A Trillion Dollar Market By the People, For the People

How Marketplace Lending Will Remake Banking As We Know It

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CAPITAL

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Introduction

Traditional lending works well. For the banks.

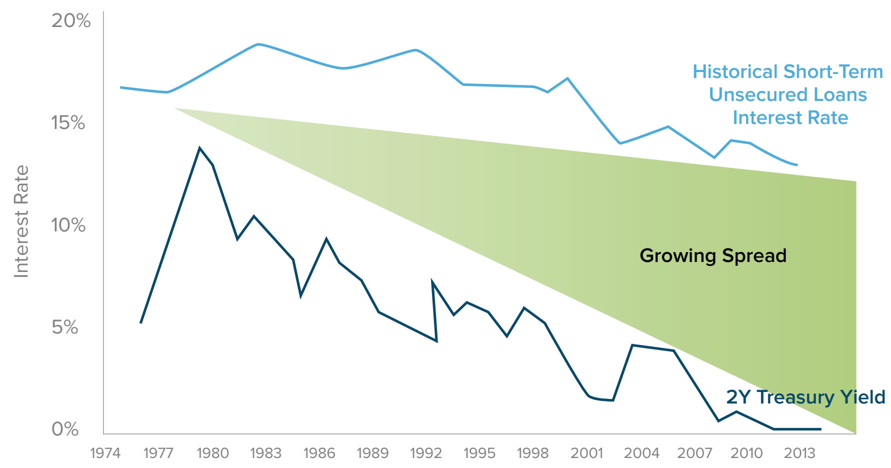
For centuries, banking has remained fundamentally unchanged. In the simplest terms, banks match savers with borrowers. They pay interest for deposits and make loans to businesses and consumers. Depositors see their savings grow, borrowers use the capital. Banks profit handsomely on the spread.

Banks, as intermediaries, have always added to the cost of borrowing and lending – that's the price we pay as a society for their market-making abilities. That spread represents a price that was accepted because the banks played a part in the community, and served community needs.

Today, they do neither. Consolidation has created national mega-banks that are more financial mega-stores than they are pillars of the community. And following the 2008 financial crisis and the regulation that ensued, lending has dropped precipitously. While volumes have declined, profits have held. Why?

Because banks make a significant, and ever expanding, profit off the spread.

BANK BORROWING COSTS AT AN ALL-TIME LOW, NET YIELD AT ALL-TIME HIGH



Source: Federal Reserve

In the 2000s, in the US alone, consumers paid a **trillion dollars** in credit card interest expense to banks.

But today technology and innovation are making possible a new generation of financial services that are more affordable and more available.

That's why we believe what we're calling marketplace lending will be a trillion dollar market by the people, for the people.

I

Putting the Market Back into Market Economics

For the first time in banking, the online marketplace makes it possible for a third party to match idle supply and demand. As a result, lenders and borrowers can now find one another and agree to terms – all without the involvement of retail banks or credit card companies.

By 2025, we predict that $1T in loans will be originated in this manner globally.

We believe that when that lending activity is taken off of the books of big banks, there will be much less need for government to backstop those banks – thereby rendering irrelevant the concept of "too big to fail."

This new system of lending and credit began as "peer-to-peer" (P2P), but the system is creating so much value that has grown to involve a diversified set of investors. While this system is "disintermediated," because it removes traditional retail banks and credit card companies from the transaction, it goes beyond that. In fact, the best platforms provide some form of intermediation – such as by scoring borrower quality to enable lenders to make good decisions.

"Marketplace lending" is a better name to describe this new system, which is fundamentally about creating platforms to connect borrowers with lenders.

In this paper, I detail the trends that are converging to make marketplace lending an $870B+ industry that will radically remake financial services. I will also share four maxims to explain the characteristics that define the industry's most promising players.

MAXIM I
Data, Data, Data

Successful players will out-FICO FICO and be fairer than Fair Isaac.

MAXIM II
Connections & Liquidity

It's not just about matchmaking but also market-making.

MAXIM III
Formidable Barriers

Marketplace platforms are neither easy to start nor easy to scale.

MAXIM IV
Built to Last

Marketplace lenders should be built not just to disrupt but to displace.

II

Revolution in the Guise of Cosmetic Surgery

In 2007 I first became aware of the potential of people lending to people via two San Francisco-based startups, Prosper and Lending Club. I made my first loans and wasn't entirely sure what to expect. The concept of peer-to-peer lending was new: it developed first in the UK with Zopa in 2005 and popped up in the US in 2006 with Prosper, followed by Lending Club in 2007. (Microfinance peer-to-peer lender Kiva arrived on the scene a bit earlier.)

My toe-in-the-water approach came from the sketchy reputation of most of the earliest, small scale for-profit online marketplaces. The earliest platforms offered marketplace lending in the truest sense, with little, if any, curation or quality control. It was a lender beware market. It wasn't unusual to see borrowers seeking funds for cosmetic surgery – and lenders wanting to see the results as part of the lending terms.

Unsurprisingly, up to half of these loans failed. So many people lost money on Prosper between 2006-2008 that it resulted in a multi-million dollar class-action lawsuit and settlement.

MARKETPLACES 2.0

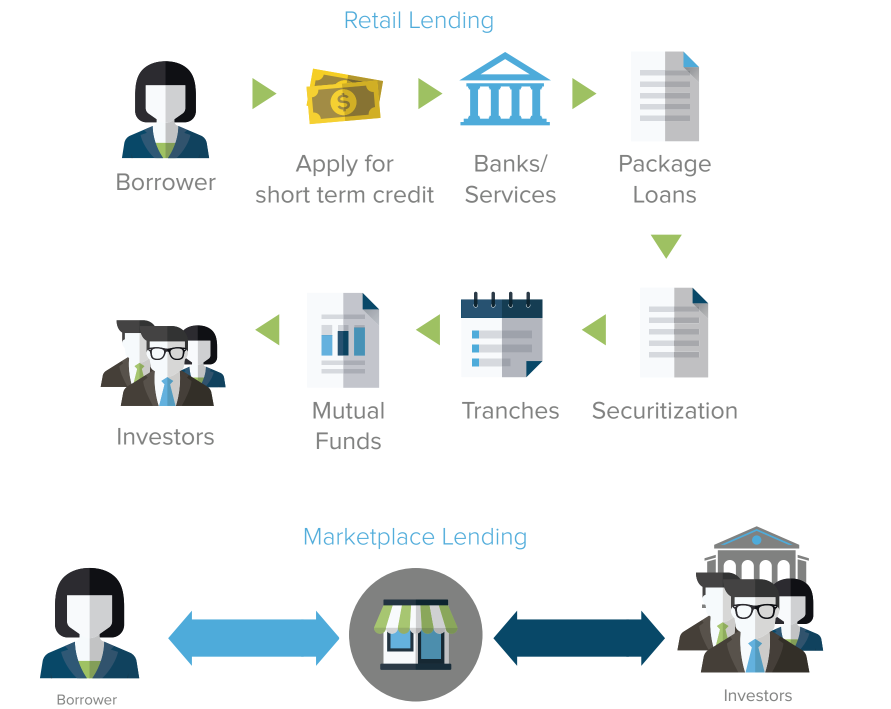
My experience as an early peer-to-peer lender had me worried that these platforms were placing far greater emphasis on the "peer" aspect than on disrupting "lending" writ large.

That seemed the wrong focus, especially because this industry held, and still holds, such tremendous potential: a giant market with incumbents that are universally disliked, offering outmoded products and services. I believe there exists a new model with the potential to displace that system.

The marketplace model cuts several links out of today's banking chain.

> The marketplace model would seem an odd fit for lending were it not for what Airbnb and Uber, the next generation of market-making companies, were doing to other ancient industries – lodging and transportation.

MARKETPLACE LENDING IS DISINTERMEDIATING THE BORROWING AND INVESTING EXPERIENCE



Source: Lending Club, J.P. Morgan

We are witnessing the wave of marketplaces 2.0: end-to-end experiences connecting latent supply with latent demand, adding critical functions in the middle, and taking significant share in the process, while simultaneously growing their overall markets. Marketplaces are transforming whole industries: unlocking value and creating liquidity for buyers and sellers, with more transparency, and using technology to enable scale and operating leverage.

> My colleagues and I at Foundation Capital were certain that it was only a matter of time before online marketplaces would facilitate loan agreements between borrowers and lenders without the involvement (and attendant expense) of traditional retail banks.

Of course, the Internet has long been disrupting models and facilitating marketplaces. In 1994, Bill Gates observed that while banking is necessary, banks are not.

Twenty years later, we are confident that a brash new breed of financial services marketplaces will indeed change the $3.26T banking industry and demonstrate Gates's statement to be truer than we ever thought.

THEORY INTO REALITY

I first met Renaud Laplanche, founder and CEO of Lending Club, in 2008 and realized that Foundation Capital had found a key partner in the movement to revolutionize finance. Renaud wasn't out to build a Donors-Choose-style platform (but one in which donors got their money back, with interest). He was out to develop a new, legitimate asset class that had the potential to remake banking.

As the months passed, we watched as Lending Club's platform evolved, borrowers raved about the service, and lenders poured money into the platform. These successes were proving to us that our grand hopes for marketplace lending were coming to fruition more rapidly than we could have imagined.

