

# 2018 US Digital Lending Market Report

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## Executive summary

Digital lenders amplified their growth in 2017, with origination volumes at prominent companies growing 30.1% to \$41.1 billion year over year, according to S&P Global Market Intelligence estimates.

We expect growth to cool down, with annual origination volume increasing at a compound annual growth rate of 12.4% to \$73.7 billion by 2022, barring any major shock to the economy or credit markets. S&P Global Market Intelligence expects the fastest growth from digital lenders that focus on serving small and medium enterprises.

Digital lenders are still awaiting greater clarity on regulation, even as federal regulators took a more definitive stance in 2018. Congress is considering legislation that could alleviate uncertainty about the rates digital lenders can charge. Meanwhile, state regulators dug in their heels with demands for greater state-level oversight.

Traditional lenders such as banks retain certain fundamental competitive advantages and are paying greater attention to digital lending and scrutinizing their options in the space. Partnerships between banks and fintech companies continue to develop, and S&P Global Market Intelligence expects to see more collaboration.

The healthy pace of the digital lending industry's growth implies significant demand for its services. Capital providers have recovered their interest after a period of skittishness two years ago. And to keep growing, digital lenders continue to break free of old definitions, taking advantage of opportunities to expand into various business lines. Concerns remain about potential competition from banks and performance across a full credit cycle. For now, though, digital lenders are evolving and inspiring the rest of the financial ecosystem to evolve in response.



**Nimayi Dixit**  
*Research Analyst*  
212-438-0834  
[nimayi.dixit@spglobal.com](mailto:nimayi.dixit@spglobal.com)

## Contact Us

**The Americas**  
+1 877 863 1306

**Asia-Pacific**  
+852 2533 3565

**Europe, Middle East or Africa**  
+44 (0) 20 7176 717

[spglobal.com/  
marketintelligence](http://spglobal.com/marketintelligence)

## Industry overview

### Focus lenders

Digital lenders are nonbank lenders that offer loans to consumers or businesses through digital channels. These lenders have unique funding models with capital provided by investors, credit facilities, securitizations or balance sheet cash.

The lenders on our focus list are purely digital and cover the personal, SME and student-focused segments. All of these lenders have originated significant loan volumes over their lifetime.

There are various categories that are useful for differentiating digital lenders, including funding model, revenue model, product offering, borrower profile, loan origination volume and enabling technology.

| Platform               | Parent company                        | Primary customer segment focus     | Lender of record                     | Year founded      |
|------------------------|---------------------------------------|------------------------------------|--------------------------------------|-------------------|
| LendingClub            | LendingClub Corp. (NYSE: LC)          | Personal lending                   | WebBank                              | 2007              |
| Upstart                | Upstart Network Inc.                  | Personal lending                   | Cross River Bank <sup>1</sup>        | 2012              |
| Prosper                | Prosper Marketplace Inc.              | Personal lending                   | WebBank                              | 2006              |
| Best Egg               | Marlette Funding LLC                  | Personal lending                   | Cross River Bank                     | 2014              |
| Avant                  | Avant LLC                             | Personal lending                   | WebBank                              | 2012              |
| LendingPoint           | LendingPoint LLC                      | Personal lending                   | LendingPoint LLC <sup>2</sup>        | 2014              |
| GreenSky               | GreenSky Inc.                         | Personal lending                   | Various <sup>3</sup>                 | 2006              |
| OnDeck                 | OnDeck Capital Inc. (NYSE: ONDK)      | Small & medium enterprise lending  | Celtic Bank                          | 2007              |
| Kabbage                | Kabbage Inc.                          | Small & medium enterprise lending  | Celtic Bank                          | 2008              |
| Credibly               | Retail Capital LLC                    | Small & medium enterprise lending  | Retail Capital LLC                   | 2010              |
| Square Capital         | Square Inc. (NYSE: SQ)                | Small & medium enterprise lending  | Celtic Bank                          | 2014 <sup>4</sup> |
| PayPal Working Capital | PayPal Holdings Inc. (NASDAQGS: PYPL) | Small & medium enterprise lending  | WebBank                              | 2013 <sup>4</sup> |
| SoFi                   | Social Finance Inc.                   | Student loan refinancing & lending | SoFi Lending Corp.                   | 2011              |
| CommonBond             | CommonBond Inc.                       | Student loan refinancing & lending | CommonBond Lending LLC               | 2011              |
| Earnest                | Navient Corp. (NASDAQGS: NAVI)        | Student loan refinancing & lending | Earnest Operations LLC               | 2013 <sup>5</sup> |
| College Ave            | College Avenue Student Loans LLC      | Student loan refinancing & lending | Firsttrust Savings Bank <sup>6</sup> | 2014              |

Data compiled Oct. 11, 2018.

<sup>1</sup> Cross River Bank funds Upstart-originated loans in select states.

<sup>2</sup> FinWise Bank funds some LendingPoint loans.

<sup>3</sup> SunTrust Banks, Regions Financial, Synovus Financial and Fifth Third Bancorp are GreenSky's main funding partners.

<sup>4</sup> Year digital lending segment was launched.

<sup>5</sup> Year Earnest Operations LLC was founded.

<sup>6</sup> Some loans may be funded by M.Y. Safra Bank FSB.

Sources: S&P Global Market Intelligence; public filings; company websites

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## Funding models

The lenders on our focus list utilize three types of funding models to finance their loans: marketplace, balance sheet and bank channels.

Marketplace lenders act as intermediaries between loan applicants and investors by selling securities to investors backed by loans held either on their own balance sheets or in special purpose vehicles. Third-party bank partners usually fund these loans. While this model aims to retain the spirit of a pure peer-to-peer lending model, the internal machinery is significantly more complex.

Certain digital lenders hold the credit risk from loans they originate instead of exporting it to investors via securities. These lenders' sources of funding include bank loans, warehouse lines of credit and cash flow from operations.

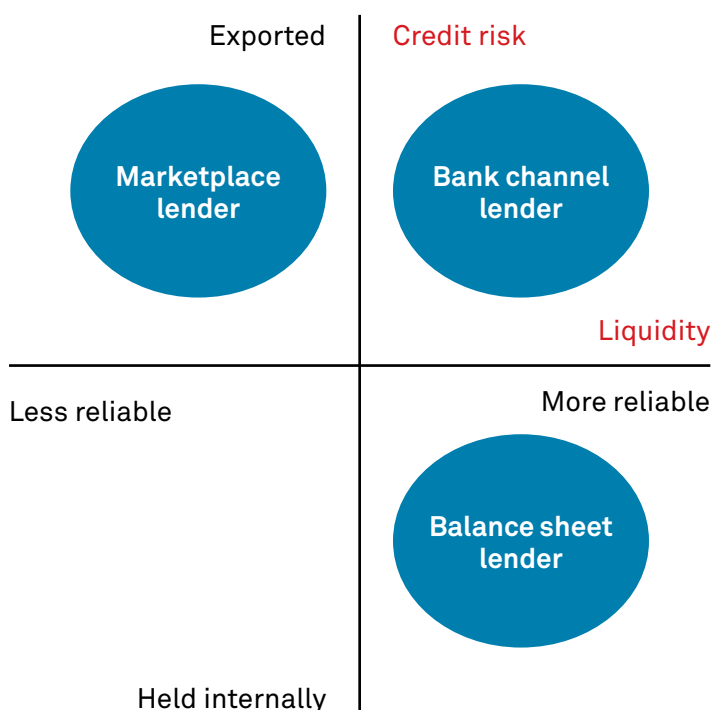
Other digital lenders typically secure capital commitments from traditional banking institutions and connect those institutions with approved borrowers via their digital platforms. Loans originated via these platforms are made directly between the banking institution and the end borrower, without requiring the digital lender to take ownership of the loan. Of the three digital lender funding models, this seems to be the least common historically.

