UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

×	ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the fiscal year ended December 31, 2022 OR					
	TRANSITION REPORT PURSUANT TO SECTION		ITIES EXCHANGE ACT OF 1934			
_	TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the transition period fromto					
		ommission File Number: 001-39				
		Upstai	rt			
	-	start Holdings, I				
	(Exact n	ame of registrant as specified in it	s charter)			
	Delaware		46-4332431			
	(State or other jurisdiction of incorporation or organization)		(I.R.S. Employer Identification No.)			
		Upstart Holdings, Inc.				
	2	2950 S. Delaware Street, Suite 30	00			
	(4.11	San Mateo, California 94403				
	(Address	of principal executive offices, includin (650) 204-1000	g zip code)			
	(Regis	trant's telephone number, including are	ea code)			
	9 44					
	Title of each class:	registered pursuant to Section 12(b) <u>Trading Symbol:</u>	Name of each exchange on which registered:			
	Common Stock, par value \$0.0001 per share	UPST	Nasdaq Global Select Market			
Indicate by check ma	ark if the registrant is a well-known seasoned issuer, as defined	d in Rule 405 of the Securities Act. Yes	s ⊠ No □			
Indicate by check ma	ark if the registrant is not required to file reports pursuant to So	ection 13 or Section 15(d) of the Act.	Yes □ No ⊠			
•	ark whether the registrant (1) has filed all reports required to b trant was required to file such reports), and (2) has been subject	•	ecurities Exchange Act of 1934 during the preceding 12 months (or for such short ast 90 days. Yes \boxtimes No \square			
	ark whether the registrant has submitted electronically every nths (or for such shorter period that the registrant was required		bmitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during			
	ark whether the registrant is a large accelerated filer, an acceler," "accelerated filer," "smaller reporting company," and "em		maller reporting company, or an emerging growth company. See the definitions 2 of the Exchange Act.			
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Large accelerated filer	\boxtimes		Accelerated filer	
Non-accelerated filer			Smaller reporting company	
			Emerging growth company	
If an emerging growth company, provided pursuant to Section 13(a		if the registrant has elected not to use the extend	led transition period for complying with any new or revised financial accounting s	tandard
Indicate by check mark whether the	he registrant has filed a rep	port on and attestation to its management's assessm	nent of the effectiveness of its internal control over financial reporting under Section 4	104(b) o
the Sarbanes-Oxley Act (15 U.S.C	C. 7262(b)) by the registered	ed public accounting firm that prepared or issued i	is audit report. 🗵	
If securities are registered pursuar issued financial statements \Box	nt to Section 12(b) of the A	act, indicate by check mark whether the financial s	tatements of the registrant included in the filing reflect the correction of an error to pro-	eviously
Indicate by check mark whether a during the relevant recovery period			is of incentive-based compensation received by any of the registrant's executive office	ers
Indicate by check mark whether the	he registrant is a shell com	pany (as defined in Rule 12b-2 of the Act). Yes \square	No ⊠	
second fiscal quarter, was \$2,234,	352,139, based on the clos ommon stock have been ex	sing price reported for such date on the NASDAQ.	strants as of June 30, 2022, the last business day of the registrant's most recently co Shares of the registrant's common stock held by each executive officer, director and haffiliates. This calculation does not reflect a determination that certain persons are affi	nolder o
As of February 8, 2023 there were	e 81,386,429 shares of the	registrant's common stock outstanding.		
		Documents Incorporated b	y Reference	
			are incorporated by reference into Part II and III of this Annual Report on Form 10- ion within 120 days after the end of the registrant's fiscal year ended December 31, 20	
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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the federal securities laws about us and our industry, which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as "may," "will," "should," "expect," "plan," "anticipate," "seek," "could," "intend," "target," "aim," "project," "contemplate," "believe," "estimate," "predict," "potential," or "continue," or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans, or intentions. Forward-looking statements contained in this Annual Report on Form 10-K include statements about:

- our future financial performance, including our expectations regarding our revenue, our operating expenses, our ability to determine reserves and our ability to achieve and maintain profitability;
- our ability to improve the effectiveness and predictiveness of our AI models and our expectations that improvements in our AI models can lead to higher approval rates and lower interest rates;
- our ability to increase the volume of loans facilitated through our AI lending marketplace;
- our ability to successfully maintain a diversified loan funding strategy, including lending partnerships and whole loan sales and securitization transactions;
- our capital allocation plans, including expectations regarding funding loans through our balance sheet and allocations of cash and timing for any share repurchases and other investments;
- our ability to maintain competitive interest rates offered to borrowers on our platform, while enabling our lending partners and institutional investors to achieve an adequate return over their cost of funding;
- our ability to successfully build our brand and protect our reputation from negative publicity;
- our ability to increase the effectiveness of our marketing strategies, including our direct consumer marketing initiatives;
- · our expectations regarding macroeconomic events, including rising interest and inflation rates and monetary policy changes;
- our expectations regarding the credit performance of Upstart-powered loans;
- the impact of the COVID-19 pandemic and any associated economic downturn on our business and results of operations;
- our expectations and management of future growth, including expanding the number of potential borrowers;
- our reductions in workforce announced in November 2022 and January 2023, including our ability to successfully implement such reductions in workforce or achieve the anticipated cost reductions;
- our ability to successfully adjust our proprietary AI models, products and services, and provide up-to-date information to our lending partners, in a timely manner in response to changing macroeconomic conditions and fluctuations in the credit market;
- our compliance with applicable local, state and federal laws;
- our ability to comply with and successfully adapt to complex and evolving regulatory environments, including regulation of artificial intelligence and machine learning technology;
- our expectations regarding regulatory support of our approach to AI-based lending;

- our expectations regarding the success of our strategic investments and acquisitions, including the integration of acquired operations, products, technology, internal controls and personnel;
- our expectations regarding new and evolving markets and our ability to enter into new markets and introduce new products and services;
- · our expectations concerning relationships with third parties;
- our ability to protect against increasingly sophisticated fraudulent borrowing and online theft;
- our ability to service our loans and pursue collection of delinquent and defaulted loans;
- our ability to successfully compete with companies that are currently in, or may in the future enter, the markets in which we operate;
- our ability to effectively secure and maintain the confidentiality of the information received, accessed, stored, provided and used across our systems;
- · our ability to successfully obtain and maintain corporate funding and liquidity to support continued growth and for general corporate purposes;
- our ability to attract, integrate and retain qualified employees;
- · our ability to maintain an effective system of disclosure controls and internal control over financial reporting and operations;
- our ability to effectively manage and expand the capabilities of our operations teams, outsourcing relationships and other business operations;
- our ability to maintain, protect and enhance our intellectual property;
- · our expectations regarding outstanding litigation and regulatory investigations; and
- our ability to manage the increased expenses associated with being a public company.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this report.

Forward-looking statements should not be relied upon as predictions of future events. We have based the forward-looking statements contained in this report primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations, and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties, and other factors, including those described in the section titled "Risk Factors" and elsewhere in this report. Readers are urged to carefully review and consider the various disclosures made in this report and in other documents we file from time to time with the Securities and Exchange Commission that disclose risks and uncertainties that may affect our business. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this report. We cannot assure you that the results, events, and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

Neither we nor any other person assumes responsibility for the accuracy and completeness of any of these forward-looking statements. Moreover, the forward-looking statements made in this report relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this report to reflect events or circumstances after the date of this report or to reflect new information or the occurrence of unanticipated events, except as required by law. Undue reliance should not be placed on our forward-looking statements as we may not actually achieve the plans, intentions, or expectations disclosed in our forward-

looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, or investments we may make.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this report, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely upon these statements.

Each of the terms the "Company," "we," "our," "us" and similar terms used herein refer collectively to Upstart Holdings, Inc., a Delaware corporation, and its consolidated subsidiaries, unless otherwise stated.

PART I

ITEM 1. BUSINESS

Overview

Our mission is to enable effortless credit based on true risk.

We are a leading, cloud-based AI lending marketplace. AI lending enables a superior loan product with improved economics that can be shared between consumers and lenders. Our lending marketplace aggregates consumer demand for high-quality loans and connects to our network of Upstart AI-enabled bank and credit union partners, collectively our "lending partners". Consumers on our platform benefit from higher approval rates, lower interest rates, and a highly automated, efficient, all-digital experience. Our lending partners benefit from access to new customers, lower fraud and loss rates, and increased automation throughout the lending process.

Money is a fundamental ingredient of life, and unless you are in the few percent of Americans with significant wealth, the price of borrowing affects you every day. Through all of history, affordable credit has been central to unlocking mobility and opportunity. The FICO score was invented in 1989 and remains the standard for determining who is approved for credit and at what interest rate. While FICO is rarely the only input in a lending decision, most lenders use simple rules-based systems that consider only a limited number of variables. Unfortunately, because these legacy credit systems fail to accurately identify and quantify risk, millions of creditworthy individuals are left out of the system, and millions more pay too much to borrow money.

We leverage the power of AI to more accurately quantify the true risk of a loan. Our AI models have been continuously upgraded, trained and refined for more than nine years. We have discrete AI models that target fee optimization, income and identity fraud, acquisition targeting, loan stacking, prepayment prediction, and time-delimited default prediction. Our models incorporate more than 1,500 variables and benefit from a rapidly growing training dataset that currently contains more than 44.4 million repayment events. The flywheel effects generated by our constantly improving AI models provide a significant competitive advantage—more training data generally leads to higher approval rates and lower interest rates with better returns to lending partners.

Our AI models are provided to lending partners within a consumer-facing cloud application that streamlines the end-to-end process of originating and servicing a loan. We have built a configurable, multi-tenant cloud application designed to integrate seamlessly into a lender's existing technology systems. Our highly configurable marketplace allows each lender to define its own credit policy and determine the significant parameters of its lending program. Our AI models use and analyze data from all of our lending partners. As a result, these models are trained by every Upstart-powered loan, and each lending partner benefits from participating in a shared AI lending marketplace.

Consumers can discover Upstart-powered loans in one of two ways: either via Upstart.com or through a lender-branded product on our lending partners' own websites

Loans issued through our lending marketplace can be retained by our originating lending partners, sold to our broad base of institutional investors and buyers that invest in Upstart-powered loans or funded by Upstart's balance sheet. In the year ended December 31, 2022, 30% of the loans funded through our platform were retained by the originating lenders, 60% of loans were purchased by institutional investors through our loan funding programs and the remaining 10% were funded through our balance sheet. Our institutional investors and buyers that participate in our loan funding programs invest in Upstart-powered loans through whole loan purchases, purchases of pass-through certificates and investments in asset-backed securitizations. A large fraction of the whole loans sold to institutional investors under our loan funding programs are originated by Cross River Bank, or CRB. In the year ended December 31, 2022, CRB originated 51% of the loans facilitated on our platform and fees received from CRB accounted for 45% of our total revenue. In the year ended December 31, 2022, one of our other lending partners originated 36% of the loans facilitated on our platform and accounted for 28% of our total revenue. We enter into nonexclusive agreements with our whole loan purchasers and each of the grantor trust entities in our asset-backed securitizations, pursuant to which we provide loan servicing. To enhance the robustness of our loan funding capacity

for our marketplace across business and macroeconomic cycles, we are pursuing a plan for additional sources of loan funding that may include multi-year committed structures.

Our revenue is primarily comprised of fees paid by lending partners. We charge our lending partners platform and referral fees at origination and loan servicing fees as consumers repay their loans. Our agreements with our lending partners are nonexclusive and may contain minimum fee amounts. As a usage-based platform, we target positive unit economics on each transaction, leading to a cash efficient business model that enables both high growth rates and profitability.

Our AI Lending Models

Our AI models are central to our value proposition and unique position in the industry. Our models incorporate more than 1,500 variables, which are analogous to the columns in a spreadsheet. They have been trained by more than 44.4 million repayment events, analogous to rows of data in a spreadsheet.

These elements of our model are co-dependent; the use of hundreds or thousands of variables is impractical without sophisticated machine learning algorithms to tease out the interactions between them. And sophisticated machine learning depends on large volumes of training data. Over time, we have been able to deploy and blend more sophisticated modeling techniques, leading to a more accurate system. This co-dependency presents a challenge to others who may aim to short-circuit the development of a competitive model. While incumbent lenders may have vast quantities of historical repayment data, their training data lacks the hundreds of columns, or variables, that power our model. For more details regarding the variables, training data, and algorithms in our models, please see "Business—Evolution of Upstart's AI Models."

Despite their sophistication, our AI models are delivered to lending partners in the form of a simple cloud application that shields borrowers from the underlying complexity. Additionally, our platform allows lending partners to tailor lending applications based on their policies and business needs. Our lending partners can configure many aspects of their lending programs, including factors such as loan duration, loan amount, minimum credit score, maximum debt-to-income ratio and return target by risk grade. Within the construct of each lender's self-defined lending program, our platform enables the origination of conforming and compliant loans at a low per-loan cost.

Our Ecosystem

Our platform connects consumers, lenders and institutional investors through a shared AI lending marketplace. Because AI is a new and disruptive technology, and lending is a traditionally conservative industry, we have brought our technology to market in a way that allows us to grow rapidly and improve on our AI models, while allowing lenders to take a prudent and responsible approach to assessing and adopting our platform.

On the consumer side, we aggregate demand on Upstart.com, where consumers are presented with lender-branded offers from our lending partners. In this way, we benefit lenders who have adopted our AI lending technology. Lending partners can also offer Upstart-powered loans through a branded interface on their own website or mobile application. Consumers on our platform are generally offered unsecured personal and secured auto loans ranging from \$200 to \$100,000 in size, at APRs typically ranging from approximately 6.7% to 35.99%, with terms typically ranging from three to seven years, with a monthly repayment schedule and no prepayment penalty.

We have also made significant investments in Upstart Auto Retail, a front-end software-as-a-service application that modernizes the auto sales process for both the consumer and the dealer. Similar to Upstart.com, we expect Upstart Auto Retail to become an important aggregator of demand.

On the funding side, our lending partners can retain loans that align with their business and risk objectives; loan volumes exceeding their collective funding capacity or risk tolerance can be flowed through our loan funding programs and sold to our network of institutional investors, which have far broader and more diverse capacity to absorb and distribute risk. This flexible approach allows our lending partners to adopt AI lending at their own pace, while we continue to grow and improve our platform.

Value Proposition to Consumers

- Higher approval rates and lower interest rates—An internal study, which was developed in connection with our previous CFPB no-action letter, compared our AI model to that of a traditional credit score only model. The study demonstrated the ability of our AI model to expand credit access to borrowers. Results from the internal study as of December 31, 2021 showed that our AI model approves 43.4% more borrowers and yields 43.2% lower average APR for approved loans.
- Superior digital experience—Whether consumers apply for a loan through Upstart.com or directly through a lending partner's website, the application experience is streamlined into a single application process and the loan offers provided are firm. In the year ended December 31, 2022, 75% of Upstart-powered loans were instantly approved with no document upload or phone call required, an increase from 69% in 2021. Such automation improvements were due in large part to improvements to our AI models and the application of such models to different aspects of the loan process, including data verification and fraud detection.

Value Proposition to Lending Partners and Institutional Investors

- Competitive digital lending experience—We provide regional banks and credit unions with a cost effective way to compete with the technology budgets of their much larger competitors.
- Expanded customer base—We refer customers that apply for loans through Upstart.com to our lending partners, helping them grow both loan volumes and number of customers.
- Delivering returns—We focus on credit performance compared to the expectations set by us at the time of origination. Since 2018 through mid-2022, all quarterly vintages of loans retained by our lending partners, to date are currently forecasted to meet or exceed the target returns set at the time of loan origination. For loans purchased by institutional investors, all vintages from 2018 through 2020 are forecasted to deliver returns at or in excess of the targets such institutional investors were expecting to receive, while our 2021 through mid-2022 vintages have underperformed relative to target returns. If a loan buyer invested equally in all vintages of loans transacted across our platform since 2018, they would expect a positive return on all vintages thus far.
- New product offerings—Personal loans are one of the fastest-growing segments of credit in the U.S. and auto financing is the second largest segment of consumer lending. Our platform helps lenders provide a product their customers want, rather than letting customers seek loans from competitors.
- Institutional investor acceptance—Analyses by credit rating agencies help lenders gain confidence that Upstart-powered loans are subject to significant and constant scrutiny from experts, the results of which are often publicly available.

Our Competitive Strengths

Constantly Improving AI Models

We have been building and refining our AI models for more than nine years, and they have led directly to our growth and profitability. Our models currently incorporate more than 1,500 variables and are trained by more than 44.4 million repayment events. Beyond the advantages accrued by our constantly growing volume of training data, our machine learning team continues to update our modeling techniques regularly. Model and technology improvements have increased our conversion rate over time.

Flexible Two-Sided Ecosystem

We benefit from aggregating consumer demand on Upstart.com and referring those consumers directly to our network of lending partners. Our consumer presence allows us to increase awareness of and interest in Upstart-powered loans, directly contributing to our own growth, as well as the growth and success of our lending partners' lending programs.

With an expanding list of lending partners, we can solve the borrowing needs of an increasingly diverse array of consumers.

Efficient Fee-Based Business

In the year ended December 31, 2022, we generated 108% of revenue from fees from lending partners and loan servicing. We have also achieved a high degree of automation, with 75% of Upstart-powered loans approved instantly and fully automated in the year ended December 31, 2022, driving operating leverage and improving unit economics.

Regulatory Compliance

We have worked with regulators since our inception to ensure we operate in compliance with applicable laws and regulations. AI lending expands access to affordable credit by constantly finding new ways to identify qualified borrowers, yet AI models must avoid unlawful disparate impact or statistical bias that would be harmful to protected groups. We have demonstrated to the CFPB that our platform does not introduce unlawful bias to the credit decision and we have developed sophisticated testing procedures to ensure future versions of the model remain fair. Previously, we received a no-action letter regarding the use of our AI model to underwrite and price unsecured closed-end loans. The CFPB issues no-action letters to reduce potential regulatory uncertainty for innovative products that may offer significant consumer benefit. Our no-action letter was terminated upon our request in June 2022 so we could update our AI models without the delay of seeking regulatory approval.

Our Growth Strategy

Model Improvements

A key ingredient of our historical growth has been our AI model improvements and technology upgrades, and we expect this trend to continue for the foreseeable future. Model upgrades typically result in higher approval rates, better loan offers, higher degrees of automation and other improvements that increase our total number of funded loans. As our model accuracy increases, we are able to re-target and approve consumers who previously visited our site but were not eligible for a loan.

More Efficient Funding

When we have a sufficient supply of available capital, our growth can be driven by a reduced cost of funding for Upstart-powered loans. This can happen when more lenders adopt our platform, or existing partners increase their budget for Upstart-powered loans, increasing competition for loans and pushing down offered interest rates. Cost of funding can also be reduced as lending partners gain more confidence in our models and lower some of the constraints they choose to place on their lending program. The cost of funding through institutional investors can also improve over time, based on market conditions and as credit rating agencies and loan, bond, and residual buyers gain confidence in the credit performance of Upstart-powered loans.

Partner Distribution

Today, the vast majority of borrowers are referred to our lending partners via Upstart.com. But these lending partners are also beginning to offer Upstart-powered loans through their own websites, supported by their own marketing programs. We expect the lending partner distribution of Upstart-powered loans to grow over time, as more lending partners roll out branded versions of Upstart to serve their new and existing customers directly.

New Products

Personal loans are one of the fastest-growing segments of consumer credit in the U.S., but they are far from the largest. As we apply our AI models and technology to other credit verticals, we will be able to serve the needs of more consumers and to play a broader technology enablement role for our lending partners. There is significant opportunity to expand from personal loans and auto loans to mortgages and beyond.

In June 2020, we began offering auto loans on our platform and in September 2020, the first auto loan was originated through the Upstart platform. In the year ended December 31, 2022, approximately 26,000 auto loans were originated through Upstart.com. In October 2021, we announced the launch of Upstart Auto Retail software, and as of December 31, 2022 more than 700 dealer locations have adopted the software.

Our Marketplace

Our AI lending marketplace enables lenders to provide consumers access to credit. The first credit product offered through our platform was an unsecured personal loan, and we have since expanded to secured auto loans.

Consumers

We have built a mobile-responsive web application at Upstart.com, where consumers can quickly and easily inquire about a rate, evaluate and choose a loan offer, provide necessary information for verification and review required disclosures before final acceptance of the loan. A virtually identical experience is also offered as a branded product on lending partners' websites.

Lending Partners and Institutional Investors

Our platform is designed to help our lending partners originate loans according to their unique requirements. In order to do this, we provide a wide variety of options for lenders to define and control their lending program.

- Upstart Referral Network—Once we aggregate consumer demand on our website, we pass those customers to our lending partners.
- Branded product—Lending partners can serve customers with a branded Upstart application on their own website or mobile application.
- Configurations—Because our lending partners have complete authority and control over their lending programs, our lending partners predetermine many aspects of their loan offering, including interest rate and loan size ranges, maximum target loss rate, minimum credit score, maximum debt-to-income ratio, target returns for various risk profiles, fee structures and disclosures.
- Servicing—While most lending partners choose to have us service their loans (through a branded servicing portal), each has the option of
 directly servicing loans itself. Our servicing platform manages all communication with borrowers, credit reporting agencies, and when
 necessary, collections agencies.
- Access to capital markets—We have built a broad network of institutional investors who provide loan funding to lending partners through
 purchases of whole loans, pass-through certificates and asset-backed securitizations. A significant portion of the loans originated by CRB and
 two other lending partners are sold to institutional investors through our funding programs.
- Long-term committed funding—In August 2022, we announced our plans to pursue additional sources of institutional investor loan funding
 capacity for our marketplace that may include multi-year committed structures. As of December 31, 2022, long-term committed funding was
 not part of our funding structure.

Evolution of Upstart's AI Models

The AI models underpinning the Upstart platform are central to its efficacy and the high-quality experience we provide to borrowers. The key aspects of our AI models include:

Variables

Variables in our AI models have increased from 23 in 2014 to more than 1,500 as of December 31, 2022. These include factors related to credit experience, employment, educational history, bank account transactions, cost of living and loan application interactions.

Training Data

As of December 31, 2022, our models have been trained by more than 44.4 million repayment events such as a successful repayment or a delinquency. Upstart's models learn from repayment data even while loan principal remains outstanding, allowing the models to improve in real time.

Modeling Techniques

Growth in training data has enabled the development of increasingly sophisticated modeling techniques. For example, while earlier versions of our AI models were centered on logistic regression, our more recent models incorporate stochastic gradient boosting. We expect that our data science investments and continued growth of training data will unlock even more powerful techniques over time.

Model Applications

While our first model focused on predicting the likelihood of loan default, we have since applied models throughout the process of credit origination. These models quantify and reduce risk in various ways, while also increasing automation and funnel conversion.

The currently active AI models within the Upstart platform—shared by and available to all Upstart's lending partners—include:

- Fee optimization—optimizes assignment of origination fees;
- *Income fraud*—quantifies potential misrepresentation of borrower income;
- Acquisition targeting—identifies consumers likely to qualify for and have need for a loan;
- Loan stacking—identifies consumers likely to take out multiple loans in a short period of time;
- · Prepayment prediction—quantifies the likelihood that a consumer will make payments on a loan earlier than originally scheduled;
- Identity fraud—quantifies the risk that an applicant is misrepresenting their identity; and
- Time-delimited default prediction—quantifies the likelihood of default for each period of the loan term.

Our Technology Infrastructure

Our cloud-based software platform incorporates modern technologies and software development approaches to allow for rapid development of new features.

Cloud-Native Technologies

We run our technology platform as containerized services on the AWS cloud. Our architecture is designed for high availability and horizontal scalability. Our primary development platforms are Ruby on Rails and Python,

but our Kubernetes-based compute environment gives us the flexibility to run heterogeneous workloads with minimal operational overhead. We deploy new software regularly without platform downtime, allowing borrowers and lenders to immediately benefit from the latest updates to our platform.

Data Integrity and Security

Our information security program governs how we safeguard the confidentiality, integrity, and availability of our consumer and lending partner data. Our environment is continuously monitored with a suite of tools designed to detect and respond to security events in both internal and user-facing systems. We have a robust secure software development cycle and regularly engage with third parties to audit our security program and to perform regular penetration tests of our Web application and cloud environment.

Configurable Multi-Tenant Architecture

Our multi-tenant architecture enables multiple lending partners to use the same version of our application while securely segmenting their data. Though all tenants are using the same version of our platform, our software is designed to be highly configurable to meet the needs of our diverse lending partners, allowing customizations to everything from the applicant user interface to the core rules governing credit decisioning.

Machine Learning Platform

In order to support innovation in our underwriting, fraud detection and acquisition models, we have developed proprietary technologies to enable our machine learning team to develop, train, test and deploy new model updates with minimal engineering support. Our backend systems are designed to flexibly integrate with multiple third-party data sources to feed these models and support real-time decisioning.

Responsive Web Design

Our user interface is responsive to ensure applicants and borrowers have a smooth experience regardless of whether they are accessing our website from a desktop, mobile device or tablet.

Robust Reporting and Integration Capabilities

Our reporting APIs provide institutional investors and lending partners the ability to access data through a programmatic interface. Our integration capabilities with lending partners include an ability to pre-fill applicant information via API and provide loan details in real-time to facilitate a seamless process from application to origination. Our lending partner reporting portal provides our lending partners with a centralized console to view real time performance metrics of their lending program, view and verify their credit policy and program configuration, and on-demand access to operational reports and documents.

Consumer Marketing

Our growth and marketing approach is driven by the strength of our product and the interest rates we offer. While many lenders see consumer choice as a detractor from sales volume, we benefit when consumers compare our offers to other lenders' offers. Over time, our ability to offer lower rates than our competitors has improved significantly. Because our model changes in real time, we are able to extend new offer loans to applicants who were previously not eligible or were previously quoted a higher rate.

Our growth and marketing initiatives are primarily focused on bringing potential borrowers to Upstart.com, where they can learn if they qualify for a loan from one of our lending partners and the terms of the loan offer in only a few minutes. Our customer acquisition channels combine a mix of online and offline, as well as paid and unpaid, channels. While we constantly experiment to expand and optimize our acquisition strategies, our largest channels include:

- Marketing affiliates—A variety of online media partners, such as loan aggregators, send us traffic on a cost per origination basis. Many loan
 aggregators also incorporate application data to provide online prescreened offers, which leads to highly targeted and interested referrals. For
 example, a significant number of consumers that apply for a loan on Upstart.com learn about and access Upstart.com through the website of one of
 our partners, Credit Karma.
- Direct mail—We apply our strengths in data science to target individuals who both qualify for and may have a need for an Upstart-powered loan. The
 ability to analyze an individual's credit data to target and mail prescreened offers of credit gives this channel a meaningful data advantage over other
 channels.
- Organic traffic—As our brand recognition and reputation grow, an increasing number of potential borrowers come directly to Upstart.com simply by word of mouth.
- Email marketing—We have an automated email program that sends customized messages and reminders to potential borrowers once they have created accounts to encourage them to complete their loan application.
- Online advertising—Search engines and social channels enable targeted outreach to potential borrowers with specific messages. In addition, we also advertise on podcast and streaming television services.

Lending Partnerships

We target a wide range of small, medium, and large lending partners with an appetite to invest in improved underwriting, digital originations and unsecured lending. As of December 31, 2022, we had 90 lending partners.

CRB originates a large fraction of the whole loans sold to institutional investors under our loan funding programs. For the years ended December 31, 2020, 2021 and 2022, fees received from CRB accounted for 63%, 56% and 45%, of our total revenue, respectively. We have entered into a loan program agreement that governs the terms and conditions between us and CRB with respect to loans facilitated through our platform and issued by CRB.

We have also entered into separate agreements with each of our other lending partners. Our agreements with our lending partners are non-exclusive and may contain minimum fee amounts.

Our platform includes a cloud-based web application for all user interactions, including rate inquiry, loan offer presentation, adverse action notification, bank account verification and connectivity, borrower identity and credential verification, disclosure presentation and loan servicing. The software includes a variety of embedded AI models supporting and automating fraud prevention, credit decisioning and borrower verification. Lending partners also have access to an administrative interface for reporting and program management. We also perform regulatory fairness tests on lending partners' behalf.

Institutional Investors

Our platform allows lending partners to originate and retain loans that meet their business objectives. Because lenders vary with respect to program objectives, risk tolerance and funding capacity, each lender's program parameters can vary significantly.

By leveraging our institutional investors' broad and diverse capacity to absorb and distribute credit risk, we can develop our business and our AI models faster than if we relied only on the funding capacity of our lending partners. Accordingly, institutional funding enhances our lender funding capacity and risk tolerance. The combination of lending partner and institutional investor funding provides our platform with competitive and diverse capital.

Our network of institutional investors includes purchasers of whole loans originated via Upstart's platform, as well as capital markets investors that buy securities, such as pass-through certificates. In the case of whole loan purchasers, we typically enter into loan purchase agreements and loan servicing agreements with such purchasers.

The loan purchase agreements provide for the purchaser to place requests (ordinarily on a monthly basis) to purchase pools of whole loans originated via Upstart's platform by certain lending partners. Institutional investors may also purchase interests in loans originated via Upstart's platform in the form of pass-through certificates rather than whole loans. We have pass-through certificate programs sponsored by certain financial institutions under which institutional investors can purchase securities collateralized by Upstart-powered loans from an issuer trust.

While there are minimal differences between whole loan sales and sales of pass-through certificates from Upstart's perspective, both programs are offered to provide flexibility to institutional investors in our loan funding programs. Institutional investors may prefer pass-through certificates, which may be more liquid, while other institutional investors may prefer whole loan purchases, which are generally more cost effective. Whole loans purchased after origination may later be included in our asset-backed securitization transactions whereby interests in these Upstart-powered loans are sold to other institutional investors.

