-profit ventures need to be mindful that as a venture grows, new people will need to be hired; past a certain point, merely expanding the roles and responsibility of existing staff will be insufficient. The harsh reality is that sometimes this will mean replacing existing staff with new staff with the right skills. However, it is actually a disservice to the LMI people the effort is trying to help to do anything but hire the right people.

Capacity and capability cannot be forgotten for government programs. For example, one promising approach in government social programs involves adding on financial services, asset-building, and financial counseling or coaching to other social services. However, remember that these additional programmatic elements require both capacity (for example, case workers are often already overloaded with cases), and the proper expertise in providing the financial coaching or other service (when in fact current staff may not feel confident about financial matters in their own lives).

For a high-potential innovation to get off on the right foot, it is critical that it is well-designed, with customers' real needs and behaviors built into the core architecture of the innovation.

We realize that for many organizations, it is not as simple as waving a magic wand to address the capacity and capability issues. These recommendations usually take resources, and additional resources are not always easy to come by. This need connects to our later recommendations about how philanthropy and investors should approach funding these efforts. Short of significant new funding coming in the field, this will mean funding a smaller number of organizations with larger amounts of funding per organization.

D. Design for consumer behavior

For a high-potential innovation to get off on the right foot, it is critical that it is well-designed, with customers' real needs and behaviors built into the core architecture of the innovation. Here, the emerging field of behavioral design offers many insights on issues ranging from adoption and usage to profitability and regulatory or reputational risk. As noted above, decisions made in the design process are intimately linked to outcomes along the path to scale, and any commentary on the scaling process must take this connection into account.

Below we outline three tools to help people engage in more effective behavioral design. The three methods are listed in ascending order of anticipated effectiveness. However, with increased effectiveness come increased complexity and a need for a deep understanding of behavioral science and practice, or help from an expert with such knowledge.

* Alternatively, an organization might identify the limits of its existing staff and choose to partner with an organization with complementary strengths. This strategy comes with its own pitfalls, however, particularly with regard to aligning objectives and coordinating activities.

i. Focus on follow-through

While not all behavioral problems relate to follow-through—or what we call the intention-action gap—it is a very common behavioral problem with wide-ranging implications for financial services. The gap arises when people have an intention to do something, but then do not follow through on the action in the way they want to. If you have evidence that suggests people want to do something (for example, they consistently say on a survey they want to do X[16] or they often take the first step towards doing X but do not complete subsequent steps), then there is likely an intention-action gap problem. If an intention-action gap problem exists, a few strategies can help solve these problems:

- Try to reduce the hassle factors. Make it as simple, easy, and convenient as possible for people to follow through on their intentions.
- Use low-cost reminders (postcards, text messages, emails, telephone calls) to remind people to do what they want to do. Make sure the reminders are timely, and build the action into the reminder if possible (e.g., provide the phone number they need to call right in the text message).
- Have consumers engage in simple plan-making. Ask them to write down when, where, or how they will do a few of the specific things they need to do to follow through, such as, "What date and time are you going to do X?", "How are you going to get to Y place to do X?", or "What do you need to bring with you to do X?"
- Do some or all of the necessary steps with consumers, either one-on-one or in a workshop.

Bank On: A closer look into the liquidity issue

The Bank On program has been a significant effort to meet the financial needs of unbanked and underbanked people by making it easier for people who have never had a bank account or previously had a bank account, but no longer do, to get accounts. However, based on the quality of the accounts offered in terms of cost and functionality, you would have expected uptake rates higher than those observed. However, when you start to think about the details of a segment of the population of people Bank On is intended for, you realize that one important detail was not addressed.

It is hard to imagine this detail without putting yourself in the life and shoes of a low-income person. If you are a low-income person who does not have access to direct deposit through your employer (which is not an insignificant percentage of low-income, particularly very low-income, people), then a bank account does not deliver the immediate liquidity you need for your paycheck if you are living hand-to-mouth. It sounds good to encourage someone to deposit a check into a bank account and then withdraw funds. But the reality for most bank accounts (unless the check is from that bank) is that if you have close to nothing in your account (which is common for low-income people as it gets close to payday), when you deposit a check you have to wait a day or two until it clears before you can access all of the funds. If your kids are hungry or you need to pay your electric bill, car payment, or rent right now, you can't wait the 12 to 48 hours for the check to clear. So unless the liquidity issue gets solved for these types of accounts, the decision for these customers is unlikely to change. This is not the sole reason that Bank On uptake rates are lower than anticipated, but it is one of the contributing factors, and a good illustration about how much details matter when it comes to behavioral design.