Fundamentally, these three funding models differ in how they incorporate credit and liquidity risk. Marketplace lenders benefit from being able to export credit risk to investors. In exchange, these lenders may have to accept relatively greater liquidity risk in the capital markets.

Balance sheet lenders' funding is less tied to investor sentiment as it comes from lenders seeking to earn a spread over their cost of capital rather than capture excess returns in securities markets. This becomes more true as balance sheet lenders mature. They typically raise early funding through equity capital. As they demonstrate their ability to properly assess and manage credit, they gain access to debt capital.

Moreover, balance sheet lenders continue to collect interest on portfolio loans even in the event of broader liquidity shocks, and they can use this revenue to fund new loans.

Bank channel lenders are somewhat immune to market sentiment given their role as conduits. They also benefit by not taking on credit risk. In effect, bank channel lenders are more financially savvy technology providers than financial companies themselves.



Regardless of which funding model companies use, a certain amount of credit and liquidity risk is unavoidable.

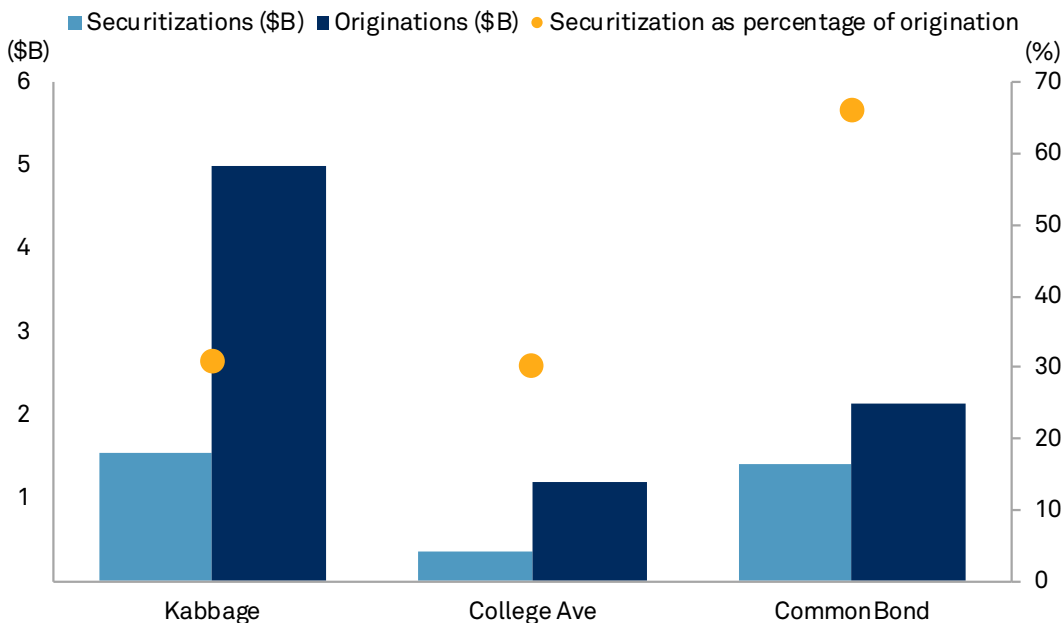
All digital lenders are exposed to possible liquidity shocks if their counterparties pull back on funding in an adverse credit environment.

Deterioration of credit quality in their own loan portfolios would likely cause digital lenders to lose funding over time, as well. Not all funding models equally incentivize credit discipline, which is essential for a lender's survival.

Marketplace lenders came under scrutiny in 2016 for the moral hazard potential in their funding model. Since then, prominent marketplace lenders have increased the volume of loans held on balance sheet. Growth in securitization activity and associated risk retention practices have also increased loan balances at these companies.

Meanwhile, several balance sheet based lenders are also relying on securitizations to more efficiently manage capital, introducing a greater element of investor sentiment risk into their business model. Kabbage, CommonBond and College Ave all issued asset-backed securities in significant volumes in 2017.

**Securitized relative to loan origination volume**  
Aggregate volume through Q2'18



Data compiled Oct. 15, 2018.  
Sources: DBRS; KBRA; PeerIQ; proprietary estimates  
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We expect hybridization of marketplace and balance sheet funding models to be an ongoing theme as increasing scale and regulatory attention will likely necessitate flexibility in financing strategy.

Bank channel lending will also likely gain more prominence. Kabbage’s white-label product allows banks to utilize the digital lender’s underwriting engine to approve their own small-business customers. Competitor OnDeck recently announced an extension of its partnership with JPMorgan Chase as well as the addition of PNC Bank as a customer for its platform-as-a-service product.

Bank channel lenders arguably have the best of both worlds with respect to funding models. They can export credit risk to bank partners while avoiding the liquidity risks of most marketplace lending platforms. Instead of disrupting banks, bank channel lenders help incumbents compete with other digital lenders by providing a similar customer experience. We expect more digital lenders to incorporate this funding model into their businesses via white-label or branded services to banking institutions.

**Revenue model**

Funding models heavily influence the revenue sources available to digital lenders. Marketplace and bank channel lenders charge a transaction fee on every origination. These lenders also tend to offer loan servicing, for which they charge an additional fee. Balance sheet lenders collect a majority of their revenue from interest and fees on loans. White-label services are another source of revenue. The digital lender may sell technology to a bank or lender for an upfront fee or collect revenue on a per-loan basis. Other revenue sources include incentive and marketing fees from funding partners.

**Borrower profile**

**Credit profile**

Several digital lenders focus on borrowers within a specific credit range. GreenSky, for example, focuses on prime and superprime borrowers only. Personal lender Avant caters to borrowers of weaker credit. The company’s minimum acceptable FICO score is 580. LendingPoint began with a focus similar to Avant’s, gearing its business toward near-prime borrowers with FICO scores between 580 and 700. The company has since expanded its offerings, originating loans across a broader FICO range.

### Alternative data

Most digital lenders combine FICO scores with alternative data to get a better gauge of their borrowers' character and economic situation.

Digital lenders are tapping into more esoteric datasets. Possible data points include a borrower's cell phone carrier, the amount of time spent reading the terms and conditions page of the loan application, and the amount of time spent browsing the digital lending website.

Digital lenders claim that the use of such alternative data differentiates their underwriting models, allowing them to provide credit to borrowers who may not be served by traditional lenders. Certain academic studies have shown that the use of alternative data can augment the predictive power of FICO-based models.

However, there are concerns about the possibility of alternative data effectively discriminating against certain classes of people who are protected under fair lending laws.

### Product offerings

Digital lenders have been innovative in their loan packages, offering a variety of products to different customer segments.

Term loans and lines of credit are the typical product. However, there are several digital lenders experimenting with alternative frameworks.

PayPal Working Capital and Square Capital deduct repayments directly from borrowers' card sales. These financing structures are akin to merchant cash advances, a niche specialty finance product that emerged in the early 2000s.