For our asset-backed securitization transactions, we engage with investment banks to structure investments under which we and/or certain of the purchasers of whole loans or pass-through certificates described in the preceding paragraphs sell pools of whole loans to a bankruptcy-remote securitization special purpose entity. The special purpose entities, through one or more intermediate transfers and entities, create and sell tranched asset-backed notes and subordinated certificates, in each case, backed by the collective pools of Upstart-powered loans sold into the investment structure. We are typically retained by participating institutional investors to service the loans, and act in such servicing capacity for the life of the investment transaction.

We are pursuing a plan for additional sources of institutional investor loan funding capacity for our marketplace that may include multi-year, committed structures.

Operations

We have developed sophisticated tools that our internal operations team uses to support the origination and servicing of credit. While verification is primarily and increasingly handled by our software and AI models, we also offer Upstart-designed tools to guide credit analysts and fraud specialists in cases where our software is not yet able to sufficiently verify borrower information. By providing a prescriptive and unique path for each applicant, our system helps our operations team provide a streamlined experience for as many borrowers as possible.

Our operations teams, including credit analysts, fraud specialists, customer support, payments specialists, and supporting services (like quality assurance and training) work to deliver a seamless user experience to consumers on behalf of our lending partners.

Loan Origination Operations

While verification is primarily and increasingly handled by our software and AI models, we also offer Upstart-designed tools to guide credit analysts and fraud specialists in cases where our software is not yet able to sufficiently verify borrower information. By providing a prescriptive and unique path for each applicant, our system helps our operations team provide a streamlined experience for as many borrowers as possible.

This team focuses on the minority of borrowers whose applications are not entirely automated or any applicant who has questions or issues throughout the application process. While 25% of Upstart-powered loans involve human processing, the vast majority of these loans are not fraudulent. Thus, our team focuses on expediting applicants through the process to the extent possible and appropriate, while identifying and rejecting fraudulent applications. Our operations team works closely with our engineering and machine learning teams to further increase our levels of automation.

Most prospective borrowers and applicants interact with Upstart via our online platform and help center, but we also make agent-based support readily available to all borrowers. For phone support, we partner with external call center vendors and have a team of dedicated Upstart agents with specialized training.

Servicing Operations

Upstart-powered loans are serviced via our homegrown platform. For borrowers who miss payments, we focus on early intervention and attempt to reach them via emails, calls, texts, and mail to help bring their account current or offer hardship options in accordance with our servicing policies. Borrowers on our platform are supported via a combination of internal payments specialists and third-party service providers.

We hold collections licenses in the majority of states and conduct some first-party collections activities. We also partner with third-party agencies for collections, especially for accounts more than 30 days past due. Debt collection calls and collection performance are reviewed regularly by our quality assurance or vendor management teams. Our operations and compliance teams each also perform vendor onsite audits annually.

Competition

Consumer lending is a vast and competitive market, and we compete in varying degrees with all other sources of unsecured consumer credit, including banks, non-bank lenders (including retail-based lenders) and other financial technology lending platforms. Because personal loans often serve as a replacement for credit cards, we also compete with the convenience and ubiquity that credit cards represent.

On the lending partnership side, we compete with a variety of technology companies that aim to help lenders with the digital transformation of their business, particularly with respect to all-digital lending. This includes new products from legacy lending technology providers as well as newer companies focused entirely on lending software infrastructure for lenders. We may also face competition from lenders or companies that have not previously competed in the consumer lending market, including companies with large and experienced machine learning teams and access to vast amounts of consumer-related information that could be used in the development of their own credit risk models.

We believe we compete favorably based on the following competitive factors:

- · Constantly improving AI models;
- Compelling loan offers to consumers that improve regularly;
- Automated and user-friendly loan application process;
- Consistent and predictable loan performance;
- Cloud-native, multi-tenant architecture;
- Combination of technology and customer acquisition for lending partners;
- · Robust and diverse loan funding programs; and
- · Brand recognition and trust.

Government Regulation

We and the loans made through our platform by our lending partners are subject to extensive and complex rules and regulations and examination by various federal, state and local government authorities. Failure to comply with any of the applicable rules and regulations may result in, among other things, revocation of required licenses or registration, loss of approved status, effective voiding or rescission of the loan contracts, class action lawsuits, administrative enforcement actions and civil and criminal liability. While compliance with such requirements is at times complicated by our novel business model, we believe we are, at a minimum, in substantial compliance with these rules and regulations.

We are currently, and expect in the future, to be regulated by the CFPB. In addition to the CFPB, the Federal Trade Commission has jurisdiction to investigate aspects of our business, including with respect to marketing practices. Other state and federal agencies, including prudential bank regulators and state attorneys

general have the ability to regulate aspects of our business. Further, we are subject to inspections, examinations, supervision and regulation by applicable agencies in each state in which we are licensed. Regulatory oversight of our business may change over time. By way of example, in 2020, the California Consumer Financial Protection Law was enacted, which seeks to emulate the CFPB with respect to its enforcement and supervisory capabilities as well as require additional state registration for certain covered persons. We expect that regulatory examinations by both federal and state agencies will continue, and there can be no assurance that the results of such examinations will not have a material adverse effect on us.

Below, we summarize several of the material federal lending, servicing and related laws applicable to our business. Many states have laws and regulations that are similar to the federal consumer protection laws referred to below, but the degree and nature of such laws and regulations vary from state to state.

Federal Lending and Related Laws

Truth in Lending Act

The Truth in Lending Act, or TILA, and Regulation Z, which implements it, require creditors to provide consumers with uniform, understandable information concerning certain terms and conditions of their loan and credit transactions, and to comply with certain lending practice requirements and restrictions. These rules apply to loans facilitated through our platform, and we assist with compliance as part of the services we provide to our lending partners. For closed-end credit transactions, required disclosures include, among others, providing the annual percentage rate, the finance charge, the amount financed, the number of payments, the amount of the monthly payment, the presence and amount of certain fees, and the presence of certain contractual terms. TILA also regulates the advertising of credit and gives borrowers, among other things, certain rights regarding updated disclosures and the treatment of credit balances. We, on behalf of the applicable lending partner, provide applicants with a TILA disclosure when applicants complete their loan applications on our platform. If the applicant's request is not fully funded and the applicant chooses to accept a lesser amount offered, we provide an updated TILA disclosure on behalf of the applicable lending partner. We also seek to comply with TILA's disclosure requirements related to credit advertising and, to the extent that we hold or service loans, TILA's requirements related to treatment of credit balances for closed-end loans. We also can facilitate the origination of a limited number of credit card accounts through our platform. In connection with such accounts, TILA requires the provision of certain solicitation and account-opening disclosures. TILA also imposes requirements on the terms of credit card accounts, and the process of originating and servicing such accounts. Though our platform may facilitate the origination of credit card accounts by a lending partner, we do not originate or service such accounts at this time.

Equal Credit Opportunity Act

The Equal Credit Opportunity Act, or ECOA, prohibits creditors from discriminating against credit applicants on the basis of race, color, sex, age (provided that the applicant has the capacity to enter into a binding contract), religion, national origin, marital status, the fact that all or part of the applicant's income derives from any public assistance program, or the fact that the applicant has in good faith exercised any right under the federal Consumer Credit Protection Act or certain state laws. Regulation B, which implements ECOA, restricts creditors from requesting certain types of information from loan applicants or engaging in certain loan-related practices, and from using advertising or making statements that would discourage on a prohibited basis a reasonable person from making or pursuing an application. These requirements apply to lending partners for loans facilitated through our platform as well as to us as a service provider that assists in the process. We abide by policies and procedures implemented by our lending partners to comply with ECOA's provisions prohibiting discouragement and discrimination. ECOA also requires creditors to provide applicants with timely notices of adverse action taken on credit applications, including disclosing to applicants who have been declined their rights and the reason for their having been declined. On behalf of our lending partners, we provide prospective borrowers who apply for a loan through our platform but are denied credit with an adverse action notice in compliance with applicable requirements.

On December 1, 2020, in connection with the inquiries from a consumer advocacy group and five members of the U.S. Senate seeking information regarding our compliance with ECOA, we entered into an agreement with the

NAACP Legal Defense and Education Fund and the Student Borrower Protection Center in which we agreed, among other things, to participate in fair lending reviews of our AI models and to engage Relman Colfax LLP, or Relman, a neutral third-party firm, to perform periodic fair lending assessments over a two-year period. Most recently, in September 2022, Relman published its third public report with its findings and recommendations for our AI models. Notwithstanding our belief that our models and our lending partners' lending facilitated by our models comply with ECOA, the reports from Relman and consumer advocacy groups and associated legislative and/or regulatory inquiries could create negative publicity and increase the risk of private litigation or government enforcement. See the section titled "Risk Factors—Risks Related to Our Business and Industry" for more information.

Fair Credit Reporting Act

The federal Fair Credit Reporting Act, or FCRA, as amended by the Fair and Accurate Credit Transactions Act, and administered by the CFPB, promotes the accuracy, fairness, and privacy of information in the files of consumer reporting agencies. FCRA requires a permissible purpose to obtain a consumer credit report and requires that persons who report loan payment information to credit bureaus do so accurately and to resolve disputes regarding reported information timely. FCRA also imposes disclosure requirements on creditors who take adverse action on credit applications based on information contained in a credit report.

Under FCRA, certain information must be provided to applicants whose credit applications are not approved on the basis of a report obtained from a consumer reporting agency, promptly update any credit information reported to a credit reporting agency about a customer and have a process by which customers may inquire about credit information furnished by us to a consumer reporting agency. We and our lending partners have a permissible purpose for obtaining credit reports on potential borrowers, and we also obtain explicit consent from borrowers to obtain such reports. As part of our loan servicing activities, we accurately report loan payment and delinquency information to appropriate consumer reporting agencies. We provide an adverse action notice to a rejected applicants on behalf of each lending partner on our platform at the time the applicant is rejected that includes all the required disclosures. We also have processes in place to ensure that consumers are given "opt-out" opportunities, as required by the FCRA, regarding the sharing of their personal information. We have also implemented an identity theft prevention program, as required by FCRA and its implementing regulations.

Fair Debt Collection Practices Act

The federal Fair Debt Collection Practices Act, or FDCPA, and Regulation F that implements FDCPA, provides guidelines and limitations on the conduct of certain debt collectors in connection with the collection of consumer debts. The FDCPA limits certain communications with third parties, imposes notice and debt validation requirements, and prohibits threatening, harassing or abusive conduct in the course of debt collection. While the FDCPA primarily applies to third-party debt collection laws of certain states impose similar requirements more broadly on creditors who collect their own debts. In addition, the CFPB prohibits unfair, deceptive or abusive acts or practices, or UDAAPs in debt collection, including first-party debt collection. We use our internal collection team and professional third-party debt collection agents to collect delinquent accounts. Any third-party debt collection agents we use are required to comply with the FDCPA and all other applicable laws in collecting delinquent accounts of borrowers. While our internal servicing team is not subject to the formal requirements of the FDCPA in most cases, we have established policies intended to substantially comply with the collection practice requirements under the FDCPA as a means of complying with more general UDAAP standards.

Privacy and Data Security Laws

The federal Gramm-Leach-Bliley Act, or GLBA, includes limitations on financial institutions' disclosure of nonpublic personal information about a consumer to nonaffiliated third parties, in certain circumstances requires financial institutions to limit the use and further disclosure of nonpublic personal information by nonaffiliated third parties to whom they disclose such information and requires financial institutions to disclose certain privacy policies and practices with respect to information sharing with affiliated and nonaffiliated entities as well as to safeguard personal customer information. We collect and use a wide variety of information to help ensure the integrity of our

services and to provide features and functionality to our customers. This aspect of our business, including the collection, use, and protection of the information we acquire from our own services as well as from third-party sources, is subject to laws and regulations in the United States. Accordingly, we publish our privacy policies and terms of service, which describe our practices concerning the use, transmission, and disclosure of information. We have a detailed privacy policy, that addresses the GLBA and is accessible from every page of our website. We work to maintain the security of consumers' personal information securely, and we do not sell, rent or share such information with third parties for marketing purposes unless previously agreed to by the consumer. In addition, we take measures to safeguard the personal information of borrowers and investors and protect against unauthorized access to this information. We also are subject to other privacy and security laws and regulations that apply to certain personal information that we collect or otherwise process, such as the California Consumer Privacy Act, or CCPA. The CCPA, which went into effect in 2020, requires, among other things, that covered companies provide disclosures to California consumers and afford such consumers rights with respect to how covered companies process their personal information. Other states have enacted similar laws. As our business continues to expand, and as state and federal laws and regulations continue to be passed and their interpretations continue to evolve, additional laws and regulations may become relevant to us.

Dodd-Frank Wall Street Reform and Consumer Protection Act

In July 2010, the Dodd-Frank Act was signed into law. The Dodd-Frank Act is extensive and significant legislation that includes consumer protection provisions. Among other things, the Dodd-Frank Act created the CFPB, which commenced operations in July 2011 and has significant authority to implement and enforce federal consumer financial laws, such as the TILA and the ECOA. The CFPB is authorized to prevent "unfair, deceptive or abusive acts or practices" through its regulatory, supervisory and enforcement authority. The CFPB also engages in consumer financial education, requests data and promotes the availability of financial services to underserved customers and communities. The CFPB has regulatory and enforcement powers over most providers of consumer financial products and services, including us. It also has supervisory and examination powers over certain providers of consumer financial products and services, including large banks, payday lenders, "larger participants" in certain financial services markets defined by CFPB regulation, and non-bank entities determined to present a risk to consumers after notice and an opportunity to respond.

The CFPB has imposed, and will continue to impose, restrictions on lending practices, including with respect to the terms of certain loans. We and our lending partners are subject to the CFPB's enforcement authority. The CFPB may request reports concerning our organization, business conduct, markets and activities. In addition, the CFPB may, in connection with its supervisory authority, also conduct on-site examinations of our and our lending partners' businesses on a periodic basis, subject to whether the applicable lending partner satisfies the assets threshold for CFPB supervision. If the CFPB were to conclude that our loan origination assistance or servicing activities, or any loans originated by our lending partners on our platform, violate applicable laws or regulations, we could be subject to a formal or informal inquiry, investigation and/or enforcement action. Formal enforcement actions are generally made public. We are not currently subject to any enforcement actions by the CFPB.

For more information regarding the CFPB and the CFPB rules to which we are subject or may become subject, see Item 1A. "Risk Factors" of this Annual Report on Form 10-K.

Federal Trade Commission Act

Under Section 5 of the Federal Trade Commission Act, we and our lending partners are prohibited from engaging in unfair and deceptive acts and practices, or UDAP. For nonbank financial institutions, the FTC is the primary regulator enforcing this prohibition, and in recent years the FTC has been focused on practices of financial technology companies. Based on publicly available actions, the FTC's primary focus has been with respect to financial technology company marketing and disclosure practices. We maintain policies and procedures that require our marketing and loan application and servicing operations comply with UDAP standards. For more information regarding the FTC's enforcement actions, see Item 1A. "Risk Factors" of this Annual Report on Form 10-K.

Electronic Fund Transfer Act and NACHA Rules

The federal Electronic Fund Transfer Act, or EFTA, provides guidelines and restrictions on the electronic transfer of funds from consumers' bank accounts. Under EFTA, and Regulation E that implements it, we must obtain consumer consents prior to receiving electronic transfer of funds from consumers' bank accounts, and our lending partners may not condition an extension of credit on the borrower's agreement to repay the loan through preauthorized (recurring) electronic fund transfers. In addition to compliance with federal laws, transfers performed by ACH electronic transfers are subject to detailed timing and notification rules and guidelines administered by the National Automated Clearinghouse Association, or NACHA. While NACHA guidelines are not laws, failure to comply with them may nevertheless result in commercial harm to our business. All transfers of funds related to our operations conform to the EFTA, its regulations and NACHA guidelines. As part of our servicing activities, we obtain necessary electronic authorization from borrowers and investors for such transfers in compliance with such rules. The loans offered on our platform by our lending partners must also comply with the requirement that a loan cannot be conditioned on the borrower's agreement to repay the loan through recurring electronic fund transfers.

Electronic Signatures in Global and National Commerce Act

The federal Electronic Signatures in Global and National Commerce Act, or ESIGN, and similar state laws, particularly the Uniform Electronic Transactions Act, or UETA, authorize the creation of legally binding and enforceable agreements utilizing electronic records and signatures. ESIGN and UETA require businesses that want to use electronic records or signatures in consumer transactions and provide disclosures to consumers (otherwise required to be "in writing" in electronic form), to obtain the consumer's consent to receive information electronically. When a consumer registers on our platform, we obtain his or her consent to transact business electronically, receive electronic disclosures and maintain electronic records in compliance with ESIGN and UETA requirements, and we maintain electronic signatures and records in a manner intended to support enforceability of relevant consumer agreements and consents.

Federal Marketing Regulations

The Telephone Consumer Protection Act, or TCPA, generally prohibits robocalls, including those calls made using an auto-dialer or prerecorded or artificial voice calls made to a wireless telephone without the prior express consent of the called party (or prior express written consent, if messages constitute telemarketing). In addition, the FTC Telemarketing Sales Rule implements the FTC's Do-Not-Call Registry and imposes numerous other requirements and limitations in connection with telemarketing. Upstart's policies address the requirements of the TCPA as well as FTC Telemarketing Sales Rule and other laws limiting telephone outreach. Furthermore, Upstart does not engage in certain activities covered by the TCPA, such as using an automated dialer.

The Federal Controlling the Assault of Non-Solicited Pornography and Marketing, or CAN-SPAM, Act makes it unlawful to send certain electronic mail messages that contain false or deceptive information and provide other protections for email users. CAN-SPAM also requires the need to provide a functioning mechanism that allows the recipient to opt-out of receiving future commercial e-mail messages from the sender of such messages. Upstart's email communications with all consumers are formulated to comply with the CAN-SPAM Act.

Servicemembers Civil Relief Act

Under the Servicemembers Civil Relief Act, or SCRA, there are limits on interest rates chargeable to military personnel and civil judicial proceedings against them, and there are limitations on our ability to collect on a loan to servicemembers on active duty originated prior to the servicemember entering active duty status and, in certain cases, for a period of time thereafter. The SCRA allows military members to suspend or postpone certain civil obligations so that the military member can devote his or her full attention to military duties. The SCRA requires us to adjust the interest rate of borrowers who qualify for and request relief. If a borrower with an outstanding loan qualifies for SCRA protection the interest rate on their loan (including certain fees) will be reduced to 6% for the duration of the borrower's active duty. During this period, any interest holder in the loan will not receive the difference between 6% and the loan's original interest rate. As part of the services we provide, we require the borrower to send us a written request and a copy of the borrower's mobilization orders to obtain an

interest rate reduction on a loan due to military service. Other protections offered to servicemembers under the SCRA, including protections related to the collection of loans, do not require the servicemember to take any particular action, such as submitting military orders, to claim benefits.

Military Lending Act

Under the Military Lending Act, certain members of the armed forces serving on active duty and their dependents must be identified and be provided with certain protections when becoming obligated on a consumer credit transaction. These protections include: a limit on the Military Annual Percentage Rate (an all-in cost-of-credit measure which is the same as the APR for loans facilitated on our platform) of 36%, certain required disclosures before origination, a prohibition on charging prepayment penalties and a prohibition on arbitration agreements and certain other loan agreement terms. As part of the services we provide, we ensure compliance with the requirements of the Military Lending Act.

Bank Secrecy Act, USA PATRIOT Act, and U.S. Sanctions Laws

Under the Bank Secrecy Act, the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act, or USA PATRIOT ACT, and certain U.S. sanctions laws, our lending partners are required to maintain anti-money laundering, customer due diligence and record-keeping policies and procedures, which we perform on behalf of our lending partners, and to avoid doing business with certain sanctioned persons or entities or certain types of sanctioned activity in certain countries. We have implemented an AML program designed to prevent our platform from being used to facilitate money laundering, terrorist financing, and other illicit activity. Our AML program is designed to prevent our platform from being used to facilitate business in countries, or with persons or entities, included on designated lists promulgated by the U.S. Department of the Treasury's Office of Foreign Assets Controls and equivalent foreign authorities. Our AML compliance program includes policies, procedures, reporting protocols, and internal controls, including the designation of an AML compliance officer, and is designed to address these legal and regulatory requirements and to assist in managing risk associated with money laundering and terrorist financing. With respect to new borrowers, we apply the customer identification and verification program rules and screen names against the list of specially designated nationals maintained by the U.S. Department of the Treasury and OFAC pursuant to the USA PATRIOT Act amendments to the Bank Secrecy Act and its implementing regulation.

Bankruptcy Code

Under the Bankruptcy Code, we are regulated and in certain circumstances prohibited by the automatic stay, reorganization plan and discharge provisions, among others, in seeking enforcement of debts against parties who have filed for bankruptcy protection. Our policies are designed to support compliance with the Bankruptcy Code as we service and collect loans.

State Lending Regulations

State Usury Limitations

With respect to lending partners that are subject to Section 521 of the Depository Institution Deregulation and Monetary Control Act of 1980, or DIDMCA, (for FDIC-insured, state banks originating loans on our platform, which represent the vast majority of loans originated) or Section 85 of the National Bank Act, or NBA, (for national banks originating loans on our platform), federal case law interpreting such provisions (including interpretations of the NBA under Tiffany v. National Bank of Missouri and Marquette National Bank of Minneapolis v. First Omaha Service Corporation), and relevant regulatory guidance (including FDIC advisory opinion 92-47) permit certain depository institutions to "export" requirements regarding interest rates and certain fees considered to be "interest" under federal law from the state or U.S. territory where the bank is located for all loans originated from such state, regardless of the usury limitations imposed by the state law of the borrower's residence or other states with which the loan may have a geographic nexus, unless the state has chosen to opt out of the exportation regime. We believe, however, if a state or U.S. territory in which we operate opted out of rate exportation, judicial interpretations support

the view that such opt outs would apply only to loans "made" in those states. We believe that the "opt-out" of any state would not affect the ability of our platform to benefit from the exportation of rates. See Item 1A "Risk Factors" of this Annual Report on Form 10-K for more information about the risk if any loans were deemed subject to any state's usury limits.

There have also been recent judicial decisions that could affect the collectability of loans sold by our lending partners after origination and the exposure of loan purchasers to potential fines or other penalties for usury violations. See the section titled "Risk Factors" for more information about recent case law developments.

State Disclosure and Lending Practice Requirements

The loans originated on our platform by our lending partners may be subject to state laws and regulations that impose requirements related to loan disclosures and terms, credit discrimination, credit reporting, debt collection, and unfair or deceptive business practices. Our ongoing compliance program seeks to comply with these requirements.

State Licensing/Registration

We hold licenses, registrations, and similar filings so that we can conduct business, including providing referral services and origination assistance to lenders on our platform and servicing and collecting loans, in all states and the District of Columbia where our activities require such licensure, registration or filing. With respect to our securitization trusts, we have a national bank that serves as our owner trustee and is itself exempt from licensure. Although we are not aware of a state taking the position that the trust itself needs licensure, it is possible that a state or states could take such position in the future. Licenses granted by the regulatory agencies in various states are subject to periodic renewal and may be revoked or suspended for failure to comply with applicable state and federal laws and regulations. In addition, as the product offerings of Upstart or our lending partners change, as states enact new licensing requirements or amend existing licensing laws or regulations, or as states regulators or courts adjust their interpretations of licensing statutes and regulations, we may be required to obtain additional licenses. To that end, we have a small number of applications submitted and pending to obtain additional licenses, particularly with respect to obtaining additional authorization to engage in student loan servicing and collection activities. We are also typically required to complete an annual report (or its equivalent) to each state's regulator. The statutes also typically subject us to the supervisory and examination authority of state regulators.

State licensing statutes impose a variety of requirements and restrictions, including:

- record-keeping requirements;
- · collection and servicing practices;
- requirements governing electronic payments, transactions, signatures and disclosures;
- · examination requirements;
- surety bond and minimum net worth requirements;
- financial reporting requirements;
- · notification requirements for changes in principal officers, stock ownership or corporate control; and
- · restrictions on advertising and other loan solicitation activity, as well as restrictions on loan referral or similar practices.

Federal Securities Regulations

Securities Act

Upstart and certain of our subsidiaries have relied on Section 4(a)(2) of the Securities Act for placement of asset-backed securities directly to investors or to investment bank initial purchasers, which have relied on Rule

144A and Regulation S exemptions from registration to place such asset-backed securities to qualified institutional buyers and non-U.S. investors, respectively.

Investment Advisers Act

The Investment Advisers Act of 1940, as amended, or IAA, contains substantive legal requirements that regulate the manner in which "investment advisers" are permitted to conduct their business activities. We believe that our business consists of providing a platform for consumer lending for which investment adviser registration and regulation does not apply under applicable federal or state law, and do not believe that we or any of our subsidiaries are required to register as an investment adviser with either the SEC or any of the various states.

Broker-Dealer Regulations under the Exchange Act

We are not currently registered with the SEC as a broker-dealer under the Exchange Act or any comparable state law. The SEC heavily regulates the manner in which broker-dealers are permitted to conduct their business activities. We believe we have conducted, and we intend to continue to conduct, our business in a manner that does not result in Upstart being characterized as a broker-dealer, based on guidance published by the SEC and its staff.

ABS Risk Retention Rules

Regulation RR was jointly issued by a group of federal agencies under section 15G of the Exchange Act, as well as under the Federal Reserve Act, section 8 of the Federal Deposit Insurance Act, the Bank Holding Company Act of 1956, the Home Owners' Loan Act of 1933; section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act; and the International Banking Act of 1978. Its purpose is to require securitizers to retain an economic interest in a portion of the credit risk of assets that the securitizer transfers or sells to an issuing entity and that collateralize asset-backed securities that are sold to a third party. We believe we have structured our organization such that we are in compliance with Regulation RR and will continue to conduct our business in a manner that allows us to remain in compliance with this regulation.

Compliance

We review our policies and procedures to ensure compliance with applicable regulatory laws and regulations applicable to us and our lending partners. We have built our systems and processes with controls in place in order to permit our policies and procedures to be followed on a consistent basis. For example, to ensure proper controls are in place to maintain compliance with the consumer protection related laws and regulations, we have developed a compliance management system consistent with the regulatory expectations published by governmental agencies. While no compliance program can assure that there will not be violations, or alleged violations, of applicable laws, we believe that our compliance management system is reasonably designed and managed to minimize compliance-related risks.

Intellectual Property

We protect our intellectual property through a combination of patents, trademarks, domain names, copyrights and trade secrets, as well as through contractual provisions, our information security infrastructure and restrictions on access to or use of our proprietary technology. As of December 31, 2022, we had two patents issued and one patent application in the United States related to our proprietary risk model and data engineering. We may file additional patent applications or pursue additional patent protection in the future to the extent we believe it will be beneficial.

We have trademark rights in our name, our logo and other brand indicia, and have trademark registrations for select marks in the United States. We will pursue additional trademark registrations to the extent we believe it will be beneficial. We also have registered domain names for websites that we use in our business. We may be subject to third party claims from time to time with respect to our intellectual property.

Additionally, we rely upon unpatented trade secrets and confidential know-how and continuing technological innovation to develop and maintain our competitive position. We also enter into confidentiality and intellectual property rights agreements with our employees, consultants, contractors and business partners. Under such agreements, our employees, consultants and contractors are subject to invention assignment provisions designed to protect our proprietary information and ensure our ownership in intellectual property developed pursuant to such agreements.

For additional information about our intellectual property and associated risks, see the section titled "Risk Factors—Risks Related to Our Business and Industry."

Culture and Workforce

We have built a very special company culture at Upstart. Building the best place for top talent to do great work has been a priority for us from day one. It is not an accident that we have received best place to work awards in both our San Mateo and Columbus locations. In spite of the challenges we encountered in 2022 - from the macro-economic environment to the ongoing pandemic - our employee engagement remains higher than our technology peers and retention of our top talent is strong.

We brought together a remarkable diversity of thinkers to build Upstart. Our co-founders and the members of our management team come from diverse backgrounds with varying ethnicities, education backgrounds, genders and ages. This diversity of thought ensures we tackle problems from all angles and arrive at the best solution for all stakeholders.

Recruiting

We attract and recruit diverse, exceptionally talented, highly educated, experienced and motivated employees. We have an extremely rigorous recruiting and employee candidate screening process. For example, our machine learning team, responsible for the development and constant improvement of our AI models, is unlike any other that we are aware of in the consumer lending space. The majority of the members of this team have doctorate degrees in statistics, mathematics, computer science, economics or physics and many have extensive past experience in quantitative finance.

Inclusion

Inclusion is not a standalone strategy at Upstart, it is central to our talent advantage and therefore it underpins everything we do in the people programs we build. From our compensation practices to how we think about talent management and team development to the perks and benefits we invest in, we take a diversity, equity, and inclusion lens to each decision we make and every strategy we build.

Upstart employees are also passionate about building an environment that works for all. Over the last three years, we have invested heavily in growing our employee resource groups, and currently have nine employee led organizations designed to support employees in communities that matter to them. This includes our African American Employee Network, Catalyst (for our LGBTQ2IA+ community), LatinX, TAU (for Asian American Upstarters), and most recently, a Veterans ERG, along with more than 20 clubs and special interest groups. Employees continue to host employee-led "lunch and learns" on topics ranging from startup financing, to how to fly a drone, to a salsa class taught by our Chief Compliance Officer.

Digital First Approach

As the pandemic raged on and work from home became an expectable norm, we shifted our talent location strategy to one that focused on "digital" work first. Employees in eligible roles (which comprise the majority of our full-time roles) can work from anywhere in the United States, including in one of our three offices in Austin, Texas; Columbus, Ohio; or San Mateo, California. However, to ensure we continue to build relationships and capture the

magic of those innovative, in-person "aha" moments, we also provide travel and onsite budgets to ensure teams can come together regularly. This year, we launched an in-person onboarding experience in which new hires get to meet our co-founders and other senior leaders at the company while building important connections with employees across the company. We believe the benefits of in-office work can be captured in just a few well-considered days together, so this flexible approach provides Upstart the best of all worlds: in-person collaboration and team building as well as access to diverse talent all over the country.