[16] It is not always the case that what people say they want to do is a good indication of what they actually want to do, but it is often the case.

Often people have trouble getting started, but if you can get them started they can complete the rest. In some cases, there is so much value in having the person complete the action that it will actually be worthwhile to take the time to complete the whole process with them.[17]

- Create accountability. Find a way to have the person report back or have the results shared back to you or someone they know, e.g., on social media, about whether they have done what they said they wanted to do.
- Create commitments. Look for ways for people to make commitments to doing something in the future. Ideally, this commitment is fulfilled automatically, without the person having to do anything more (similar to what happens in the Save More Tomorrow approach).[18] If you cannot use automation, you can instead build in some consequence for them if they do not follow through on the commitment. This consequence does not have to be financially negative; it could be something as simple as their friends finding out whether they did it or not.
- Use defaults. If the population you are working with has relatively homogenous wants, then defaulting people into the product or program will often work well. However, use defaults cautiously: if people do not have the presumed intention, or have different intentions, defaults can be costly and waste of time because people will make the effort to switch away from them.

This list is not exhaustive, but these are a few of the major levers available for closing the intention-action gap. It is very important, however, to investigate whether the intention-action gap is really the problem, and how it manifests in any particular context. If people do not actually have the intention, they have not made the decision, or they have made the decision but not in the presumed way, these design elements will not be helpful and could be harmful.

ii. Put yourself in the customers' shoes.

Another behavioral key to scale is thinking about the product or service from the customer's perspective. Consider the details of how consumers will interact with the product or service at a very granular level—what is each decision they have to make and action they have to take? As you do this, think about the true customer needs, the drivers of their decision, and pain points. If you do this sort of perspective-taking, you will usually uncover features of the product or service that present barriers to adoption and utilization in ways you did not realize. The importance of perspective-taking can be illustrated by a closer look at the Bank On program and an assessment of

Learning from limited adoption of card-based remittances

When evidence of the profitability and growth rate of cross-border remittances began circulating widely throughout the financial services industry ten years ago, several banks rushed into the space with offerings of their own. The product developers built a new, card-based product that made sense to them, but adoption never expanded beyond a very limited niche of customers because many migrants were not accustomed to card-based payments, and the burden for recipients to use the card was high in areas with sparse ATMs and card terminals. In this case, the large banks would have benefitted from a deep assessment of migrants' real needs and behaviors, which would have made it clear that a card-based solution was neither relevant nor convenient, leaving it with very little chance of scale.

[17] Bettinger, Long, Oreopoulos, Sanbonmatsu. "Simplification and Information in College Decisions". NBER Working Paper, http://www.nber.org/papers/w15361

[18] "Save More Tomorrow." http://www.chicagobooth.edu/capideas/summer02/savemoretomorrow.html

the reasons it does not meet the needs of a subset of the unbanked and underbanked market (See sidebar, “Bank On”).

There are a few simple and straightforward tips for doing this:

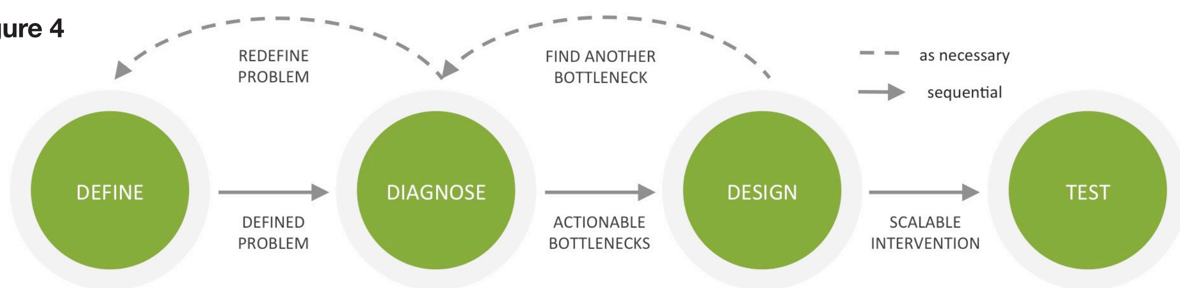
1. Draw an experience map of the decisions and actions that customers must complete to successfully use a product and meet their needs. Draw this map at increasing levels of detail and, as you investigate each additional level of detail, ask yourself whether the customer will make this decision or take this action, and if not, why not.