### APR range by company (%)

| Platform               | Personal loans |       | Student loan refinance |      |          |      | Undergraduate student loan |       |          |       | Business loans             |          |
|------------------------|----------------|-------|------------------------|------|----------|------|----------------------------|-------|----------|-------|----------------------------|----------|
|                        | Fixed          |       | Fixed                  |      | Variable |      | Fixed                      |       | Variable |       | Term and/or line of credit |          |
|                        | Min            | Max   | Min                    | Max  | Min      | Max  | Min                        | Max   | Min      | Max   | Min                        | Max      |
| LendingClub            | 6.16           | 35.89 |                        |      |          |      |                            |       |          |       | 9.77                       | 35.71    |
| Upstart                | 8.36           | 35.99 |                        |      |          |      |                            |       |          |       |                            |          |
| Prosper                | 6.95           | 35.99 |                        |      |          |      |                            |       |          |       |                            |          |
| Best Egg               | 5.99           | 29.99 |                        |      |          |      |                            |       |          |       |                            |          |
| Avant                  | 9.95           | 35.99 |                        |      |          |      |                            |       |          |       |                            |          |
| LendingPoint           | 15.49          | 34.99 |                        |      |          |      |                            |       |          |       |                            |          |
| OnDeck                 |                |       |                        |      |          |      |                            |       |          |       | 9.40                       | 99.70    |
| Kabbage                |                |       |                        |      |          |      |                            |       |          |       | 12.00                      | 99.00    |
| Credibly               |                |       |                        |      |          |      |                            |       |          |       | 9.99                       | 36.00    |
| Square Capital         |                |       |                        |      |          |      |                            |       |          |       | Variable                   | Variable |
| PayPal Working Capital |                |       |                        |      |          |      |                            |       |          |       | Variable                   | Variable |
| SoFi                   | 6.99           | 14.87 | 3.90                   | 7.80 | 2.57     | 6.61 |                            |       |          |       |                            |          |
| CommonBond             |                |       | 3.20                   | 7.25 | 2.48     | 7.00 | 5.30                       | 9.82  | 3.71     | 9.67  |                            |          |
| Earnest                | 6.99           | 18.24 | 3.89                   | 6.32 | 2.47     | 6.32 |                            |       |          |       |                            |          |
| College Ave*           |                |       |                        |      |          |      | 5.29                       | 12.07 | 3.69     | 10.94 |                            |          |
| GreenSky               | 4.99           | 23.99 |                        |      |          |      |                            |       |          |       |                            |          |

Data compiled Sept. 25, 2018.

\* Not currently offering student refinancing product.

Sources: S&P Global Market Intelligence; company websites

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## Maximum loan amount (\$)

| Platform               | Personal loans | Student loan refinance | Business term loans and/or line of credit | Mortgage loans |
|------------------------|----------------|------------------------|---|----------------|
| LendingClub            | 40,000         |                        | 300,000                                   |                |
| Upstart                | 50,000         |                        |   |                |
| Prosper                | 40,000         |                        |   |                |
| Best Egg               | 50,000*        |                        |   |                |
| Avant                  | 35,000         |                        |   |                |
| LendingPoint           | 25,000         |                        |   |                |
| OnDeck                 |                |                        | 500,000                                   |                |
| Kabbage                |                |                        | 250,000                                   |                |
| Credibly               |                |                        | 250,000**                                 |                |
| Square Capital         |                |                        | 100,000                                   |                |
| PayPal Working Capital |                |                        | Variable^                                 |                |
| SoFi                   | 100,000        | Variable               |   | 3,000,000      |
| CommonBond             |                | 500,000                |   |                |
| Earnest                | 75,000         | 500,000                |   |                |
| College Ave            |                | 250,000^^              |   |                |
| GreenSky               | 55,000         |                        |   |                |

Data compiled Sept. 25, 2018.

\* May be available to certain qualified borrowers. Most loans range from \$2,000 to \$35,000.

\*\* Credibly also offers a merchant cash advance product with an upper loan amount of \$150,000.

^ The maximum loan amount can be up to 35% of borrower's annual PayPal sales, up to \$125,000 for the first loan.

^^ Based on prior-year data. College Ave is currently not accepting refinancing applications as it is upgrading its product.

Sources: S&P Global Market Intelligence; company websites

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Digital lenders have expanded into new product areas to capture further market share. SoFi, which began as a student loan refinancing provider, now offers personal loans and mortgages. Personal loan-focused LendingClub also offers a business loan product. Square recently announced the launch of Square Installments, a point-of-sale consumer financing business.

Other digital lenders use multiple strategies to target borrowers in the same customer segment. GreenSky offers both point-of-sale loans and loans that do not require a merchant intermediary. Through a CommonBond program, businesses can provide student loan benefits to their employees.

While some of the companies on our list, such as Square and PayPal, entered the digital lending industry from adjacent fintech segments, some lenders are moving in the other direction by offering nonlending services. SoFi has been the most aggressive on this front. The company offers wealth management services and is accepting applicants for its high-yield deposit account product, SoFi Money. Kabbage, as part of its cash-flow-as-a-service vision, has announced plans to sell payment processing systems to small-business owners. Kabbage and GreenSky offer payment cards tied to existing lines of credit.

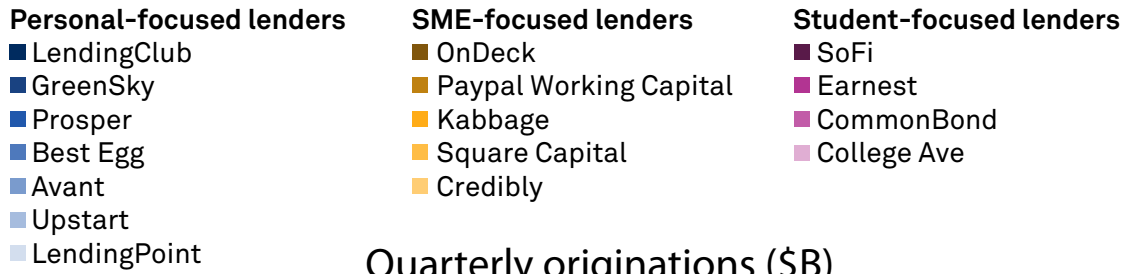
We expect a continuation of this expansion into various service lines, inside and outside the lending vertical.

## Loan origination volume

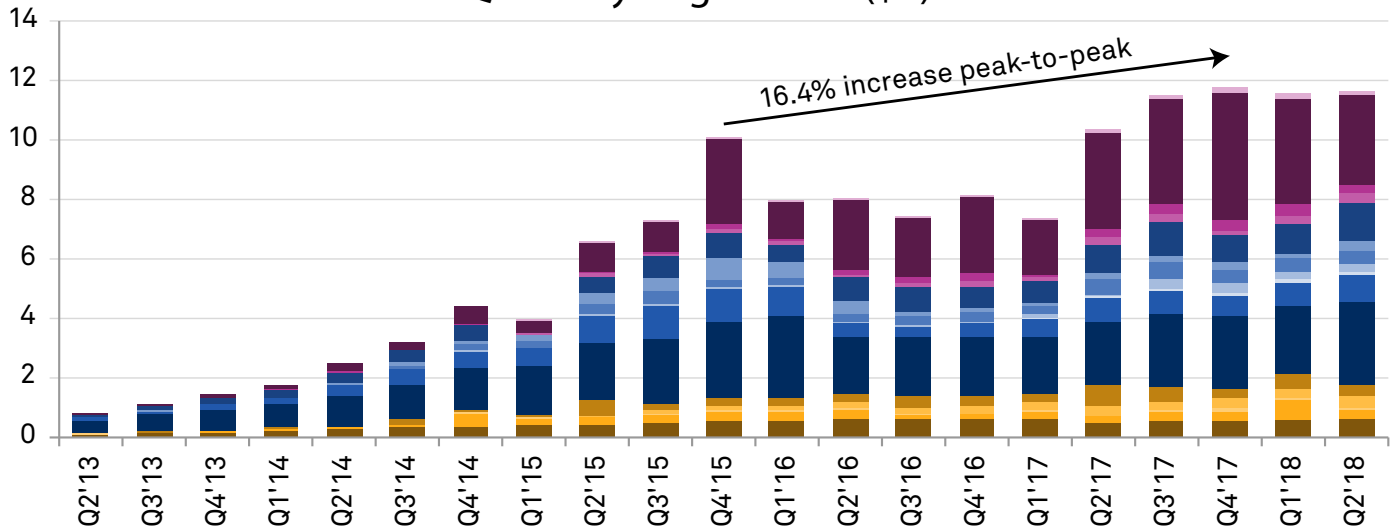
S&P Global Market Intelligence estimates that the digital lenders on our list originated \$41.1 billion in loans in 2017. This represents a 30.1% increase over the previous year and a nearly 96% compound annual growth rate over the preceding five years. We expect growth to slow in the next several years. Our estimate for annual originations in 2022 is about \$74 billion, representing a CAGR of 12.4% between 2017 and 2022.