Employee Benefits

In addition to providing competitive benefits like fully paid health insurance, life insurance and disability, flexible time off for our salaried employees, and fully paid parental leave, we invest in benefits that will provide financial flexibility and financial wellness for our employees - we see this as central to our brand as an employer, and to attracting the types of employees that will be passionate about our mission to serve borrowers. We continue to provide flexible "wellness" and "productivity" budgets allowing our diverse population of employees to spend in ways that will be most useful for them. Inspired by our company mission, we also provide important traditional financial benefits like a 401(k) match (where we match 401(k) contributions up to a set dollar amount, ensuring equal access to these benefits dollars regardless of salary level), a generous Employee Stock Purchase Plan, and access to a financial planning and money management platform. In 2022, we improved our time-off and leave policies - including increasing parental leave for all who need this critical family benefit. We believe that these employee benefits, combined with competitive salaries and an equity program that grants restricted stock units to all full-time employees, have ensured that we remain a top employer in our industry.

As of December 31, 2022, we had 1,875 full-time employees. We also engage temporary employees, contractors and consultants as needed to support our operations. None of our employees are represented by a labor union or subject to a collective bargaining agreement. We have not experienced any work stoppages, and we consider our relations with our employees to be good.

Corporate Information

Upstart Network, Inc. was incorporated in Delaware in 2012. Pursuant to a restructuring, Upstart Holdings, Inc. was incorporated in December 2013 and became the holding company of Upstart Network, Inc. Our principal executive offices are located at 2950 S. Delaware Street, Suite 300, San Mateo, California 94403, and our telephone number is (650) 204-1000. Our website address is www.upstart.com. The content of our websites and information that can be accessed through our websites is not incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the SEC, and any references to our websites are intended to be inactive textual references only.

Available Information

Our website is located at www.upstart.com and our investor relations website at ir.upstart.com. Copies of our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, are available free of charge on our investor relations website as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The SEC also maintains a website that contains our SEC filings at www.sec.gov. The content of our websites and information that can be accessed through our websites is not incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the SEC, and any references to our websites are intended to be inactive textual references only.

We announce material information to the public about us, our products and services and other matters through a variety of means, including filings with the SEC, press releases, public conference calls, webcasts, the investor relations section of our website (ir.upstart.com), in order to achieve broad, non-exclusionary distribution of information to the public and for complying with our disclosure obligations under Regulation FD.

ITEM 1A. RISK FACTORS

RISK FACTORS

Investing in our common stock involves a high degree of risk. The risks and uncertainties described below should be carefully considered, together with all of the other information in this Annual Report on Form 10-K, including the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes, before making a decision to invest in our common stock. Our business, financial condition, results of operations, or prospects could also be harmed by risks and uncertainties not currently known to us or that we currently do not believe are material. If any of the risks actually occur, our business, financial condition, results of operations, and prospects could be adversely affected. In that event, the market price of our common stock could decline, and you could lose part or all of your investment.

SUMMARY OF RISK FACTORS

The material risks that may affect our business, financial condition or results of operations include, but are not limited to, those relating to the following:

- We experienced rapid growth in the past and have a relatively limited operating history, which may result in increased risks, uncertainties, expenses and difficulties, and makes it difficult to evaluate our future prospects.
- · Our revenue growth rate and financial performance in prior years may not be indicative of future performance.
- Our business has been and may continue to be adversely affected by economic conditions and other factors that we cannot control.
- If we are unable to maintain diverse and robust loan funding programs with institutional investors, our growth prospects, business, financial condition and results of operations could be adversely affected.
- If our existing lending partners cease or limit operations with us or if we are unable to attract and onboard new lending partners, our business, financial condition and results of operations will be adversely affected.
- We have incurred net losses, and we may not be able to achieve profitability in the future.
- · Our quarterly results are likely to fluctuate and as a result may adversely affect the trading price of our common stock.
- If we are unable to continue to improve our AI models or if our AI models contain errors or are otherwise ineffective, our growth prospects, business, financial condition and results of operations would be adversely affected.
- Our AI models have not yet been extensively tested during down-cycle economic conditions. If our AI models do not, or are perceived not to, accurately reflect a borrower's credit risk in such economic conditions, the performance of Upstart-powered loans may be worse than anticipated.
- Our securitizations, whole loan sales and warehouse credit facilities expose us to certain risks, and we can provide no assurance that we will be able to access the securitization markets, continue our whole loan sales, renew our existing warehouse credit facilities or obtain new warehouse credit facilities in the future. This may result in the reduced supply of loan funding capital or require us to seek more costly financing for our marketplace.
- Cross River Bank and one other lending partner account for a substantial portion of the total number of loans facilitated by our platform and our revenue.
- The sales and onboarding process of new lending partners could take longer than expected, leading to fluctuations or variability in expected revenues and results of operations.
- The COVID-19 pandemic has harmed our business, financial condition and results of operations and the duration and extent to which it will impact our future results of operations and overall financial performance remains uncertain.

- Our business is subject to a wide range of laws and regulations, many of which are evolving, and failure or perceived failure to comply with such laws
 and regulations could harm our business, financial condition and results of operations.
- Substantially all of our revenue is derived from a single loan product, and we are thus particularly susceptible to fluctuations in the unsecured personal loan market. We also do not currently offer a broad suite of products that lending partners may find desirable.
- We are continuing to introduce and develop new loan products and services offerings, and if these products are not successful or we are unable to manage the related risks, our growth prospects, business, financial, condition and results of operations could be adversely affected.
- · If we fail to effectively manage our growth, our business, financial condition and results of operations could be adversely affected.
- Our reputation and brand are important to our success, and if we are unable to continue developing our reputation and brand, our ability to retain existing and attract new lending partners, our ability to attract borrowers to our platform, our ability to maintain a diverse funding marketplace and our ability to maintain and improve our relationship with regulators of our industry could be adversely affected.
- We may fail to achieve the expected cost savings and related benefits from our reduction in workforce initiated in November 2022 and January 2023.
- We rely on strategic relationships with loan aggregators to attract applicants to our platform, and if we cannot maintain effective relationships with loan aggregators or successfully replace their services, or if loan aggregators begin offering competing products, our business could be adversely affected.

RISKS RELATED TO OUR BUSINESS AND INDUSTRY

We experienced rapid growth in the past and have a relatively limited operating history, which may result in increased risks, uncertainties, expenses and difficulties, and makes it difficult to evaluate our future prospects.

We were founded in 2012 and have experienced rapid growth in the past. Our limited operating history may make it difficult to make accurate predictions about our future performance. Assessing our business and future prospects may also be difficult because of the risks and difficulties we face. These risks and difficulties include our ability to:

- improve the effectiveness and predictiveness of our AI models;
- maintain and increase the volume of loans facilitated through our AI lending marketplace;
- enter into new and maintain existing lending partnerships;
- successfully maintain a diversified loan funding strategy, including lending partnerships, whole loan sales and securitization transactions that enhance loan liquidity for the lending partners that use our marketplace, and long-term committed capital sources;
- successfully fund a sufficient quantity of our borrower loan demand with low cost lending partner funding to help keep interest rates offered to borrowers competitive;
- maintain competitive interest rates offered to borrowers on our platform, while enabling our lending partners and institutional investors to achieve an adequate return over their cost of funds, whether through their own balance sheets or through our loan funding programs;
- successfully build our brand and protect our reputation from negative publicity;
- $\bullet \quad \text{increase the effectiveness of our marketing strategies, including our direct consumer marketing initiatives};\\$
- continue to expand the number of potential borrowers;

- successfully adjust our proprietary AI models, products and services in a timely manner in response to changing macroeconomic conditions and fluctuations in the credit market;
- comply with and successfully adapt to complex and evolving regulatory environments;
- protect against increasingly sophisticated fraudulent borrowing and online theft;
- successfully compete with companies that are currently in, or may in the future enter, the business of providing online lending services to financial institutions or consumer financial services to borrowers;
- enter into new markets and introduce new products and services;
- effectively secure and maintain the confidentiality of the information received, accessed, stored, provided and used across our systems;
- successfully obtain and maintain corporate funding and liquidity to support growth and for general corporate purposes;
- realize the anticipated benefits of our acquisitions of or investments in complementary businesses and technologies;
- attract, integrate and retain qualified employees;
- · successfully implement the reductions in workforce and achieve the anticipated cost reductions; and
- · effectively manage and expand the capabilities of our operations teams, outsourcing relationships and other business operations.

If we are not able to timely and effectively address these risks and difficulties as well as those described elsewhere in this "Risk Factors" section, our business and results of operations may be harmed.

Our revenue growth rate and financial performance in prior years may not be indicative of future performance.

We grew rapidly in the past, and our historical revenue growth rate and financial performance may not be indicative of our future performance. Our revenue for any previous quarterly or annual periods should not be relied upon as any indication of our revenue or revenue growth in future periods. In fact, our revenue declined during the year ended December 31, 2022. Our revenue may continue to decline in future periods for a number of reasons, which may include: adverse macroeconomic conditions, changing interest rates, slowing demand for or reduced funding through our lending marketplace offerings and services, sales of loans held on our balance sheet at a loss, increasing competition, credit market volatility, increasing regulatory costs and challenges and our failure to capitalize on growth opportunities.

We believe our growth in the past has been driven in large part by our AI models and our continued improvements to our AI models. Future incremental improvements to our AI models may not lead to the same level of growth as in past periods. In addition, we believe our past growth was driven in part by our ability to rapidly streamline and automate the loan application and origination process on our platform. We expect the Percentage of Loans Fully Automated to level off and remain relatively stable in the long term; however, the expansion of our loan offerings beyond unsecured personal loans, such as auto loans, may cause fluctuations of such percentage from period to period depending on the loan offering mix. As a result of these factors, our revenue growth rates may further decline, and our financial performance may continue to be adversely affected.

Our business has been and may continue to be adversely affected by economic conditions and other factors that we cannot control.

Uncertainty and negative trends in general economic conditions, including significant tightening of credit markets and periods of rising and/or high interest rates, historically have created a difficult operating environment for our industry. Many factors, including factors that are beyond our control, may impact our business, financial condition and results of operations by affecting the supply of capital by our lending partners and institutional investors to fund loans or the demand by borrowers to incur loan obligations or their ability or willingness to repay

their loans. These factors include, but are not limited to, interest rates, inflation, unemployment levels, personal savings rates, lower consumer confidence, conditions in the housing market, immigration policies, gas prices, energy costs, government shutdowns, trade wars and delays in tax refunds, as well as events such as natural disasters, acts of war (including the recent Russia-Ukraine conflict), terrorism, catastrophes and pandemics.

The United States has recently experienced historically high levels of inflation. According to the U.S. Department of Labor, the annual inflation rate for the United States was approximately 6.5% for December 2022. In response to high levels of inflation and recession fears, the U.S. Federal Reserve has raised, and may continue to raise, interest rates and implement fiscal policy interventions. Even if these interventions lower inflation, they may also reduce economic growth rates, create a recession and increase unemployment rates. Continuing economic uncertainty and the magnitude and duration of the resulting fluctuations in business activity cannot currently be estimated and has had several effects on our business and results of operations, including, among other things:

- a reduction in the availability of loan funding and liquidity from institutional investors and the capital markets;
- lower acceptance rates from borrowers;
- · reductions in workforce;
- decreases in origination volumes on our platform;
- increases in the use of our balance sheet to fund Upstart-powered loans; and
- · the potential for increased delinquencies and default rates for new and existing Upstart-powered loans.

During periods of economic slowdown or recession, our current and potential institutional investors in our loan funding programs have reduced and may continue to reduce the number of loans or interest in loans they purchase or demand terms that are less favorable to us to compensate for any increased risks. For example, increasing interest rates caused, and may in the future cause, our lending partners and institutional investors in our loan funding programs to limit the amount of funding they wanted to provide on our platform for loans to borrowers, which reduced the volume of Upstart-powered loans we completed and therefore negatively impacted our revenue. In response to this constrained loan funding, we have increased, and may continue to increase, the use of our balance sheet to fund loans originated through our platform. This increase in the use of our balance sheet has diverted capital resources, increased our exposure to the changes in the fair value of such loans, and could result in losses if such loans held on our balance sheet default or we sell those loans at a loss. A further reduction in the volume of the loans and loan financing products we sell would negatively impact our ability to maintain or increase the number of loans facilitated through our marketplace.

Furthermore, many new consumers on the Upstart platform have poor, limited or no credit history. Accordingly, such borrowers have historically been, and may in the future be, disproportionately affected by adverse macroeconomic conditions, such as the disruption and uncertainty caused by the COVID-19 pandemic or a recession. For example, nearly all personal loans presently facilitated through our platform are issued with fixed interest rates. As interest rates rise, potential borrowers could seek to defer loans as they wait for interest rates to stabilize. As a result of these circumstances, borrowers may be discouraged from engaging with our platform and as a result, reduce the volume of Upstart-powered loans. Additionally, increased interest rates may adversely impact the spending levels of individual borrowers and their ability and willingness to borrow money. Higher interest rates often lead to higher payment obligations, which may reduce the ability of individual borrowers to remain current on their obligations and therefore, lead to increased delinquencies, defaults, customer bankruptcies and charge-offs, and decreasing recoveries, all of which could have a material adverse effect on our business. In addition, major medical expenses, unemployment, divorce, death or other issues that affect borrowers could affect a borrower's willingness or ability to make payments on their loans. Recently, default rates on loans facilitated through our marketplace have increased. Increased in default rates increase our costs to service these loans without a corresponding increase in our servicing fees or other related fees. In addition, if we experience higher than expected default rates on loans held on our balance sheet, the value of those loans may decline. Higher default rates by borrowers may lead to lower demand by our lending partners and institutional investors to fund loans facilitated through our marketplace, which would adversely affect our business, financial condition and results of operations. Any sustained

economic downturns, may harm our ability to maintain robust loan funding programs, which would adversely affect our business, financial condition and results of operations.

We continue to monitor the ongoing economic conditions to assess possible implications to our business and to take appropriate actions in an effort to mitigate the adverse consequences of uncertainty or negative trends. However, there can be no assurances that initiatives we undertake will be sufficient or successful. If there is an economic downturn that affects our current and prospective borrowers or our lending partners and institutional investors, or if we are unable to address and mitigate the risks associated with any of the foregoing, our business, financial condition and results of operations could be adversely affected

If we are unable to maintain diverse and robust loan funding programs with institutional investors, our growth prospects, business, financial condition and results of operations could be adversely affected.

Our business depends on sourcing and maintaining diverse and robust loan funding programs to fund Upstart-powered loans that are not retained by our lending partners. In the year ended December 31, 2022, 30% of the loans funded through our platform were retained by our lending partners, and 60% of loans were purchased by institutional investors through our loan funding programs. Our loan funding programs include whole loan sales and pass-through certificate issuances to institutional investors, asset-backed securitization transactions, and utilization of warehouse credit facilities. While our loan funding programs are diverse, only a limited portion of such funding sources are committed. We have recently experienced reductions in capital from certain funding sources due to concerns about the current macroeconomic environment, including rapidly rising interest rates and recessionary concerns, which has resulted in, and could continue to result in, declines in Transaction Volume, Number of Loans and revenue. We cannot be sure that these funding sources will continue to be available on reasonable terms or at all beyond the current maturity dates of our debt financing arrangements. And while we are seeking to further diversify our funding sources to include long-term committed capital, we do not know when these types of funding sources will become available, if at all. And if they become available to us, they may be on terms that are more costly or have less favorable terms than our existing funding sources. For example, if we enter into long-term committed capital arrangements when interest rates are high and such arrangements remain through a full economic cycle, these funding sources may become more costly during periods with lower interest rates.

Further, events of default or breaches of financial, performance or other covenants, or worse than expected performance of certain pools of loans underpinning our pass-through certificate transactions, asset-backed securitizations or other debt facilities, could limit our access to funding from institutional investors. Loan performance is dependent on a number of factors, including the predictiveness of our AI models and social and economic conditions. The availability and capacity of certain loan funding sources also depends on many factors that are outside of our control, such as capital markets and interest rate volatility, economic conditions and regulatory reforms. For example, our revenue has been negatively impacted by reduced loan funding due to recent concerns about the macroeconomic environment, including rapidly rising interest rates, risk of increased loan default rates and recessionary concerns, among institutional investors. In the event of another sudden or unexpected shortage or limits on the availability of loan funding sources, we may not be able to maintain the necessary levels of funding to retain current loan volume without incurring substantially higher funding costs, which could adversely affect our business, financial condition and results of operations.

In addition, we have utilized, and expect to continue utilizing, our balance sheet to support funding of loans that would otherwise be held by institutional investors. The increase in the percentage of loans held on our balance sheet has diverted capital resources, increased our exposure to the changes in the fair value of such loans and could result in losses if such loans held on our balance sheet default. Increases in the percentage of loans held on our balance sheet could further have these impacts and could adversely affect our business, financial condition and results of operations.

If our existing lending partners cease or limit operations with us or if we are unable to attract and onboard new lending partners, our business, financial condition and results of operations will be adversely affected.

Our success depends in significant part on the participation of our lending partners in our marketplace. In the year ended December 31, 2022, 108% of our revenue was generated from platform, referral and servicing fees that we receive from our lending partners. Our lending partners may suspend, limit or cease their participation in our marketplace for a number of reasons. For example, several of our lending partners have recently paused or reduced loan origination in order to limit their exposure to consumer loans in the current macroeconomic environment. If our lending partners continue to suspend, limit or cease their operations or otherwise terminate their relationships with us, the number of loans facilitated through our platform will decrease and our revenue will be adversely affected. Moreover, our sales and onboarding process with new lending partners can be long and unpredictable. If we are unable to timely onboard our lending partners, or if our lending partners are not willing to work with us to complete a timely onboarding process, our results of operations could be adversely affected.

We have entered into separate agreements with each of our lending partners. Our agreements with our lending partners are nonexclusive and may contain minimum fee amounts. Our lending partners could decide to stop working with us, ask to modify their agreement terms in a cost prohibitive manner when their agreement is up for renewal or enter into exclusive or more favorable relationships with our competitors. In addition, their regulators may require that they terminate or otherwise limit their business with us, or impose regulatory pressure limiting their ability to do business with us. In June 2022, the Consumer Financial Protection Bureau, or CFPB, Deputy Director indicated that relationships between banks and nonbank lenders, such as our lending partnerships, will be an area of increased regulatory focus for the agency in the near future. Previously, we received a no-action letter regarding the use of our Al model to underwrite and price unsecured closed-end loans. Our no-action letter was terminated upon our request in June 2022 to prevent delays from seeking regulatory approval of updates to our AI models. As a result, we can provide no assurance that the CFPB or any other federal or state regulator will not take supervisory or enforcement action against us in the future. The Office of the Comptroller of the Currency, or OCC, the prudential regulator for national banks operating in the United States, recently announced that it will be prioritizing the review of third-party relationships between banks and financial technology companies like us as part of the agency's bank supervisory priorities for the upcoming calendar year. The threat of increased scrutiny from the CFPB, the OCC and other regulators of our lending partners has caused and could continue to cause some of our lending partners to pause, limit or cease their participation in our lending marketplace or to not renew their agreements with us. If additional lending partners stop working with us, suspend, limit or cease their operations or otherwise terminate their relationship with us, the number of loans facilitated through our platform will decrease and our revenue will be adversely affected. Moreover, we could in the future have disagreements or disputes with any of our lending partners, which could negatively impact or threaten our relationship with them. In our agreements with lending partners, we make certain representations and warranties and covenants concerning our compliance with specific policies of a lending partner, our compliance with certain procedures and guidelines related to laws and regulations applicable to our lending partners, as well as the services to be provided by us. If those representations and warranties were not accurate when made or if we fail to perform a covenant, we may be liable for any resulting damages, including potentially any losses associated with impacted loans, and our reputation and ability to continue to attract new lending partners would be adversely affected. Additionally, our lending partners may engage in mergers, acquisitions or consolidations with each other, our competitors or with third parties, any of which could be disruptive to our existing and prospective relationships with our lending partners.

In addition, our lending partners may retain loans for their own customer base and balance sheet. In general, lending partners can fund loans at lower rates due to the lower cost of funds available to them from their deposit base than is otherwise available in the broader institutional investment markets. Accordingly, loans retained by the lending partners generally carry lower interest rates for borrowers, which leads to better conversion rates and faster growth for our platform. Separately, as our number of lending partners grows, such lending partners will increasingly source new prospective borrowers from their own existing customer base and provide an incremental channel to attract borrowers. If we are unable to attract new lending partners or if we are unable to maintain or expand the number of loans held on their balance sheets, our financial performance would suffer.

We have incurred net losses, and we may not be able to achieve profitability in the future.

For the year ended December 31, 2022, we incurred a net loss of \$108.7 million. We intend to continue to expend significant funds to continue to develop and improve our proprietary AI models, spend on marketing to

increase the number of borrowers on our platform, enhance the features and overall user experience of our platform, expand the types of loan offerings on our platform and otherwise continue to grow our business, and we may not be able to increase our revenue enough to offset these significant expenditures. We expect to incur significant losses in the future for a number of reasons, including the other risks described in this section, and unforeseen expenses, difficulties, complications and delays, macroeconomic conditions and other unknown events. Any failure to increase our revenue sufficiently to keep pace with our investments and other expenses could prevent us from being profitable. If we are unable to successfully address these risks and challenges as we encounter them, our business, financial condition and results of operations could be adversely affected.

Our quarterly results are likely to fluctuate and as a result may adversely affect the trading price of our common stock.

Our quarterly results of operations, including the levels of our revenue, net income (loss) attributable to Upstart Holdings, Inc. common stockholders and other key metrics, are likely to vary significantly in the future, and period-to-period comparisons of our results of operations may not be meaningful. Accordingly, the results for any one quarter are not necessarily an accurate indication of future performance. Our quarterly financial results may fluctuate due to a variety of factors, many of which are outside of our control. Factors that may cause fluctuations in our quarterly financial results include:

- general economic conditions, including economic slowdowns, recessions, interest rate changes, inflation, and tightening of credit markets;
- · our cost of borrowing money and access to loan funding sources;
- our ability to improve the effectiveness and predictiveness of our AI models;
- our ability to attract new lending partners and institutional investors of our loan funding programs;
- our ability to maintain relationships with existing lending partners and institutional investors of our loan funding programs;
- our ability to maintain or increase loan volumes, and improve loan mix and the channels through which the loans, lending partners and loan funding are sourced:
- · our ability to maintain effective relationships with loan aggregators from which prospective borrowers access our website;
- improvements to our AI models that negatively impact transaction volume, such as lower approval rates;
- our ability to identify and prevent fraudulent activity and the impact of fraud prevention measures;
- changes in the fair value of assets and liabilities on our balance sheet;
- · the timing and success of new products and services;
- the effectiveness of our direct marketing and other marketing channels;
- the amount and timing of operating expenses related to maintaining and expanding our business, operations and infrastructure, including acquiring new and maintaining existing lending partners and institutional investors and attracting borrowers to our platform;
- the number and extent of loans facilitated on our platform that are subject to loan modifications and/or temporary assistance due to disasters or emergencies;
- the number and extent of prepayments of loans facilitated on our platform;
- network outages or actual or perceived security breaches or incidents;
- · our involvement in litigation or regulatory enforcement efforts (or the threat thereof) or those that impact our industry generally;
- the length of the onboarding process related to acquisitions of new lending partners;
- · changes in laws and regulations that impact our business; and

 changes in the competitive dynamics of our industry, including consolidation among competitors or the development of competitive products by larger well-funded incumbents.

In addition, we typically experience seasonality in the demand for Upstart-powered loans, which is generally lower in the first quarter. This seasonal slowdown is primarily attributable to high loan demand around the holidays in the fourth quarter and the general increase in borrowers' available cash flows in the first quarter, including cash received from tax refunds, which temporarily reduces borrowing needs. While recent government stimulus programs provided to individuals in response to the COVID-19 pandemic have obscured this seasonality in our overall financial results, we expect our results of operations to continue to be affected by such seasonality in the future because the COVID-19 government stimulus programs have ended. Such seasonality and other fluctuations in our quarterly results may also adversely affect and, increase the volatility of, the trading price of our common stock.

If we are unable to continue to improve our AI models or if our AI models contain errors or are otherwise ineffective, our growth prospects, business, financial condition and results of operations would be adversely affected.

Our ability to attract potential borrowers to our platform and increase the number of Upstart-powered loans depend in large part on our ability to effectively evaluate a borrower's creditworthiness and likelihood of default and, based on that evaluation, offer competitively priced loans and higher approval rates. Our overall operating efficiency and margins further depend in large part on our ability to maintain a high degree of automation in our loan application process and achieve incremental improvements in the degree of automation. If our AI models fail to adequately predict the creditworthiness of borrowers due to the design of our models or programming or other errors, and our AI models do not detect and account for such errors, or any of the other components of our credit decision process fails, we may experience higher than forecasted loan losses. Any of the foregoing could result in sub-optimally priced loans, incorrect approvals or denials of loans, or higher than expected loan losses, which in turn could adversely affect our ability to attract new borrowers, lending partners and institutional investors to our lending marketplace, increase the number of Upstart-powered loans or maintain or increase the average size of loans facilitated on our platform.

Our AI models also target and optimize other aspects of the lending process, such as borrower acquisition, fraud detection, default timing, loan stacking, prepayment timing and fee optimization, and our continued improvements to such models have allowed us to facilitate loans inexpensively and virtually instantly, with a high degree of consumer satisfaction and with an insignificant impact on loan performance. However, such applications of our AI models may prove to be less predictive than we expect, or than they have been in the past, for a variety of reasons, including inaccurate assumptions or other errors made in constructing such models, incorrect interpretations of the results of such models and failure to timely update model assumptions and parameters. Additionally, such models may not be able to effectively account for matters that are inherently difficult to predict and beyond our control, such as macroeconomic conditions, credit market volatility and interest rate fluctuations, which often involve complex interactions between a number of dependent and independent variables and factors. Material errors or inaccuracies in such AI models could lead us to make inaccurate or sub-optimal operational or strategic decisions, which could adversely affect our business, financial condition and results of operations.

Additionally, errors or inaccuracies in our AI models could result in any person exposed to the credit risk of Upstart-powered loans, whether it be us, our lending partners or institutional investors in our loan funding programs, experiencing higher than expected losses or lower than desired returns, which could impair our ability to retain existing or attract new lending partners and institutional investors to participate in our loan funding programs, reduce the number, or limit the types, of loans lending partners and institutional investors are willing to fund, and limit our ability to increase commitments under our warehouse and other debt facilities. Any of these circumstances could reduce the number of Upstart-powered loans and harm our ability to maintain a diverse and robust loan funding program and could adversely affect our business, financial condition and results of operations.

Continuing to improve the accuracy of our AI models is central to our business strategy. However, such improvements could negatively impact transaction volume, such as by lowering approval rates. For example, in the third quarter of 2021, we made changes to our AI models in response to an increase in fraudulent activity on our

platform. These changes, while effective at preventing fraudulent loans from being transacted, have resulted, and may in the future result in, a decrease in our Conversion Rate. While we believe that continuing to improve the accuracy of our AI models is key to our long-term success, those improvements could, from time to time, lead us to reevaluate the risks associated with certain borrowers, which could in turn result in lower approval rates or higher interest rates for any borrowers identified as a higher risk, either of which could negatively impact our growth and results of operations in the short term.

Our AI models have not yet been extensively tested during down-cycle economic conditions. If our AI models do not, or are perceived not to, accurately reflect a borrower's credit risk in such economic conditions, the performance of Upstart-powered loans may be worse than anticipated.

The performance of loans facilitated by our platform is significantly dependent on the effectiveness of our proprietary AI models used to evaluate a borrower's credit profile and likelihood of default. While our AI models are continually adjusted to account for certain macroeconomic conditions, the bulk of the data gathered and the development of our AI models have largely occurred during a period of sustained economic growth or during the COVID-19 pandemic when extraordinary government stimulus impacted the economy. Our AI models have not been extensively tested during other adverse economic cycles. There is no assurance that our AI models can accurately predict loan performance during periods of adverse economic conditions. If our AI models are unable to accurately reflect the credit risk of loans under such economic conditions, our lending partners, institutional investors in our loan funding programs and we may experience greater than expected losses on such loans, which would harm our reputation and erode the trust we have built with our lending partners and institutional investors in our loan funding programs. For example, in response to the COVID-19 pandemic, the federal government quickly implemented stimulus measures. The subsequent discontinuation of those stimulus measures has increased, and may continue to increase, the delinquency and default rates of borrowers of Upstart-powered loans, which has increased uncertainty about the effectiveness of our AI models among lending partners, institutional investors and others. In addition, we consider credit performance to be one of the most important measures of the effectiveness of our AI models and focus on credit performance compared to the expectations of our lending partners or institutional investors at the time of origination. For loans purchased by institutional investors, our 2021 through mid-2022 vintages have underperformed relative to target returns. Moreover, the fair value of the loans on our balance sheet has declined in the quarter ended Dec

Our securitizations, whole loan sales and warehouse credit facilities expose us to certain risks, and we can provide no assurance that we will be able to access the securitization markets, continue our whole loan sales, renew our existing warehouse credit facilities or obtain new warehouse credit facilities in the future. This may result in the reduced supply of loan funding capital or require us to seek more costly financing for our marketplace.

We have facilitated securitizations, and may in the future facilitate additional securitizations, of certain Upstart-powered loans to allow certain of our lending partners, whole loan purchasers, pass-through certificate buyers and ourselves to liquidate such loans through the asset-backed securities markets or through other capital markets products. In asset-backed securities transactions, we sell and convey pools of loans to a special purpose entity, or SPE. We likewise fund certain loans on our balance sheet by selling loans to warehouse trust SPEs, which loan sales are partially financed with associated warehouse credit facilities from banks. Concurrently, each securitization SPE issues notes and/or certificates pursuant to the terms of indentures and trust agreements, or in the case of the warehouse facilities, the warehouse trust SPE borrows money from banks pursuant to credit and security agreements. The securities issued by the SPEs in asset-backed securitization transactions and the lines of credit borrowed by the warehouse SPEs are each secured by the pool of loans owned by the applicable SPE. In exchange for the sale of a portion of a given pool of loans to the SPE, we and/or our whole loan purchasers, pass-through certificates buyers and certain lending partners who contribute loans to the transactions receive cash and/or securities representing debt and/or equity interests in such SPE, which are the proceeds from the sale of the securities. The equity interests in the SPEs are residual interests in that they entitle the equity owners of such SPEs, including us if we are an equity owner in the relevant transaction, to a certain proportion of the residual cash flows, if any, from the loans and to any assets remaining in such SPEs. As a result of challenging credit and liquidity conditions, the value

of the subordinated securities we or other transaction participants retain in such SPEs might be reduced or, in some cases, eliminated.