Our opportunity to put some wood behind the arrow of our thesis presented itself in early 2010 and we entered the market with an initial investment in Lending Club. Given our belief in the market size and company potential, our appetite for ownership was far greater than what was available. As such, we looked for ways to increase our ownership over time. After participating in periodic financings over the next few years, we finally seized our chance to step up by writing Foundation Capital's single largest check when leading an additional round of funding for Lending Club at a $1.55B valuation in 2013.

Our conviction that we are dealing with a once in a lifetime transformation continues to build (as does third party investor interest) with continued validation from the most recent Lending Club funding round at $3.8B and OnDeck valuation at $900M.

A SAMPLING OF ACTIVE INVESTORS IN THE MARKETPLACE LENDING SPACE

Ribbit Capital
- Funding Circle — Better for business, better for investors, better all round.
- borro
- CAN CAPITAL

Foundation Capital
- LendingClub
- OnDeck
- auxmoney
- LendingHome

USV — Union Square Ventures
- LendingClub
- Funding Circle — Better for business, better for investors, better all round.
- auxmoney

III

No Country for Middle Men

NO LOYALTY FOR RETAIL BANKS

CONVENIENCE ADVANTAGE

COST ADVANTAGE

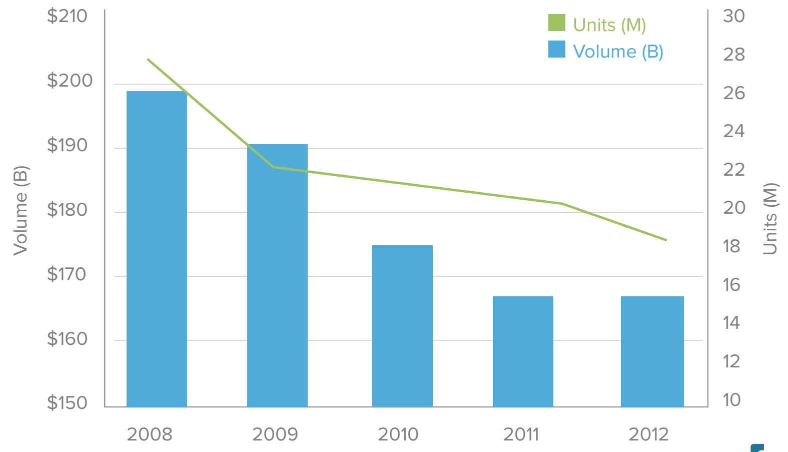
HIGHER YIELDS, FASTER

SECURITIZATION WILL PROVIDE FURTHER VALIDATION

NO LOYALTY FOR RETAIL BANKS

Consumers are fed up. Banks are no longer part of their communities. Rates are high for borrowers and not even keeping up with inflation for depositors. During the Great Recession of 2008-2009, when consumers and small businesses needed access to credit more than ever, many banks stopped offering loans and lines of credit. In consumer finance, credit card holders saw their effective interest rates increase and their credit limits reduced. Two out of every five small and medium sized enterprises (SMEs) saw their credit lines threatened between 2008-2012.

SINCE 2008, THE NUMBER OF SUB-$250K COMMERCIAL LOANS HAS DECLINED



Source: FDIC; data for C&I loans <$250K

Little wonder, then, that national banks have some of the lowest Net Promoter Scores (NPS) of any industry. Fewer than 1 in 10 customers of national banks would recommend their bank to others.

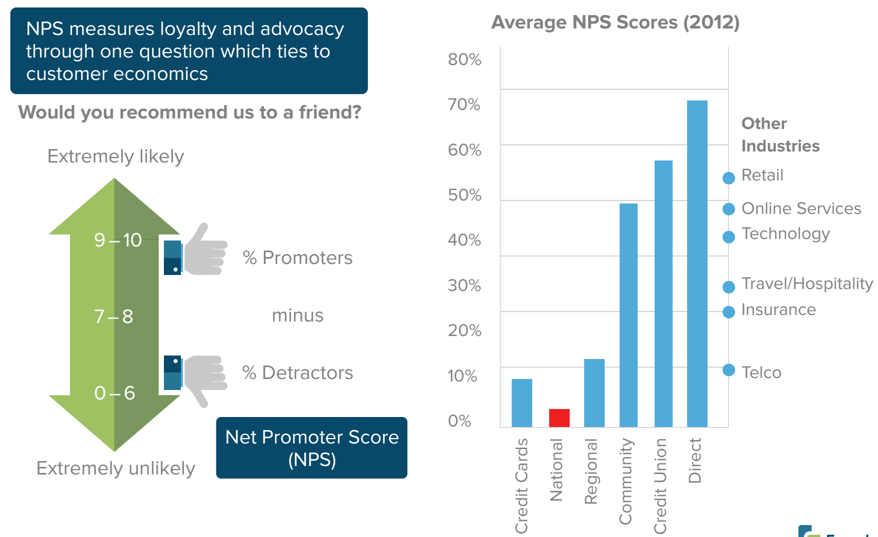
By our estimate, fewer than 200,000 people in the U.S. have ever taken a marketplace loan, which is peanuts compared to the more than 510 million existing credit card accounts in the U.S. today. But, because marketplace customers usually become advocates of marketplace lending, and traditional banking and credit card customers typically serve as detractors of retail banking, we see significant potential for marketplace awareness and excitement to spread exponentially.

Indeed, customers are moving – quickly and in large numbers – to marketplace lending. Lending Club and Prosper, the U.S.'s two major marketplace platforms, issued just $871M in loans in 2012. In 2013, that number had grown to $2.4B.

> Young people are particularly disdainful of banks. Seven out of ten would rather go to the dentist than listen to what banks are saying. One-third believe they won't need a bank at all. Half are counting on tech startups to overhaul the way banks work. And three-quarters would be more excited about a new financial services offering from a tech company than from their own national bank.

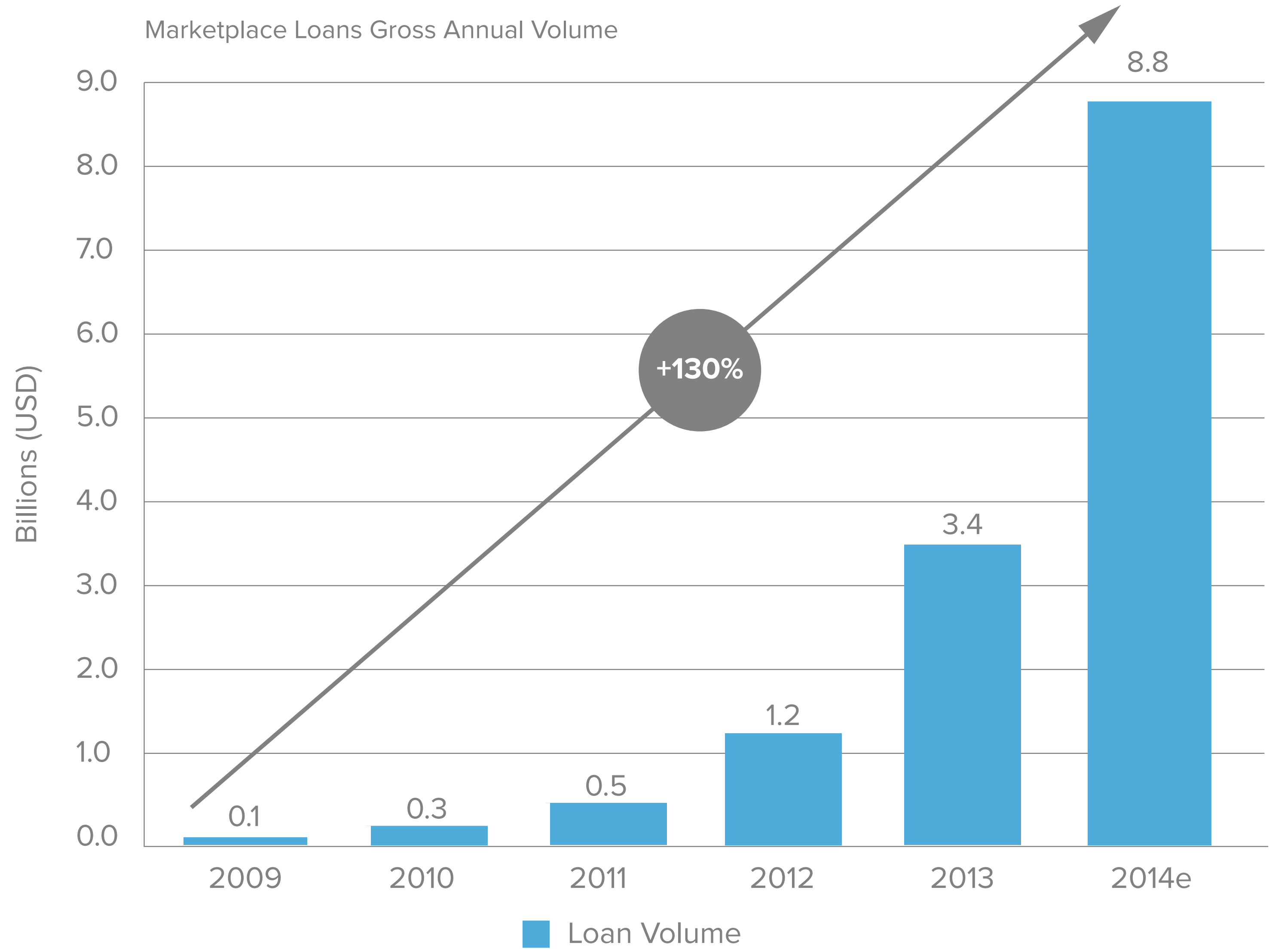
Source: www.millennialdisruptionindex.com/wp-content/uploads/2014/02/MDI_Final.pdf