Our projections are based on historical growth of each platform; S&P Global Market Intelligence's bank loan growth projections; and The Economist Intelligence Unit's expectations for GDP and disposable income. Inputs are weighted based on historical correlations to digital lending origination growth.

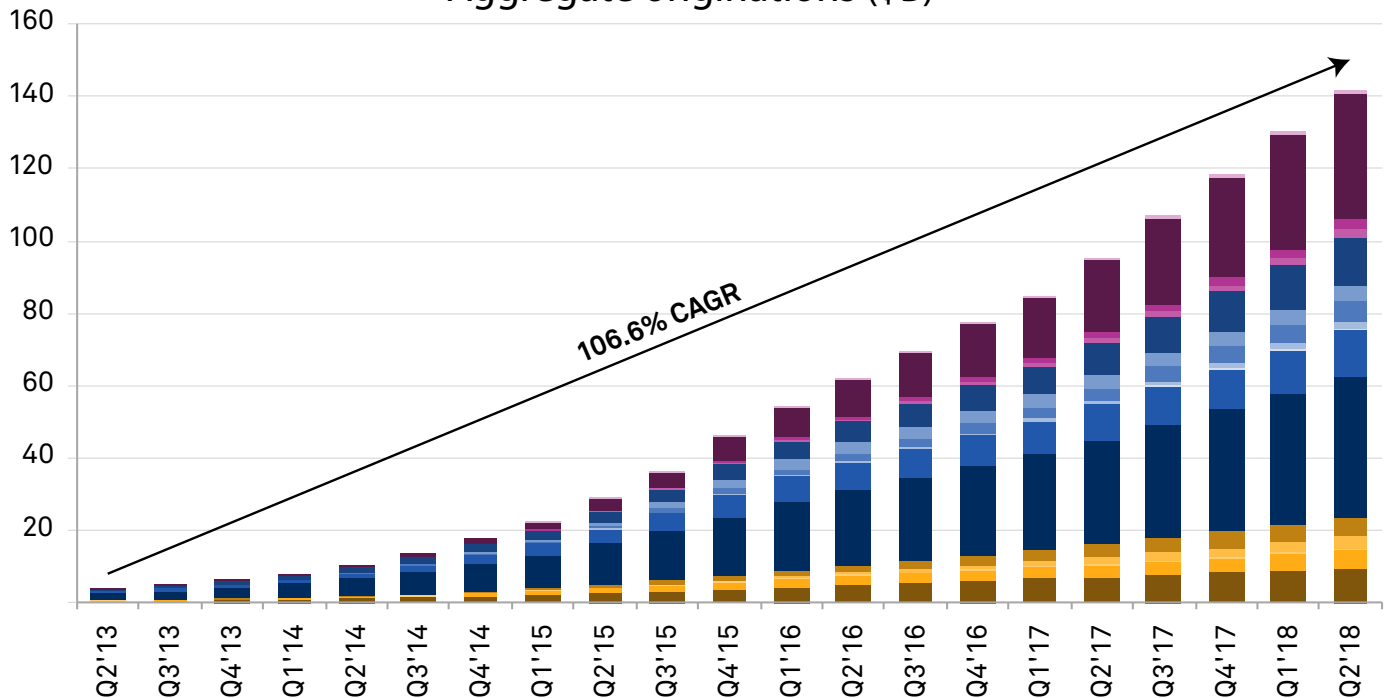
As digital lenders get larger, previously established lines of demarcation become less meaningful. However, customer segment remains one of the more enduring differentiating factors. Although certain digital lenders are moving into newer customer segments, the focus areas of personal, small and medium enterprise, and student lending remain useful categories for distinguishing between companies.



**Quarterly originations (\$B)**



**Aggregate originations (\$B)**

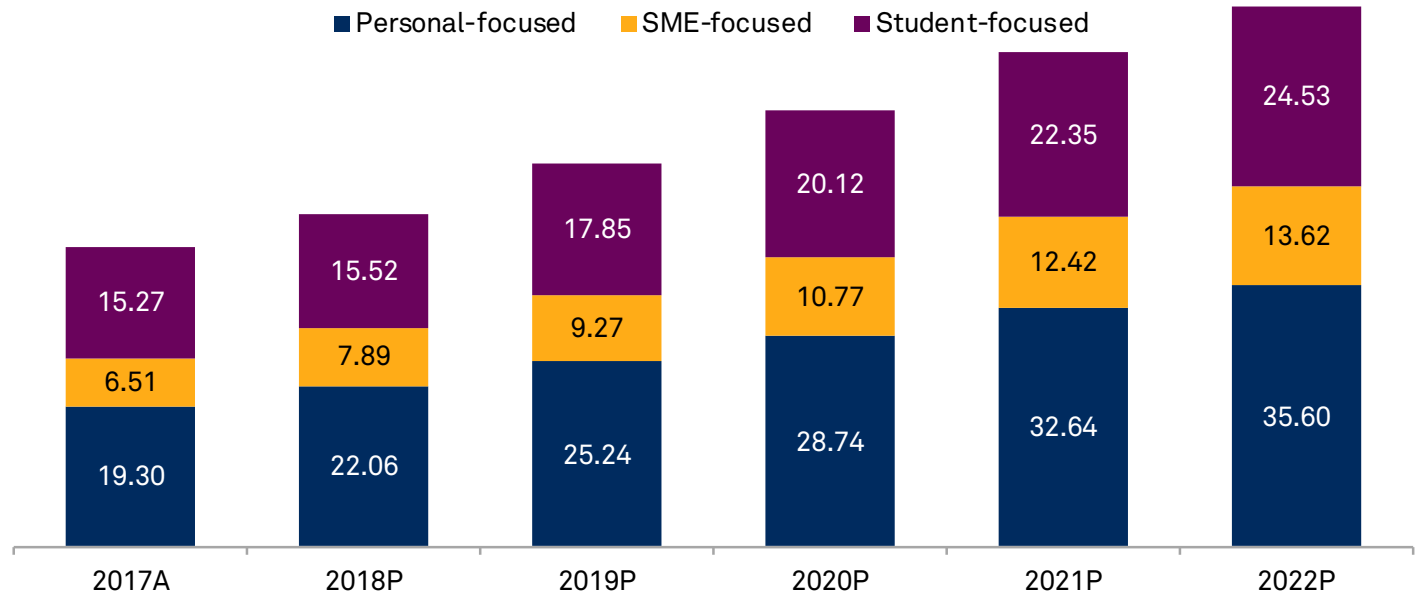


Data compiled Oct. 25, 2018.

Sources: S&P Global Market Intelligence; company-provided information and disclosures; rating agency reports; proprietary estimates © 2018. S&P Global Market Intelligence. All rights reserved.