During periods of financial disruption and economic uncertainty, such as the financial crisis that began in 2008, the beginning of the COVID-19 pandemic in the spring of 2020 and periods of significant market volatility driven by rapidly rising interest and inflation rates and recessionary concerns in 2022, the securitization market has been constrained, and this could continue or occur again in the future. In addition, other matters, such as (i) accounting standards applicable to securitization transactions and (ii) capital and leverage requirements applicable to banks and other regulated financial institutions holding asset-backed securities, could result in decreased institutional investor demand for securities issued through our securitization transactions, or increased competition from other institutions that undertake securitization transactions. In addition, compliance with certain regulatory requirements, including the Dodd-Frank Act, the Investment Company Act and the so-called "Volcker Rule," may affect the type of securitizations that we are able to complete.

If it is not possible or economical for us to securitize loans in the future, we may need to seek alternative financing to support our loan funding programs and to meet our existing debt obligations. Such funding may not be available on commercially reasonable terms, or at all. If the cost of such loan funding mechanisms were to be higher than that of our securitizations, the fair value of the loans would likely be reduced, which would negatively impact our results of operations. If we are unable to access such financing, our ability to originate loans and our results of operations, financial condition and liquidity may be materially adversely affected.

The gain on sale and related servicing fees generated by our whole loan sales, and the servicing fees based on sales of asset-backed securities, also represent a material portion of our earnings. We cannot assure you that our loan purchasers will continue to purchase loans or securities (either through whole loan sales or asset-backed securities) or that they will continue to purchase loans in transactions that generate the same spreads and/or fees that we have historically obtained. During the year ended December 31, 2022, we sold loans that had been originated in an earlier, lower interest rate environment. We recognized losses on these sales which reduced our revenue. As we hold more loans on our balance sheet, or hold these loans for longer periods and interest rates rise, our business, financial condition and results of operation could be adversely affected, including further reductions in revenue. Factors that may affect loan purchaser demand for loans include:

- competition in the whole loan sales markets where we compete with loan originators who can sell either larger loan portfolios or loans that have characteristics, pricing and terms that may be perceived to be more desirable to certain loan purchasers or institutional investors than those offered in Upstart-powered loans that comprise our whole loan sales;
- competition in the securitization markets where we compete with loan originators and other issuers who can securitize or sell pools of loans (which such pools may include Upstart-powered loans, on a commingled basis or otherwise) with characteristics, pricing and terms that may be perceived to be more desirable to certain institutional investors than those offered in Upstart-powered loans contributed to asset-based securitization transactions that we facilitate:
- the extent to which servicing fees and other expenses may reduce overall net return on purchased pools of loans;
- the actual or perceived credit performance and loan grade and term mix of the portfolios of loans offered for sale;
- loan purchasers' sector and company investment diversification requirements and strategies;
- higher yielding investment opportunities at a risk profile deemed similar to our sold loan portfolios;
- · borrower prepayment behavior within the underlying pools;
- · regulatory or investment practices related to maintaining net asset value, mark-to-market and similar metrics surrounding pools of purchased loans; and
- the ability of our loan purchasers to access funding and liquidity channels, including warehouse financing and securitization markets, on terms they find acceptable to deliver an appropriate return net of funding

costs, as well as general economic conditions and market trends, such as increasing interest rates, that affect the appetite for loan financing investments.

Potential institutional investors in our loan funding programs may also demand a lower price on our loans and loan financing products during periods of economic slowdown or recession to compensate for any increased risks. A reduction in the sale price of the loans and loan financing products we sell would negatively impact our revenues, operations and returns. For example, as interest rates increased, institutional loan investors reduced the prices they were willing to pay to purchase certain loans we held which had been originated during an earlier, lower interest rate environment, which negatively impacted our revenue. Any sustained decline in demand for loans or loan financing products, or any increase in delinquencies, defaults or losses that result from economic downturns, may also reduce the price we receive on future loan sales.

Cross River Bank and one other lending partner account for a substantial portion of the total number of loans facilitated by our platform and our revenue.

Cross River Bank, or CRB, a New Jersey-chartered community bank, originates a majority of the loans on our platform. In the years ended December 31, 2021 and 2022, CRB originated 55% and 51%, respectively, of the Transaction Volume, Number of Loans. CRB also accounts for a large portion of our revenues. In the years ended December 31, 2021 and 2022, fees received from CRB accounted for 56% and 45%, respectively, of our total revenue. CRB retains a proportion of the loans they originate on their own balance sheet, and sells the remainder of the loans to us, which we in turn sell to institutional investors, sell to our warehouse trust special purpose entities or retain on our balance sheet. Our most recent commercial arrangement with CRB began on January 1, 2019 and has a term of four years with an automatic renewal provision for an additional two years following the initial four-year term. Either party may choose to not renew by providing the other party 120 days' notice prior to the end of the initial term or any renewal term. In addition, even during the term of our arrangement, CRB could choose to reduce the volume of Upstart-powered loans that it chooses to originate and/or retain on its balance sheet. We or CRB may terminate our arrangement immediately upon a material breach by the other party and failure to cure such breach within a cure period, if any representations or warranties are found to be false and such error is not cured within a cure period, bankruptcy or insolvency of either party, receipt of an order or judgment by a governmental entity, a material adverse effect, or a change of control whereby such party involved in such change of control provides 90 days' notice to the other and payment of a termination fee of \$450,000. If we are unable to continue to increase the number of other lending partners on our platform or if CRB or one of our other lending partners were to suspend, limit or cease their operations or otherwise terminate their relationship with us, our business, financial condition a

In both the year ended December 31, 2021 and 2022, one other lending partner originated 36% of the Transaction Volume, Number of Loans. In the years ended December 31, 2021 and 2022, the fees received from this lending partner accounted for 27% and 28% of our total revenue, respectively.

The sales and onboarding process of new lending partners could take longer than expected, leading to fluctuations or variability in expected revenues and results of operations.

Our sales and onboarding process with new lending partners can be long, vary widely and generally takes approximately two to twelve months. As a result, revenues and results of operations may vary significantly from period to period. Prospective lending partners are often cautious in making decisions to implement our platform and related services because of the risk management alignment and regulatory uncertainties related to their use of our AI models, including their oversight, model governance and fair lending compliance obligations associated with using such models. In addition, prospective lending partners undertake an extensive diligence review of our platform, compliance and servicing activities before choosing to partner with us. Further, the implementation of our AI lending model often involves shifts by the lending partner to a new software platform or changes in their operational procedures, which may involve significant time and expense to implement. Delays in onboarding new lending partners can also arise while prospective lending partners complete their internal procedures to approve expenditures and test and accept our applications. Consequently, we face difficulty predicting the quarter in which new lending

partners will begin using our platform and the volume of fees we will receive, which can lead to fluctuations in our revenues and results of operations.

The COVID-19 pandemic has harmed, and could continue to harm, our business, financial condition and results of operations and the duration and extent to which it will impact our future results of operations overall financial performance remains uncertain.

The COVID-19 pandemic has caused extreme societal, economic, and financial market volatility, resulting in business shutdowns, an unprecedented reduction in economic activity and significant dislocation to businesses, the capital markets, and the broader economy. The global macroeconomic effects of the COVID-19 pandemic and related impacts on our business may persist for an indefinite period.

The impact of the COVID-19 pandemic on the finances of borrowers on our platform has also been profound, as many have been, and may continue to be, impacted by unemployment, reduced earnings, inflation and/or elevated economic disruption and insecurity. Such adverse impacts on the economy and borrowers have resulted in, and may continue to contribute to, higher default rates on Upstart-powered loans and an increased rate of borrowers declaring bankruptcy, any of which could adversely affect the attractiveness of Upstart-powered loans to our lending partners and to the institutional investors in our loan funding program. At the end of 2021, the federal government discontinued most stimulus measures taken in response to the COVID-19 pandemic, which has led to, and may continue to lead to, increased delinquency and default rates of loans facilitated through our lending marketplace. If we are unable to improve our AI platform to account for events like the COVID-19 pandemic and the resulting macroeconomic impacts, or if our AI platform is unable to more successfully predict the creditworthiness of potential borrowers compared to other lenders, then our business, financial condition and results of operations could be adversely affected.

Furthermore, the COVID-19 pandemic caused some borrowers on our platform to request a temporary extension or modification of the payment schedules of their loans under the temporary relief or loan modification programs, or hardship programs, offered by our lending partners and institutional investors in our loan funding programs. In the future, our lending partners and institutional investors may offer additional hardship programs. If a large number of borrowers seek to participate in such hardship programs, the investment returns of our lending partners and institutional investors in our loan funding programs could decline. Further, if the rate of borrowers that participate in such hardship programs is greater than those experienced by our competitors, then our lending partners and the institutional investors in our loan funding programs may become less interested in purchasing or investing in Upstart-powered loans, which could negatively impact our diversified loan funding strategy or significantly increase the cost of obtaining loan funding. Any of the foregoing could adversely affect our business, financial condition and results of operations.

The continuing crisis and the magnitude and duration of the resulting fluctuations in business activity cannot currently be estimated with any degree of certainty and has had several effects on our business and results of operations, including, among other things:

- decreases in origination volumes on our platform;
- the potential for increased losses for new and existing Upstart-powered loans;
- lower acceptance rates from borrowers;
- · a reduction in the availability of loan funding and liquidity from institutional investors and the capital markets; and
- · restricted sales operations and marketing efforts, and a reduction in the effectiveness of such efforts in some cases.

We continue to monitor the ongoing impact of the COVID-19 pandemic to assess possible implications to our business and to take appropriate actions in an effort to mitigate the adverse consequences of the COVID-19 pandemic. However, there can be no assurances that our initiatives we take will be sufficient or successful.

The extent to which the COVID-19 pandemic continues to impact our business and results of operations will also depend on future developments that are highly uncertain and cannot be predicted, including the emergence of new COVID-19 variants, future spikes of COVID-19 infections resulting in additional preventive measures to contain or mitigate the spread of the virus, the impact on businesses and financial and capital markets, the extent and effectiveness of containment actions, the administration and efficacy of vaccination programs with respect to the prevalent COVID-19 variants or variant strains that will emerge in the future and the impact of further shelter-in-place or other government restrictions that may be imposed. For example, the termination of government stimulus measures reduced the ability of some individual borrowers to remain current on their obligations which we believe led to increased delinquencies, defaults, customer bankruptcies and charge-offs and decreasing recoveries for loans facilitated through the Upstart marketplace. A continued rise in default rates, delinquencies, customer bankruptcies or charge-offs have led, and may continue to lead, to lower demand by our lending partners to originate, and institutional investors to fund, loans facilitated through our marketplace, which would have an adverse effect on our business. An extended period of economic disruption as a result of the COVID-19 pandemic could have a material negative impact on our business, results of operations, and financial condition, though the full extent and duration is uncertain. To the extent the COVID-19 pandemic continues to adversely affect our business and financial results, it is likely to also have the effect of heightening many of the other risks described in this "Risk Factors" section.

Our business is subject to a wide range of laws and regulations, many of which are evolving, and failure or perceived failure to comply with such laws and regulations could harm our business, financial condition and results of operations.

The legal and regulatory environment surrounding our AI lending marketplace is relatively new, susceptible to change and may require clarification or interpretive guidance with respect to existing laws and regulations. The body of laws and regulations applicable to our business are complex and subject to varying interpretations, in many cases due to the lack of specificity regarding the application of AI and related technologies to the already highly regulated consumer lending industry. As a result, the application of such laws and regulations in practice may change or develop over time through judicial decisions or as new guidance or interpretations are provided by regulatory and governing bodies, such as federal, state and local administrative agencies.

Since we launched our AI lending marketplace, we have been proactively working with the federal government and regulatory bodies to ensure that our AI lending marketplace and other services are in compliance with applicable laws and regulations. For example, after significant collaboration with the Consumer Financial Protection Bureau, or CFPB, the CFPB issued Upstart the first no-action letter in 2017, which provided that the CFPB would not take supervisory or enforcement action against Upstart for a violation of the Equal Credit Opportunity Act (ECOA). Upon its expiration, we received a second no-action letter regarding the use of our Al model to underwrite and price unsecured closed-end loans. In June 2022, the second no-action letter was terminated upon our request. Our requested termination was driven by a need to keep our models accurate and updated during a period of significant economic change. As a result, we can provide no assurance that the CFPB or any other federal or state regulator will not take supervisory or enforcement action against us in the future. We plan to continue working and collaborating closely with regulators to provide visibility into AI and related emerging technologies and the potential benefits such technologies can have on the consumer lending industry, while also addressing the related risks. New laws and regulations and changes to existing laws and regulations continue to be adopted, implemented and interpreted in response to our industry and the emergence of AI and related technologies. As we expand our business into new markets, introduce new loan products on our platform and continue to improve and evolve our AI models, regulatory bodies or courts may claim that we are subject to additional requirements. Such regulatory bodies could reject our applications for licenses or deny renewals, delay or impede our ability to operate, charge us fees or levy fines or penalties, or otherwise disrupt our ability to operate our AI lending marketplace, any of which could adversely affect

Recent financial, political and other events may increase the level of regulatory scrutiny on financial technology companies. Regulatory bodies may enact new laws or promulgate new regulations or view matters or interpret laws and regulations differently than they have in the past, or commence investigations or inquiries into our business practices. For example, in April 2022, the CFPB announced that it intends to examine nonbank financial companies that pose risks to consumers, and in November 2022, the Treasury Department issued a report

encouraging the CFPB to increase its supervisory activity with respect to larger nonbank lenders. If the CFPB decides to subject us to its supervisory process, it could significantly increase the level of regulatory scrutiny of our business practices. In addition, the Biden Administration recently announced a government-wide effort to eliminate "junk fees" which could subject our business practices to even further scrutiny. The CFPB's action on junk fees thus far has largely focused on fees associated with deposit products, such as "surprise" overdraft fees and not-sufficient-funds fees, that are not within scope of Upstart's products or services. However, what constitutes a "junk fee" remains undefined. The CFPB has called out other fees, such as pay-to-pay fees charged by debt collectors, and is actively soliciting consumer input on fee practices associated with other consumer financial products or services, signaling that the "junk fee" initiative is likely to continue to broaden in scope. While Upstart believes that the costs it charges are reasonable under the circumstances and does not charge any fees that have been scrutinized by the CFPB thus far, we expect that we would still be subject to some additional scrutiny should the "junk fee" initiative expands to include fees directly associated with consumer lending products.

Moreover, the CFPB has issued several interpretive statements and guidance documents that could impact our business practices including, but not limited to, a May 2022 statement on compliance obligations under ECOA for companies that rely on complex algorithms when making credit decisions. Further, the agency issued an update to its examination manual that contains a novel interpretation of its authority to prohibit unfair, deceptive, or abusive acts or practices that would authorize the agency to treat any instance of discrimination against a protected class as an unfair act or practice under the Dodd-Frank Act. The CFPB also issued an interpretive rule expanding states' authority to enforce requirements of federal consumer financial laws, including ECOA. State regulators have also increased the level of regulatory scrutiny on financial technology companies. For example, the State of Maryland initiated an enforcement action against a financial technology company and its bank partner for unlicensed lending within the state. Moreover, as noted above, the OCC has also indicated that it intends to use its supervisory authority to review bank third-party relationships with financial technology companies including a review of third-party business practices that could pose a risk of potential consumer harm that could impact the safety and soundness of the banks subject to agency supervision. Should the agency examine any of our lending partners, such examinations would, more than likely, involve a review of our business practices to determine whether they pose a risk to the safety and soundness of those lending partners.

We have been subject to governmental inquiries as well. See the risk factor titled "—We have been in the past and may in the future be subject to federal and state regulatory inquiries regarding our business" for more information. Any government investigations or inquiries, whether or not accurate or warranted, or whether concerning us or one of our competitors, could negatively affect our brand and reputation and the overall market acceptance of and trust in our AI lending marketplace. Any of the foregoing could harm our business, financial condition and results of operations.

Substantially all of our revenue is derived from a single loan product, and we are thus particularly susceptible to fluctuations in the unsecured personal loan market. We also do not currently offer a broad suite of products that lending partners may find desirable.

While we expanded the type of loan products offered on our platform to include auto loans and continue to invest in developing new loan products, the vast majority of loan originations currently facilitated through our platform are unsecured personal loans. The market for unsecured personal loans has grown rapidly in recent years, and it is unclear to what extent such market will continue to grow, if at all. A wide variety of factors could impact the market for unsecured personal loans, including macroeconomic conditions, competition, regulatory developments and other developments in the credit market. Our success will depend in part on the continued growth of the unsecured personal loan market, and if such market does not further grow or grows more slowly than we expect, our business, financial condition and results of operations could be adversely affected.

In addition, lending partners may in the future seek partnerships with competitors that are able to offer them a broader array of credit products. Over time, in order to preserve and expand our relationships with our existing lending partners, and enter into new lending partnerships, it may become increasingly important for us to be able to offer a wider variety of products than we currently provide. We are also susceptible to competitors that may

intentionally underprice their loan products, even if such pricing practices lead to losses. Such practices by competitors would negatively affect the overall demand for personal loans facilitated on our platform.

Further, because such personal loans are unsecured, there is a risk that borrowers will not prioritize repayment of such loans, particularly in any economic downcycle. To the extent borrowers have or incur other indebtedness that is secured, such as a mortgage, a home equity line of credit or an auto loan, borrowers may choose to repay obligations under such secured indebtedness before repaying their Upstart-powered personal loans. In addition, borrowers may not view Upstart-powered loans, which were originated through an online lending platform, as having the same significance as other credit obligations arising under more traditional circumstances, such as loans from banks or other commercial financial institutions. Any of the foregoing could lead to higher default rates and decreased demand by our lending partners and institutional investors to fund loans facilitated through our marketplace, which would adversely affect our business, financial condition and results of operations.

We are also more susceptible to the risks of changing and increased regulations and other legal and regulatory actions targeted towards the unsecured personal loan market. It is possible that regulators may view unsecured personal loans as high risk for a variety of reasons, including that borrowers will not prioritize repayment of such loans due to the unsecured nature of such loans or because existing laws and regulations may not sufficiently address the benefits and corresponding risks related to financial technology as applied to consumer lending. If we are unable to manage the risks associated with the unsecured personal loan market, our business, financial condition and results of operations could be adversely affected.

We are continuing to introduce and develop new loan products and services offerings, and if these products are not successful or we are unable to manage the related risks, our growth prospects, business, financial condition and results of operations could be adversely affected.

We have introduced auto loan and small dollar loan products and are continuing to invest in developing new loan products and service offerings, such as mortgages. New initiatives are inherently risky, as each involves unproven business strategies, new regulatory requirements and new financial products and services with which we, and in some cases our lending partners, have limited or no prior development or operating experience.

We cannot be sure that we will be able to develop, commercially market and achieve market acceptance of any new products and services. In addition, our investment of resources to develop new products and services may either be insufficient or result in expenses that are excessive in light of revenue actually derived from these new products and services. It is also possible that such investment of resources may need to be delayed or deferred, as was the case with respect to our small business loan product when we decided to suspend its development in January 2023 due to the adverse macroeconomic conditions affecting our business at that time. If the profile of borrowers using any new products and services is different from that of those currently served by our existing loan products, our AI models may not be able to accurately evaluate the credit risk of such borrowers, and our lending partners and institutional investors in our loan funding programs may in turn experience higher levels of delinquencies or defaults. Failure to accurately predict demand or growth with respect to our new products and services could have an adverse impact on our reputation and business, and there is always risk that new products and services will be unprofitable, will increase our costs, decrease operating margins or take longer than anticipated to achieve target margins. In addition, any new products or services may raise new and potentially complex regulatory compliance obligations, which would increase our costs and may cause us to change our business in unexpected ways. Further, our development efforts with respect to these initiatives could distract management from current operations and will divert capital and other resources from our existing business.

We may also have difficulty with securing adequate funding for any such new loan products and services, and if we are unable to do so, our ability to develop and grow these new offerings and services will be impaired. If we are unable to effectively manage the foregoing risks, our growth prospects, business, financial condition and results of operations could be adversely affected.

If we fail to effectively manage our growth, our business, financial condition and results of operations could be adversely affected.

Over the last several years, we have experienced rapid growth in our business. Our rapid growth has placed, and may continue to place, significant demands on our management, processes and operational, technological and financial resources. Our ability to manage our growth effectively and to integrate new employees and technologies into our existing business will require us to continue to retain, attract, train, motivate and manage employees and expand our operational, technological and financial infrastructure. From time to time, we rely on temporary independent contractor programs to scale our operations team. Failure to effectively implement and manage such programs could result in misclassification or other employment related claims or inquiries by governmental agencies. Continued growth could strain our ability to develop and improve our operational, technological, financial and management controls, enhance our reporting systems and procedures, recruit, train and retain highly skilled personnel and maintain user satisfaction. Any of the foregoing factors could negatively affect our business, financial condition and results of operations.

Our reputation and brand are important to our success, and if we are unable to continue developing our reputation and brand, our ability to retain existing and attract new lending partners, our ability to attract borrowers to our platform, our ability to maintain a diverse funding marketplace and our ability to maintain and improve our relationship with regulators of our industry could be adversely affected.

We believe maintaining a strong brand and trustworthy reputation is critical to our success and our ability to attract borrowers to our platform, attract new lending partners, maintain a diverse funding marketplace and sustain good relations with regulators. Factors that affect our brand and reputation include: perceptions of artificial intelligence, our industry and our company, including the quality and reliability of our AI lending marketplace; the accuracy of our AI models; characterizations of our company as a traditional lending company due to the amount of loans held on our balance sheet; perceptions regarding the application of artificial intelligence to consumer lending specifically and that algorithmic lending is inherently biased; our loan funding programs; changes to the Upstart platform; our ability to effectively manage and resolve borrower complaints; collection practices; privacy and security practices; litigation; regulatory activity; and the overall user experience of our platform. Negative publicity or negative public perception of these factors, even if inaccurate, could adversely affect our brand and reputation.

For example, consumer advocacy groups, politicians and certain government and media reports have, in the past, advocated governmental action to prohibit or severely restrict consumer loan arrangements where banks contract with a third-party platform such as ours to provide origination assistance services to bank customers. These arrangements have sometimes been criticized as "renting-a-bank charter." Such criticism has frequently been levied in the context of payday loan marketers, though other entities operating programs through which loans similar to Upstart-powered loans are originated have also faced criticism. The perceived improper use of a bank charter by these entities has been challenged by both governmental authorities and private litigants, in part because of the high rates and fees charged to consumers in certain payday and high-rate, small-dollar lending programs. Bank regulators have even required banks to exit third-party programs that the regulators determined involved unsafe and unsound practices. The payday loans that have been subject to more frequent criticism and challenge are fundamentally different from Upstart-powered loans in many ways, including that Upstart-powered loans typically have lower interest rates and longer terms, and Upstart-powered loans do not renew. In particular, interest rates of Upstart-powered loans have always been and are currently less than 36%, as compared to the triple-digit interest rates of many payday or small dollar loans that have been subject to such criticism. If we are nevertheless associated with such payday or high-rate, small-dollar consumer loans, or if we are associated with increased criticism of non-payday loan programs involving relationships between bank originators and non-bank lending platforms and program managers, demand for Upstart-powered loans could significantly decrease, which could cause our lending partners to reduce their origination volumes or terminate their arrangements with us, impede our ability to attract new lending partners o

Any negative publicity or public perception of Upstart-powered loans or other similar consumer loans or the consumer lending service we provide may also result in us being subject to more restrictive laws and regulations and potential investigations and enforcement actions. In addition, regulators may decide they are no longer

supportive of our AI lending marketplace if there is enough negative perception surrounding such practices. We may also become subject to lawsuits, including class action lawsuits, or other challenges such as government enforcement or arbitration, against our lending partners or us for loans originated by our lending partners on our platform, loans we service or have serviced. If there are changes in the laws or in the interpretation or enforcement of existing laws affecting consumer loans similar to those offered on our platform, or our marketing and servicing of such loans, or if we become subject to such lawsuits, our business, financial condition and results of operations would be adversely affected.

Artificial intelligence and related technologies are subject to public debate and heightened regulatory scrutiny. The CFPB Director recently indicated that artificial intelligence remains a regulatory hot topic for the agency including the use of complex credit scoring models as part of the loan underwriting process. The agency has taken several steps to increase regulatory scrutiny of financial technology companies that rely on artificial intelligence. Any negative publicity or negative public perception of artificial intelligence could negatively impact demand for our AI lending marketplace, hinder our ability to attract new lending partners or slow the rate at which lending partners adopt our AI lending marketplace. From time to time, certain advocacy groups have made claims that unlawful or unethical discriminatory effects may result from the use of AI technology by various companies, including ours. Such claims, whether or not accurate, and whether or not concerning us or our AI lending marketplace, may harm our ability to attract prospective borrowers to our platform, retain existing and attract new lending partners and achieve regulatory acceptance of our business.

In February 2020, we received a letter from five members of the U.S. Senate asking questions in connection with claims of discriminatory lending made by an advocacy group. We responded to this inquiry, and in July 2020, three of the Senators issued their findings from this inquiry, writing a letter to the Director of the CFPB recommending the CFPB further review Upstart's use of educational variables in its models and requesting that the CFPB stop issuing no-action letters related to ECOA. On December 1, 2020, in connection with these inquiries, we entered into an agreement with the NAACP Legal Defense and Education Fund, or the LDF, and the Student Borrower Protection Center, or the SBPC, in which we agree to participate in fair lending reviews of our AI models, including, but not limited to, its use of educational variables, and to engage a neutral third-party firm to perform periodic fair lending assessments over a two-year period. In accordance with the terms of the agreement, we engaged Relman Colfax LLC, or Relman, as a neutral third-party firm, and provided data to conduct fair lending testing of our underwriting models. The fair lending testing was designed to assess lending outcomes from our underwriting models to determine if the models caused or resulted in a disparate impact on any protected class, and if so, whether there were less discriminatory alternative practices while maintaining the models' predictiveness. Most recently, in September 2022, Relman published its third public report that summarized its findings, recommendations and best practices, as well as any aspects of our AI models that raise particular fair lending concerns or implicate novel insights on educational equity that serve the public interest. While we have input on Relman's reports and the agreement provides that Relman and the parties to the agreement will collaborate to reach agreement on any recommendations, we may disagree with Relman, the LDF or the SBPC regarding the contents of the reports or particular recommendations that were made, the manner in which they should be implemented, if at all, or whether they would maintain the predictiveness of our AI models or meet any other legitimate business needs of Upstart. If we do not implement Relman's recommendations, the LDF and/or the SBPC could terminate the agreement with us. If Relman's reports are viewed negatively for any reason, or Relman terminates its agreement with us and/or the agreement with the LDF and/or the SBPC is terminated for any reason, our brand and reputation and the overall market acceptance of, and trust in, our AI lending marketplace could suffer, and we could be subject to increased regulatory and litigation risk. In addition, the publication of information arising from our agreement with the LDF or the SBPC, including the reports published by Relman, could lead to additional regulatory scrutiny for our lending partners.

We have been subject to other governmental inquiries on this topic. See the risk factor titled "—We have been in the past and may in the future be subject to federal and state regulatory inquiries regarding our business" for more information. Negative public perception, actions by advocacy groups or legislative and regulatory interest groups could lead to lobbying for and enactment of more restrictive laws and regulations that impact the use of AI technology in general, AI technology as applied to lending operations generally or as used in our applications more

specifically. Any of the foregoing could negatively impact our business, financial condition and results of operations.

Harm to our reputation can also arise from many other sources, including inaccurate or unfavorable statements made by securities analysts or others, failure by us or our lending partners to meet minimum standards of service and quality, loan underperformance, inadequate protection of borrower information and compliance failures and claims, and employee or former employee misconduct, misconduct by outsourced service providers or other counterparties, as further described below. If we are unable to protect our reputation, our business, financial condition and results of operations would be adversely affected.

Misconduct and errors by our employees, former employees, vendors, or service providers could harm our reputation and subject us to significant legal liability.

We operate in an industry in which integrity and the confidence of our borrowers and lending partners is of critical importance. Our business depends on our employees, vendors, and service providers to process a large number of increasingly complex transactions, including transactions that involve significant dollar amounts and loan transactions that involve the use and disclosure of personal and business information. We are thus exposed to the risk of misconduct and errors by our employees, vendors, and other service providers that could adversely affect our business, including employees, vendors, or service providers taking, converting, or misusing funds, documents, or data, or failing to follow applicable laws and regulations or our internal policies or protocol when interacting with consumers and borrowers. It is not always possible to identify and deter misconduct or errors by employees, vendors, or service providers, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses. There have been numerous highly-publicized cases of fraud and other misconduct by financial services industry employees. If any of our employees, vendors or service providers engage in illegal, improper, or suspicious activity or other misconduct, we could suffer serious harm to our reputation, financial condition, relationships with lending partners and borrowers, and our ability to attract new lending partners or borrowers. We could also be perceived to have facilitated or participated in the illegal misappropriation of funds, documents, or data, or the failure to follow protocol, and therefore be subject to civil or criminal liability. Any of these occurrences could result in our diminished ability to operate our business, inability to attract future borrowers or lending partners, reputational damage, regulatory intervention, and financial harm, which could negatively impact our business, results of operations, financial condition, and future prospects.

If we do not compete effectively in our target markets, our business, results of operations and financial condition could be harmed.

The consumer lending market is highly competitive and increasingly dynamic as emerging technologies continue to enter into the marketplace. With the introduction of new technologies and the influx of new entrants, competition may persist and intensify in the future, which could have an adverse effect on our operations or business.