FRIENDS DON'T LET FRIENDS USE BANKS



Source: Bain & Company, 2012 NPS Survey

WE EXPECT CLOSE TO $9B IN MARKETPLACE LOANS TO BE ORIGINATED IN 2014



Source: Lending Club, Prosper, Funding Circle, Zopa, RaterSetter, Liberum

A PERFECT STORM

Why consumer lending is ripe for disruption

- Dodd-Frank increases banks' compliance costs. Basel III requires banks to increase and improve their capital holdings. Because of these and other post-Great Recession regulations, banks have less capital to loan, increasing the need for alternative lenders.
- Maintaining retail operations increases costs for brick-and-mortar banks but not for Web-based lenders
- Investors are hungry for higher yields over shorter periods of time
- New data sources present opportunities for better underwriting
- Few, if any, current banking customers feel loyalty to their bank or existing lender

By creating an online marketplace structure where borrowers and lenders can connect, marketplace lending makes it possible for lenders to achieve higher rates of return on their "deposits" and for borrowers to gain access to capital at lower rates, in far less time, than they would with retail banks.

CONVENIENCE ADVANTAGE

Borrower convenience alone wins business for online marketplace platforms. How do we know? While U.S. marketplace borrowers enjoy a large rate advantage over traditional alternatives, the UK story is a bit different. Alternative lenders in the UK like Ratesetter and Zopa offer very little rate advantage over incumbents (which in the UK are often grocery chains), but are still growing rapidly. For British borrowers, the convenience advantage alone is enough to choose online platforms over in-person ones.

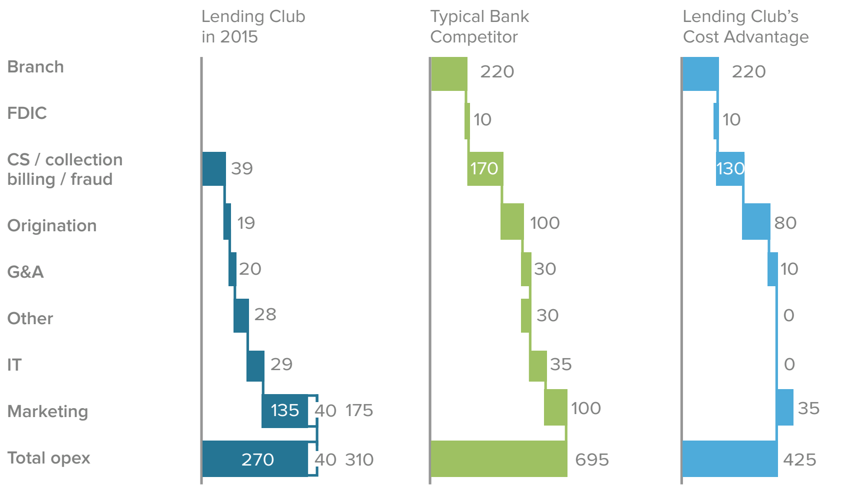
We believe that customers based in other countries will also see the convenience advantage as a compelling reason to look for loans online. Whether it's a couple shopping loans after the homework is done and the kids are in bed, a small business owner applying for (and taking out) a loan when the shop is closed, or an individual who wants to apply without the feeling of being judged by a loan officer, affordable rates are just icing on the cake.

COST ADVANTAGE

By moving lending online, marketplace lenders generate cost advantages of over 400 basis points compared to traditional banks. Branch offices consume 30-35% of most banks' total operational expenditure; additionally, their originations practices are less efficient than online marketplaces. This built-in cost advantage enables marketplaces to out-compete retail banks on price, over and over again.

MARKETPLACE LENDING COULD GENERATE >400 BP COST ADVANTAGE VS BANKS

Opex / total balance outstanding, basis points



Cost advantage drivers (in bp):
- 220: Lack of branch network
- 40: Online back-office and support, outsourced collection fees
- 40: Automated origination and leaner operation

Source: Lending Club based on St. Louis Fed, Federal Reserve

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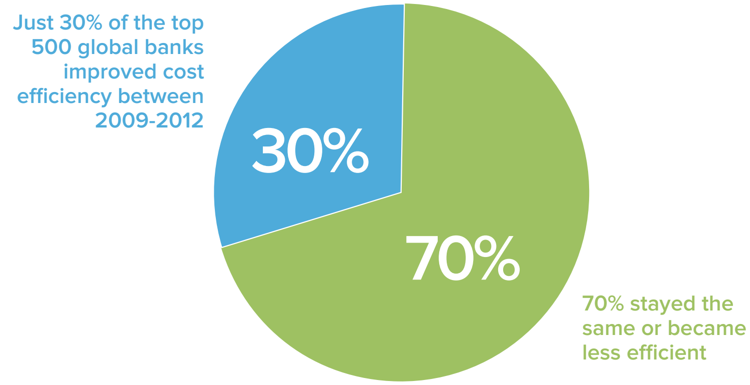
MARKETPLACE LENDERS' SYSTEMIC ADVANTAGE OVER TRADITIONAL LENDERS IS ONLY GROWING WIDER BECAUSE FEW MAJOR BANKS ARE BECOMING MORE EFFICIENT



Source: McKinsey, Thomson Reuters

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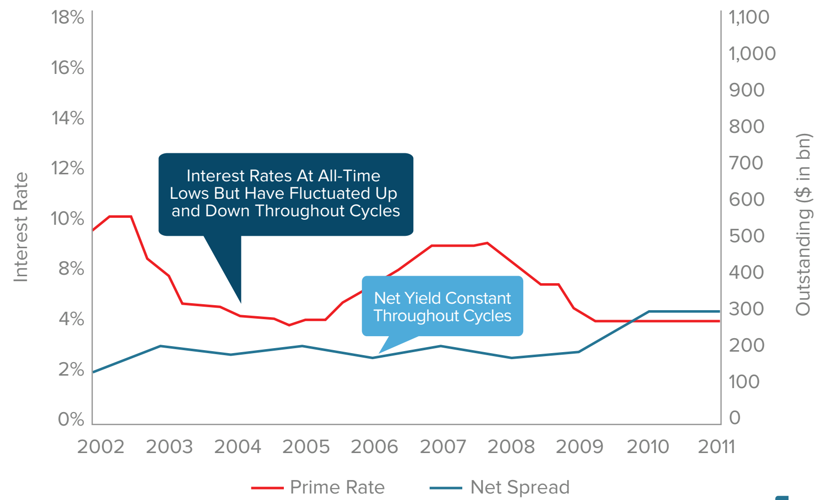
Seventy percent of the top 500 banks globally have not achieved increased cost efficiency over the past five years, according to McKinsey. One marketplace lender we know enjoys origination costs that are a whopping 91% lower than Discover Card, and selling, general, and administrative expenses that are 90% lower than American Express.

Marketplace lending works in all interest rate environments because net yields (interest rate less charge offs) remains constant in all interest rate environments.

NEW YIELDS CONSTANT ACROSS DIFFERENT RATE CYCLES



Source: Federal Reserve

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HIGHER YIELDS, FASTER

Investors have been living in a low-rate environment since the Great Recession. Today, a one-year CD offers little more than 1% interest. With inflation in the U.S. at 1.1%, investors are struggling to find places outside of the stock market to keep their money growing (or, at the very least, out-pacing inflation!).

Marketplace loans allow for diversification, flexible durations, as well as higher yields. Few other asset classes offer such benefits; certainly not savings accounts, money market accounts, bonds or CDs. And we believe that, when modeled correctly, these returns can be achieved at very low risk. Lending Club's experience is that no investor with a fully diversified portfolio of at least 800 notes has ever lost money on the platform, and that 92% of investors earn between 6-18%. Detractors of the sector claim marketplace lending only works in a low-interest rate environment. This is incorrect, as the cost and yield advantages will nicely move on par with rising interest rates due to lower defaults.

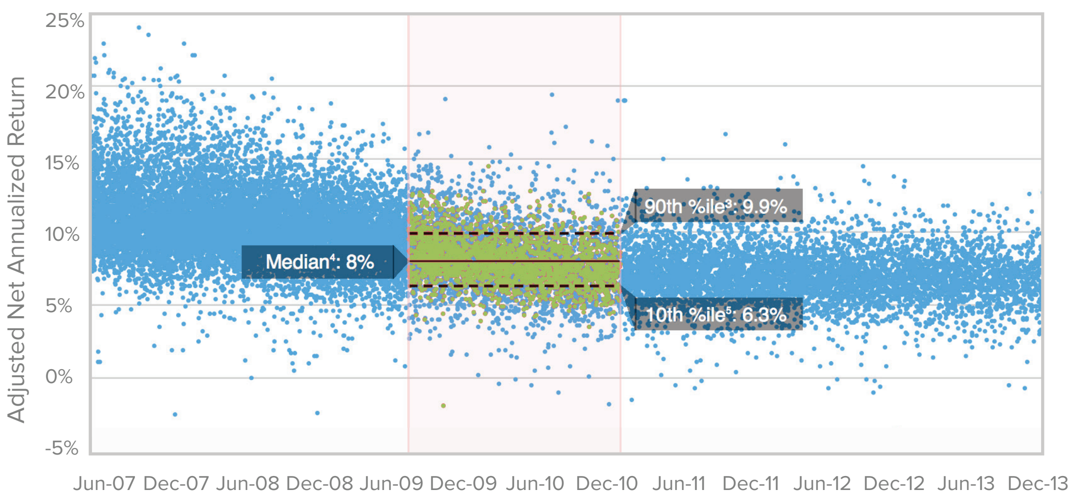
SECURITIZATION WILL PROVIDE FURTHER VALIDATION

While Lending Club and other platforms already evaluate the risk of marketplace loans, options for third party validation from credible external institutions such as rating agencies will likely develop as the industry matures. We also expect institutional demand for pools of loans via securitization will grow. Indeed, in October 2013, Eaglewood Capital Management became the first investment management firm to securitize loans, which it did with in a $53M transaction. More recently, OnDeck completed the first securitization of non-SBA small business loans in a $175M significantly oversubscribed transaction. We expect to see more of these pools in the months ahead.