**Annual digital lending originations by platform focus (\$B)**



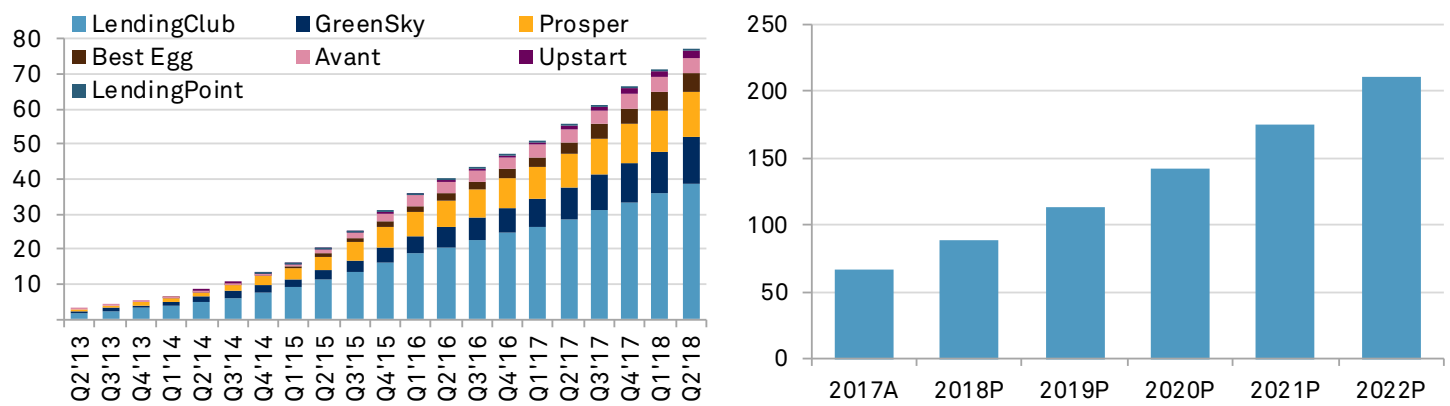
Data compiled Oct. 25, 2018.  
Sources: S&P Global Market Intelligence; company-provided information and disclosures; rating agency reports; proprietary estimates  
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**Personal-focused lenders**

GreenSky joins LendingClub, Upstart, Avant, Prosper, Best Egg and LendingPoint on our personal-focused lender group this year.

LendingClub continues to dominate the segment in terms of absolute volume, originating \$9.0 billion in 2017. However, we estimate that balance sheet-funded LendingPoint grew the fastest over the preceding three-year period, exhibiting a CAGR in annual originations of 212.4% between 2014 and 2017. Upstart, a digital lender placing heavy focus on its machine learning capabilities, exhibited similar characteristics. We estimate that Upstart’s originations grew at a CAGR of 194.2% over the same period. Both companies were growing off a much lower base of loan volume than their personal loan-focused peers.

**Aggregate originations by personal-focused lenders (\$B)**



Data compiled Oct. 25, 2018.  
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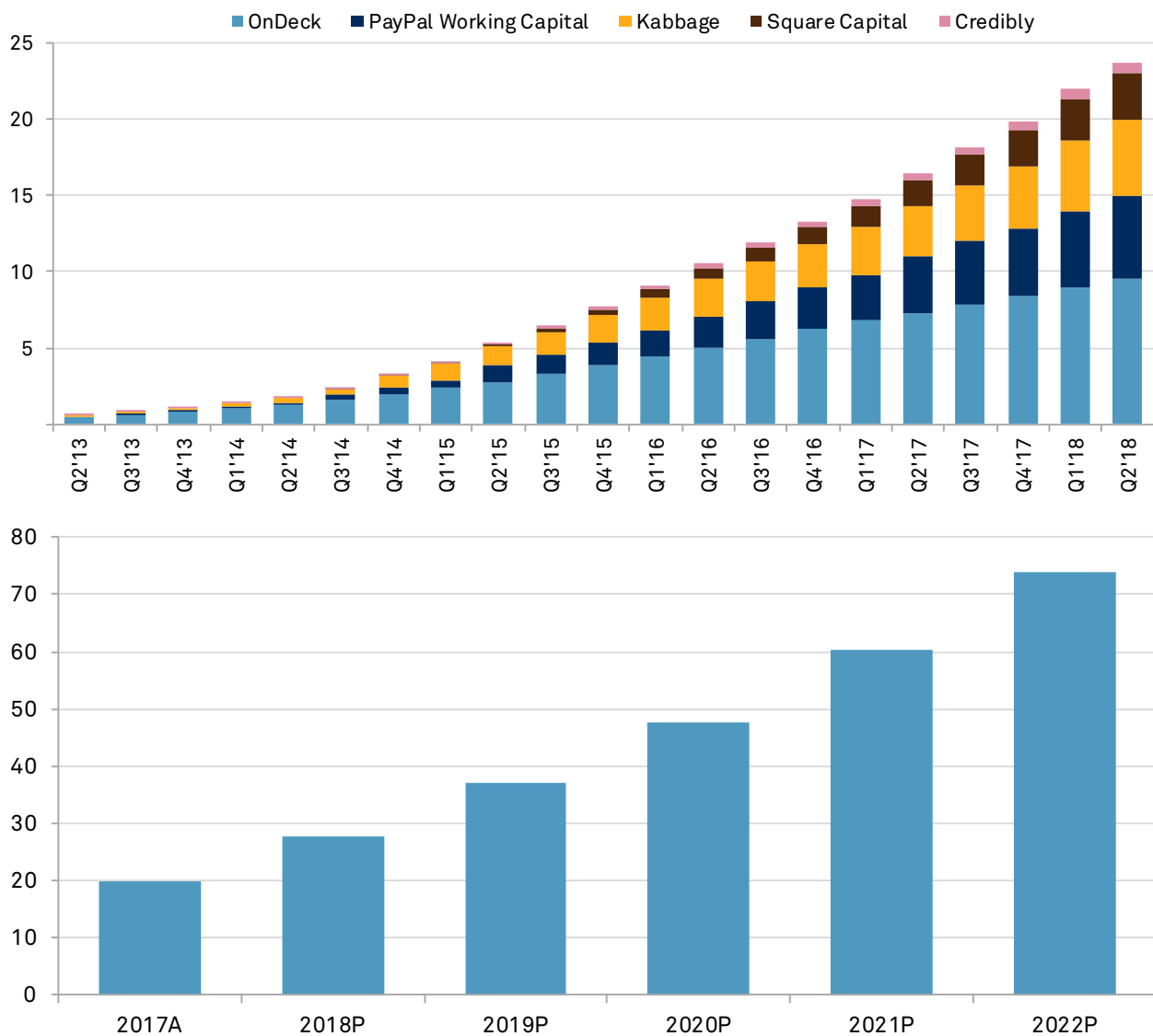


**SME-focused lenders**

Small and medium enterprise-focused lenders represent the smallest customer segment on our focus list by origination volume. We estimate that the companies in this group – OnDeck, Kabbage, Credibly, Square Capital and PayPal Working Capital – originated a total of \$6.5 billion in 2017. The largest lender in the group, OnDeck, originated more than \$8 billion cumulatively through 2017; however it experienced a 12% year-over-year decline in originations in 2017. We expect the company to return to positive growth in 2018 and beyond.

The fastest-growing company in the space is Square Capital, which we estimate grew to cumulative originations of \$2.3 billion as of year-end 2017 from a base of \$13.6 million in 2014.

**Aggregate originations by SME-focused lenders (\$B)**



Data compiled Oct. 25, 2018.