Our inability to compete effectively could result in reduced loan volumes, reduced average size of loans facilitated on our platform, reduced fees, increased marketing and borrower acquisition costs or the failure of the Upstart platform to achieve or maintain more widespread market acceptance, any of which could have an adverse effect on our business and results of operations.

Consumer lending is a vast and competitive market, and we compete to varying degrees with all other sources of unsecured consumer credit. This can include banks, non-bank lenders including retail-based lenders and other financial technology lending platforms. Because personal loans often serve as a replacement for credit cards, we also compete with the convenience and ubiquity that credit cards represent. Many of our competitors operate with different business models, such as lending-as-a-service, have different funding sources, have different cost structures or regulatory obligations, or participate selectively in different market segments. They may ultimately prove more successful or more adaptable to new regulatory, economic, technological and other developments, including utilizing new data sources or credit models. We may also face competition from banks or companies that have not previously competed in the consumer lending market, including companies with access to vast amounts of

consumer-related information that could be used in the development of their own credit risk models. Our current or potential competitors may be better at developing new products due to their large and experienced data science and engineering teams, who are able to respond more quickly to new technologies. Many of our current or potential competitors have significantly more resources, such as financial, technical and marketing resources, than we do and may be able to devote greater resources to the development, promotion, sale and support of their platforms and distribution channels. We face competition in areas such as compliance capabilities, commercial financing terms and costs of capital, interest rates and fees (and other financing terms) available to consumers from our lending partners, approval rates, model efficiency, speed and simplicity of loan origination, ease-of-use, marketing expertise, service levels, products and services, technological capabilities and integration, borrower experience, brand and reputation, and terms available to our loan funding institutional investor base. Our competitors may also have longer operating histories, lower commercial financing costs or costs of capital, more extensive borrower bases, more diversified products and borrower bases, operational efficiencies, more versatile or extensive technology platforms, greater brand recognition and brand loyalty, broader borrower and partner relationships, more extensive and/or more diversified loan funding institutional investor bases than we have, greater capacity to fund loans through their balance sheets, and more extensive product and service offerings than we have. Furthermore, our existing and potential competitors may decide to modify their pricing and business models to compete more directly with us. Our ability to compete will also be affected by our ability to provide our lending partners with a commensurate or more extensive suite of loan products than those offered by our competitors. In addition, current or potential competitors, including financial technology lending platforms and existing or potential lending partners, may also acquire or form strategic alliances with one another, which could result in our competitors being able to offer more competitive loan terms due to their access to lower-cost capital. Such acquisitions or strategic alliances among our competitors or potential competitors could also make our competitors more adaptable to a rapidly evolving regulatory environment. To stay competitive, we may need to increase our regulatory compliance expenditures or our ability to compete may be adversely affected.

Our industry is driven by constant innovation. We utilize artificial intelligence and machine learning, which is characterized by extensive research efforts and rapid technological progress. If we fail to anticipate or respond adequately to technological developments, our ability to operate profitably could suffer. There can be no assurance that research, data accumulation and development by other companies will not result in AI models that are superior to our AI models or result in products superior to those we develop or that any technologies, products or services we develop will be preferred to any existing or newly-developed technologies, products or services. If we are unable to compete with such companies or fail to meet the need for innovation in our industry, the use of the Upstart platform could stagnate or substantially decline, or our loan products could fail to maintain or achieve more widespread market acceptance, which could harm our business, results of operations and financial condition.

Our business is heavily concentrated in U.S. consumer credit, and therefore our results are more susceptible to fluctuations in that market than a more diversified company.

Our business is heavily concentrated in U.S. consumer credit. As a result, we are more susceptible to fluctuations and risks particular to U.S. consumer credit than a more diversified company. For example, our business is particularly sensitive to macroeconomic conditions that affect the U.S. economy and consumer spending and consumer credit, such as rising interest rates and changes in monetary policy. We are also more susceptible to the risks of increased regulations and legal and other regulatory actions that are targeted at consumer credit. Our business concentration could have a material adverse effect on our business, results of operations, financial condition, and future prospects.

If we are unable to manage the risks associated with fraudulent activity, our brand and reputation, business, financial condition and results of operations could be adversely affected.

Fraud is prevalent in the financial services industry and is likely to increase as perpetrators become more sophisticated. We are subject to the risk of fraudulent activity associated with borrowers and third parties handling borrower information and in limited situations cover certain fraud losses of our lending partners and institutional investors in our loan funding programs. For example, in the third quarter of 2021 and the first quarter of 2022, we experienced temporary increases in fraudulent activity. Fraud rates could also increase in a down-cycle economy.

We use several identity and fraud detection tools, including tools provided by third-party vendors and our proprietary AI models, to predict and otherwise validate or authenticate applicant-reported data and data derived from third-party sources. If such efforts are insufficient to accurately detect and prevent fraud, the level of fraud-related losses of Upstart-powered loans could increase, which would decrease confidence in our AI lending marketplace. In addition, our lending partners, institutional investors in our loan funding programs or we may not be able to recover amounts disbursed on loans made in connection with inaccurate statements, omissions of fact or fraud, which could erode the trust in our brand and negatively impact our ability to attract new lending partners and institutional investors in our loan funding programs.

High profile fraudulent activity also could negatively impact our brand and reputation. In addition, significant increases in fraudulent activity could lead to regulatory intervention, which could increase our costs and also negatively impact our brand and reputation. Further, if there is any increase in fraudulent activity that increases the need for human intervention in screening loan application data, the level of automation on our platform could decline and negatively affect our unit economics. If we are unable to manage these risks, our business, financial condition and results of operations could be adversely affected.

We may fail to achieve the expected cost savings and related benefits from our reduction in workforce initiated in November 2022 and January 2023.

In November 2022, we announced a plan to reduce our workforce on our Operations Onboarding team to enable us to help achieve a more cost-efficient organization, which resulted in reducing headcount by 7%. In January 2023, we announced another plan to reduce our workforce by 20% to reduce operating costs, streamline operations and return Upstart to profitability.

We may fail to effectively execute on, or achieve the stated goals of, the reductions in workforce. Our plans may also change as we continue to refocus on reducing operating costs, streamlining operations and returning our business to profitability. These actions may take more time than we currently estimate and we may not be able to achieve the cost-efficiencies sought. In addition, the reduction in workforce may negatively impact employee morale for those who are not directly impacted, which may increase employee attrition and hurt future recruiting efforts, hindering our ability to achieve our key priorities. Any failure to achieve the expected benefits from the reduction in workforce could adversely affect our stock price, financial condition and ability to achieve our goals.

We depend on our key personnel and other highly skilled personnel, and if we fail to attract, retain and motivate our personnel, our business, financial condition and results of operations could be adversely affected.

Our success significantly depends on the continued service of our senior management team, including Dave Girouard, our Co-Founder and Chief Executive Officer, and Paul Gu, our Co-Founder and Chief Technology Officer, and other highly skilled personnel. Our success also depends on our ability to identify, hire, develop, motivate and retain highly qualified personnel for all areas of our organization.

Competition for highly skilled personnel, including engineering and data analytics personnel, is extremely intense, particularly in the San Francisco Bay Area where one of our headquarters is located. While we have transitioned to a Digital First work model which allows us to recruit nationwide, we have experienced, and expect to continue to face, some difficulty identifying and hiring qualified personnel, especially as we pursue our growth strategy. We may not be able to hire or retain such personnel at compensation or flexibility levels consistent with our existing compensation and salary structure and policies. We periodically review our compensation levels to ensure they remain competitive and have increased them when we believe market conditions warrant it. However, we may need to further increase our existing compensation levels in response to competition, rising inflation or labor shortages, which would increase our operating costs and reduce our margins. Many of the companies with which we compete for experienced employees have greater resources than we have and may be able to offer more attractive terms of employment. In particular, candidates making employment decisions, specifically in high-technology industries, often consider the value of any equity they may receive in connection with their employment. The recent significant volatility in the price of our stock may have adversely contributed to, and in the future may affect, our ability to attract or retain highly skilled technical, financial and marketing personnel.

In addition, we invest significant time and expense in training our employees, which increases their value to competitors who may seek to recruit them. If we fail to retain our employees, we could incur significant expenses in hiring and training their replacements. While we are in the process of training their replacements, the quality of our services and our ability to serve our lending partners, institutional investors and borrowers whose loans we service may suffer, resulting in an adverse effect on our business.

Furthermore, we have reduced our workforce in November 2022 and January 2023 and may further reduce our workforce in the future to lower our operating costs and streamline operations. These reductions in force may adversely affect employee morale, our culture and our ability to attract and retain personnel who are critical to our business. It may also negatively impact our ability to pursue new initiatives due to insufficient resources and personnel. We may be unsuccessful in distributing duties and obligations of impacted employees among the remaining employees. We also may not realize the anticipated benefits and cost savings and may suffer unintended consequences, such as the loss of institutional knowledge, higher than expected employee turnover and significant disruptions in our day-to-day operations. If we are unable to realize the expected operational efficiencies or cost savings from the reductions in force, or if we experience significant adverse consequences as a result, our business, financial conditions and results of operations may be adversely affected.

Security breaches and incidents compromising borrowers' confidential information that we store may harm our reputation, adversely affect our results of operations and expose us to liability.

We are increasingly dependent on information technology systems and infrastructure to operate our business. In the ordinary course of our business, we collect, process, transmit and store large amounts of sensitive information, including personal information, credit information and other sensitive data of borrowers and potential borrowers. It is critical that we do so in a manner designed to maintain the confidentiality, integrity and availability of such sensitive information. We also have arrangements in place with certain of our third-party vendors that require us to share consumer information. We have outsourced elements of our operations (including elements of our information technology infrastructure) to third parties, and as a result, we manage a number of third-party vendors who may have access to our computer networks and sensitive or confidential information. In addition, many of those third parties may in turn subcontract or outsource some of their responsibilities to other third parties. As a result, our information technology systems, including the functions of third parties that are involved or have access to those systems, are large and complex, with many points of entry and access. While all information technology operations are inherently vulnerable to inadvertent or intentional security breaches, incidents, attacks and exposures, the size, complexity, accessibility and distributed nature of our information technology systems, and the large amounts of sensitive information stored on those systems, make such systems potentially vulnerable to unintentional or malicious, internal and external attacks. Any vulnerabilities can be exploited from inadvertent or intentional actions of our employees, third-party vendors, lending partners, loan institutional investors, or by malicious third parties. While we continuously refine our security controls to address the evolving threat landscape, attacks of this nature are increasing in their frequency, levels of persistence, sophistication and intensity, and are being conducted by sophisticated and organized groups and individuals with a wide range of motives (including, but not limited to, industrial espionage) and expertise, including organized criminal groups, "hacktivists," nation states and others. These risks may be heightened in connection with the Russia-Ukraine conflict. In addition to the extraction of sensitive information, such attacks could include the deployment of harmful malware, ransomware, denial-of-service attacks, social engineering and other means to affect service reliability and threaten the confidentiality, integrity and availability of information and systems. In addition, the prevalent use of mobile devices increases the risk of data security incidents. Further, our Digital First working environment could increase the risks of security breaches and incidents. Significant disruptions of our, our lending partners and third-party vendors' and/or other business partners' information technology systems or other security incidents could adversely affect our business operations and result in the loss, misappropriation, or unauthorized access, use or disclosure of, or the prevention of access to, sensitive information, which could result in financial, legal, regulatory, business and reputational harm to us.

Because techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until they are launched against a target, we and our vendors may be unable to anticipate these techniques or to implement adequate preventative measures. In addition, many governments have enacted laws

requiring companies to notify individuals of data security breaches involving their personal data. These mandatory disclosures regarding a security breach are costly to implement and often lead to widespread negative publicity following a breach, which may cause borrowers and potential borrowers to lose confidence in the effectiveness of our data security measures on our platform. Any security breach or incident, whether actual or perceived, would harm our reputation and ability to attract new borrowers to our platform.

We also face indirect technology, cybersecurity and operational risks relating to the borrowers, lending partners, institutional investors, vendors and other third parties with whom we do business or upon whom we rely on to facilitate or enable our business activities, including vendors, payment processors, and other parties who have access to confidential information due to our agreements with them. In addition, any security compromise in our industry, whether actual or perceived, or information technology system disruptions, whether from attacks on our technology environment or from computer malware, natural disasters, terrorism, war and telecommunication and electrical failures, could interrupt our business or operations, harm our reputation, erode borrower confidence, negatively affect our ability to attract new borrowers, or subject us to third-party lawsuits, regulatory fines or other action or liability, which could adversely affect our business and results of operations.

Like other financial services firms, we have been and continue to be the subject of actual or attempted unauthorized access, mishandling or misuse of information, computer viruses or malware, and cyber-attacks that could obtain confidential information, destroy data, disrupt or degrade service, sabotage systems or cause other damage, distributed denial of service attacks, data breaches and other infiltration, exfiltration or other similar events.

While we regularly monitor data flow inside and outside the company, attackers have become very sophisticated in the way they conceal access to systems, and we may not be aware that we have been attacked. Any event that leads to unauthorized access, use or disclosure of personal information or other sensitive information that we or our vendors maintain, including our own proprietary business information and sensitive information such as personal information regarding borrowers, loan applicants or employees, could disrupt our business, harm our reputation, compel us to comply with applicable federal and/or state breach notification laws and foreign law equivalents, subject us to time consuming, distracting and expensive litigation, regulatory investigation and oversight, mandatory corrective action, require us to verify the correctness of database contents, or otherwise subject us to liability under laws, regulations and contractual obligations, including those that protect the privacy and security of personal information. This could result in increased costs to us and result in significant legal and financial exposure and/or reputational harm. In addition, any failure or perceived failure by us or our vendors to comply with our privacy, confidentiality or data security-related legal or other obligations to our lending partners or other third parties, actual or perceived security breaches, or any security incidents or other events that result in the unauthorized access, release or transfer of sensitive information, which could include personally identifiable information, may result in governmental investigations, enforcement actions, regulatory fines, litigation, or public statements against us by advocacy groups or others, and could cause our lending partners and other third parties to lose trust in us or we could be subject to claims by our lending partners and other third parties that we have breached our privacy- or confidentiality-related obligations, which could harm our business and prospects. Moreover, data security incidents and other inappropriate access can be difficult to detect, and any delay in identifying them may lead to increased harm of the type described above. There can be no assurance that our security measures intended to protect our information technology systems and infrastructure will successfully prevent service interruptions or security incidents. For example, in April 2020, we were made aware of a software error which allowed access to certain consumers' accounts through the Upstart website without providing such consumers' passwords. As a result, certain of such consumers' personal information, such as their name, address and job information (but not full social security information), could be accessed by a third party. We promptly deployed an update to our software to address such vulnerability and are conducting an internal investigation. We are not aware of any information being compromised as a result of this error. We cannot provide any assurance that similar vulnerabilities will not arise in the future as we continue to expand the features and functionalities of our platform and introduce new loan products on our platform, and we expect to continue investing substantially to protect against security vulnerabilities and incidents.

We maintain errors, omissions, and cyber liability insurance policies covering certain security and privacy damages. However, we cannot be certain that our coverage will continue to be available on economically reasonable

terms or will be available in sufficient amounts to cover one or more large claims, or that an insurer will not deny coverage as to any future claim, or that any insurer will be adequately covered by reinsurance or other risk mitigants or that any insurer will offer to renew policies at an affordable rate or offer such coverage at all in the future. The successful assertion of one or more large claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could have an adverse effect on our business, financial condition and results of operations.

If we are unable to manage the risks related to our loan servicing and collections obligations, our business, financial condition and results of operations could be adversely affected.

The vast majority of Upstart-powered loans are not secured by any collateral, guaranteed or insured by any third party or backed by any governmental authority. As a result, we are limited in our ability to collect on such loans on behalf of our lending partners and institutional investors of our loan funding programs if a borrower is unwilling or unable to repay them. The ability to collect on the loans is dependent on the borrower's continuing financial stability, and consequently, collections can be adversely affected by a number of factors, including, but not limited to, unemployment, divorce, death, illness, bankruptcy or the economic or social factors beyond a borrower's personal circumstances. In addition, the application of various federal and state laws, including federal and state bankruptcy and insolvency laws, may limit the amount that can be recovered on these loans. It is possible that a higher percentage of consumers will seek protection under bankruptcy or debtor relief laws as a result of the current inflationary environment, the possibility of a recession and market volatility. Federal, state, or other restrictions could impair our ability to collect amounts owed and due on the loans facilitated through our platform, reduce income received from the loans facilitated through our platform, or negatively affect our business, financial condition and results of operations.

We began conducting first-party collection activities in the fourth quarter of 2022. We have no prior experience conducting first-party or in-house collection activities, and we cannot be certain that we will be able to effectively manage risks associated with such activities. In addition to first-party collection activities, we partner with third-party collection agencies for loans we service. If such third-party collection agencies do not perform as expected under our agreements with them or if we or these collection agents act unprofessionally and otherwise harm the user experience for borrowers of Upstart-powered loans, our brand and reputation could be harmed and our ability to attract potential borrowers to our platform could be negatively impacted. For example, during periods of increased delinquencies caused by economic downturns or otherwise, it is important that we and the collection agents are proactive and consistent in contacting a borrower to bring a delinquent balance current and ultimately avoid the related loan becoming charged off. If we or the collection agents are unable to maintain a high quality of service, or fulfill the servicing obligations at all due to resource constraints, it could result in increased delinquencies and charge-offs on the loans, which could decrease fees payable to us, cause our lending partners to decrease the volume of Upstart-powered loans kept on their balance sheets, erode trust in our lending marketplace or increase the costs of our loan funding programs. If we fail to successfully address any of the foregoing risks associated with our collection activities, our business, financial condition and results of operations could be adversely affected.

We are the loan servicer for most loans facilitated through our platform, including those loans that are part of our loan funding programs, such as asset-backed securitization, pass-through certificate transactions and whole loan sales. Loan servicing is a highly manual process and an intensely regulated activity. Errors in our servicing activities, or failures to comply with our servicing obligations, could affect our internal and external reporting of the loans that we service, adversely affect our business and reputation and expose us to liability to borrowers, bank partners or institutional investors in our loan funding programs. In addition, we charge our loan holders a fixed percentage servicing fee based on the outstanding balance of loans serviced. If we fail to efficiently service or collect on such loans and the costs incurred exceed the servicing fee charged, our results of operations would be adversely affected. Moreover, the laws and regulations governing these activities are subject to change. If we are unable to comply with such laws and regulations, we could lose one or more of our licenses or authorizations, become subject to greater scrutiny by regulatory agencies or become subject to sanctions or litigation, which may have an adverse effect on our ability to perform our servicing obligations or make our platform available to borrowers in particular states. Any of the foregoing could adversely affect our business, financial condition and results of operations.

While auto loans issued through our lending platform are secured by collateral, auto loans are inherently risky, as they are often secured by assets that may be difficult to locate and can depreciate rapidly. We generally begin the repossession process for auto loans that become 60 days past due. We have engaged a third-party auto repossession vendor to handle all repossession activity. Following a repossession, if a borrower fails to redeem their vehicle or reinstate their loan agreement, the repossessed vehicle is sold at an auction and the proceeds are applied to the unpaid balance of the loan and related expenses. If the proceeds do not cover the unpaid balance of the loan and any related expenses, the deficiency would be charged-off. Further, if a vehicle cannot be located, repossession and sale of the vehicle would not be possible, which could also lead to delinquencies and charge-offs. A significant number of delinquencies and charge-offs could decrease fees payable to us, cause our lending partners to decrease the volume of Upstart-powered auto loans kept on their balance sheets, erode trust in our lending marketplace and increase the costs of our loan funding programs.

Additionally, if such repossession vendors do not perform consistent with agreements entered into with us, or if vendors act unprofessionally or otherwise harm the user experience for borrowers of Upstart-powered loans, our brand and reputation could be harmed and our ability to attract potential borrowers to our platform could be negatively impacted. We may also become subject to regulatory scrutiny and potential litigation based on the conduct of our repossession vendors.

In connection with our loan funding programs, we make representations and warranties concerning the loans sold, and if such representations and warranties are not accurate when made, we could be required to repurchase the applicable loans.

In our loan funding programs, including asset-backed securitizations, pass-through certificate transactions, warehouse credit facilities and whole loan sales, we make numerous representations and warranties concerning the characteristics of the Upstart-powered loans sold and transferred in connection with such transactions, including representations and warranties that the loans meet the eligibility requirements of those facilities and of institutional investors in our loan funding programs. If those representations and warranties were not accurate when made and are not timely cured or incurable, we may be required to repurchase the underlying loans. Failure to repurchase such loans could constitute a default, an event of default or termination event under the agreements governing our various loan funding programs and could require us to indemnify certain financing parties. Through December 31, 2022, the number of repurchased Upstart-powered loans as a result of inaccurate representations and warranties represents less than 0.28% of all Upstart-powered loans. While only a small number of Upstart-powered loans have been historically repurchased by us, there can be no assurance that we would have adequate cash or other qualifying assets available to make such repurchases if and when required. Such repurchases could be limited in scope, relating to small pools of loans, or significant in scope, across multiple pools of loans. If we were required to make such repurchases and if we do not have adequate liquidity to fund such repurchases, our business, financial condition and results of operations could be adversely affected.

We may evaluate and potentially consummate acquisitions or investments in complementary business and technologies, which could require significant management attention, consume our financial resources, disrupt our business and adversely affect our results of operations, and we may fail to realize the anticipated benefits of these acquisitions or investments.

Our success will depend, in part, on our ability to grow our business. In some circumstances, we may determine to do so through the acquisition of or investments in complementary businesses and technologies rather than through internal development. For example, in 2021 we completed the acquisition of Prodigy. The identification of suitable acquisition candidates can be difficult, time-consuming, and costly, and we may not be able to successfully complete identified acquisitions. In the future, we may acquire assets or businesses. The risks we face in connection with acquisitions include:

· diversion of management time and focus from operating our business to addressing acquisition integration challenges;

- · utilization of our financial resources for acquisitions or investments that may fail to realize the anticipated benefits;
- inability of the acquired technologies, products or businesses to achieve expected levels of revenue, profitability, productivity or other benefits;
- · coordination of technology, product development and sales and marketing functions and integration of administrative systems;
- transition of the acquired company's borrowers to our systems;
- retention of employees from the acquired company;
- regulatory risks, including maintaining good standing with existing regulatory bodies or receiving any necessary approvals, as well as being subject to new regulators with oversight over an acquired business;
- · attracting financing;
- · cultural challenges associated with integrating employees from the acquired company into our organization;
- the need to implement or improve controls, procedures and policies at a business that prior to the acquisition may have lacked effective controls, procedures and policies;
- potential write-offs of loans or intangibles or other assets acquired in such transactions that may have an adverse effect on our results of operations in a given period;
- liability for activities of the acquired company before the acquisition, including patent and trademark infringement claims, violations of laws, commercial disputes, tax liabilities and other known and unknown liabilities;
- assumption of contractual obligations that contain terms that are not beneficial to us, require us to license or waive intellectual property or increase our risk for liability; and
- litigation, claims or other liabilities in connection with the acquired company.

Our failure to address these risks or other problems encountered in connection with any future acquisitions and strategic investments could cause us to fail to realize the anticipated benefits of these acquisitions or investments, cause us to incur unanticipated liabilities and harm our business generally. Future acquisitions could also result in dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, amortization expenses or the write-off of goodwill, any of which could harm our financial condition.

Strategic investments in which we have a minority ownership stake and that we do not control may from time to time have economic, business, or legal interests or goals that are inconsistent with our goals. As a result, business decisions or other actions or omissions of controlling shareholders, management, or other persons or entities who control companies in which we invest may adversely affect the value of our investment, result in litigation or regulatory action against us, or otherwise damage our reputation and brand.

Borrowers may prepay a loan at any time without penalty, which could reduce our servicing fees and deter our lending partners and institutional investors from investing in loans facilitated through our lending marketplace.

A borrower may decide to prepay all or a portion of the remaining principal amount on a loan at any time without penalty. If the entire or a significant portion of the remaining unpaid principal amount of a loan is prepaid, we would not receive a servicing fee, or we would receive a significantly lower servicing fee associated with such prepaid loan. Prepayments may occur for a variety of reasons, including if interest rates decrease after a loan is made. If a significant volume of prepayments occurs, the amount of our servicing fees would decline, which could harm our business and results of operations. Our AI models are designed to predict prepayment rates. However, if a significant volume of prepayments occur that our AI models do not accurately predict, returns targeted by our lending partners and institutional investors in our loan funding programs would be adversely affected and our ability to attract new lending partners and institutional investors in our loan funding programs would be negatively affected.

Our marketing efforts and brand promotion activities may not be effective.

Promoting awareness of our AI lending marketplace is important to our ability to grow our business, attract new lending partners, increase the number of potential borrowers on our platform and attract institutional investors to participate in our loan funding programs. We believe that the importance of brand recognition will increase as competition in the consumer lending industry expands. However, because our lending partners are increasingly adopting our lending partner-branded version of our AI lending marketplace through their own websites, potential borrowers may not be aware they are experiencing our AI lending marketplace, which may hinder recognition of our brand. Successful promotion of our brand will depend largely on the effectiveness of marketing efforts and the overall user experience of our lending partners and potential borrowers on the Upstart platform, which factors are outside our control. The marketing channels that we employ may also become more crowded and saturated by other lending platforms, which may decrease the effectiveness of our marketing campaigns and increase borrower acquisition costs. Also, the methodologies, policies and regulations applicable to marketing channels may change. For example, internet search engines could revise their methodologies, which could adversely affect borrower volume from organic ranking and paid search. Search engines may also implement policies that restrict the ability of companies such as us to advertise their services and products, which could prevent us from appearing in a favorable location or any location in the organic rankings or paid search results when certain search terms are used by the consumer.

Our brand promotion activities may not yield increased revenues. If we fail to successfully build trust in our AI lending marketplace and the performance and predictability of Upstart-powered loans, we may lose existing lending partners and institutional investors in our loan funding programs to our competitors or be unable to attract new lending partners and institutional investors in our loan funding programs, which in turn would harm our business, results of operations and financial condition. Even if our marketing efforts result in increased revenue, we may be unable to recover our marketing costs through increases in loan volume, which could result in a higher borrower acquisition cost per account. Any incremental increases in loan servicing costs, such as increases due to greater marketing expenditures, could have an adverse effect on our business, financial condition and results of operations.

Unfavorable outcomes in legal proceedings may harm our business and results of operations.

We are, and may in the future become, subject to litigation, claims, examinations, investigations, legal and administrative cases and proceedings, whether civil or criminal, or lawsuits by governmental agencies or private parties, which may affect our results of operations. These claims, lawsuits, and proceedings could involve, and in some cases have involved, labor and employment, discrimination and harassment, commercial disputes, intellectual property rights (including patent, trademark, copyright, trade secret, and other proprietary rights), class actions, general contract, tort, defamation, data privacy rights, antitrust, common law fraud, government regulation, or compliance, alleged federal and state securities and "blue sky" law violations or other investor claims, and other matters. For example, we are a defendant in a number of securities class action and other related lawsuits. See the risk factor titled "—The trading price of our common stock may be volatile, and you could lose all or part of your investment" for more information.

Due to the consumer-oriented nature of our business and the application of certain laws and regulations, participants in our industry are regularly named as defendants in litigation alleging violations of federal and state laws and regulations and consumer law torts, including fraud. Many of these legal proceedings involve alleged violations of consumer protection laws. In addition, we have been in the past and may in the future be subject to litigation, claims, examinations, investigations, legal and administrative cases and proceedings related to the offer and sale of Upstart-powered loans.

In particular, lending programs that involve originations by a bank in reliance on origination-related services being provided by non-bank lending platforms and/or program managers are subject to potential litigation and government enforcement claims based on "rent-a-charter" or "true lender" theories, particularly where such programs involve the subsequent sale of such loans or interests therein through the lending marketplace. See—"If loans facilitated through our platform for one or more lending partners were subject to successful challenge that the

lending partner was not the "true lender," such loans may be unenforceable, subject to rescission or otherwise impaired, we or other program participants may be subject to penalties, and/or our commercial relationships may suffer, each which would adversely affect our business and results of operations," below. In addition, loans originated by lending partners (which are exempt from certain state requirements under federal banking laws), followed by the sale, assignment, or other transfer to non-banks of such loans are subject to potential litigation and government enforcement claims based on the theory that transfers of loans from banks to non-banks do not transfer the ability to enforce contractual terms such as interest rates and fees from which only banks benefit under federal preemption principles. See—"If loans originated by our lending partners were found to violate the laws of one or more states, whether at origination or after sale by the lending partner, loans facilitated through our platform may be unenforceable or otherwise impaired, we or other program participants may be subject to, among other things, fines and penalties, and/or our commercial relationships may suffer, each of which would adversely affect our business and results of operations" below. In addition, the recent inquiries related to our model's use of education variables in assessing credit risk could prompt potential litigation and government enforcement claims based on perceived violations of ECOA. See—"We have been in the past and may in the future be subject to federal and state regulatory inquiries regarding our business" below. If we were subject to such litigation or enforcement, then any unfavorable results of pending or future legal proceedings may result in contractual damages, usury related claims, fines, penalties, injunctions, the unenforceability, rescission or other impairment of loans originated on our platform or other censure that could have an adverse effect on our business, results of operations and financial cond

We have a limited history of operating with a Digital First workforce, and the long-term impact on our business, financial condition and results of operations is uncertain.

Since our announcement of a Digital First work model in June 2021, remote work with less time in the office has been the primary experience for most of our employees. Our workforce is currently distributed across the U.S., and we expect this distribution to continue. We have a limited history of operating with a Digital First workforce. Although we anticipate that this Digital First model will have a long-term positive impact on our business, financial condition and results of operations, there is no guarantee that we will realize any anticipated benefits to our business from this model, including cost savings, operational efficiencies, or productivity.