92% OF INVESTORS IN LENDING CLUB HAVE EARNED 6-18% ANNUAL YIELDS SINCE ITS INCEPTION

Full Transparency: Anyone can download Lending Club's complete loan book directly from their website

Distribution of Lending Club monthly returns, from inception to December 2013



Attractive risk adjusted returns

4.4x Sharpe ratio for Lending Club marketplace loans originated in 2009/10 vs 1.1x for FTSE All-Share over same time period.

Source: Lending Club, Liberum

LendingClub

MARKETPLACE LENDING BENEFITS BOTH BORROWERS AND LENDERS

BORROWER BENEFIT
- Low rates
- Convenience
- Not a bank
- Personal
- Transparent
- Secure and confidential

LENDER/INVESTOR BENEFIT
- New asset class
- Transparency
- High returns
- Diversification

IV

A $870B+ Industry

The $2.4B in loans issued in 2013 by Lending Club and Prosper alone is a big number, but it's only the first straw to be placed on the proverbial camel's back. The top five banks have a market capitalization of a trillion dollars; the next 30 banks together are worth another trillion. How big can marketplace lending get? According to our estimates, banks, credit cards and other lending institutions generate $870B+ each year in fees and interest from over $3.2T in lending activity.

That's bigger than the automobile industry. It's bigger than the airline industry. And it's bigger than both of those industries combined. That's how big marketplace lending can get.

We've seen consumers and fast-growing upstarts challenge entrenched industries before, either out of frustration with incumbents, or the convenience of the disruptor. Consumers tired of exorbitant and inflexible cable bills, for instance, cut their cords and turned to over-the-top services such as Netflix. Yelp offered context and convenience that the Yellow Pages never could. And after the financial crisis, credit card users exasperated by 15%-plus interest rates, depositors tired of interest rates of 0.36% on savings accounts, and investors tired of 0.12% Treasury bills started looking for alternatives – and discovered marketplace lending.

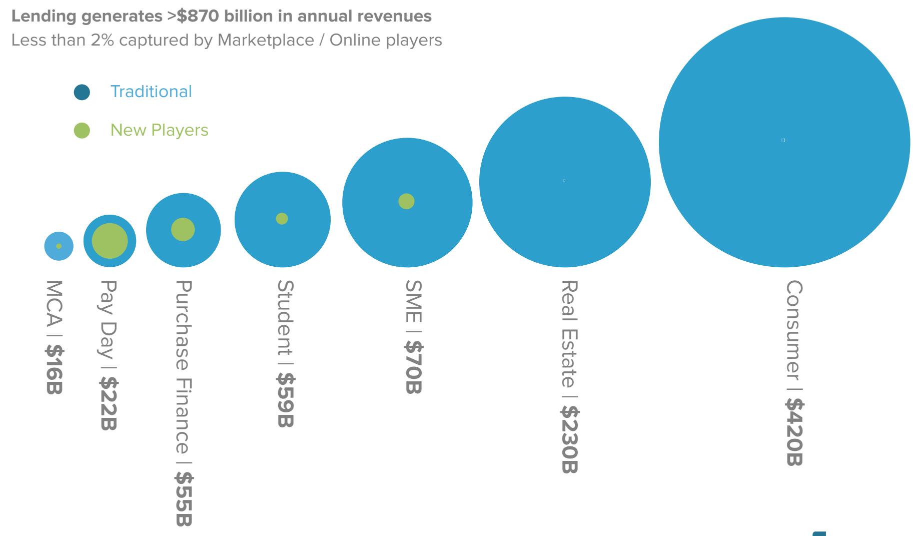
The future belongs to online marketplace platforms like Lending Club, Sofi, OnDeck, RateSetter and others that aren't yet on the scene that will remake the industry by developing more efficient lending practices, making those products more convenient for borrowers in all verticals – from merchant cash advance to consumer. We believe marketplaces will redirect the $870B+ that retail banks charge borrowers towards better rates for borrowers and lenders while still making tidy margins for themselves.

Marketplace lending is not a radical concept – it's a more efficient one. As new companies and marketplaces form, we expect that options for marketplace lending will develop for all manner of consumer and business loans, including consumer unsecured, real estate, education, purchase finance, business loans, and business working capital.

And this transformation is only beginning. Currently, less than 2% of lending revenue is being captured by marketplace lenders in all verticals.

LENDING IS RIPE FOR DISRUPTION

ANNUAL LENDING REVENUES IN 2013 (US$B)



Source: Federal Reserve, SBA, Goldman Sachs, Bloomberg, FRBNY, Mortgage Bankers Association, PEW Center, Forbes, SEC

Marketplace Lending's potential doesn't mean that retail banks will be pushed out of business. Instead, retail banks that choose to participate in the marketplace revolution will use their capital to fund loans on marketplace platforms – as banks such as Titan Bank and Congressional Bank have begun to do with Lending Club. (In South Africa, we've seen Barclays take a position in RainFin, in Australia, Westpac has bought into Society One, and in the UK Santander has partnered with Funding Circle.)

Instead of playing the role of intermediary, retail banks can become borrower lead generation sources and institutional investors. Other banks are starting to bring their own borrowers and capital to Funding Circle's and Lending Club's marketplaces to more profitably facilitate loans to their own customers.

In addition to Lending Club and Prosper, other marketplace lenders have also sprung up. These include SoFi and Common Bond for student loans and Kabbage, OnDeck, and Funding Circle for SMB loans. Even companies like PayPal and Square have started to offer direct loans to their customers. We expect more loan providers will follow, in these and other categories.

While it is impossible to capture all of the new entrants into marketplace lending – especially now with new types of investors and marketplace financing springing up – we actively track this space.

Marketplace lenders may have the wind at their backs in many aspects, but the success of any individual marketplace platform is far from guaranteed. The journey thus far has led me to the conclusion that the companies that achieve success in the marketplace lending space will be the ones that understand – and obey – the maxims to follow.

MARKETPLACE LENDERS

Consumer	LendingClub, Prosper, Progreso Financiero, RateSetter, Springleaf, yattos, Lenddo, Zopa, Kiva, auxmoney, puddle, SocietyOne, wonga, peerform, Lend Lift, prêt d'union, balancestreet, CircleBackLending
Pay Day	LendUp, AvantCredit, YadYap, Contigo Financial, billfloat, Kreditech, FairFinTech, think Finance
Purchase Finance	LendingClub, Affirm, amazon.com, UpgradeUSA, workpays.me, BillMeLater, GetFinancing, GreenSky, FinanceIt, LeaseQ
Education Financing	LendingClub, SoFi, CommonBond, ta-lend, PAVE, Upstart
Real Estate	LendingHome, Money360, Groundfloor, Realty Mogul, Blackhawk Investments, Sequorum, Cozy, LendInvest
Merchant Cash Advance	AdvanceMe, Inc., Strategic Funding, Swift Capital, Capital for Merchants, lighter capital, Fast Pay, C2FO, The Receivables Exchange
SMB Credit	LendingClub, OnDeck, Kabbage, FC, iwoca, Smallknot, funding knight, ezbob, MarketInvoice, Funding Circle, CBAC, zazma, LendSocial, quarterspot, Fundation, ThinCats.com, NexKap, SME.vc

V

The Maxims

MAXIM I: Data, Data, Data

Successful players will out-FICO FICO and be fairer than Fair Isaac.

MAXIM II: Connections & Liquidity

It's not just about matchmaking but also market-making.

MAXIM III: Formidable Barriers

Marketplace platforms are neither easy to start nor easy to scale.

MAXIM IV: Built to Last

Marketplace lenders should be built not just to disrupt but to displace.

MAXIM I: Data, Data, Data

Successful players will out-FICO FICO and be fairer than Fair Isaac.

What borrowers want to do and what they can do are two very different things. Most platforms do a reasonably good job of screening out fraud (those who borrow with no intent to repay) to identify borrowers who truly want and need money for the right reasons; most underwriting identifies borrowers with the intent to repay. But because ability and intent can diverge over time, marketplace investors need to be prepared for loan defaults.

Don't be wowed by loan volume and early repayment data – be impressed by repayment over time. Defaults tend not to show up for the first six to nine months. Similarly, defaults should slow as you get past the halfway point of repayment. A healthy default curve should flatten out after about two years. I don't believe a company is sustainable until I can see that their borrowers are consistently paying loans back.