2. Ask the five whys: for each feature you are considering, ask yourself five times why it is important to the customer.

3. Take the toughest or most argumentative member of your design team and instruct that person to always vehemently argue for the customers’ perspective, and to argue for why the design won’t work for the customer. Another method is to put a representative end user on the design team.

4. Prototype. Create the product the best you can, and then try to use it in your everyday life. Even better, have an LMI customer try to use it. You cannot help but become aware of the details that matter as you try to use the actual product to meet your needs.

Figure 4



iii. Engage in a full behavioral diagnosis and design process

Implementing a fully behaviorally-informed design process can ensure that customers’ real needs and behaviors are built into the core architecture of an innovation to create successful new products and services (see Figure 4). This process does take time and expertise to accomplish well, but can be well worth the resources and effort that it requires. Designing an intervention correctly from a behavioral perspective is a key element of achieving scale. Below, we share an overview of the behavioral diagnosis and design process we use at ideas42.[19]

The first step of the design process—problem definition—is frequently neglected in product development. Too often, designers rush to develop an innovation that addresses their perceptions of a problem without giving much consideration to the real, underlying problem. Before they design a new solution, innovators must devote significant thought to determine the root problem they hope to solve. What is the true nature of the problem? What is the

[19] We provide a detailed description of our process at ideas42 as an example and a guide, not to advocate working with ideas42. To learn more about how we apply behavioral economics at ideas42, visit www.ideas42.org. Of particular interest may be the publications page (www.ideas42.org/publications) and the BETA Project page (www.ideas42.org/beta).

narrowest definition of the problem that will enable them to develop a targeted solution?

Next, designers should spend time diagnosing the behaviors and mindsets that contribute to the root problem. Products are often developed with a superficial understanding of customer behaviors (as the remittance example above illustrates). But since customers do not always behave in the way we expect, product developers must carefully study the decisions and actions that lead to the root problem and single out possible interventions that are best suited to those behavioral nuances.

At the design stage, designers aiming for scale must build innovations for adoption among a wide cross-section of customers and pre-empt a variety of behavioral issues that will arise through customer usage. Without first understanding the way customers really think and behave, designers cannot equip their innovation with the behavioral building blocks for scale.

Although innovators need to get better at incorporating behavioral insights into their diagnoses and designs, large firms are at least better-disciplined when it comes to the final stage of the process: testing the innovation. They frequently pilot innovations in isolated settings (e.g. a few branches) rather than risk exposing larger bands of customers to unproven products and services. After the pilot, the innovation's design is tweaked, and the rollout can be conservative if the bank prefers to expand implementation with a staggered approach. Innovations rarely fail at large banks due to lack of testing.

2. Recommendations on Structural Issues

In addition to the specific recommendations for innovators on how to reach scale, our framework also generates recommendations for addressing some of the larger, structural issues that are preventing innovations for LMI customers from reaching scale.

A. Make it worthwhile for large firms to serve this population

We detailed above a number of reasons why large banks do not innovate and take to scale products and services for LMI people. The most critical of these is the general attitude of "Why should we bother?" when risks are high and financial return appears to be low. If we seek innovation and scale at large banks, a systematic approach is needed to move them from "Why should we bother?" to "It is worth our time and money." This requires reducing three types of risks: regulatory risks, financial risks, and reputational risks.

Regulators need to work together to encourage banks to try out innovations without fear of negative regulatory action.

Regulators have a proactive role to play in fostering innovation and helping it get to scale. As discussed above, banks are often wary of trying out new products because of a fear that regulators will crack down on them, and regulators have often enough taken a very hard line on particular products or approaches.[20] At a minimum, regulators should assess proposed policies in light of their potential to hinder the scaling of financial products for the LMI population.