Our Digital First model could lead to a negative long-term impact on our operations, the execution of our business plans and sales and marketing efforts, our company culture, or the productivity and retention of key personnel and other employees necessary to conduct our business, or otherwise cause operational failures due to changes in our past business practices. If a natural disaster, power outage, connectivity issue, or other event were to occur that impacted our employees' ability to work remotely, it may be difficult or, in certain cases, impossible, for us to continue our business for a substantial period of time. The increase in remote working may also result in increased exposure to consumer privacy and data security incidents, or fraudulent activity. Furthermore, our understanding of applicable legal and regulatory requirements related to a remote workforce may be subject to legal or regulatory challenge, particularly as regulatory guidance evolves in response to future developments. If we are unable to successfully address the foregoing risks and challenges as we encounter them, our business, financial condition and results of operations could be adversely affected.

Our business is subject to the risks of natural disasters and other catastrophic events, many of which are becoming more acute and frequent due to climate change, and to interruption by human-induced problems.

Significant natural disasters or other catastrophic events, such as earthquakes, fires, hurricanes, blizzards, or floods (many of which are becoming more acute and frequent as a result of climate change), or interruptions by strikes, crime, terrorism, epidemics, pandemics, cyber-attacks, computer viruses, internal or external system failures, telecommunications failures, power outages or increased risk of cybersecurity breaches due to a swift transition to remote work brought about by a catastrophic event, could have an adverse effect on our business, results of operations and financial condition.

The long-term effects of climate change on the global economy and our industry in particular are unclear; however, we recognize that there are inherent climate-related risks wherever business is conducted. Either of our headquarters may be vulnerable to the adverse effects of climate change. One of our headquarters is located in the San Francisco Bay Area, a region that is prone to seismic activity and has experienced and may continue to experience, climate-related events and at an increasing rate. Examples include drought and water scarcity, warmer temperatures, wildfires and air quality impacts and power shut-offs associated with wildfire prevention. The increasing intensity of drought throughout California and annual periods of wildfire danger increase the probability of planned power outages. Our other headquarters in Columbus, Ohio is a region at higher risk for blizzards. Although we maintain a disaster response plan and insurance, such events could disrupt our business, the business of our lending partners or third-party suppliers, and may cause us to experience losses and additional costs to maintain and resume operations. We may not maintain sufficient business interruption or property insurance to compensate us for potentially significant losses, including potential harm to our business that may result from interruptions in our ability to provide our financial products and services.

In addition, acts of war and other armed conflicts, disruptions in global trade, travel restrictions and quarantines, terrorism and other civil, political and geo-political unrest, such as the ongoing Russia-Ukraine conflict, could cause disruptions in our business and lead to interruptions, delays or loss of critical data. Any of the foregoing risks may be further increased if our business continuity plans prove to be inadequate and there can be no assurance that both personnel and non-mission critical applications can be fully operational after a declared disaster within a defined recovery time. If our personnel, systems or data centers are impacted, we may suffer interruptions and delays in our business operations. In addition, to the extent these events impact the ability of borrowers to timely repay their loans, our business could be negatively affected.

If our estimates or judgments relating to our critical accounting policies prove to be incorrect or financial reporting standards or interpretations change, our results of operations could be adversely affected.

The preparation of the consolidated financial statements in conformity with generally accepted accounting principles in the United States requires our management to make estimates and assumptions that affect the amounts reported and disclosed in our consolidated financial statements and accompanying notes. We base our estimates and assumptions on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. The results of these estimates form the basis for making judgments about the carrying values of assets, liabilities, and equity, and the amount of revenue and expenses that are not readily apparent from other sources. Significant assumptions and estimates used in preparing our consolidated financial statements include those related to fair value determinations, stock-based compensation, consolidation of variable interest entities, provision for income taxes, net of valuation allowance for deferred tax assets, and the evaluation for impairment of goodwill and acquired intangible assets. Our results of operations may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our results of operations to fall below the expectations of industry or financial analysts and investors, resulting in a decline in the trading price of our common stock.

Additionally, we regularly monitor our compliance with applicable financial reporting standards and review new pronouncements and drafts thereof that are relevant to us. As a result of new standards, or changes to existing standards, and changes in their interpretation, we might be required to change our accounting policies, alter our operational policies and implement new or enhance existing systems so that they reflect new or amended financial reporting standards, or we may be required to restate our published financial statements. Such changes to existing standards or changes in their interpretation may have an adverse effect on our reputation, business, financial condition, and profit and loss, or cause an adverse deviation from our revenue and operating profit and loss target, which may negatively impact our results of operations.

If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable regulations could be impaired.

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934, or the Exchange Act, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, and the rules and regulations of the applicable listing standards of the Nasdaq Global Select Market. We expect that the requirements of these rules and regulations will continue to increase our legal, accounting, and financial compliance costs, make some activities more difficult, time-consuming, and costly, and place significant strain on our personnel, systems, and resources.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are continuing to develop and refine our disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we will file with the SEC is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and that information required to be disclosed in reports under the Exchange Act is accumulated and communicated to our principal executive and financial officers. We are also continuing to improve our internal control over financial reporting. In order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant resources, including accounting-related costs, and significant management oversight. Our current controls and any new controls that we develop may become inadequate because of changes in conditions in our business.

Weaknesses in our disclosure controls and internal control over financial reporting have been discovered in the past and may be discovered in the future. We cannot assure you that the measures we have taken to date, or any measures we may take in the future, will be sufficient to identify or prevent future material weaknesses or deficiencies. The nature of our business is such that our financial statements involve a number of complex accounting policies, many of which involve significant elements of judgment, including determinations regarding the consolidation of variable interest entities, determinations regarding the fair value of financial assets and liabilities (including loans, notes receivable, payable to securitization note holders and residual certificate holders, servicing assets and liabilities, and trailing fee liabilities) and the appropriate classification of various items within our financial statements. See Note 1 to our consolidated financial statements for more information about our significant accounting policies. The inherent complexity of these accounting matters and the nature and variety of transactions in which we are involved require that we have sufficient qualified accounting personnel with an appropriate level of experience and controls in our financial reporting process commensurate with the complexity of our business. While we believe we have sufficient internal accounting personnel and external resources and appropriate controls to address the demands of our business, we expect that the growth and development of our business will place significant additional demands on our accounting resources. Any failure to develop or maintain effective controls or any difficulties encountered in their implementation or improvement could harm our results of operations or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods. Any failure to implement and maintain effective internal control over financial reporting could also adversely affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that we will eventually be required to include in our periodic reports that will be filed with the SEC. Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the trading price of our common stock. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the Nasdaq Global Select Market. As a public company, we are required to provide an annual management report on the effectiveness of our internal control over financial reporting. There can be no assurance that we will maintain internal control over financial reporting sufficient to enable us to identify or avoid material weaknesses in the future.

Any failure to maintain effective disclosure controls and internal control over financial reporting could materially and adversely affect our business, results of operations, and financial condition and could cause a decline in the trading price of our common stock.

Some of our estimates, including our key metrics in this report, are subject to inherent challenges in measurement, and any real or perceived inaccuracies may harm our reputation and negatively affect our business.

Certain estimates and growth forecasts included in this report, including those we have generated ourselves, are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. The estimates and forecasts in this report relating to the size and expected growth of our target market may prove to be inaccurate. It is impossible to offer every loan product, term or feature that every customer wants or that any given lending partner is necessarily capable of supporting, and our competitors may develop and offer loan products, terms or features that we do not offer. Even if the markets in which we compete meet the size estimates and growth forecasted in this report, we may be unable to address these markets successfully and our business could fail to grow for a variety of reasons outside of our control, including competition in our industry. We regularly review and may adjust our processes for calculating our key metrics to improve their accuracy. For example, in the third quarter of 2021, we adjusted our process for calculating Conversion Rate to account for an increase in fraudulent applications. Our key metrics may differ from estimates published by third parties or from similarly titled metrics of our competitors due to differences in methodology. If investors or analysts do not perceive our metrics to be accurate representations of our business, or if we discover material inaccuracies in our metrics, our reputation, business, results of operations, and financial condition would be adversely affected.

RISKS RELATED TO OUR INTELLECTUAL PROPERTY AND PLATFORM DEVELOPMENT

It may be difficult and costly to protect our intellectual property rights, and we may not be able to ensure their protection.

Our ability to operate our platform depends, in part, upon our proprietary technology. We may be unable to protect our proprietary technology effectively which would allow competitors to duplicate our AI models or AI lending marketplace and adversely affect our ability to compete with them. We rely on a combination of copyright, trade secret, patent, trademark laws and other rights, as well as confidentiality procedures, contractual provisions and our information security infrastructure to protect our proprietary technology, processes and other intellectual property. While we have two patents issued and one patent application pending, we have limited patent protection and our patent application may not be successful. The steps we take to protect our intellectual property rights may be inadequate. For example, a third party may attempt to reverse engineer or otherwise obtain and use our proprietary technology without our consent. The pursuit of a claim against a third party for infringement of our intellectual property could be costly, and there can be no guarantee that any such efforts would be successful. Our failure to secure, protect and enforce our intellectual property rights could adversely affect our brand and adversely impact our business.

Our proprietary technology, including our AI models, may actually or may be alleged to infringe upon third-party intellectual property, and we may face intellectual property challenges from such other parties. We may not be successful in defending against any such challenges or in obtaining licenses to avoid or resolve any intellectual property disputes. If we are unsuccessful, such claims or litigation could result in a requirement that we pay significant damages or licensing fees, or we could in some circumstances be required to make changes to our business to avoid such infringement, which would negatively impact our financial performance. We may also be obligated to indemnify parties or pay substantial settlement costs, including royalty payments, in connection with any such claim or litigation and to modify applications or refund fees, which could be costly. Even if we were to prevail in such a dispute, any litigation regarding our intellectual property could be costly and time consuming and divert the attention of our management and key personnel from our business operations.

Moreover, it has become common in recent years for individuals and groups to purchase intellectual property assets for the sole purpose of making claims of infringement and attempting to extract settlements from companies such as ours. Even in instances where we believe that claims and allegations of intellectual property infringement against us are without merit, defending against such claims is time consuming and expensive and could result in the diversion of time and attention of our management and employees. In addition, although in some cases a third party may have agreed to indemnify us for such costs, such indemnifying party may refuse or be unable to uphold its contractual obligations. In other cases, our insurance may not cover potential claims of this type adequately or at all, and we may be required to pay monetary damages, which may be significant.

Furthermore, our technology may become obsolete or inadequate, and there is no guarantee that we will be able to successfully develop, obtain or use new technologies to adapt our models and systems to compete with other technologies as they develop. If we cannot protect our proprietary technology from intellectual property challenges, or if our technology becomes obsolete or inadequate, our ability to maintain our model and systems, facilitate loans or perform our servicing obligations on the loans could be adversely affected.

Any significant disruption in our AI lending platform could prevent us from processing loan applicants and servicing loans, reduce the effectiveness of our AI models and result in a loss of lending partners or borrowers.

In the event of a system outage or other event resulting in data loss or corruption, our ability to process loan applications, service loans or otherwise facilitate loans on our platform would be adversely affected. We also rely on facilities, components, and services supplied by third parties, including data center facilities, cloud storage services and national consumer reporting agencies. We host our AI lending platform using Amazon Web Services, or AWS, a provider of cloud infrastructure services. In the event that our AWS service agreements are terminated, or there is a lapse of service, interruption of internet service provider connectivity or damage to AWS data centers, we could experience interruptions in access to our platform as well as delays and additional expense in the event we must secure alternative cloud infrastructure services. For a large portion of borrowers' data used in our AI lending platform, we obtain borrowers' data from national consumer reporting agencies, such as TransUnion, and rely on their services in order to process loan applications. Any interference or disruption of our technology and underlying infrastructure or our use of third-party services could adversely affect our relationships with our lending partners and institutional investors in our funding programs, and the overall user experience of our platform. Also, as our business grows, we may be required to expand and improve the capacity, capability and reliability of our infrastructure. If we are not able to effectively address capacity constraints, upgrade our systems as needed and continually develop our technology and infrastructure to reliably support our business, financial condition and results of operations could be adversely affected.

Additionally, in the event of damage or interruption, our insurance policies may not adequately compensate us for any losses incurred. Our disaster recovery plan has not been tested under actual disaster conditions, and we may not have sufficient capacity to recover all data and services in the event of an outage or other event resulting in data loss or corruption. These factors could prevent us from processing or posting payments on the loans, damage our brand and reputation, divert our employees' attention, subject us to liability and cause borrowers to abandon our business, any of which could adversely affect our business, results of operations and financial condition.

Our platform and internal systems rely on software that is highly technical, and if our software contains undetected errors, our business could be adversely affected.

Our platform and internal systems rely on software that is highly technical and complex. In addition, our platform and internal systems depend on the ability of such software to store, retrieve, process and manage high volumes of data. The software on which we rely has contained, and may now or in the future contain, undetected errors or bugs. Some errors may only be discovered after the code has been released for external or internal use. Errors or other design defects within the software on which we rely may result in failure to accurately predict a loan applicant's creditworthiness, failure to comply with applicable laws and regulations, approval of sub-optimally priced loans, incorrectly displayed interest rates to applicants or borrowers, or incorrectly charged interest to borrowers or fees to lending partners or institutional investors, failure to present or properly display regulatory disclosures to applicants for an extended period of time, failure to detect fraudulent activity on our platform, a negative experience for consumers or lending partners, delayed introductions of new features or enhancements, or failure to protect borrower data or our intellectual property. Any errors, bugs or defects discovered in the software on which we rely could result in harm to our reputation, loss of consumers or lending partners, increased regulatory scrutiny, fines or penalties, loss of revenue or liability for damages, any of which could adversely affect our business, financial condition and results of operations. Furthermore, updates made to our software to remediate any errors discovered may prove to be ineffective, resulting in repeated issues and further harm to our business.

Some aspects of our business processes include open source software, and any failure to comply with the terms of one or more of these open source licenses could negatively affect our business.

We incorporate open source software into processes supporting our business. Such open source software may include software covered by licenses like the GNU General Public License and the Apache License. The terms of various open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that limits our use of the software, inhibits certain aspects of our systems and negatively affects our business operations.

Some open source licenses contain requirements that we make source code available at no cost for modifications or derivative works we create based upon the type of open source software we use.

We may face claims from third parties claiming ownership of, or demanding the release or license of, such modifications or derivative works (which could include our proprietary source code or AI models) or otherwise seeking to enforce the terms of the applicable open source license. If portions of our proprietary AI models are determined to be subject to an open source license, or if the license terms for the open source software that we incorporate change, we could be required to publicly release the affected portions of our source code, re-engineer all or a portion of our model or change our business activities, any of which could negatively affect our business operations and potentially our intellectual property rights. If we were required to publicly disclose any portion of our proprietary models, it is possible we could lose the benefit of trade secret protection for our models.

In addition to risks related to license requirements, the use of open source software can lead to greater risks than the use of third-party commercial software, as open source licensors generally do not provide warranties or controls on the origin of the software. Use of open source software may also present additional security risks because the public availability of such software may make it easier for hackers and other third parties to determine how to breach our website and systems that rely on open source software. Many of the risks associated with the use of open source software cannot be eliminated and could adversely affect our business.

RISKS RELATED TO OUR DEPENDENCE ON THIRD PARTIES

We rely on strategic relationships with loan aggregators to attract applicants to our platform, and if we cannot maintain effective relationships with loan aggregators or successfully replace their services, or if loan aggregators begin offering competing products, our business could be adversely affected.

A significant number of consumers that apply for a loan on Upstart.com learn about and access Upstart.com through the website of a loan aggregator, typically with a hyperlink from such loan aggregator's website to a landing page on our website. While we are planning to move towards more direct acquisition channels, we anticipate that we will continue to depend in significant part on relationships with loan aggregators to maintain and grow our business. For example, a significant amount of our loan originations was derived from traffic from one of our partners, Credit Karma. Our most recent agreement with Credit Karma provides that either party may terminate our arrangement immediately upon a material breach of any provision of the agreement or at any time, with or without cause, by providing no less than 30 days' notice. Our agreements with the loan aggregators do not require loan aggregators, including Credit Karma, to display offers from lenders on Upstart.com nor prohibit them from working with our competitors or from offering competing services. In this regard, Credit Karma has been directing, and may continue to direct, more customer traffic to a program that hosts and aggregates the credit models of other loan providers directly on its platform for the purpose of giving credit offers. If traffic from Credit Karma or other loan aggregators decreases in the future as a result of this program or for other reasons, our loan originations and results of operations would be adversely affected. There is also no assurance that Credit Karma or other loan aggregators will continue its contract with us on commercially reasonable terms or at all. Furthermore, on December 3, 2020, Credit Karma was acquired by Intuit Inc. It is possible Intuit may not continue our agreement on commercially reasonable terms or at all, which would adversely affect our business. Our competitors may be effective in providing incentives to loan aggregators to favor their products or services or in reducing the volume of loans facilitated thr

disputes with them, which could adversely affect our brand and reputation. If we cannot successfully enter into and maintain effective strategic relationships with loan aggregators, our business could be adversely affected.

In addition, the limited information such loan aggregators collect from applicants does not always allow us to offer rates to applicants that we would otherwise be able to through direct applicant traffic to Upstart.com. Typically, the rates offered to borrowers who come to Upstart.com directly are lower and more competitive than those rates offered through aggregators. In the event we do not successfully optimize direct traffic, our ability to attract borrowers would be adversely affected.

Such loan aggregators also face litigation and regulatory scrutiny for their part in the consumer lending ecosystem, and as a result, their business models may require fundamental change or may not be sustainable in the future. For example, loan aggregators are increasingly required to be licensed as loan brokers or lead generators in many states, subjecting them to increased regulatory supervision and more stringent business requirements. While we require loan aggregators to make certain disclosures in connection with our lending partners' offers and restrict how loan aggregators may display such loan offers, loan aggregators may nevertheless alter or even remove these required disclosures without notifying us, which may result in liability to us. Further, we do not have control over any content on loan aggregator websites, and it is possible that our brand and reputation may be adversely affected by being associated with such content. An unsatisfied borrower could also seek to bring claims against us based on the content presented on a loan aggregator's website. Such claims could be costly and time consuming to defend and could distract management's attention from the operation of the business.

Our proprietary AI models rely in part on the use of loan applicant and borrower data and other third-party data, and if we lose the ability to use such data, or if such data contain inaccuracies, our business could be adversely affected.

We rely on our proprietary AI models, which are statistical models built using a variety of data-sets. Our AI models rely on a wide variety of data sources, including data collected from applicants and borrowers, credit bureau data and our credit experience gained through monitoring the payment performance of borrowers over time. Under our agreements with our lending partners, we receive licenses to use data collected from loan applicants and borrowers. If we are unable to access and use data collected from applicants and borrowers, data received from credit bureaus, repayment data collected as part of our loan servicing activities, or other third-party data used in our AI models, or our access to such data is limited, our ability to accurately evaluate potential borrowers, detect fraud and verify applicant data would be compromised. Any of the foregoing could negatively impact the accuracy of our pricing decisions, the degree of automation in our loan application process and the volume of loans facilitated on our platform.

Third-party data sources on which we rely include the consumer reporting agencies regulated by the CFPB and other alternative data sources. Such data is electronically obtained from third parties and used in our AI models to price applicants and in our fraud models to verify the accuracy of applicant-reported information. Data from national credit bureaus and other consumer reporting agencies, as well as other information that we receive from third parties about an applicant or borrower, may be inaccurate or may not accurately reflect the applicant or borrower's creditworthiness for a variety of reasons, including inaccurate reporting by creditors to the credit bureaus, errors, staleness or incompleteness. For example, loan applicants' credit scores may not reflect such applicants' actual creditworthiness because the credit scores may be based on outdated, incomplete or inaccurate consumer reporting data, including, as a consequence of us utilizing credit reports for a specific period of time after issuance before such reports are deemed to be outdated. Similarly, the data taken from an applicant's credit report may also be based on outdated, incomplete or inaccurate consumer reporting data. Although we use numerous third-party data sources and multiple credit factors within our proprietary models, which helps mitigate this risk, it does not eliminate the risk of an inaccurate individual report.

Further, although we attempt to verify the income, employment and education information provided by certain selected applicants, we cannot guarantee the accuracy of applicant information. Our fraud models rely in part on data we receive from a number of third-party verification vendors, data collected from applicants, and our experience gained through monitoring the performance of borrowers over time. Information provided by borrowers

may be incomplete, inaccurate or intentionally false. Applicants may also misrepresent their intentions for the use of loan proceeds. We do not verify or confirm any statements by applicants as to how loan proceeds are to be used after loan funding. If an applicant supplied false, misleading or inaccurate information and our fraud detection processes do not flag the application, repayments on the corresponding loan may be lower, in some cases significantly lower, than expected, leading to losses for the lending partner or institutional investor.

In addition, if third party data used to train and improve our AI models is inaccurate, or access to such third-party data is limited or becomes unavailable to us, our ability to continue to improve our AI models would be adversely affected. Any of the foregoing could result in sub-optimally and inefficiently priced loans, incorrect approvals or denials of loans, or higher than expected loan losses, which in turn could adversely affect our ability to attract new borrowers and partners to our marketplace or increase the number of Upstart-powered loans and adversely affect our business, financial condition and results of operations.

We rely on third-party vendors and if such third parties do not perform adequately or terminate their relationships with us, our costs may increase and our business, financial condition and results of operations could be adversely affected.

Our success depends in part on our relationships with third-party vendors. In some cases, third-party vendors are one of a limited number of sources. For example, we rely on national consumer reporting agencies, such as TransUnion, for a large portion of the data used in our AI models. In addition, we rely on third-party verification technologies and services that are critical to our ability to maintain a high level of automation on our platform. In addition, because we are not a bank, we cannot belong to or directly access the ACH payment network. As a result, we rely on one or more banks with access to the ACH payment network to process collections on Upstart-powered loans. Many of our vendor agreements are terminable by either party without penalty and with little notice. If any of our third-party vendors terminates its relationship with us or refuses to renew its agreement with us on commercially reasonable terms, we would need to find an alternate provider, and may not be able to secure similar terms or replace such providers in an acceptable timeframe. We also rely on other software and services supplied by vendors, such as communications, analytics and internal software, and our business may be adversely affected to the extent such software and services do not meet our expectations, contain errors or vulnerabilities, are compromised or experience outages. Any of these risks could increase our costs and adversely affect our business, financial condition and results of operations. Further, any negative publicity related to any of our third-party partners, including any publicity related to quality standards or safety concerns, could adversely affect our reputation and brand, and could potentially lead to increased regulatory or litigation exposure.

We incorporate technology from third parties into our platform. We cannot be certain that our licensors are not infringing the intellectual property rights of others or that the suppliers and licensors have sufficient rights to the technology in all jurisdictions in which we may operate. Some of our license agreements may be terminated by our licensors for convenience. If we are unable to obtain or maintain rights to any of this technology because of intellectual property infringement claims brought by third parties against our suppliers and licensors or against us, or if we are unable to continue to obtain the technology or enter into new agreements on commercially reasonable terms, our ability to develop our platform containing that technology could be severely limited and our business could be harmed. Additionally, if we are unable to obtain necessary technology from third parties, we may be forced to acquire or develop alternate technology, which may require significant time and effort and may be of lower quality or performance standards. This would limit and delay our ability to provide new or competitive loan products or service offerings and increase our costs. If alternate technology cannot be obtained or developed, we may not be able to offer certain functionality as part of our platform and service offerings, which could adversely affect our business, financial condition and results of operations.

Failure by our third-party vendors or our failure to comply with legal or regulatory requirements or other contractual requirements could have an adverse effect on our business.

We have significant vendors that provide us with a number of services to support our platform. If any third-party vendors fail to comply with applicable laws and regulations or comply with their contractual requirements, including failure to maintain adequate systems addressing privacy and data protection and security, we could be

subject to regulatory enforcement actions and suffer economic and reputational harm that could harm our business. Further, we may incur significant costs to resolve any such disruptions in service or failure to provide contracted services, which could adversely affect our business.

The CFPB and each of the prudential bank regulators that supervise our lending partners have issued guidance stating that institutions under their supervision may be held responsible for the actions of the companies with which they contract. As a service provider to those supervised entities, we must ensure we have implemented an adequate vendor management program. We or our lending partners could be adversely impacted to the extent our vendors fail to comply with the legal requirements applicable to the particular products or services being offered. Our use of third-party vendors is subject to increasing regulatory attention.

The CFPB and other regulators have also issued regulatory guidance that has focused on the need for financial institutions to perform increased due diligence and ongoing monitoring of third-party vendor relationships, thus increasing the scope of management involvement in connection with using third-party vendors. Moreover, if regulators conclude that we or our lending partners have not met the heightened standards for oversight of our third-party vendors, we or our lending partners could be subject to enforcement actions, civil monetary penalties, supervisory orders to cease and desist or other remedial actions, which could have an adverse effect on our business, financial condition and results of operations. Furthermore, in July 2021, the prudential bank regulators issued a proposal to significantly revise bank oversight of service providers, which could impact the way in which we are monitored or reviewed where we provide services to those banks.

If loans originated by our lending partners were found to violate the laws of one or more states, whether at origination or after sale by the lending partner, loans facilitated through our platform may be unenforceable or otherwise impaired, we or other program participants may be subject to, among other things, fines and penalties, and/or our commercial relationships may suffer, each of which would adversely affect our business and results of operations.

When establishing the interest rates and structures (and the amounts and structures of certain fees constituting interest under federal banking law, such as origination fees, late fees and non-sufficient funds fees) that are charged to borrowers on loans originated on our platform, our lending partners rely on certain authority under federal law to export the interest rate requirements of the state where each lending partner is located to borrowers in all other states. Further, certain of our lending partners and institutional investors rely on the ability of subsequent holders to continue charging such rate and fee structures and enforce other contractual terms agreed to by our lending partners which are permissible under federal banking laws following the acquisition of the loans. The current maximum annual percentage rate of the loans facilitated through our platform is 35.99%. In some states, the interest rates of certain Upstart-powered loans exceed the maximum interest rate permitted for consumer loans made by non-bank lenders to borrowers residing in, or that have nexus to, such states. In addition, the rate structures for Upstart-powered loans may not be permissible in all states for non-bank lenders and/or the amount or structures of certain fees charged in connection with Upstart-powered loans may not be permissible in all states for non-bank lenders. Furthermore, other states have enacted additional limitations on interest rates and fees, such as the March 2021 Illinois law that capped interest rates on loans at an "all-in" 36% APR.

Usury, fee, and disclosure related claims involving Upstart-powered loans may be raised in multiple ways. Program participants may face litigation, government enforcement or other challenge, for example, based on claims that bank lenders did not establish loan terms that were permissible in the state they were located or did not correctly identify the home or host state in which they were located for purposes of interest exportation authority under federal law. Alternatively, we or our institutional investors may face litigation, government enforcement or other challenge, for example, based on claims that rates and fees were lawful at origination and through any period during which the lending partner retained the loan and interests therein, but that subsequent purchasers were unable to enforce the loan pursuant to its contracted-for terms, or that certain disclosures were not provided at origination because while such disclosures are not required of banks they may be required of non-bank lenders.

In Madden v. Midland Funding, LLC, 786 F.3d 246 (2d Cir. 2015), cert. denied, 136 S.Ct. 2505 (June 27, 2016), for example, the United States Court of Appeals for the Second Circuit held that the non-bank purchaser of

defaulted credit card debt could not rely on preemption standards under the National Bank Act applicable to the originator of such debt in defense of usury claims. Madden addressed circumstances under which a defaulted extension of credit under a consumer credit card account was assigned, following default, to a non-bank debt buyer that then attempted to collect the loan and to continue charging interest at the contracted-for rate. The debtor filed a suit claiming, among other claims, that the rate charged by the non-bank collection entity exceeded the usury rates allowable for such entities under New York usury law. Reversing a lower court decision, the Second Circuit held that preemption standards under the National Bank Act applicable to the bank that issued the credit card were not available to the non-bank debt buyer as a defense to usury claims. Following denial of a petition for rehearing by the Second Circuit, the defendant sought review by the United States Supreme Court. Following the United States Supreme Court's request that the Solicitor General file a brief setting forth the government's position on whether the Supreme Court should hear the case in 2016, the Solicitor General filed its brief recommending that the petition for a writ of certiorari be denied for certain vehicle suitability reasons, although the Solicitor General's brief concluded that the Second Circuit's decision was substantively incorrect as a matter of law. The Supreme Court denied certiorari on June 27, 2016, such that the Second Circuit's decision remains binding on federal courts in the Second Circuit (which include all federal courts in New York, Connecticut, and Vermont). Upon remand to the District Court for consideration of additional issues, including whether a choice of law provision in the debtor's credit card agreement was enforceable to displace New York usury law and class certification, the parties settled the matter in 2019.

The scope and validity of the Second Circuit's Madden decision remain subject to challenge and clarification. For example, the Colorado Administrator of the Colorado Uniform Consumer Credit Code, or the UCCC, reached a settlement with respect to complaints against two online lending platforms whose operations share certain commonalities with ours, including with respect to the role of bank partners and sale of loans to institutional investors. The complaints included, among other claims, allegations, grounded in the Second Circuit's Madden decision, that the rates and fees for certain loans could not be enforced lawfully by non-bank purchasers of bank-originated loans. Under the settlement, these banks and nonbank partners committed to, among other things, limit the annual percentage rates, or APR, on loans to Colorado consumers to 36% and take other actions to ensure that the banks were in fact the true lenders. The nonbanks also agreed to obtain and maintain a Colorado lending license. In Colorado, this settlement should provide a helpful model for what constitutes an acceptable bank partnership model. However, the settlement may also invite other states to initiate their own actions, and set their own regulatory standards through enforcement.