NEED FOR NEW DATA

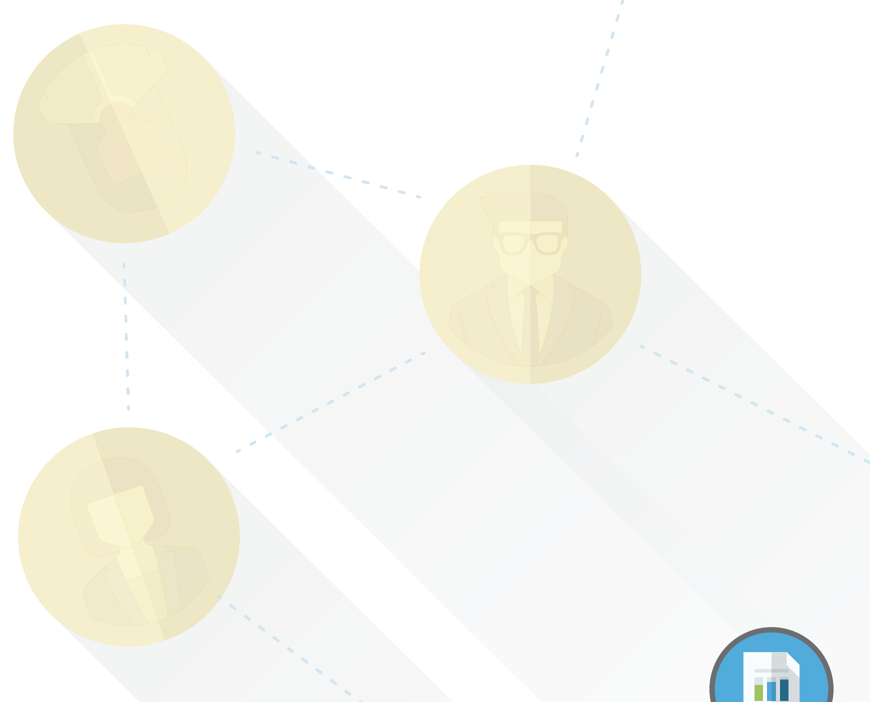
A former technology company employee I know is trying to purchase her first house. Despite having tens of millions of dollars in the bank, she's not having much success in getting a loan because she no longer has current income – one example of how current filters and traditional lending fails to capture intent or ability to pay. Looking at whether this woman paid her credit card bill when she was in college few years ago, as FICO does, doesn't provide the right information.

About one-third of U.S. consumers have a FICO score under 670*; most traditional lenders would not offer loans to individuals with scores that low. But many of these people are credit-worthy borrowers. FICO data doesn't help assess whether they would repay loans or not – something that new data sources can help to predict more accurately.

*Source: www.fool.com/seminars/ev/index.htm?sid=0029&lid=300

Marketplace lenders too often tout the wrong metric: the volume of loans they've made. Zopa keeps a running tally on its homepage of the number of pounds lent on the site. Prosper touts its $1B borrowed. Several of our portfolio companies do as well. That's fine for publicity purposes, but I wouldn't bet my business on those numbers. It's easy to give people money; the real test is getting it back, over time, with interest.

> What determines the accuracy of those predictions? Data, model, and underwriting.



DATA

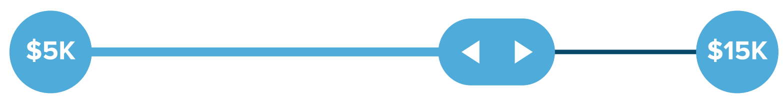
FICO is king when it comes to underwriting loans. But access to new data is making it possible to out-FICO FICO. The best loan marketplaces have developed their own data sources and algorithms to evaluate potential borrowers. New insights can be gleaned from data sources that incumbents haven't even begun to consider – everything from business sales volume from credit cards or accounting programs for SMB lending to the length of time a prospective borrower has used the same email address to the number of friends on Facebook, the number of followers on Twitter, the rating of a store on Yelp, or even a heuristic like the amount of time a prospective borrower spends on the lending website deciding how much money to request.

WHERE UNCERTAINTY IS A GOOD THING

Heuristics in online underwriting

Some marketplace lenders have sliders on their website for borrowers to indicate how much money they want to borrow. Some potential borrowers take that slider and bring it all the way to the maximum amount that can be borrowed. Others take that slider and move it back and forth as if they're debating, "Should I borrow $10,000, $5,000, $12,000?" Marketplace lenders have found that the longer a person spends sliding that lever, the more predictive it is that they will pay back.

How much would you like to borrow?



Retail banks lack access to this data; they also lack the analytics and organizational focus to lead or even keep up with this growing field.

New marketplaces, on the other hand, recognize that integrating new sources of data is their competitive advantage. By figuring out ways to use additional data to improve upon FICO, the most exciting marketplaces are underwriting better, more predictive loan pools than retail banks.

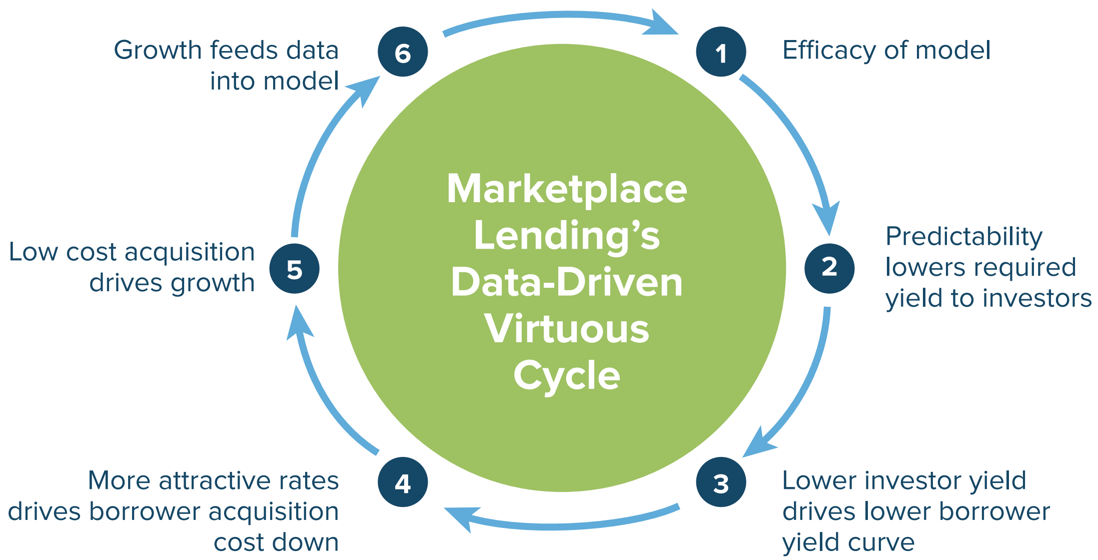
Given that loan performance data is so valuable yet hard to come by, a marketplace lender's access to its own data creates a flywheel effect that continually increases the defensibility of its business. Data from loan performance feeds back into the marketplace lender's model, creating an even more accurate model. As the accuracy of the data and model increases, the marketplace lender can offer borrowers lower rates. As rates decrease, more borrowers flock to the platform, driving more data into the model.

> Data for data's sake means nothing.
> Data that is predictive means everything.

FICO scores are a great place to start, and I would be wary of any platform that fails to build off such a tried-and-true method of assessing future repayment expectation as a function of past repayment history. Good platforms use additional data to improve upon FICO. The best platforms will ultimately incorporate proprietary data to demonstrate correlation with repayment.

Smart data can suss out false positives (when FICO data incorrectly suggests capacity and willingness) and false negatives (when FICO data incorrectly suggests an inability or unwillingness).

CREDIT MODEL IMPROVEMENTS ACCELERATE GROWTH



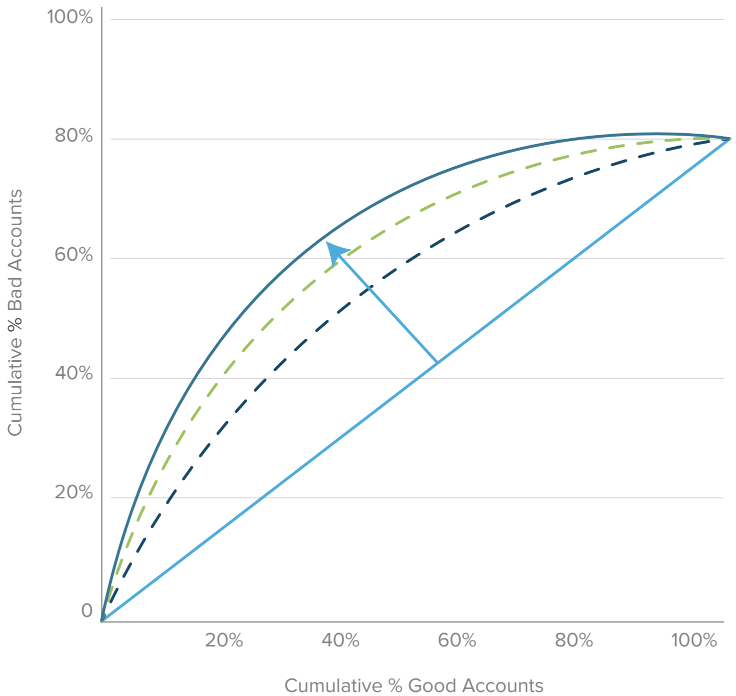
Source: Lending Club

LENDING OUTSIDE THE LINE

Imagine a FICO-score-only model as the 45 degree line in the chart of expected loan performance (below). As you move up in risk, you move up in default. This line is the industry standard.