Beyond this, however, regulators need to work together to encourage banks to try out innovations without fear of negative regulatory action. Regulators could establish two types of safe harbor approaches for banks seeking to innovate. The first would be a reactive safe harbor: an official process by which banks could request advance, temporary clearance to test

[20] A good example of this is the recent OCC and FDIC guidance on cash advance products.

an innovation that they are otherwise concerned might be in violation of a bank regulations or that the regulators might react harshly to. The bank would explain and justify the innovation, the pilot period, and the outcomes that would be reported to show impact. Regulators could then approve the innovation test and learn from the collected data.

The second would be a proactive safe harbor: regulators would actively call for banks to submit innovation ideas in areas where they felt the market was not fairly or consistently meeting the needs of customers or a customer segment. For example, regulators could do a call for small-dollar loan innovation tests, auto loan innovations tests, or savings product innovation tests. This would foster innovation and produce meaningful research on what will help customers.

Funders, including foundations, should be willing to reduce the financial risk for large banks in trying out new innovations. Of course, the foundation would have to be comfortable that the product the bank wanted to try out was targeted at LMI people, and that the product was reasonably structured and priced. This could take the form of establishing loan loss reserves for a substantial product test of a new small-dollar loan that, if successful, the bank would take to market. Foundations might at first blush be uncomfortable with this, as it amounts to a subsidy for the bank to innovate. But if these innovations are successful, they will have massive social value at scale. The project could also be structured such that, if the innovation is profitable, the bank could repay the loan loss reserve fund (if it had been tapped into during the pilot). Of course, if the pilot was unsuccessful the foundation would take the loss, but that is the cost of taking away the downside risk to get banks to innovate.

Regulators could actively call for banks to submit innovation ideas in areas where they felt the market was not fairly or consistently meeting the needs of customers or a customer segment.

Risks to reputation will be mitigated as regulatory risk diminishes, but there are other ways that reputational risk issues can be reduced. Part of the responsibility for this would belong to the financial institutions themselves, and part of it would fall to consumer advocates. Financial institutions could defuse the reputational risk issue by sending a strong signal that they are trying to help people (while making money). This signal would be sent by being more open about the pilots and testing they are doing. They could do this by engaging researchers and sharing the data as part of their pilot testing. Advocates would need to see this as an opportunity to partner with banks to learn what truly helps people.

B. Take a more nuanced view of fees, costs, and profitability

There is a debate within the financial access field that is underpinned by a misunderstanding of the underlying economics. Advocates argue that the fees that LMI people are paying are too high; providers respond that they are meeting customer needs, and that they have to make money. Both sides of the debate have a point: low-income people are paying higher fees than middle- and high-income people. In some cases, those fees are predatory. At the same time, financial providers are meeting a need and do need to make money for the provision of products and services. However, neither side focuses on the key underlying issue.

There is, to start, an economic logic to why it can be more costly to serve LMI people with financial services products. Free checking or savings accounts, especially in a low-interest rate environment, only work for financial institutions if balances are reasonably high. Otherwise banks have to charge fees (whether those are upfront maintenance fees, back-end transaction fees, or overdraft or cash advance fees) or have cross-subsidized, higher-margin products (credit cards, investment accounts, mortgages). For credit products (whether small-dollar loans, cash advances, or credit cards), the fixed operational costs are very similar regardless of the size of the credit, up to a point. Combined with the fact that loan loss costs are typically higher for lower income borrowers, there is a need to charge higher interest rates.

We should look at profit margin as it relates to the true cost of the product, so that we can have a discussion about how to meet customers' needs at fee levels that are sustainable for financial institutions.

This is balanced by the perspective of the advocates who do not want product fees to be set so that financial institutions are reaping outsized profits on the backs of LMI people. This concern seems justified when the structure of a product (such as short-term, two-week payday or cash-advance loans) masks the true nature of the loan. Payday or cash advance loans are often not really short term loans, but used multiple times—67% of loans go to borrowers with seven or more loans per year, making the transaction and servicing cost of the product more expensive than a longer-term amortizing loan.[21]

To alleviate both of these concerns, we should look at profit margin as it relates to the true cost of the product. This way we can have a discussion about how to meet customers' needs at fee levels that are sustainable for financial institutions. One rule of thumb might be: as long as the financial services innovation is less costly to LMI individuals than the alternative that it replaces, advocates should consider it to be welfare-improving. This is also important because it relates to reputational risk. Currently financial institutions avoid delving into the market because they do not want to get criticized for charging fees that are deemed to be higher than what middle- and upper- income people are charged. A middle ground view, taken by many in the field, would encourage banks to innovate at scale and ultimately help LMI people.