In addition, in June 2019, private plaintiffs filed class action complaints against multiple traditional credit card securitization programs, including, Petersen, et al. v. Chase Card Funding, LLC, et al., (No. 1:19-cv-00741-LJV-JJM (W.D.N.Y. June 6, 2019)) and Cohen, et al. v. Capital One Funding, LLC et al., (No. 19-03479 (E.D.N.Y. June 12, 2019)). In Petersen, the plaintiffs sought class action status against certain defendants affiliated with a national bank that have acted as special purpose entities in securitization transactions sponsored by the bank. The complaint alleges that the defendants' acquisition, collection and enforcement of the bank's credit card receivables violated New York's civil usury law and that, as in Madden, the defendants, as non-bank entities, are not entitled to the benefit of federal preemption of state usury law. The complaint sought a judgment declaring the receivables unenforceable, monetary damages and other legal and equitable remedies, such as disgorgement of all sums paid in excess of the usury limit. Cohen was a materially similar claim against a separate national bank. On January 22, 2020, the magistrate judge in Petersen issued a report and recommendation responding to the defendants' motion to dismiss. The magistrate recommended that the motion to dismiss be granted as to both of the plaintiffs' claims (usury and unjust enrichment). On September 21, 2020, the District Court accepted the magistrate's recommendation and dismissed all claims. The District Court found that the usury claims were expressly preempted by the National Bank Act and referenced the OCC's recent rulemaking (discussed further below) that "[i]nterest on a loan that is permissible under [the National Bank Act] shall not be affected by the sale, assignment, or other transfer of the loan." Among other things, the Court deferred to the "OCC's reasoned judgment that enforcing New York's usury laws against the Chase defendants would significantly interfere with [the bank's] exercise of its [National Bank A

As noted above, federal prudential regulators have also taken actions to address the Madden decision. On May 29, 2020, the OCC issued a final rule clarifying that, when a national bank or savings association sells, assigns, or otherwise transfers a loan, interest permissible before the transfer continues to be permissible after the transfer. That rule took effect on August 3, 2020. As discussed further below, the OCC also issued a rule pertaining to the "true lender" issue, which was challenged by state attorneys general in a complaint filed January 5, 2021, and subsequently repealed through the Congressional Review Act on June 30, 2021. Similarly, the FDIC finalized on June 25, 2020 its 2019 proposal declaring that the interest rate for a loan is determined when the loan is made, and will not be affected by subsequent events. On July 29, 2020, California, New York and Illinois filed suit in the U.S. District Court for the Northern District of California to enjoin enforcement of the OCC rule (Case No. 20-CV-5200) and, similarly in the same court, on August 20, 2020 California, Illinois, Massachusetts, Minnesota, New Jersey, New York, North Carolina, and the District of Columbia sought to enjoin enforcement of the FDIC rule (Case No. 20-CV-5860), in each case related to permissible interest rates post-loan transfer on the grounds that the OCC and FDIC exceeded their authority when promulgating those rules. On February 8, 2022, the court ruled in favor of the OCC and FDIC holding that the agencies did not exceed their statutory authorities when promulgating their "valid when made" rules.

There are factual distinctions between our program and the circumstances addressed in the Second Circuit's Madden decision, as well as the circumstances in the Colorado UCCC settlement, credit card securitization litigation, and similar cases. As noted above, there are also bases on which the Madden decision's validity might be subject to challenge or the Madden decision may be addressed by federal regulation or legislation. Nevertheless, there can be no guarantee that a Madden-like claim will not be brought successfully against us or other Upstart program participants.

Additionally, effective October 2021, Maine updated its Consumer Credit Code to include a statutory "true lender" test, providing that an entity is a "lender" subject to certain requirements of the Consumer Credit Code if the person, among other things: (i) has the predominant economic interest in a loan; (ii) brokers, arranges, or facilitates a loan and has the right to purchase the loan; or (iii) based on the totality of the circumstances, appears to be the lender, and the transaction is structured to evade certain statutory requirements. Me. Rev. Stat. § 2-702. It is possible that other states may follow suit, instituting similar statutory "true lender" tests, which may impact the risk of true lender litigation in certain jurisdictions, as well as the tests applied by courts and regulators in determining the true lender. While such provisions provide additional clarity with respect to jurisdictional requirements, they may also result in increased usury and licensing risk. For example, Hawaii has broadened its oversight of installment lenders. Effective January 1, 2022, Hawaii instituted a new licensing requirement for "installment lenders", which is defined to capture loans offered under a bank partnership model (i.e., it applies to a person "who arranges a consumer loan for a third party, or who acts as an agent for a third party, regardless of whether the third party is exempt from licensure." H.B. 1192 (2021)). Other states may take different paths to promulgate similar "true lender" restrictions, and if not through a legislative path, impacted parties may have little to no advance notice of new restrictions and compliance obligations.

If a borrower or any state agency were to successfully bring a claim against us, our lending partners, our securitization vehicles and/or the trustees of such vehicles or our institutional investors for a state usury law or fee restriction violation and the rate or fee at issue on the loan was impermissible under applicable state law, we, our lending partners, securitization vehicles and/or trustees or institutional investors in our loan funding programs may face various commercial and legal repercussions, including that such parties would not receive the total amount of interest expected, and in some cases, may not receive any interest or principal, may hold loans that are void, voidable, rescindable, or otherwise impaired or may be subject to monetary, injunctive or criminal penalties. Were such repercussions to apply to us, we may suffer direct monetary loss or may be a less attractive candidate for lending partners, securitization trustees or institutional investors to enter into or renew relationships; and were such repercussions to apply to our lending partners or institutional investors, such parties could be discouraged from using our platform. We may also be subject to payment of damages in situations where we agreed to provide indemnification, as well as fines and penalties assessed by state and federal regulatory agencies.

If loans facilitated through our platform for one or more lending partners were subject to successful challenge that the lending partner was not the "true lender," such loans may be unenforceable, subject to rescission or otherwise impaired, we or other program participants may be subject to penalties, and/or our

commercial relationships may suffer, each which would adversely affect our business and results of operations.

Upstart-powered loans are originated in reliance on the fact that our lending partners are the "true lenders" for such loans. That true lender status determines various Upstart-powered loan program details, including that we do not hold licenses required solely for being the party that extends credit to consumers, and Upstart-powered loans may involve interest rates and structures (and certain fees and fees structures) permissible at origination only because the loan terms and lending practices are permissible only when the lender is a bank, and/or the disclosures provided to borrowers would be accurate and compliant only if the lender is a bank. Because the loans facilitated by our platform are originated by our lending partners, many state consumer financial regulatory requirements, including usury restrictions (other than the restrictions of the state in which a lending partner originating a particular loan is located) and many licensing requirements and substantive requirements under state consumer credit laws, are treated as inapplicable based on principles of federal preemption or express exemptions provided in relevant state laws for certain types of financial institutions or loans they originate.

Certain recent litigation and regulatory enforcement has challenged, or is currently challenging, the characterization of bank partners as the "true lender" in connection with programs involving origination and/or servicing relationships between a bank partner and non-bank lending platform or program manager. As noted above, the Colorado Administrator has entered into a settlement agreement with certain banks and non-banks that addresses this true lender issue. Specifically, the settlement agreement sets forth a safe harbor indicating that a bank is the true lender if certain specific terms and conditions are met. However, other states could also bring lawsuits based on these types of relationships. For example, in June 2020, the Washington, DC Attorney General filed a lawsuit against online lender Elevate for allegedly deceptively marketing high-cost loans with interest rates above the Washington, DC usury cap. The usury claim is based on an allegation that Elevate, which was not licensed in Washington, DC, and not its partner bank, originated these loans, and were therefore in violation of the state's usury laws. This case has since been remanded to the Superior Court of the District of Columbia. A similar complaint against online lender Opportunity Financial, LLC was filed in early 2021, alleging that it rather than a bank originated these loans and the loans were therefore in violation of Washington, DC usury laws. The parties settled this case in November 2021. Also in April 2021, the Maryland Office of the Commissioner of Financial Regulation also alleged in the context of a civil suit that a state-chartered bank and its fintech partners engaged in a bank partnership program that violated various state licensing and credit statutes. The case is pending before the Office of the Commissioner of Financial Regulation for administrative adjudication. In June 2021, a putative class action lawsuit was filed against the online lender Marlette Funding LLC in the Court of Common Pleas of Allegheny County, Pennsylvania, alleging that the company, doing business as Best Egg, was the true lender of usurious loans, with a rate of interest far in excess of the 6% rate permitted to be charged in Pennsylvania by unlicensed non-banks, originated through a partnership with CRB (Case No. 21-CV-985). Furthermore, in April 2022, the California Department of Financial Protection and Innovation filed a complaint in Los Angeles Superior Court alleging that Opportunity Financial, LLC is the "true lender" of several loans to California residents that exceeded the applicable California usury limit for small dollar loans. There is an ongoing risk that government agencies and private plaintiffs will seek to challenge these types of relationships.

We note that the OCC issued on October 27, 2020, a final rule to address the "true lender" issue for lending transactions involving a national bank. For certain purposes related to federal banking law, including the ability of a national bank to "export" interest-related requirements from the state from which they lend, the rule would treat a national bank as the "true lender" if it is named as the lender in the loan agreement or funds the loan. However, the rule was subsequently challenged by the Attorneys General from seven states and ultimately repealed by Congress pursuant to the Congressional Review Act on June 30, 2021. No similar rule applicable to state-chartered banks was issued by the FDIC, and thus there is no longer a clear federal standard.

We, lending partners, securitization vehicles and similarly situated parties could become subject to challenges like that presented by the Colorado settlement and, if so, we could face penalties and/or Upstart-powered loans may be void, voidable or otherwise impaired in a manner that may have adverse effects on our operations (directly, or as a result of adverse impact on our relationships with our lending partners, institutional investors or other commercial counterparties). However, we have taken steps to confirm that our business model conforms with

the requirements of the Colorado safe harbor. We have also taken additional steps to facilitate compliance with that above-described law enacted in Maine.

There have been no formal proceedings against us or indication of any proceedings against us to date, but there can be no assurance that the Colorado Administrator will not make assertions similar to those made in its present actions with respect to the loans facilitated by our platform in the future.

It is also possible that other state agencies or regulators could make similar assertions. If a court, or a state or federal enforcement agency, were to deem Upstart, rather than our lending partners, the "true lender" for loans originated on our platform, and if for this reason (or any other reason) the loans were deemed subject to and in violation of certain state consumer finance laws, we could be subject to fines, damages, injunctive relief (including required modification or discontinuation of our business in certain areas) and other penalties or consequences, and the loans could be rendered void or unenforceable in whole or in part, any of which could have a material adverse effect on our business (directly, or as a result of adverse impact on our relationships with our lending partners, institutional investors or other commercial counterparties).

We are subject to counterparty risk with respect to the capped call transactions.

The counterparties to the capped call transactions entered into in connection with the offering of the Notes (as defined below) are financial institutions, and we are subject to the risk that one or more of the counterparties may default or otherwise fail to perform, or may exercise certain rights to terminate, their obligations under the capped call transactions. Our exposure to the credit risk of the counterparties will not be secured by any collateral. Global economic conditions have in the past resulted in the actual or perceived failure or financial difficulties of many financial institutions. If a counterparty to one or more capped call transactions becomes subject to bankruptcy or other insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at the time under such transactions. Our exposure will depend on many factors but, generally, our exposure will increase if the market price or the volatility of our common stock increases. In addition, upon a default or other failure to perform, or a termination of obligations, by a counterparty, the counterparty may fail to deliver the shares of our common stock or cash required to be delivered to us under the capped call transactions and we may suffer adverse tax consequences or experience more dilution than we currently anticipate with respect to our common stock. We can provide no assurances as to the financial stability or viability of the counterparties.

RISKS RELATED TO OUR REGULATORY ENVIRONMENT

Litigation, regulatory actions and compliance issues could subject us to significant fines, penalties, judgments, remediation costs and/or requirements resulting in increased expenses.

In the ordinary course of business, we have been named as a defendant in various legal actions, including a class action lawsuit and other litigation. Generally, this litigation arises from the dissatisfaction of a consumer with the products or services offered on our platform; some of this litigation, however, has arisen from other matters, including claims of violation of laws related to credit reporting, collections and do-not-call. All such legal actions are inherently unpredictable and, regardless of the merits of the claims, litigation is often expensive, time-consuming, disruptive to our operations and resources, and distracting to management. In addition, certain actions may include claims for indeterminate amounts of damages. Our involvement in any such matter also could cause significant harm to our or our lending partners' reputations and divert management attention from the operation of our business, even if the matters are ultimately determined in our favor. If resolved against us, legal actions could result in excessive verdicts and judgments, injunctive relief, equitable relief, and other adverse consequences that may affect our financial condition and how we operate our business.

In addition, a number of participants in the consumer financial services industry have been the subject of putative class action lawsuits, state attorney general actions and other state regulatory actions, federal regulatory enforcement actions, including actions relating to alleged unfair, deceptive or abusive acts or practices, violations of state licensing and lending laws, including state usury and disclosure laws, actions alleging discrimination on the

basis of race, ethnicity, gender or other prohibited bases, and allegations of noncompliance with various state and federal laws and regulations relating to originating, servicing, and collecting consumer finance loans and other consumer financial services and products. The current regulatory environment, increased regulatory compliance efforts and enhanced regulatory enforcement have resulted in us undertaking significant time-consuming and expensive operational and compliance efforts to operate in accordance with relevant laws, which may delay or preclude our or our lending partners' ability to provide certain new products and services. There is no assurance that these regulatory matters or other factors will not, in the future, affect how we conduct our business and, in turn, have a material adverse effect on our business. In particular, legal proceedings brought under state consumer protection statutes or under several of the various federal consumer financial services statutes may result in a separate fine assessed for each statutory and regulatory violation or substantial damages from class action lawsuits, potentially in excess of the amounts we earned from the underlying activities.

Some of our agreements used in the course of our business include arbitration clauses. If our arbitration agreements were to become unenforceable for any reason, we could experience an increase to our consumer litigation costs and exposure to potentially damaging class action lawsuits, with a potential material adverse effect on our business and results of operations.

We contest our liability and the amount of damages, as appropriate, in each pending matter. The outcome of pending and future matters could be material to our results of operations, financial condition and cash flows, and could materially adversely affect our business.

In addition, from time to time, through our operational and compliance controls, we identify compliance issues that require us to make operational changes and, depending on the nature of the issue, result in financial remediation to impacted borrowers. These self-identified issues and voluntary remediation payments could be significant, depending on the issue and the number of borrowers impacted, and could generate litigation or regulatory investigations that subject us to additional risk.

We are subject to or facilitate compliance with a variety of federal, state, and local laws, including those related to consumer protection and loan financings.

We must comply with regulatory regimes or facilitate compliance with regulatory regimes on behalf of our lending partners that are independently subject to federal and/or state oversight by bank regulators, including those applicable to our referral and marketing services, consumer credit transactions, loan servicing and collection activities and the purchase and sale of whole loans and other related transactions. The current presidential administration has brought an increased focus on enforcement of federal consumer protection laws and has appointed consumer-oriented regulators at federal agencies such as the CFPB and the OCC. It is possible that regulators in the presidential administration could promulgate rulemakings and bring enforcement actions that materially impact our business and the business of our lending partners. These regulators may augment requirements that apply to loans facilitated by our platform, or impose new programs and restrictions, and could otherwise revise or create new regulatory requirements that apply to us (or our lending partners), impacting our business, operations, and profitability.

Certain state laws generally regulate interest rates and other charges and require certain disclosures. In addition, other federal and state laws may apply to the origination, servicing and collection of loans originated on our platform, and the purchase and sale of whole loans or asset-backed securitizations. In particular, certain laws, regulations and rules we or our lending partners are subject to include:

• state lending laws and regulations that require certain parties to hold licenses or other government approvals or filings in connection with specified activities, and impose requirements related to loan disclosures and terms, fees and interest rates, credit discrimination, credit reporting, servicemember relief, debt collection, repossession, unfair or deceptive business practices and consumer protection, as well as other state laws relating to privacy, information security, conduct in connection with data breaches and money transmission;

- the Truth-in-Lending Act and Regulation Z promulgated thereunder, and similar state laws, which require certain disclosures to borrowers regarding the terms and conditions of their loans and credit transactions, require creditors to comply with certain lending practice restrictions, limit the ability of a creditor to impose certain loan terms and impose disclosure requirements in connection with credit card origination;
- the Equal Credit Opportunity Act and Regulation B promulgated thereunder, and similar state fair lending laws, which prohibit creditors from discouraging or discriminating against credit applicants on a prohibited basis, including race, color, sex, age, religion, national origin, marital status, the fact that all or part of the applicant's income derives from any public assistance program or the fact that the applicant has in good faith exercised any right under the federal Consumer Credit Protection Act;
- the Fair Credit Reporting Act and Regulation V promulgated thereunder, imposes certain obligations on users of consumer reports and those that furnish
 information to consumer reporting agencies, including obligations relating to obtaining consumer reports, marketing using consumer reports, taking
 adverse action on the basis of information from consumer reports, addressing risks of identity theft and fraud and protecting the privacy and security of
 consumer reports and consumer report information;
- Section 5 of the Federal Trade Commission Act, which prohibits unfair and deceptive acts or practices in or affecting commerce, and Section 1031 of the Dodd-Frank Act, which prohibits unfair, deceptive or abusive acts or practices in connection with any consumer financial product or service, and analogous state laws prohibiting unfair, deceptive or abusive acts or practices;
- the Credit Practices Rule which (i) prohibits lenders from using certain contract provisions that the Federal Trade Commission has found to be unfair to consumers; (ii) requires lenders to advise consumers who co-sign obligations about their potential liability if the primary obligor fails to pay; and (iii) prohibits certain late charges;
- the Fair Debt Collection Practices Act, Regulation F, and similar state debt collection laws, which provide guidelines and limitations on the conduct of third-party debt collectors (and some limitation on creditors collecting their own debts) in connection with the collection of consumer debts;
- the Gramm-Leach-Bliley Act and Regulation P promulgated thereunder, which includes limitations on financial institutions' disclosure of nonpublic personal information about a consumer to nonaffiliated third parties, in certain circumstances requires financial institutions to limit the use and further disclosure of nonpublic personal information by nonaffiliated third parties to whom they disclose such information and requires financial institutions to disclose certain privacy notices and practices with respect to information sharing with affiliated and unaffiliated entities as well as to safeguard personal borrower information, and other state privacy laws and regulations;
- the Bankruptcy Code, which limits the extent to which creditors may seek to enforce debts against parties who have filed for bankruptcy protection;
- the Servicemembers Civil Relief Act, which allows military members to suspend or postpone certain civil obligations, requires creditors to reduce the interest rate to 6% on loans to military members under certain circumstances, and imposes restrictions on enforcement of loans to servicemembers, so that the military member can devote his or her full attention to military duties:
- the Military Lending Act, which requires those who lend to "covered borrowers", including members of the military and their dependents, to only offer Military APRs (a specific measure of all-in-cost-of-credit) under 36%, prohibits arbitration clauses in loan agreements, and prohibits certain other loan agreement terms and lending practices in connection with loans to military servicemembers, among other requirements, and for which violations may result in penalties including voiding of the loan agreement;
- the Electronic Fund Transfer Act and Regulation E promulgated thereunder, which provide guidelines and restrictions on the electronic transfer of funds from consumers' bank accounts, including a prohibition on a creditor requiring a consumer to repay a credit agreement in preauthorized (recurring) electronic fund transfers and disclosure and authorization requirements in connection with such transfers;
- the Telephone Consumer Protection Act and the regulations promulgated thereunder, which impose various consumer consent requirements and other restrictions in connection with telemarketing activity and other

communication with consumers by phone, fax or text message, and which provide guidelines designed to safeguard consumer privacy in connection with such communications;

- the Federal Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003 and the Telemarketing Sales Rule and analogous state laws, which impose various restrictions on marketing conducted use of email, telephone, fax or text message;
- the Electronic Signatures in Global and National Commerce Act and similar state laws, particularly the Uniform Electronic Transactions Act, which authorize the creation of legally binding and enforceable agreements utilizing electronic records and signatures and which require creditors and loan servicers to obtain a consumer's consent to electronically receive disclosures required under federal and state laws and regulations;
- the Right to Financial Privacy Act and similar state laws enacted to provide the financial records of financial institution customers a reasonable amount of privacy from government scrutiny;
- the Bank Secrecy Act and the USA PATRIOT Act, which relate to compliance with anti-money laundering, borrower due diligence and record-keeping
 policies and procedures;
- the regulations promulgated by the Office of Foreign Assets Control under the U.S. Treasury Department related to the administration and enforcement of sanctions against foreign jurisdictions and persons that threaten U.S. foreign policy and national security goals, primarily to prevent targeted jurisdictions and persons from accessing the U.S. financial system;
- federal and state securities laws, including, among others, the Securities Act of 1933, as amended, or the Securities Act, the Exchange Act, the Investment
 Advisers Act of 1940, as amended, or the IAA, and the Investment Company Act of 1940, as amended, or the Investment Company Act, rules and
 regulations adopted under those laws, and similar state laws and regulations, which govern how we offer, sell and transact in our loan financing products;
 and
- · other state-specific and local laws and regulations.

We may not always have been, and may not always be, in compliance with these and other applicable laws, regulations and rules. Compliance with these requirements is also costly, time-consuming and limits our operational flexibility. Additionally, Congress, the states and regulatory agencies, as well as local municipalities, could further regulate the consumer financial services industry in ways that make it more difficult or costly for us to offer our AI lending platform and related services or facilitate the origination of loans for our lending partners. These laws also are often subject to changes that could severely limit the operations of our business model. For example, in 2019, a bill was introduced in the U.S. Senate that would create a national cap of the lesser of 15% APR or the maximum rate permitted by the state in which the consumer resides. Although such a bill may never be enacted into law, if such a bill were to be enacted, it would greatly restrict the number of loans that could be funded through our platform. Further, changes in the regulatory application or judicial interpretation of the laws and regulations applicable to financial institutions also could impact the manner in which we conduct our business. The regulatory environment in which financial institutions operate has become increasingly complex, and following the financial crisis that began in 2008, supervisory efforts to apply relevant laws, regulations and policies have become more intense. Additionally, states are increasingly introducing and, in some cases, passing laws that restrict interest rates and APRs on loans similar to the loans made on our platform. For example, in March 2021, Illinois enacted a law to cap interest rates at an "all-in" 36% APR. Further, in late 2020, California created a "mini-CFPB," which could increase its oversight over bank partnership relationships and strengthen state consumer protection authority of state regulators to police debt collections and unfair, deceptive or abusive acts and practices. Voter referendums also have been introduced and, in some cases, passed, restrictions on interest rates and/or APRs. If such legislation or bills were to be propagated, or state or federal regulators seek to restrict regulated financial institutions such as our lending partners from engaging in business with Upstart in certain ways, our lending partners' ability to originate loans in certain states could be greatly reduced, and as a result, our business, financial condition and results of operations would be adversely affected.

Where applicable, we seek to comply with state broker, credit service organization, small loan, finance lender, servicing, collection, money transmitter and similar statutes. Nevertheless, if we are found to not comply

with applicable laws, we could lose one or more of our licenses or authorizations, become subject to greater scrutiny by other state regulatory agencies, face other sanctions or be required to obtain a license in such jurisdiction, which may have an adverse effect on our ability to continue to facilitate loans, perform our servicing obligations or make our platform available to consumers in particular states, which may harm our business. Further, failure to comply with the laws and regulatory requirements applicable to our business and operations may, among other things, limit our ability to collect all or part of the principal of or interest on Upstart-powered loans. In addition, non-compliance could subject us to damages, revocation of required licenses, class action lawsuits, administrative enforcement actions, rescission rights held by investors in securities offerings and civil and criminal liability, all of which would harm our business.

Internet-based loan origination processes may give rise to greater risks than paper-based processes and may not always be allowed under state law.

We use the internet to obtain application information and distribute certain legally required notices to applicants and borrowers, and to obtain electronically signed loan documents in lieu of paper documents with actual borrower signatures. These processes may entail greater risks than would paper-based loan origination processes, including risks regarding the sufficiency of notice for compliance with consumer protection laws, risks that borrowers may challenge the authenticity of loan documents, and risks that despite internal controls, unauthorized changes are made to the electronic loan documents. In addition, our software could contain "bugs" that result in incorrect calculations or disclosures or other non-compliance with federal or state laws or regulations. If any of those factors were to cause any loans, or any of the terms of the loans, to be unenforceable against the borrowers, or impair our ability to service loans, the performance of the underlying promissory notes could be adversely affected.

For auto loans issued through our auto lending marketplace, certain state laws may not allow for electronic lien and title transfer, which would require us to use a paper-based title process to secure title to the underlying collateral. While this process may help mitigate some of the risks associated with online processes, because it is outside of our usual practices and titling rules can vary by state, we may encounter greater difficulty complying with the proper procedures. If we fail to effectively follow such procedures we may, among other things, be limited in our ability to secure the collateral associated with loans issued through our auto lending marketplace.

If we are found to be operating without having obtained necessary state or local licenses, our business, financial condition and results of operations could be adversely affected.

Certain states have adopted laws regulating and requiring licensing by parties that engage in certain activities regarding consumer finance transactions, including facilitating and assisting such transactions in certain circumstances. Furthermore, certain states and localities have also adopted laws requiring licensing for consumer debt collection or servicing and/or purchasing or selling consumer loans. While we believe we have obtained or are in the process of obtaining all necessary licenses, the application of some consumer finance licensing laws to our AI lending marketplace and the related activities we perform, as well as to our lending partners, is unclear. In addition, state licensing requirements may evolve over time, including, in particular, recent trends toward increased licensing requirements and regulation of parties engaged in loan solicitation and student loan servicing activities. States also maintain licensing requirements pertaining to the transmission of money, and certain states may broadly interpret such licensing requirements to cover loan servicing and the transmission of funds to investors. If we or one of our lending partners were found to be in violation of applicable state licensing requirements by a court or a state, federal, or local enforcement agency, we could be subject to fines, damages, injunctive relief (including required modification or discontinuation of our business in certain areas), criminal penalties and other penalties or consequences, and the loans originated by our lending partners on our platform could be rendered void or unenforceable in whole or in part, any of which could have a material adverse effect on our business.

The CFPB has sometimes taken expansive views of its authority to regulate consumer financial services, creating uncertainty as to how the agency's actions or the actions of any other agency could impact our business.

The CFPB, which commenced operations in July 2011, has broad authority to create and modify regulations under federal consumer financial protection laws and regulations, such as the Truth in Lending Act and Regulation Z, ECOA and Regulation B, the Fair Credit Reporting Act and Regulation V, the Electronic Funds Transfer Act and Regulation E, among other regulations, and to enforce compliance with those laws. The CFPB supervises banks, thrifts and credit unions with assets over \$10 billion and examines certain of our lending partners. Further, the CFPB is charged with the examination and supervision of certain participants in the consumer financial services market, including short-term, small dollar lenders, and larger participants in other areas of financial services. The CFPB is also authorized to prevent "unfair, deceptive or abusive acts or practices" through its rulemaking, supervisory and enforcement authority. To assist in its enforcement, the CFPB maintains an online complaint system that allows consumers to log complaints with respect to various consumer finance products, including our loan products. This system could inform future CFPB decisions with respect to its regulatory, enforcement or examination focus. The CFPB may also request reports concerning our organization, business conduct, markets and activities and conduct on-site examinations of our business on a periodic basis if the CFPB were to determine, through its complaint system, that we were engaging in activities that pose risks to consumers.

There continues to be uncertainty about the future of the CFPB and as to how its strategies and priorities, including in both its examination and enforcement processes, will impact our business and our results of operations going forward. This uncertainty is increased in light of the fact that the new director of the CFPB has new examination and enforcement priorities, including safeguarding against algorithmic bias. In April 2022, the CFPB announced that it intends to examine nonbank financial companies that pose risks to consumers. If the CFPB decides to subject us to its supervisory process, it could significantly increase the level of regulatory scrutiny of our business practices. See the risk factor titled "—Our business is subject to a wide range of laws and regulations, many of which are evolving, and failure or perceived failure to comply with such laws and regulations could harm our business, financial condition and results of operations" for more information.

In addition, evolving views regarding the use of alternative variables and machine learning in assessing credit risk could result in the CFPB taking actions that result in requirements to alter or cease offering affected financial products and services, making them less attractive and restricting our ability to offer them. See the risk factor titled "—Our reputation and brand are important to our success, and if we are unable to continue developing our reputation and brand, our ability to retain existing and attract new bank partners, our ability to attract borrowers to our platform, our ability to maintain a diverse funding marketplace and our ability to maintain and improve our relationship with regulators of our industry could be adversely affected" for more information. The CFPB could also implement rules that restrict our effectiveness in servicing our financial products and services.

Although we have committed resources to enhancing our compliance programs, future actions by the CFPB (or other regulators) against us, our lending partners or our competitors could discourage the use of our services or those of our lending partners, which could result in reputational harm, a loss of lending partners, borrowers or institutional investors in our loan funding programs, or discourage the use of our or their services and adversely affect our business. If the CFPB changes regulations that were adopted in the past by other regulators and transferred to the CFPB by the Dodd-Frank Act, or modifies through supervision or enforcement past regulatory guidance or interprets existing regulations in a different or stricter manner than they have been interpreted in the past by us, the industry or other regulators, our compliance costs and litigation exposure could increase materially. This is particularly true with respect to the application of ECOA and Regulation B to credit risk models that rely upon alternative variables and machine learning, an area of law where regulatory guidance is currently uncertain and still evolving, and for which there are not well-established regulatory norms for establishing compliance.

The current presidential administration has appointed and is expected to continue to appoint consumer-oriented regulators at federal agencies such as the CFPB, Federal Trade Commission, the OCC and the FDIC and the government's focus on enforcement of federal consumer protection laws is expected to increase. It is possible that these regulators could promulgate rulemakings and bring enforcement actions that materially impact our business and the business of our lending partners. If future regulatory or legislative restrictions or prohibitions are imposed that affect our ability to offer certain of our products or that require us to make significant changes to our business practices, and if we are unable to develop compliant alternatives with acceptable returns, these restrictions or prohibitions could have a material adverse effect on our business. If the CFPB, or another regulator, were to issue a consent decree or other similar order against us, this could also directly or indirectly affect our results of operations.