Sources: S&P Global Market Intelligence; company-provided information and disclosures; rating agency reports; proprietary estimates

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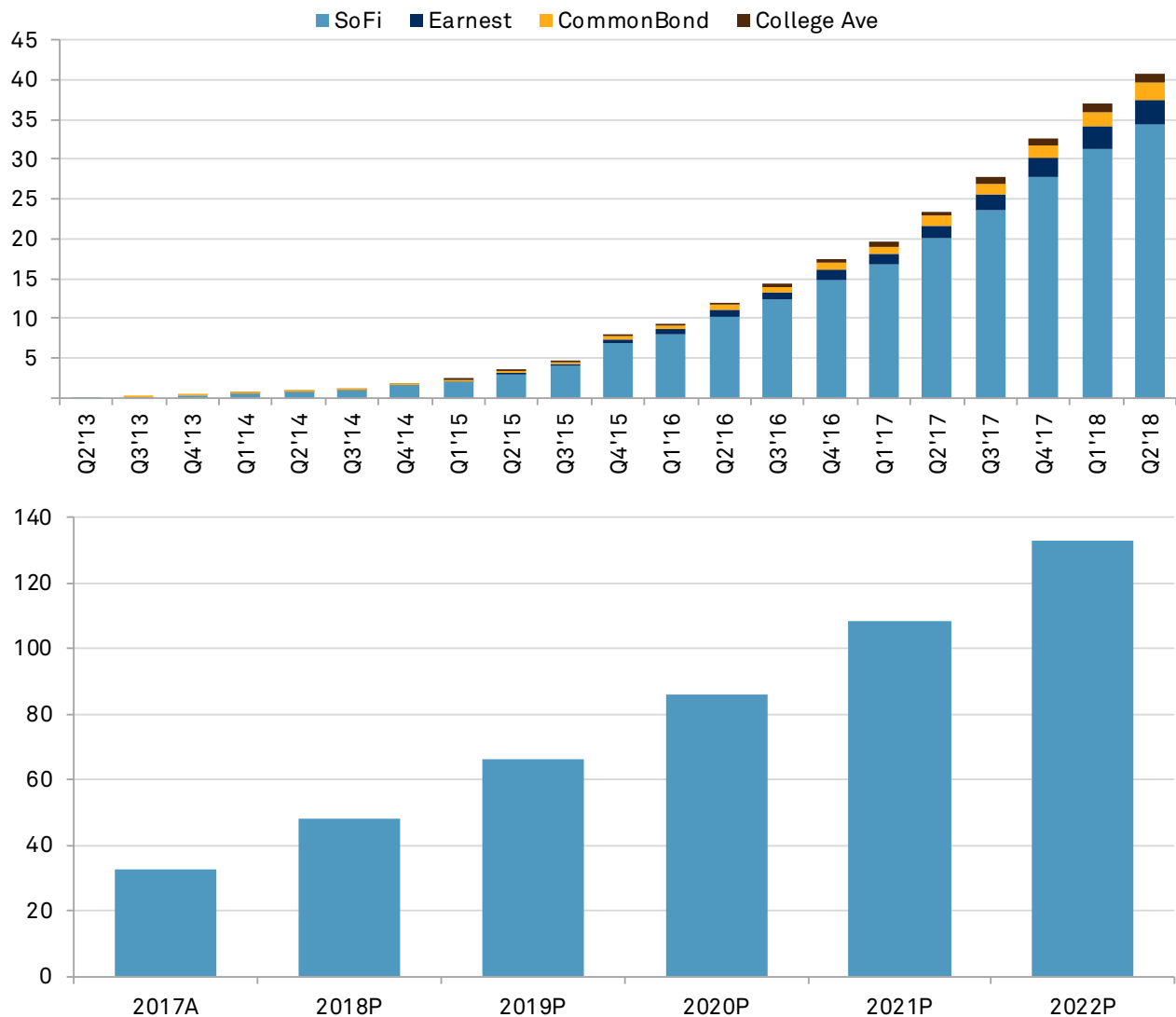
### Student-focused lenders

The student-focused digital lenders in our analysis are SoFi, Earnest, CommonBond and College Ave. By far the largest company in the group, SoFi originated \$12.9 billion in 2017, more than 11x as much as runner-up Earnest.

Both SoFi and Earnest have meaningful nonstudent lending operations. However, student loan refinancing remains a significant part of both companies' business. As of year-end 2017, we estimate that student loan refinancing comprised 50% of SoFi's cumulative origination volume.

Growth in the student-focused lending segment has been robust; it seems to have suffered least from the scrutiny the digital lending industry endured in 2016. We estimate a CAGR of 118.7% in originations between 2014 and 2017 and project that this rate will slow over the next few years.

### Aggregate originations by student-focused lenders (\$B)



Data compiled Oct. 25, 2018.

Sources: S&P Global Market Intelligence; company-provided information and disclosures; rating agency reports; proprietary estimates

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## Enabling technology

All digital lenders leverage the internet for efficient loan marketing, underwriting and distribution.

### Data access

An application programming interface, or API, refers to a set of coding standards that allow a software developer to communicate with an external application to retrieve data and functionality. Digital lenders rely on APIs to automatically collect borrower data to feed through their underwriting algorithms. For example, Kabbage uses APIs to connect with applicants' payment processor and bookkeeping software. These connections give the company access to up-to-date information about applicants' invoices, payroll and other financial information that it can use in the underwriting process. Personal-focused lenders also rely on APIs to gain rapid access to essential background information and bank account data.

Customer acquisition remains a persistent cost for digital lenders. Not only does access to real-time customer data make underwriting more robust, it can also improve efficiency by allowing digital lenders to specifically target their marketing and educational efforts at borrowers who are known to be creditworthy.

Digital lenders will likely continue to seek ways of gaining proximity to customer data through offering other services to potential customers and establishing connections with data providers.

### Underwriting automation

Automating the underwriting process is another foundation of the digital lending industry. Digital lenders have been innovating rapidly in this area. This is possible partly because digital lenders do not face the same regulatory burdens as traditional banking institutions, allowing them greater freedom to experiment with underwriting practices.

Developing robust, automated underwriting models is crucial to the digital lending business model. Part of the industry's allure is its rapid loan approvals, with several companies promising approval times of a few minutes or less.

Machine learning is widely used within the industry. Equipped with large quantities of traditional and alternative data, either provided by applicants or retrieved from third parties (often via APIs), machine learning algorithms can produce robust predictive models that update themselves as the underlying data changes. The use of machine learning will likely grow over time as digital lenders are focusing intently on this technology.

## Regulatory trends

Regulation in digital lending remains subject to debate, and 2018 has been a year of heightened activity.

### Valid-when-made

In 2017, the Second Circuit Court of Appeals ruled in favor of Saliha Madden, the plaintiff in the case of *Madden v. Midland*. Madden had defaulted on a credit card issued by Bank of America more than a decade earlier. Midland Funding LLC acquired the debt, and its affiliate attempted to collect the balance along with the stipulated 27% interest, higher than the limit set by New York usury law. The appeals court reversed a district court decision and ruled that Midland did not benefit from the National Bank Act's preemption of state usury laws, even though the debt was originally issued by a national bank. The ruling has brought into question the valid-when-made doctrine, which ensures that the terms of a loan are valid when made regardless of how the loan's ownership changes over its lifetime.

Valid-when-made is crucial to marketplace lenders that depend on nationally chartered banks to fund loans originated in states with less favorable usury laws.

The *Madden v. Midland* ruling has elicited pushback from several members of industry and government. So-called Madden-fix legislation, which would encode valid-when-made at the federal level, is under consideration in Congress.