Now, imagine the bowed lines as newer scoring models that incorporate other sources of data with FICO. These lines represent models that positively identify borrowers who deviate from FICO-modeled loan performance.

The area between the bowed lines and the straight, 45 degree FICO line illustrates the potential of a better model. Marketplaces with these kinds of models are accepting more good borrowers and rejecting more bad borrowers than they would if they used FICO alone.



MODEL

The most promising marketplaces have complex loan models that are overseen by chief credit officers who have years of experience in the lending industry. Just because you are a new company doesn't mean you can't take advantage of the decades of accumulated experience that already exists. An experienced chief credit officer needs to speak the language of investors. Pricing (gross/net yield), term (annualized vs. monthly), loan size, losses (even new platforms can do extensive back-testing). All these should always be available for a marketplace's entire loan book, sliced by vintage, channel, and credit band.

Most important, a marketplace's model should improve over time through regular testing and revision. Companies that regularly test and revise their models are the ones that are most likely to last.

UNDERWRITING

A marketplace's underwriting practices need to be scalable. Underwriting costs should be no more than 40-50bps of an individual loan. We look for underwriting efficiency and economy of scale ratios that improve over time. Some asset classes have more room than others: a $250 payday loan really needs automated underwriting to make it viable. A $250K mortgage or $300K SMB loan, on the other hand, can easily justify $2K in costs.

We have seen companies improve efficiency by over 100% year to year for multiple years on end, demonstrating economies of scale.

RISK-BASED PRICING

As in the case for all investments, investors are paid for the risk they've taken on. Successful models will integrate risk tiers. One of the structural failures we see in credit card and other revolving credit markets is that they generally don't price based on risk, especially after first issuing the card / line.

When we look at lending marketplaces, we look at all their defaults and evaluate whether their model accurately predicted that the people who were more likely to default, actually end up defaulting more frequently, and people that were predicted to default less often actually performed to expectation. If a lending marketplace's actual defaults don't map to the default expectations built into its risk-based pricing model, then its scoring and model are no good. And investors are not being adequately compensated for the risk they're taking on.

MAXIM II: Connections & Liquidity

It’s as important to be a matchmaker as a market-maker.

This is basic microeconomics, but still, it bears repeating: a marketplace lender has to achieve a sustainable balance between borrowers and lenders. Startup marketplace platforms will find it easy to recruit borrowers (it’s always easy to give out money); the challenge is in getting people to invest in loans originated by a company without a long track record covering varied economic environments. That’s why we see most marketplaces start out with retail investors, rather than institutions.

We look for marketplace companies that are willing and able to price and adjust their product offerings to get the right mix of borrowers and lenders to keep their operation in balance. This is a marketplace with two sides, after all. Balancing the two is one of the biggest challenges marketplace businesses face. Just ask Amazon and Yahoo, who both struggled for years to draw customers and merchants from eBay to their (now-defunct) auction sites.

THE ADVANTAGE OF STICKY MONEY

Recently, we’ve seen a slight departure from the general rule that it will be hard for marketplace lenders to find capital in the early going. Due to the rapid success of the market leaders and the attention the marketplace lending industry has garnered, “smart money” institutions are moving in and providing a bridge in the early going for many marketplace lenders. Though this solves a huge problem in the early stages, this “quick” money departs as quickly as it arrives when performance is lacking or the macro environment devolves. Building a base of retail investors from the beginning will always be viewed as highly attractive, as retail money is much more “sticky” on the platform.

BORROWERS

On the borrower side, we are interested in how much it costs to acquire customers, the sources for acquisition and how much business the marketplace platform gets from its existing borrowers.

When we look at a marketplace lender, we make sure to break out the complete new borrower funnel, all the way from initial application to originated loan (expect a dropout rate at or higher than 90%). We're also curious about those who don't make it all the way through the funnel.

INVESTOR TIP

When you're reviewing the growth of a marketplace's customer base, make sure you know the numbers of both:

- **New borrowers**
- **Existing borrowers being refinanced**

What happens to them? Are they sold as leads to other businesses? Can offerings be re-priced in real time? Platforms that monetize a high share of leads they can't serve directly can lower their blended acquisition cost and compete more effectively.

We also want to know whether the marketplace's existing customer base drives revenue beyond their initial origination fees. Most marketplace borrowers take out more than one loan. Many marketplace platforms will offer its borrowers the opportunity to refinance existing loans and thereby generate an entirely new origination fee and more revenue from its existing customers – a great strategy for the marketplace lender.

At the same time, investors in the underlying business of an online marketplace have to be sure that they're parsing data on new customers. As in a SaaS or an enterprise sales business, where you have new bookings, renewal bookings, and total bookings, investors in marketplace lenders never want to be too enthralled with total loans if they are mostly renewals with little new business coming in.

Those same investors need to make sure that they're distinguishing between new borrowers and existing borrowers being refinanced as components of the marketplace's total customer base and as drivers of acquisition cost of borrowers. (Converting an existing borrower into a new loan costs very little and will therefore lower the apparent borrower acquisition cost and significantly improve unit economics.)

Lenders need to make sure marketplace platforms are finding customers in a manner that is both affordable and sustainable. Some SMB platforms, for instance, may turn to brokers to find small business loans – that's a very expensive lead source. Alternatively, other platforms might turn to a lead generation site to find customers. These can be cost effective leads but the number of leads available to purchase can be finite.

Whatever their answer and mix of customer acquisition sources, marketplace platforms should have a deep view into the cost and ultimate supply of their customer leads, and be confident that whatever tactics they're using are scalable.

A (NOT EXHAUSTIVE) LIST OF CUSTOMER ACQUISITION SOURCES

- Lead generation sites/affiliates
- Brokers
- Integrations
- Search Engine Optimization (SEO)
- Search Engine Marketing (SEM)
- Social media
- Radio
- Direct mail
- TV ads/appearances
- Legal service providers
- Public records
- Retail store
- Trade shows
- Merchant processors
- ISOs
- Payment providers
- Loyalty / promotions agencies
- Medical service providers
- Banks, S&L, credit unions, thrifts

LENDERS

Lenders speak with their wallet. If they are reinvesting interest and principal into new loans, they are happy lenders. If they additionally deposit more capital into their account to make additional loans, they are REALLY happy lenders.

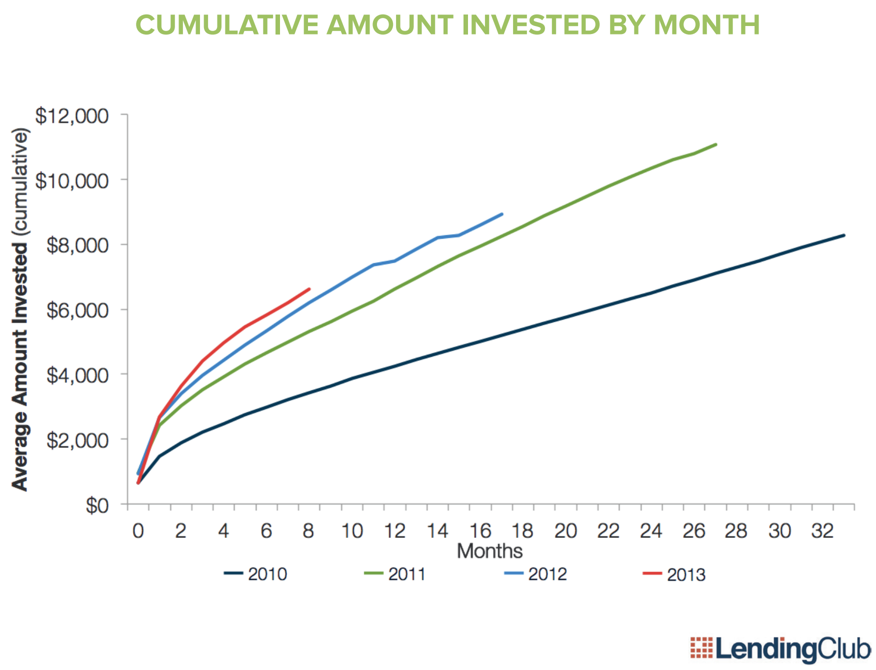
Steep growth in total dollar volume invested is very encouraging for us, but we also look at another metric: whether investors in later investing cohorts choose to invest more of their money sooner than the cohorts before them.

This is a key metric for us. If the slope of total dollar volume is more exponential than linear, and the initial deposit and growth increases by cohort, that means people are reinvesting and adding to the platform and doing so with greater enthusiasm as the platform develops. That speaks to the validity of the phenomenon and the growing consumer confidence in the platform – a VERY good sign!

THE ONLY SLIDE YOU NEED

When we were first deciding whether to invest in Lending Club, Renaud showed me a chart of Lending Club's lender reinvestment by cohort. As soon as I saw it, I told him: "You're going to raise your entire next round of financing on this chart." The chart made it clear that investors were both reinvesting and putting more money on the platform over time, and that each new cohort was doing so sooner than the cohorts before it. We started calling the chart the "money slide."