C. Adjust the funding approach

A logical evolution for funders in this space would be to move towards leveraging the findings and lessons from work to date. When it comes to innovation and trying to get innovation to scale, the funding has broadly taken an approach of making many, smaller bets. As a result, resources have been spread thinly across a wide range of ideas and entities, leading to the prototyping and piloting of many discrete innovations. This is a thoughtful and well-intentioned strategy that has produced many helpful lessons and ideas for the field and has without a doubt been the right approach up until this point.[22] However, it is time for the next logical step, which is to start from the beginning with the intention of scaling these small bets, and to be prepared to invest in the capacity and infrastructure for scaling the most promising of the small bets. Funders should not abandon a successful innovation after the prototype or pilot stage. Instead, they should support its transition from small bet to widely available product, filling a critical intermediate stage funding gap and increasing the likelihood that good ideas reach the widest possible audience.

[21] "Payday Loans and Deposit Advance Products." http://files.consumerfinance.gov/f/201304_cfpb_payday-dap-whitepaper.pdf

[22] See, for instance, http://www.cfsinnovation.com/our_insights, http://www.d2dfund.org/resources/publication, http://cfed.org/knowledge_center/, and http://assets.newamerica.net/dashboard

Bibliography

Barr, Greg. “5 Largest U.S. Banks Increase Market Share.” *Austin Business Journal*. December 27, 2013. http://www.bizjournals.com/austin/news/2013/12/27/5-largest-us-banks-increase-market.html

Bertrand, Marianne, Sendhil Mullainathan, and Eldar Shafir. “Behavioral Economics and Marketing in Aid of Decision Making Among the Poor.” *Journal of Public Policy and Marketing,* 2006, 25(1): 8-23.

Bettinger, Eric P., Bridget Terry Long, Philip Oreopoulos, Lisa Sanbonmatsu. “The Role of Simplification and Information in College Decisions: Results from the H&R Block FAFSA Experiment.” *NBER Working Paper No. 15361*. September 2009. http://www.nber.org/papers/w15361

Bureau of the Fiscal Service, US Department of the Treasury. “Electronic Funds Transfer: Overview.” Accessed November 2013. http://fms.treas.gov/eft/index.html

Christensen, Clayton. “Disruptive Innovation.” *http://www.claytonchristensen.com/key-concepts/*

Chicago Graduate School of Business. “Save More Tomorrow: A Simple plan to Increase Retirement Saving.” *Capital Ideas*. 2002; 4(1). http://www.chicagobooth.edu/capideas/summer02/savemoretomorrow.html

Consumer Financial Protection Bureau. “Payday Loans and Deposit Advance Products: A White Paper of Initial Data Findings.” 2013. http://files.consumerfinance.gov/f/201304_cfpb_payday-dap-whitepaper.pdf

FDIC. “2011 Survey of Unbanked and Underbanked Households”, last updated December 26, 2012, http://www.fdic.gov/householdsurvey/

Laibson, David I., Andrea Repetto and Jeremy Tobacman. “Self-Control and Saving for Retirement.” *Brookings Papers on Economic Activity* 1998, 1:91-196.

Madrian, Brigitte C. and Dennis F. Shea. “The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior.” *The Quarterly Journal of Economics* 2001; 116(4): 1149-1187.

Mullainathan, Sendhil and Eldar Shafir. *Scarcity*: *Why Having Too Little Means So Much*. New York: Times Books, 2013.

Schoar, Antoinette. “The Personal Side of Relationship Banking.” 2012 Working Paper, MIT.

Smith, Clyde. “Understanding Sustaining vs. Disruptive Innovation in Higher Education and Academic Libraries.” *Cultural Research blog*. May 15, 2010. http://www.culturalresearch.org/2010/05/-disruptive-vs-sustaining-innovation-in-higher-education-and-academic-libraries.html

Thaler, Richard H. and Shlomo Benartzi. “Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving.” *Journal of Political Economy*, 2004; 112(1): S164-S187