## **Innovation versus regulation**

Also in question is how to balance the need for regulation and the freedom to innovate in the financial services industry. Digital lenders, many of which are represented by the Marketplace Lending Association, claim that having to abide by 50 different state regulatory regimes would be too onerous on their businesses and stall productive investment. State regulators, meanwhile, claim they need greater jurisdiction over digital lenders to protect their residents from predatory lending practices.

The New York State Department of Financial Services has been particularly vocal in its demands for greater state level oversight, releasing a report in July 2018 that recommended, among other things, equal protection for consumer and small-business borrowers. However, state regulators are also aware of the tradeoff. The Conference of State Bank Supervisors has laid out its Vision 2020 plan to modernize state level regulation. The program's initiatives include creating a harmonized regulatory framework for fintech companies across all states as well as establishing a fintech advisory panel to facilitate communication with industry leaders.

The federal government seems to favor a simpler regulatory framework to support innovation. The OCC said in August that it would begin accepting applications for a special purpose banking charter geared toward fintech companies. The charter will subject the fintech companies to greater regulatory scrutiny, while immunizing them from state consumer protection laws. However, the charter would not allow the fintechs to accept insured deposits. The New York State DFS is suing the OCC in response.

No fintech company has applied for the special purpose charter so far.

## **The Treasury report**

The U.S. Treasury Department in July released a comprehensive report covering various segments of the fintech sector. In its analysis of the digital lending space, the report generally favored innovation but identified certain important risks. The report's recommendations included:

- Codifying the valid-when-made doctrine at the federal level.
- Codifying the existence of a service or economic relationship between a bank and a fintech company that does not affect the status of the bank as the "true lender" of the loan.
- Enabling the testing of new credit models and data sources by both banks and nonbank companies.
- Supporting an OCC special purpose charter for fintech companies.

The report also highlighted certain risks, especially regarding newer methods in credit modeling. There was concern regarding the potential for models built on alternative data to inadvertently discriminate against groups that were protected by fair lending laws. Another concern related to the ability to audit machine learning models using traditional model validation and back testing methods due to the dynamic nature of the tools. The report also cited concerns about the robustness of machine-learning models, trained on shorter-term data sets, when facing changes in credit conditions. "Machine-learning models ... would generally suffer from the absence of past credit-cycle data to 'train' the model," the report said.

## Bank response

The relationship between banks and digital lenders is multi faceted. Several banks and credit unions act as funding partners for digital lenders. Banks offer credit facilities to well-established balance sheet lenders, purchase securities from marketplace lenders and sponsor securitizations of digital lender-originated loan portfolios. But digital lenders also compete with banks for potential borrowers.

In this environment, banks retain certain fundamental competitive advantages. Arguably the most important is their access to insured deposits, which decreases their cost of capital. Traditional banks also have greater experience with full credit cycles as well as higher customer familiarity and trust. In a February 2018 survey, S&P Global Market Intelligence asked small businesses that had taken a loan in 2017 from another type of company why they had avoided digital lenders. About 42% of respondents cited an existing relationship with another lender and 40.6% cited security, or the newness and untested nature of digital lenders as inhibitory concerns. Another, less commonly acknowledged advantage, is the resources available to larger banks to invest against cybersecurity threats.

Bank advantages are balanced by a greater regulatory burden. Compliance concerns will likely augment bank trepidation around technology innovation, especially with regard to opening up customer information via APIs and incorporating alternative data into underwriting models.

The recent Treasury report noted the lag in digital adoption by banks, stating that “the degree of digitization [in banks] is much less comprehensive than new digital lenders.”

A recent survey conducted by the American Bankers Association asked banks whether they provided basic digital lending services from a list of common services including online loan applications, document uploads, and instant credit decisions. Most of the services mentioned were offered by less than 50% of the banks surveyed. Loan applications were the outlier, with more than 90% of banks offering an online loan application. However, this included simple PDF forms that could be downloaded and completed online, not necessarily an integrated web-based application process.

Though most banks are approaching tech adoption cautiously, they are not being apathetic. In navigating the build-buy-partner decision matrix with respect to fintech adoption, we expect most banks will opt to partner with existing fintech firms to marry their cost advantages with the fintech firms’ technological capabilities.

Bank channel consumer lender GreenSky has existing partnerships with several prominent banks including SunTrust Bank and Fifth Third Bank. These banks have committed \$8 billion in capital to fund the platform’s point-of-sale loan originations. Foundation is a credit solutions provider that partners directly with banks to automate their small business loan origination processes. The company has partnered with regional banks including Citizens Bank and Regions Bank.

The Foundation and GreenSky models are signs of things to come. In fact, as banks become more active in digital lending, they could drive a bifurcation within the industry. While some larger digital lenders may continue expanding their services to woo customers away from traditional lenders, others may orient themselves more as technology providers, embracing a bank channel-like model. By combining their technological expertise with banks’ lower cost of capital, these partnerships could enable banks to provide a more efficient customer experience at lower rates, as well as open them up to previously untapped customer segments.

## Appendix

### Breadth of services offered by digital lenders

| Company name | Lending verticals     |          |          |         |         | Nonlending services |        |            |                     |
|--------------|-----------------------|----------|----------|---------|---------|---------------------|--------|------------|---------------------|
|              | Personal/<br>consumer | Mortgage | Business | Student | Patient | Payments            |        |            | Asset<br>management |
|              |                       |          |          |         |         | Card                | Mobile | Processing |                     |
| Prosper      | •                     |          |          |         |         |                     |        |            |                     |
| LendingClub  | •                     |          | •        |         | •       |                     |        |            | •                   |
| SoFi         | •                     | •        |          | •       |         | •                   | •      |            | •                   |
| Avant        | •                     |          |          |         |         | •                   |        |            |                     |
| Upstart      | •                     |          |          |         |         |                     |        |            |                     |
| Square       | •                     |          | •        |         |         | •                   | •      | •          |                     |
| OnDeck       |                       |          | •        |         |         |                     |        |            |                     |
| Kabbage      |                       |          | •        |         |         | •                   |        | •*         |                     |
| CommonBond   |                       |          |          | •       |         |                     |        |            |                     |
| PayPal       | •                     |          | •        |         |         | •                   | •      | •          |                     |
| Earnest      | •                     |          |          | •       |         |                     |        |            |                     |
| LendingPoint | •                     |          |          |         |         |                     |        |            | •                   |
| GreenSky     | •                     |          |          |         |         | •                   |        |            |                     |
| Credibly     |                       |          | •        |         |         |                     |        |            |                     |
| College Ave  |                       |          |          | •       |         |                     |        |            |                     |
| Best Egg     | •                     |          |          |         |         |                     |        |            |                     |

Data compiled Oct. 1, 2018.

\* Kabbage has announced intention to offer point of sale system.