If your marketplace's chart looks like this, too – give us a call!

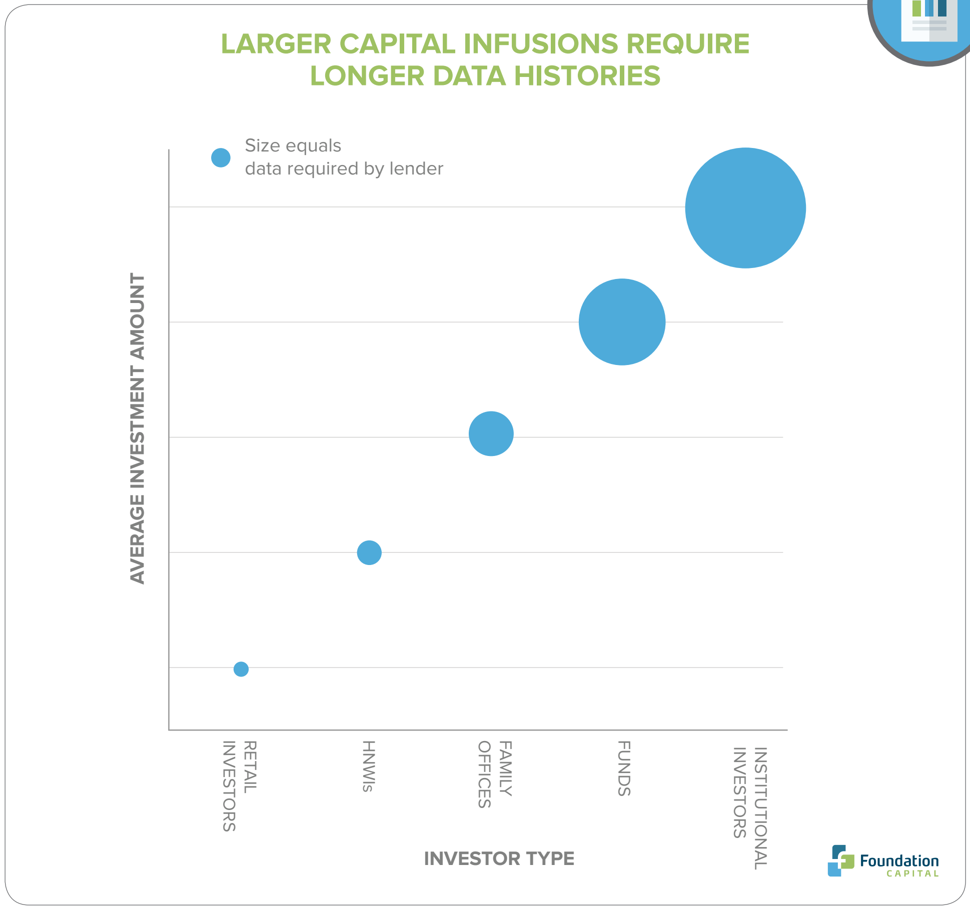


RETAIL VS. INSTITUTIONAL LENDERS

When we think of marketplace lending, we obviously think first of retail investors. (It is often called P2P lending, after all.) But marketplace lending has the potential to become a bigger opportunity than simply what retail investors have to invest. Add in marketplace loans' attractive returns, relative stability and short duration, and we see high net worth individuals (HNWIs), family offices, institutional investors, and even banks themselves interested in marketplace investing.

Today, a majority of Lending Club and Prosper's loans are held by institutional investors. So when we evaluate a potential investment, we're curious to know their retail vs. institutional breakdown and how the marketplace anticipates that this might change over time.

There is a ladder to climb, with each rung requiring more data but also providing more capital (perhaps not in the aggregate, but in larger single infusions). Retail capital is more "sticky" than institutional capital, so it provides a funding hedge in the beginning and can keep institutional investors honest about pricing later. After retail come HNWIs, family offices, funds, and lastly, institutional investors. Why? Their investment mandates and criteria mean institutional investors will want to see years of data. Retail investors will be willing to invest with less data.



WHOLE VS. FRACTIONAL LOANS

Movement towards institutional investors means that marketplace companies should be in a position to offer whole as well as fractional loans. Institutional investors need to purchase whole loans to satisfy their own investment mandates, whereas retail investors need to purchase fractional loans to adequately diversify their portfolios. Does the marketplace platform accommodate whole loan and fractional loan products?

MAXIM III: Formidable Barriers

Marketplace platforms are neither easy to start nor easy to scale.

It may seem as though marketplace lending platforms are coming out of nowhere, but in fact companies like Zopa, Prosper, Lending Club, OnDeck, Funding Circle, and Kabbage have been growing for years. If you're having flashbacks to the arrival of Groupon – and all the clones that popped up after its arrival, diluting the market – fear not.

Unlike Groupon, which could be cloned by any competitor with a small sales force and web presence, it's neither quick to start nor easy to scale a marketplace platform. The need for data and historical loan performance, the challenge of balancing borrowers with lenders, the role of regulation, and the unit economics of the industry all converge to make success very difficult for new platforms. The companies that do so successfully produce businesses with strong network effects and high barriers to entry.

And of all the barriers to entry, none are as significant and necessary to get right as state and federal regulations, both on the borrower and lender sides.

REGULATION

When we're evaluating marketplace platforms, we make sure that they're aware of the regulatory environment they're in and have solutions in mind for the challenges they'll face. Who has the marketplace paired with to process their loans? What states are they operating in?

There are marketplace borrower and lender laws and agencies at the state and federal level, with different laws for different verticals and on both the borrower and lender side. It's a river of regulation. Successful companies will need to paddle through state laws relating to fairness in lending and caps and limits, asset-class specific regulation, and more.

Marketplaces need to make sure they're compliant with all of these – and more. SoMoLend, a Cincinnati-based debt crowd-funding platform, was shut down by Ohio securities regulators for failing to meet state requirements. Presently, short-term unsecured lenders are facing regulatory crackdowns.

Even industry leaders have struggled with the complexity of regulatory compliance. In 2008, Prosper was temporarily shut down by the SEC for failing to register its loans as securities; Lending Club went offline that same year to comply with SEC regulation. Today, because of existing regulations, Lending Club can only accept investor capital in 26 states.

MARKETPLACE AND LENDER LAWS

A (non-exhaustive) list of federal marketplace lender laws

- Equal Credit Opportunity Act (ECOA)
- Fair Housing Act (FHAct)
- Bank Secrecy Act/OFAC
- Truth in Lending Act (TILA)
- E-Sign Act (FDIC)
- Dodd-Frank - Wall Street Reform and Consumer Protection Act
- Know Your Customer (KYC)
- Fair Debt Collection Practices Act (FDCPA)
- Fair Credit Reporting Act (FCRA)
- Fair and Accurate Credit Transactions Act (FACTA)
- CARD Act (CARD)

A (non-exhaustive) list of federal regulatory bodies

- Securities and Exchanges Commission (SEC)
- Federal Reserve (FED)
- Financial Industry Regulation Authority (FINRA)
- Office of the Comptroller of the Currency (OCC)
- Federal Deposit Insurance Corporation (FDIC)
- National Credit Union Administration (NCUA)
- Consumer Financial Protection Bureau (CFPB)
- Federal Trade Commission (FTC)
- Financial Stability Oversight Council (FSOC)
- Commodity Futures Trading Commission (CFTC)
- Federal Housing Finance Agency (FHFA)

And there are state-by-state licensing requirements specific to each asset class and business model.

Source: https://www.fas.org/sgp/crs/misc/R43087.pdf

MAXIM IV: Built to Last

Marketplace lenders should be built not just to disrupt but to displace.

We believe that marketplace lending will change banking as we know it. That requires businesses built for the long haul, with unit economics structures and business models that will enable these companies to become significant and stable financial institutions.

UNIT ECONOMICS

Don’t be surprised if a marketplace is gross margin negative for a good period as there can be tremendous leverage in the model, but only at scale. In fact, we’ve seen good businesses that have acquisition costs higher than revenue at the outset. The key is where they end up over time. There is a limit to how inexpensive borrower acquisition costs will become; the marketplace has to be realistic at where costs stabilize. Lender acquisition on the other hand will approach zero if the product is compelling and in high demand.

The cost advantages of underwriting and accuracy of risk algorithms that marketplace lenders enjoy over traditional lenders become powerful network effects that will realize their full potential only with massive loan volumes.

All things being equal, marketplace lenders differentiate themselves by managing underwriting and customer acquisition costs on the borrower side and acquisition costs on the lender side.

MARKETPLACE LENDERS VS. BALANCE SHEET LENDERS

In addition to having a profitable business, a marketplace lender also has to have its capitalization figured out. Choose carefully: the structure used will ultimately affect how Wall Street values your company.

Some platforms are marketplaces that match borrowers and lenders; others use their own balance sheet to make loans. Balance sheet lending can be extremely profitable, but it's not our – nor Wall Street's – preferred approach. Why? Because this type of marketplace lending can continue only so long as the platform can borrow money inexpensively. Does that give you flashbacks to 2008? Us too. There were many lenders that blew themselves up during the crisis, primarily when liquidity disappeared. We prefer marketplace businesses that have figured out how to bring outside investors into their marketplace to lend to borrowers to those that rely on cheap capital to survive.

A balance sheet lender has to guarantee a share of their lending capital using common equity. This means they endure a lot of equity dilution every time they want to expand their loan book size. The more money the platform borrows, the more investors will want to see a growing equity base, creating a vicious cycle in which the marketplace will need to raise more and more money – and thereby continue to dilute investors' equity.

As a result of interest rate and dilution risks, balance sheet lenders ultimately command lower valuations and trade at very low valuation multiples.

We are starting to see companies attempting a hybrid model of marketplace and balance sheet lending. We have mixed feelings about this approach, as we could see a conflict of interest developing between the marketplace company and its investors. It seems to us that a company buying loans to hold on its own balance sheet and also selling other loans to investors has incentives to sell off weaker loans and keep better loans for their own balance sheet.

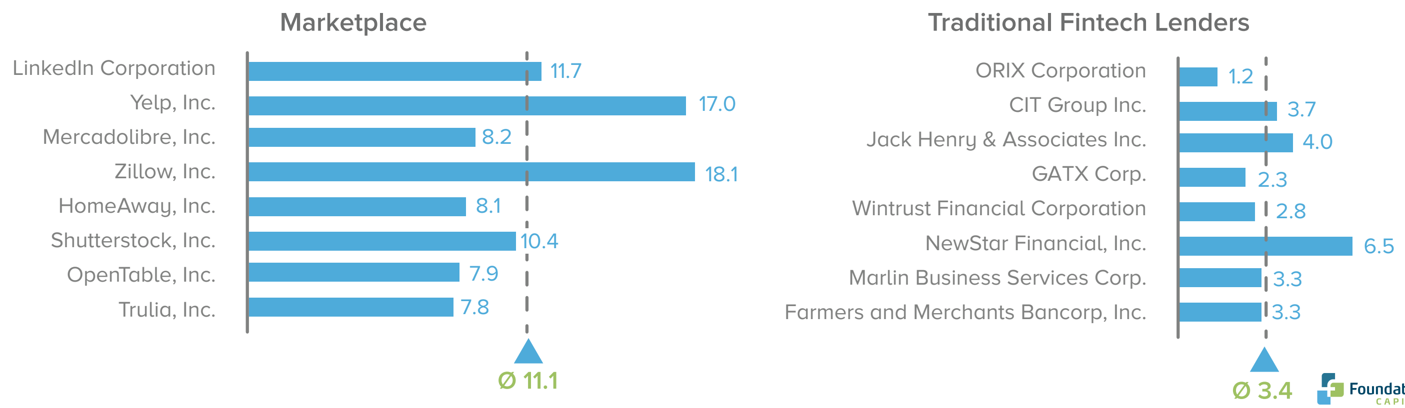
Still, we see companies that have started off as balance sheet lenders move to this hybrid model, perhaps as a steppingstone to becoming a full-fledged marketplace business. There are also arguments around having "skin in the game" to keep both the platform and lenders honest and aligned with each other.

We encourage marketplace entrepreneurs and investors to think carefully about capitalization when setting up their companies or choosing whether to invest or lend on different platforms.

MARKETPLACE VS. FINTECH IN THE MARKET

Here's our argument for marketplace lenders over balance-sheet lenders. If you look at revenue multiples of publicly-traded marketplace companies compared to traditional fintech lenders, you can see that marketplace companies trade at rates often 6x greater.

TRADING MULTIPLES



Source: Yahoo Finance

VI

Too Big to Succeed, Too Slow to React

The marketplace revolution, as I have tried to demonstrate, has already started. The issues that entrepreneurs and investors will need to consider to take full advantage of this $870B+ opportunity are hopefully clearer.

So why aren't retail banks fighting back? Because they don't feel the droplets and don't fear the deluge.

The experience of another retail giant is instructive here. For more than 15 years, Walmart has been aware of Amazon's existence. Yet for much of Amazon's history, Walmart's store managers were nonplussed by the online upstart because they weren't seeing any erosion in sales.

And it was true: Walmart is so huge that it was hard to see how an online company could put a dent into a company with $105B in net sales at the time of Amazon's IPO (and that offered shoppers an in-person shopping experience). The dynamics of retail would have to fundamentally change for Amazon to impact the sales of any individual Walmart store.

Except that a company like Amazon managed to fundamentally change the nature of retail.

The same dilemma exists for the branch offices of major banks. How big will marketplace lending have to get for a branch president in a small town to see that its business is being affected by an alternative online lender? Big enough that once the difference is noticeable to the bank branch president, the tables will have turned.

A GLOBAL PHENOMENON

Marketplace growth is certainly not limited to the U.S.

Successful marketplace platforms are operating the UK, France, Germany, and other European countries.

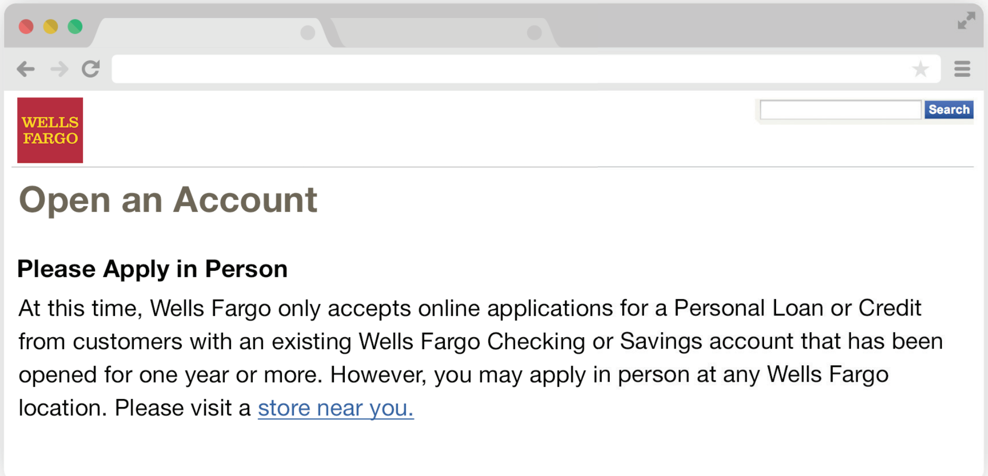
In China, CreditEase – Asia's largest marketplace lender– is on the forefront of measuring the creditworthiness and underwriting loans to China's hundreds of millions of underserved consumers and small businesses.

Banks can't cost-cut their way out. As noted earlier, 70% of the largest 500 global banks have not improved their cost efficiency in the last four years. Banks can't buy their way out of this challenge either. Banks trade at 1-3x deposits/sales; a marketplace like Lending Club will likely trade at a multiple in line with other high-growth tech-enabled marketplaces. Retail banks are unlikely to want to dilute themselves by gobbling up marketplace lenders. Lending Club's recent acquisition of Springstone shows how the opposite is likely to be true, and will help bring marketplace lending to new customers who were previously not reachable by an online-enabled platform.

The entrepreneur and inventor Danny Hillis famously said that technology "is everything that doesn't work yet." What he meant is that successful inventions disappear from our awareness, becoming, simply, fixtures of everyday life: TVs, phones, vacuum cleaners.

The Internet works. It has become more than a place to buy books or send emails over dial-up. It fundamentally changed how businesses operate, people communicate, and goods are sold.

But, for financial services, it only works in the most superficial way. Today, if you go to the Wells Fargo website and click on "apply for a consumer loan," this is what you'll see:



For all of the changes in how we run businesses, connect with others, and purchase goods, every year millions of people see little choice but to walk into a bank during office hours to begin the lengthy process of applying for a loan for themselves or for their business.

Wells Fargo's request (one that is not unique to Wells Fargo) is no longer a viable response for customers and potential customers seeking consumer loans.

Bill Gates was right two decades ago when he observed banking is necessary but banks are not. Marketplace lending is now poised to demonstrate how accurate that observation was. Yes, banking is still largely being provided by banks. But marketplace lending is changing that.

We see transformational change ahead not just for lending, but for the entire financial services industry, from consumer and SMB finance to payments to equity, insurance and beyond.

Check back at **foundationcapital.com** for updates, because we plan to watch, participate in, create a dialogue around, and **lead this revolution.**

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Our $1T estimate is as follows:

Total loan volume of $10T (Consumer, Consumer Real Estate, SME, Purchase Finance, Pay Day, Merchant Cash Advance), up from $6.5T in 2013 growing at 4% CAGR. Marketplace lenders achieving 10% penetration by 2025. At 5% of originations, the industry would create $50B in annual revenues, and create $75B in in consumer surplus for marketplace lenders and borrowers, which would have otherwise gone to TBTF banks. That's about .3% of GDP back to both your and my pockets in the form of better rates and service.

CHARLES MOLDOW, GENERAL PARTNER

Charles Moldow joined Foundation Capital in 2005, with a background in general management, sales, marketing, product management, and business development. Before coming to Foundation Capital, he was part of two teams that successfully built companies from early start-up through greater than $100 million in sales and exits near or above a billion dollars. Charles has made fourteen investments since joining Foundation, of which five have been acquired: PowerSet to Microsoft; Xoopit to Yahoo!; Adwhirl to Google; Weblistic to Spot Runner; and, Therative to Phillips. Charles' current portfolio includes: AdRoll, BancBox, CloudOn, DogVacay, Everyday Health, LendingClub, Motif Investing, and Refresh.

Read More about Charles at foundationcapital.com