Sources: Company websites; Reuters

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## Quarterly loan originations (\$M)

|                         | Q2'13      | Q3'13        | Q4'13        | Q1'14        | Q2'14        | Q3'14        | Q4'14        | Q1'15        | Q2'15        | Q3'15        | Q4'15         | Q1'16        | Q2'16        | Q3'16        | Q4'16        | Q1'17        | Q2'17         | Q3'17         | Q4'17         | Q1'18         | Q2'18         |
|-------------------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|
| <b>Personal-focused</b> | <b>642</b> | <b>830</b>   | <b>1,076</b> | <b>1,266</b> | <b>1,795</b> | <b>2,308</b> | <b>2,807</b> | <b>2,724</b> | <b>4,128</b> | <b>4,991</b> | <b>5,579</b>  | <b>5,163</b> | <b>3,971</b> | <b>3,638</b> | <b>3,710</b> | <b>3,814</b> | <b>4,746</b>  | <b>5,569</b>  | <b>5,171</b>  | <b>5,061</b>  | <b>6,170</b>  |
| LendingClub             | 446        | 567          | 698          | 791          | 1,006        | 1,165        | 1,415        | 1,635        | 1,912        | 2,236        | 2,579         | 2,750        | 1,955        | 1,972        | 1,987        | 1,959        | 2,147         | 2,443         | 2,438         | 2,306         | 2,818         |
| GreenSky                | 114        | 152          | 197          | 268          | 319          | 384          | 483          | 30           | 562          | 678          | 806           | 569          | 758          | 822          | 733          | 705          | 970           | 1,168         | 924           | 1,033         | 1,318         |
| Prosper                 | 73         | 95           | 156          | 196          | 370          | 493          | 541          | 594          | 912          | 1,100        | 1,117         | 978          | 445          | 312          | 452          | 586          | 775           | 822           | 694           | 744           | 867           |
| Best Egg                |            |              |              | 1            | 41           | 125          | 216          | 212          | 322          | 401          | 270           | 253          | 277          | 277          | 302          | 276          | 499           | 551           | 447           | 399           | 453           |
| Avant                   | 9          | 16           | 25           | 10           | 57           | 129          | 123          | 217          | 366          | 505          | 712           | 517          | 455          | 141          | 128          | 117          | 203           | 216           | 228           | 161           | 284           |
| Upstart                 |            |              |              |              | 2            | 12           | 21           | 34           | 51           | 69           | 92            | 82           | 56           | 73           | 78           | 132          | 100           | 300           | 350           | 300           | 300           |
| LendingPoint            |            |              |              |              |              |              | 8            | 2            | 3            | 3            | 4             | 14           | 24           | 42           | 31           | 40           | 53            | 69            | 90            | 118           | 130           |
| <b>SME-focused</b>      | <b>121</b> | <b>227</b>   | <b>241</b>   | <b>330</b>   | <b>364</b>   | <b>597</b>   | <b>929</b>   | <b>754</b>   | <b>1,276</b> | <b>1,100</b> | <b>1,287</b>  | <b>1,333</b> | <b>1,422</b> | <b>1,403</b> | <b>1,382</b> | <b>1,445</b> | <b>1,735</b>  | <b>1,695</b>  | <b>1,636</b>  | <b>2,140</b>  | <b>1,742</b>  |
| OnDeck                  | 93         | 122          | 168          | 227          | 248          | 313          | 369          | 416          | 419          | 483          | 557           | 570          | 590          | 613          | 632          | 573          | 464           | 531           | 546           | 591           | 587           |
| Square Capital          |            |              |              |              |              | 11           | 3            | 3            | 85           | 123          | 147           | 153          | 189          | 208          | 248          | 251          | 318           | 303           | 305           | 339           | 390           |
| PayPal Working Capital  |            | 67           | 21           | 29           | 33           | 166          | 85           | 99           | 527          | 206          | 243           | 255          | 269          | 397          | 314          | 289          | 682           | 480           | 338           | 500           | 379           |
| Kabbage                 | 23         | 31           | 44           | 61           | 69           | 90           | 450          | 211          | 218          | 257          | 303           | 317          | 334          | 143          | 143          | 291          | 237           | 343           | 343           | 662           | 338           |
| Credibly                | 5          | 6            | 9            | 12           | 14           | 18           | 22           | 25           | 26           | 31           | 36            | 38           | 40           | 43           | 45           | 41           | 34            | 38            | 104           | 48            | 48            |
| <b>Student-focused</b>  | <b>43</b>  | <b>72</b>    | <b>123</b>   | <b>155</b>   | <b>309</b>   | <b>301</b>   | <b>695</b>   | <b>469</b>   | <b>1,170</b> | <b>1,187</b> | <b>3,245</b>  | <b>1,415</b> | <b>2,666</b> | <b>2,399</b> | <b>3,080</b> | <b>2,144</b> | <b>3,901</b>  | <b>4,261</b>  | <b>4,961</b>  | <b>4,362</b>  | <b>3,725</b>  |
| SoFi                    | 43         | 65           | 118          | 132          | 280          | 270          | 618          | 382          | 1,000        | 1,000        | 2,818         | 1,182        | 2,318        | 2,000        | 2,550        | 1,900        | 3,232         | 3,520         | 4,248         | 3,600         | 3,000         |
| Earnest                 |            |              |              | 16           | 13           | 14           | 36           | 25           | 68           | 76           | 229           | 107          | 218          | 198          | 262          | 38           | 312           | 348           | 430           | 364           | 310           |
| CommonBond              |            | 7            | 5            | 7            | 15           | 17           | 41           | 29           | 79           | 86           | 123           | 90           | 58           | 134          | 178          | 136          | 236           | 257           | 112           | 249           | 288           |
| College Ave             |            |              |              |              |              |              |              | 33           | 22           | 25           | 75            | 35           | 72           | 67           | 89           | 69           | 122           | 137           | 171           | 148           | 127           |
| <b>Total</b>            | <b>806</b> | <b>1,129</b> | <b>1,441</b> | <b>1,750</b> | <b>2,468</b> | <b>3,206</b> | <b>4,432</b> | <b>3,946</b> | <b>6,573</b> | <b>7,277</b> | <b>10,111</b> | <b>7,910</b> | <b>8,059</b> | <b>7,441</b> | <b>8,172</b> | <b>7,402</b> | <b>10,382</b> | <b>11,525</b> | <b>11,768</b> | <b>11,562</b> | <b>11,637</b> |

Data compiled Oct. 25, 2018.  
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## Annual loan originations by platform focus (\$B)

|                         | 2017A | 2018P | 2019P | 2020P | 2021P | 2022P |
|-------------------------|-------|-------|-------|-------|-------|-------|
| <b>Personal-focused</b> | 19.30 | 22.06 | 25.24 | 28.74 | 32.64 | 35.60 |
| YOY change (%)          | 17.1  | 14.3  | 14.4  | 13.8  | 13.6  | 9.1   |
| <b>SME-focused</b>      | 6.51  | 7.89  | 9.27  | 10.77 | 12.42 | 13.62 |
| YOY change (%)          | 17.5  | 21.2  | 17.5  | 16.1  | 15.4  | 9.6   |
| <b>Student-focused</b>  | 15.27 | 15.52 | 17.85 | 20.12 | 22.35 | 24.53 |
| YOY change (%)          | 59.7  | 1.6   | 15.0  | 12.7  | 11.1  | 9.7   |
| <b>Industry total</b>   | 41.08 | 45.47 | 52.37 | 59.62 | 67.42 | 73.75 |
| YOY change (%)          | 30.1  | 10.7  | 15.2  | 13.8  | 13.1  | 9.4   |

Data compiled Oct. 25, 2018.  
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## US macroeconomic assumptions (%)

|  | 2018 | 2019 | 2020 | 2021 | 2022 |
|--|------|------|------|------|------|
| GDP growth                             | 2.8  | 2.2  | 1.3  | 1.8  | 1.9  |
| Bank loan growth                       | 2.8  | 3.0  | 3.0  | 2.5  | 0.5  |
| Real personal disposable income growth | 2.6  | 1.7  | 0.8  | 2.1  | 2.7  |

Data compiled Oct. 18, 2018.

GDP and disposable income projections provided by The Economist Intelligence Unit Ltd.

Bank loan growth assumptions are based on S&P Global Market Intelligence projections.

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## Contact Us

**The Americas**  
+1 877 863 1306

**Asia-Pacific**  
+852 2533 3565

**Europe, Middle East or Africa**  
+44 (0) 20 7176 717

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