Our compliance and operational costs and litigation exposure could increase if and when the CFPB or another agency amends or finalizes any proposed regulations, including the regulations discussed above or if the CFPB or other regulators enact new regulations, change regulations that were previously adopted, modify, through supervision or enforcement, past regulatory guidance, or interpret existing regulations in a manner different or stricter than have been previously interpreted.

We have been in the past and may in the future be subject to federal and state regulatory inquiries regarding our business.

We have, from time to time in the normal course of our business, received, and may in the future receive or be subject to, inquiries or investigations by state and federal regulatory agencies and bodies such as the CFPB, FTC, state Attorneys General, the SEC, state financial regulatory agencies and other state or federal agencies or bodies regarding the Upstart platform, including the marketing of loans for lenders, underwriting and pricing of consumer loans for our lending partners, our fair lending compliance program and licensing and registration requirements. We have addressed these inquiries directly and engaged in open dialogue with regulators. For example, following constructive and transparent discussions with the CFPB regarding the manner in which our platform operates in compliance with federal fair lending laws, we applied for and received a no-action letter from the CFPB that stated the CFPB had no present intent to recommend initiation of supervisory or enforcement action against us with respect to ECOA as it pertains to the use of our AI model to underwrite applicants for unsecured non-revolving credit. Under the terms of the 2020 no-action letter, we were required to continue to share certain information with the CFPB regarding the updates to our model and the variables it considers, loan performance reports, the results of fair lending tests we conduct, and research we conduct to identify less discriminatory alternatives, as well as information on how our AI models expand access to credit for traditionally underserved populations. Upon Upstart's request, such no-action letter was terminated in June 2022. While the termination of the no-action letter removes the obligation to regularly share updates with the CFPB, we intend to continue to pursue a transparent and cooperative relationship with the CFPB, which could involve sharing information about our models and other aspects of our business. It is also possible the CFPB may take supervisory or enforcement action against us in the future.

We have also received inquiries from state regulatory agencies regarding requirements to obtain licenses from or register with those states, including in states where we have determined that we are not required to obtain such a license or be registered with the state, and we expect to continue to receive such inquiries. Any such inquiries or investigations could involve substantial time and expense to analyze and respond to, could divert management's attention and other resources from running our business, and could lead to public enforcement actions or lawsuits and fines, penalties, injunctive relief, and the need to obtain additional licenses that we do not currently possess. Our involvement in any such matters, whether tangential or otherwise and even if the matters are ultimately determined in our favor, could also cause significant harm to our reputation, lead to additional investigations and enforcement actions from other agencies or litigants, and further divert management attention and resources from the operation of our business. Formal enforcement actions are generally made public, which carries reputational risk. The market price of our common stock could decline as a result of the initiation of a CFPB investigation of Upstart or even the perception that such an investigation could occur, even in the absence of any finding by the CFPB that we have violated any state or federal law. As a result, the outcome of legal and regulatory actions arising out of any state or federal inquiries we receive could be material to our business, results of operations, financial condition and cash flows and could have a material adverse effect on our business, financial condition or results of operations.

For nonbank financial institutions, the FTC is also a primary regulator, and in recent years the FTC has been focused on practices of financial technology companies. Based on publicly available actions, the FTC's primary focus has been with respect to financial technology company marketing and disclosure practices. For instance, in October 2018 the FTC took action against student loan refinance lender SoFi, claiming that the company made prominent false statements regarding the average savings a consumer would realize over the lifetime of the loan if they refinanced with SoFi. In addition, SoFi allegedly exaggerated claims of anticipated borrower savings by excluding certain customer populations from the analysis. In addition, in July 2021 the FTC settled litigation with LendingClub regarding, among other things, the adequacy of its disclosures of an origination fee associated with the product. Moreover, the FTC recently issued a staff report on digital "dark patterns," sophisticated design practices that can trick or manipulate consumers into buying products or services or giving up their private information, that,

among other things, highlighted marketing and disclosure practices by some financial technology companies that the FTC claimed were deceptive because of their use of dark patterns. Based upon prior enforcement actions, staff reports, and statements by FTC officials, we believe this scrutiny of financial technology company marketing and disclosure practices will continue in the near future. While we maintain policies and procedures that require our marketing and loan application and servicing operations comply with UDAP standards, we may not be successful in our efforts to achieve compliance either due to internal or external factors, such as resource allocation limitations or a lack of vendor cooperation.

The collection, processing, storage, use and disclosure of personal data could give rise to liabilities as a result of existing or new governmental regulation, conflicting legal requirements or differing views of personal privacy rights.

We receive, transmit and store large volumes of personal information and other sensitive data, which may potentially include biometric data as defined by state law, from applicants and borrowers. Each lending partner can access information about their respective borrowers and declined applicants via daily loan reports and other reporting tools that are provided via the platform. For loan institutional investors, while we generally limit access to personal information, we do share some personal information about borrowers with certain institutional investors in our loan funding programs. There are federal, state and foreign laws regarding privacy and the storing, sharing, use, disclosure and protection of personal information and sensitive data including those specific to biometric data. Specifically, cybersecurity and data privacy issues, particularly with respect to personal information, are increasingly subject to legislation and regulations to protect the privacy and security of personal information that is collected, processed and transmitted. For example, the Gramm-Leach-Bliley Act includes limitations on financial institutions' disclosure of nonpublic personal information about a consumer to nonaffiliated third parties, in certain circumstances requires financial institutions to limit the use and further disclosure of nonpublic personal information by nonaffiliated third parties to whom they disclose such information and requires financial institutions to disclose certain privacy notices and practices with respect to information sharing with affiliated and unaffiliated entities as well as to safeguard personal borrower information. Privacy requirements under the GLBA are enforced by the CFPB, as well as the Federal Trade Commission, or FTC, and under Section 5 of the Federal Trade Commission Act, we and our lending partners are prohibited from engaging in unfair and deceptive acts and practices, or UDAP. For example, both the FTC and CFPB have relied on UDAP/UDAAP principles to increase enforcement of "da

At the state level, the California Consumer Privacy Act, or the CCPA, which went into effect on January 1, 2020, requires, among other things, that covered companies provide disclosures to California residents and afford such persons new abilities to opt-out of certain sales or retention of their personal information by us. Aspects of the CCPA and its interpretation remain unclear. In addition, California voters approved Proposition 24 in the November 2020 election to create the California Privacy Rights Act, or CPRA, which amends and purports to strengthen the CCPA and created a state agency, the California Privacy Protection Agency or CPPA, to enforce privacy laws. The CPRA amendments create obligations relating to consumer data as of January 1, 2023 (with a one-year lookback), and enforcement beginning July 1, 2023. On July 8, 2022, the CPPA began the formal rulemaking process to draft regulations to implement the CPRA amendments. Following the enactment of the CCPA, in March 2021, Virginia enacted the Virginia Consumer Data Protection Act of 2021, or VCDPA; in June 2021 Colorado enacted the Colorado Privacy Act, or CPA; in March 2022, Utah, enacted the Utah Consumer Privacy Act, or UCPA; and in May 2022, Connecticut enacted a similar law, An Act Concerning Personal Data Privacy and Online Monitoring, or CTDPA. The VCDPA went into effect on January 1, 2023, and the CPA and CTDPA both go into effect on July 31, 2023. The UCPA will go into effect December 31, 2023. Additionally, other U.S. states are proposing and enacting laws and regulations that impose obligations similar to the CCPA or that otherwise involve significant obligations and restrictions.

Many privacy and data security laws, such as the CCPA, apply to biometric data. However, some states have passed or are considering legislation that are biometric specific. For instance, in Illinois, the Biometric Information Privacy Act ("BIPA") specifically governs the collection, possession, and disclosure of biometric information or biometric identifiers. There has been a corresponding increase in litigation related specifically to state

biometric privacy laws. Whether information we receive from borrowers is subject to state laws expressly governing biometric data depends on how such laws define "biometric data" or other similar terms of art.

Compliance with current and future borrower privacy data protection and information security laws and regulations could result in higher compliance, technical or operating costs. We cannot fully predict the impact of the CCPA, BIPA, or other privacy and data security state laws on our business or operations, but it may require us to further modify our data infrastructure and data processing practices and policies and to incur additional costs and expenses in an effort to continue to comply. Further, any actual or perceived violations of these laws and regulations may require us to change our business practices, data infrastructure or operational structure, address legal claims and regulatory investigations and proceedings and sustain monetary penalties and/or other harms to our business. We could also be adversely affected if new legislation or regulations are adopted or if existing legislation or regulations are modified such that we are required to alter our systems or change our business practices or privacy policies.

As the regulatory framework for artificial intelligence and machine learning technology evolves, our business, financial condition and results of operations may be adversely affected.

The regulatory framework for artificial intelligence and machine learning technology is evolving and remains uncertain. It is possible that new laws and regulations will be adopted in the United States, or existing laws and regulations may be interpreted in new ways, that would affect the operation of our platform and the way in which we use artificial intelligence and machine learning technology, including with respect to fair lending laws. Further, the cost to comply with such laws or regulations could be significant and would increase our operating expenses, which could adversely affect our business, financial condition and results of operations. For example, on March 29, 2021, the federal financial regulators issued a request for information to enable them to better understand how artificial intelligence and machine learning are utilized in financial services, and the information and views obtained could serve as a basis for future regulations.

If we are required to register under the Investment Company Act, our ability to conduct business could be materially adversely affected.

The Investment Company Act contains substantive legal requirements that regulate the manner in which "investment companies" are permitted to conduct their business activities. In general, an "investment company" is a company that holds itself out as an investment company or holds more than 40% of the total value of its assets (minus cash and government securities) in "investment securities." We believe we are not an investment company. Our business involves developing and operating an online lending marketplace that provides our lending partners with access to technology, including proprietary AI models, and related services, so lending partners can assess the credit risk of potential borrowers and offer loans online, and our revenue derives primarily from fees based on the platform and referral services provided to our lending partners and loan servicing. We do not hold ourselves out as an investment company. We understand, however, that the loans held on our balance sheet could be viewed by the SEC or its staff as "securities," which could in turn cause the SEC or its staff to view Upstart Holdings, Inc., Upstart Network, Inc., or an affiliate as an "investment company" subject to regulation under the Investment Company Act. To provide clarity on this issue, we applied for and, on December 1, 2020, received an exemptive order from the SEC exempting us from regulation under the Investment Company Act, subject to certain conditions. Notwithstanding the exemptive order, we believe that we have never been an investment company other reasons, we are primarily engaged in the business of providing an AI-based lending platform to lending partners.

Exemptive orders provided by the SEC under the Investment Company Act may cease to be effective if the facts and analysis upon which they are based materially change or the recipient of the order fails to comply with conditions outlined in the order. It is possible that our business will change in the future in a way that causes the exemptive order to no longer apply to our business, either because the facts of how we conduct our business change or because we no longer meet the conditions outlined in the order. For example, the exemptive order limits the percentage of loans that we may retain, subject to certain conditions. Recently, in response to constrained loan funding, we have increased the percentage of loans retained by Upstart to support funding requirements of loans that would otherwise be held by institutional investors. If we continue to increase the percentage of loans retained by us,

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it could result in us no longer meeting the conditions outlined in the order. If the exemptive order ceases to apply to our business, we could be deemed an investment company and may be required to institute burdensome compliance requirements, restricting our activities in a way that could adversely affect our business, financial condition and results of operations. For example, among other things, we could be subject to investment company governance requirements; restricted as to future borrowings and in our transactions with affiliates; and be more limited in available corporate financing alternatives and compensation arrangements. If we were ever deemed to be in non-compliance with the Investment Company Act, we could also be subject to various penalties, including administrative or judicial proceedings that might result in censure, fine, civil penalties, cease-and-desist orders or other adverse consequences, as well as private rights of action, any of which could materially adversely affect our business.

If we are required to register under the Investment Advisers Act, our ability to conduct business could be materially adversely affected.

The IAA contains substantive legal requirements that regulate the manner in which "investment advisers" are permitted to conduct their business activities. We do not believe that we or our affiliates are required to register as an investment adviser with either the SEC or any of the various states, because our business consists of providing a platform for consumer lending and loan financing for which investment adviser registration and regulation does not apply under applicable federal or state law. However, one of our affiliates, Upstart Network, Inc., has notice filed as an exempt reporting adviser with the state of California based on its limited activities advising a fund.

While we believe our current practices do not require us or any of our other affiliates or subsidiaries to register or notice file as an investment adviser, or require us to extend regulations related to Upstart Network, Inc.'s status as an exempt reporting adviser to our other operations, if a regulator were to disagree with our analysis with respect to any portion of our business, we or a subsidiary may be required to register or notice file as an investment adviser and to comply with applicable law. Registering as an investment adviser could adversely affect our method of operation and revenues. For example, the IAA requires that an investment adviser act in a fiduciary capacity for its clients. Among other things, this fiduciary obligation requires that an investment adviser manage a client's portfolio in the best interests of the client, have a reasonable basis for its recommendations, fully disclose to its client any material conflicts of interest that may affect its conduct and seek best execution for transactions undertaken on behalf of its client. The IAA also limits the ways in which a company can market its services and offerings. It could be difficult for us to comply with these obligations without meaningful changes to our business operations, and there is no guarantee that we could do so successfully. If we were ever deemed to be in non-compliance with applicable investment adviser regulations, we could also be subject to various penalties, including administrative or judicial proceedings that might result in censure, fine, civil penalties, cease-and-desist orders or other adverse consequences, as well as private rights of action, any of which could materially adversely affect our business.

If our transactions with institutional investors in our loan funding programs are found to have been conducted in violation of the Securities Act or similar state law, or we have generally violated any applicable law, our ability to obtain financing for loans facilitated through our platform could be materially adversely affected, and we could be subject to private or regulatory actions.

Certain transactions in our loan funding programs or related to acquisitions may rely or have relied on exemptions from the registration requirements of the Securities Act provided for in Regulation D or Section 4(a)(2) of the Securities Act. If any of these transactions were found to not be in compliance with the requirements necessary to qualify for these exemptions from Securities Act registration, or otherwise found to be in violation of the federal or state securities laws, our business could be materially adversely affected. The SEC or state securities regulators could bring enforcement actions against us, or we could be subject to private litigation risks as a result of any violation of the federal or state securities laws, which could result in civil penalties, injunctions and cease and desist orders from further violations, as well as monetary penalties of disgorgement, pre-judgment interest, rescission of securities sales, or civil penalties, any of which could materially adversely affect our business.

If we are found to be in violation of state or federal law generally, we also may be limited in our ability to conduct future transactions. For example, we could in the future become ineligible to sell securities under Regulation D if we become subject to "bad actor" disqualification pursuant to Rule 506(d) of Regulation D. Under Rule 506(d), issuers are ineligible "bad actors" if they or certain related persons, including directors and certain affiliates, are subject to disqualifying events, including certain cease-and-desist orders obtained by the SEC. If we were subject to this or other "bad actor" provisions of the securities laws, we may not be able to continue sales of whole loans, fractional interests in loans, or asset-backed securities, or we could be subject to significant additional expense associated with making our offerings, which would adversely affect our business, financial condition and results of operations.

If we are required to register with the SEC or under state securities laws as a broker-dealer, our ability to conduct business could be materially adversely affected.

We are not currently registered with the SEC as a broker-dealer under the Exchange Act or any comparable state law. The SEC heavily regulates the manner in which broker-dealers are permitted to conduct their business activities. We believe we have conducted, and we intend to continue to conduct, our business in a manner that does not result in our being characterized as a broker-dealer, based on guidance published by the SEC and its staff. Among other reasons, this is because we do not believe we take any compensation that would be viewed as being based on any transactions in securities in any of our business lines. To the extent that the SEC or its staff publishes new or different guidance with respect to these matters, we may be required to adjust our business operations accordingly. Any additional guidance from the SEC staff could provide additional flexibility to us, or it could inhibit our ability to conduct our business operations. There can be no assurance that the laws and regulations governing our broker-dealer status or that SEC guidance will not change in a manner that adversely affects our operations. If we are deemed to be a broker-dealer, we may be required to institute burdensome compliance requirements and our activities may be restricted, which would adversely affect our business, financial condition and results of operations. We may also be subject to private litigation and potential rescission of certain investments investors in our loan financing products have made, which would harm our operations as well.

Similarly, we do not believe that our sales of whole loans and asset-backed securities will subject us to broker-dealer registration in any state in which we operate, primarily because we do not accept compensation that we believe could be viewed as transaction-based. However, if we were deemed to be a broker-dealer under a state's securities laws, we could face civil penalties, or costly registration requirements, that could adversely affect our business.

Anti-money laundering, anti-terrorism financing, anti-corruption and economic sanctions laws could have adverse consequences for us.

We maintain a compliance program designed to enable us to comply with all applicable anti-money laundering and anti-terrorism financing laws and regulations, including the Bank Secrecy Act and the USA PATRIOT Act and U.S. economic sanctions laws administered by the Office of Foreign Assets Control. This program includes policies, procedures, processes and other internal controls designed to identify, monitor, manage and mitigate the risk of money laundering and terrorist financing and engaging in transactions involving sanctioned countries, persons and entities. These controls include procedures and processes to detect and report suspicious transactions, perform borrower due diligence, respond to requests from law enforcement, and meet all recordkeeping and reporting requirements related to particular transactions involving currency or monetary instruments. During 2020, we failed to file timely reports of suspicious transactions as required with appropriate regulatory agencies. We remediated the failure to file and have added additional resources to support our compliance with these reporting requirements. We are also subject to anti-corruption and anti-bribery and similar laws, such as the U.S. Foreign Corrupt Practices Act of 1977, as amended, or the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, and the U.S. Travel Act, which prohibit companies and their employees and agents from promising, authorizing, making, or offering improper payments or other benefits to government officials and others in the private sector in order to influence official action, direct business to any person, gain any improper advantage, or obtain or retain business. We have implemented an anti-corruption policy to ensure compliance with these anti-corruption and anti-bribery laws. No assurance is given that our programs and controls will be effective to ensure

compliance with all applicable anti-money laundering and anti-terrorism financing and anti-corruption laws and regulations, and our failure to comply with these laws and regulations could subject us to significant sanctions, fines, penalties, contractual liability to our lending partners or institutional investors, and reputational harm, all of which could harm our business.

Our securitizations are subject to regulation under federal law, and failure to comply with those laws could adversely affect our business.

Our loan securitizations and sales of asset-backed securities are subject to regulation under federal law, and banks and other regulated financial institutions acquiring and holding asset-based securities, including asset-backed securities sponsored by us, are subject to capital and leverage requirements. These requirements, which are costly to comply with, could decrease investor demand for securities issued through our securitization transactions. For example, the Credit Risk Retention rule, codified as Regulation RR under the Exchange Act, was jointly adopted by the SEC, the Department of the Treasury, the Federal Reserve System, the Federal Deposit Insurance Corporation, the Federal Housing Finance Agency, and the Department of Housing and Urban Development in 2014. Regulation RR generally requires the sponsor of asset-backed securities to retain not less than five percent of the credit risk of the assets collateralizing the securities, and generally prohibits the sponsor or its affiliate from directly or indirectly hedging or otherwise selling or transferring the retained credit risk for a specified period of time, depending on the type of asset that is securitized. Some aspects of these risk retention rules have not been the subject of significant separate guidance. We believe, but cannot be certain, that we have conducted our business, and will continue to conduct our business, in such a way that we are compliant with these risk retention rules. However, if we have failed to comply, or should fall out of compliance with these rules, it could adversely affect our source of funding and our business.

We may also face regulatory risks related to compliance with Section 13 of the Bank Holding Company Act, commonly known as the "Volcker Rule," which prohibits banking entities from acquiring an ownership interest in entities that are investment companies for purposes of the Investment Company Act, or would be investment companies but for Sections 3(c)(1) or 3(c)(7) of the Investment Company Act, which are generally known as "private funds." This means that in order for a banking entity regulated under the Volcker Rule to purchase certain asset-backed securities issued by our affiliates, such affiliates may need to rely on another exemption or exception from being deemed "investment companies" if they wish to continue selling to banking entities. Currently, those affiliates generally rely on Rule 3a-7 under the Investment Company Act, which provides an exclusion to the definition of an investment company for issuers that pool income-producing assets and issue securities backed by those assets. However, if a regulator or other third party were to find or assert that our analysis under Rule 3a-7 (or, where applicable, some other exemption or exemption) is incorrect, banks that have purchased asset-backed securities may be able to rescind those sales, which would adversely affect our business. We believe, but cannot guarantee, that we have conducted our business, and will continue to conduct our business, in such a way that enables our applicable banking entity investors to be compliant with the Volcker Rule.

RISKS RELATED TO INDEBTEDNESS

We rely on borrowings under our warehouse credit facilities to fund certain aspects of our operations, and any inability to meet our obligations as they come due or to comply with various covenants or representations contained in our warehouse credit facilities could harm our business.

We, through our warehouse trust special purpose entities, have entered into warehouse credit facilities to partially finance the purchase of loans from certain lending partners that originate loans through our platform, which credit facilities are secured by the purchased loans. We generally hold these loans on our balance sheet until we can contribute them into term securitization transactions or otherwise liquidate them. Occasionally some of these loans may stay on our balance sheet indefinitely, including some loans that are the result of product development activities.

Under our warehouse credit facility for unsecured personal loans (the "ULT Warehouse Credit Facility"), we may borrow from an aggregate of \$175.0 million financing capacity, of which \$100.0 million is committed and

\$75.0 million is uncommitted, until the earlier of June 15, 2023 and an accelerated amortization event. Any outstanding principal, together with any accrued and unpaid interest, are due and payable by the warehouse trust special purpose entity in June 2024. As of December 31, 2022, the amount borrowed under the ULT Warehouse Credit Facility was \$163.8 million, and \$228.9 million of aggregated fair value of loans purchased were pledged as collateral. Under our warehouse facility for auto loans (the "UAWT Warehouse Credit Facility"), we may borrow up to \$200.0 million until June 14, 2024, and any outstanding principal, together with any accrued and unpaid interest, are due and payable by the warehouse trust special purpose entity twelve months after the determined amortization date. As of December 31, 2022, the amount borrowed under the UAWT Warehouse Credit Facility was \$172.7 million, and \$221.8 million of aggregated fair value of loans purchased were pledged as collateral.

Our warehouse credit facilities impose operating and financial covenants on the applicable warehouse trust special purpose entity, and under certain events of default, the applicable lender could require that all or a portion of our outstanding borrowings become immediately due and payable or terminate their respective agreement with us. We have in the past, and may in the future, fail to comply with certain operating or financial covenants in our warehouse credit facilities, requiring a waiver from our lenders. If we are unable to repay our obligations at maturity or in the event of default, the applicable borrowing warehouse trust special purpose entity may have to liquidate the loans held as collateral at an inopportune time or price or, if the lender liquidated the loans, such warehouse trust would have to pay any amount by which the original purchase price exceeded their sale price. An event of default would negatively impact our ability to purchase loans from our marketplace and require us to rely on alternative funding sources, which might increase our costs or which might not be available when needed. If we were unable to arrange new or alternative methods of financing on favorable terms, we might have to curtail our loan funding programs, which could have an adverse effect on our lending partners' ability or willingness to originate new loans, which in turn would have an adverse effect on our business, results of operations and financial condition.

Corporate and asset-backed debt ratings could adversely affect our ability to fund loans through our loan funding programs at attractive rates, which could negatively affect our results of operations, financial condition and liquidity.

Our unsecured senior corporate debt currently has no rating. Asset-backed securities sponsored or co-sponsored by us are currently rated by a limited number of credit rating agencies. Structured finance ratings reflect these rating agencies' opinions of our receivables credit performance and ability of the receivables cash flows to pay interest on a timely basis and repay the principal of such asset-backed securitizations, as well as our ability to service the receivables and comply with other obligations under such programs, such as the obligation to repurchase loans subject to breaches of loan-level representations and warranties. Such ratings also reflect the rating agencies' opinions of other service providers in such transactions, such as trustees, back-up servicers, charged-off loan purchasers and others.

Any future downgrade or non-publication of ratings may increase the interest rates that are required to attract investment in such asset-backed securities, adversely impacting our ability to provide loan liquidity to our lending partners and whole loan purchasers. As a result, our lack of parent debt rating and any possible downgrades to the ratings of our asset-backed securities could negatively impact our business, financial condition and results of operations.

We may need to raise additional funds in the future, including through equity, debt or convertible debt financings, to support business growth and those funds may not be available on acceptable terms, or at all.

We may continue to make investments to support our business growth and may require additional funds to respond to business challenges, including the need to develop new loan products, enhance our AI models, improve our operating infrastructure, acquire complementary businesses and technologies, or make strategic investments. Accordingly, we may need to engage in equity, debt or convertible debt financings to secure additional funds. If we raise additional funds by issuing equity securities or securities convertible into equity securities, our stockholders may experience dilution. For example, if we elect to deliver shares of our common stock to settle the conversion (other than paying cash in lieu of delivering any fractional share) of the Notes (as defined below), it may have a dilutive effect on our stockholders' equity holdings. Further, debt financing, if available, may involve covenants

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restricting our operations or our ability to incur additional debt. Any debt or additional equity financing that we raise may contain terms that are not favorable to us or our stockholders.

If we are unable to obtain adequate financing or on terms satisfactory to us when we require it, we may pursue alternate transactions or be unable to pursue certain business opportunities and our ability to continue to support our business growth and to respond to business challenges could be impaired and our business may be harmed.

In addition, in August 2021, we issued \$661.3 million aggregate principal amount of 0.25% convertible senior notes due 2026, or Notes (including the exercise in full of the initial purchasers' option to purchase an additional \$86.3 million aggregate principal of additional Notes). Holders of the Notes may require us to purchase all or a portion of their Notes upon the occurrence of a fundamental change before the maturity date at a fundamental change repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest, if any. Additionally, upon conversion of the Notes, unless we elect to deliver solely shares of our common stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the Notes being converted. Moreover, we will be required to pay the Notes in cash at their maturity unless earlier converted, redeemed or repurchased. However, we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of the Notes surrendered therefor or pay cash for Notes being converted or at their maturity. In addition, our ability to repurchase the Notes or to pay cash upon conversions of the Notes may be limited by law, by regulatory authority or by agreements governing our future indebtedness at the time. Our failure to repurchase Notes at a time when the repurchase is required by the indenture or to pay any cash payable on future conversions of the Notes as required by the indenture would constitute a default under the indenture. A default under the indenture or the fundamental change itself could also lead to a default under agreements governing our other existing or future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the Notes or pay cash with respect to Notes being

Provisions in the indenture for the Notes may deter or prevent a business combination that may be favorable to you.

If a fundamental change occurs prior to the maturity date of the Notes, holders of the Notes will have the right, at their option, to require us to repurchase all or a portion of their Notes. In addition, if a make-whole fundamental change occurs prior to the maturity date of the Notes, we will in some cases be required to increase the conversion rate for a holder that elects to convert its Notes in connection with such make-whole fundamental change in the manner specified in the indenture. Furthermore, the indenture will prohibit us from engaging in certain mergers or acquisitions unless, among other things, the surviving entity assumes our obligations under the Notes. These and other provisions in the indenture could deter or prevent a third party from acquiring us even when the acquisition may be favorable to you.

RISKS RELATED TO TAXES

Our ability to use our deferred tax assets to offset future taxable income may be subject to certain limitations, which may have a material impact on our result of operations.

As of December 31, 2022, a valuation allowance has been recorded to recognize only deferred tax assets that are more likely than not to be realized in the United States federal and state tax jurisdictions. Our net deferred tax assets are primarily related to net operating loss carryforwards, or NOLs. We assess the available positive and negative evidence to estimate if sufficient future taxable income will be generated to utilize the existing deferred tax assets. Certain of our deferred tax assets may expire unutilized or underutilized, which could prevent us from offsetting future taxable income.

We may also be limited in the portion of NOLs that we can use in the future to offset taxable income for U.S. federal and state income tax purposes. The Tax Cuts and Jobs Act, or the Tax Act made broad and complex changes to U.S. tax law, including changes to the uses and limitations of NOLs. A lack of future taxable income would adversely affect our ability to utilize NOLs. In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its NOLs to offset future taxable income. Future changes in our stock ownership, including future offerings, as well as other changes that may be outside of our control, could result in additional ownership changes under Section 382 of the Code. Our NOLs may also be limited under similar provisions of state law.

We continue to assess the realizability of our deferred tax assets in the future. Future adjustments in our valuation allowance may be required, which may have a material impact on our quarterly and annual operating results.

Changes in tax laws could have a material adverse effect on our business, financial condition and results of operations.

We are subject to taxes in the United States under federal, state and local jurisdictions in which we operate. The governing tax laws and applicable tax rates vary by jurisdiction and are subject to interpretation and macroeconomic, political or other factors. For example, the results of U.S Presidential and Congressional elections may lead to tax law changes. We may be subject to examination in the future by federal, state and local authorities on income, employment, sales and other tax matters. While we regularly assess the likelihood of adverse outcomes from such examinations and the adequacy of our provision for taxes, there can be no assurance that such provision is sufficient and that a determination by a tax authority would not have an adverse effect on our business, financial condition and results of operations. Various tax authorities may disagree with tax positions we take and if any such tax authorities were to successfully challenge one or more of our tax positions, the results could adversely affect our financial condition. Further, the ultimate amount of tax payable in a given financial statement period may be impacted by sudden or unforeseen changes in tax laws, changes in the mix and level of earnings by taxing jurisdictions, or changes to existing accounting rules or regulations. For example, the Inflation Reduction Act of 2022, enacted on August 16, 2022, imposes a one-percent nondeductible excise tax on repurchases of stock that are made by U.S. publicly traded corporations on or after January 1, 2023, which may affect our share repurchase program. In addition, effective as of January 1, 2022, the Tax Cuts and Jobs Act requires research and experimental expenditures attributable to research conducted within the United States to be capitalized and amortized ratably over a five-year period. Any such expenditures attributable to research conducted outside the United States must be capitalized and amortized over a 15-year period. Accordingly, the determination of our overall provision for income and other taxes is inherently uncertain as it requires significant judgment around complex transactions and calculations. As a result, fluctuations in our ultimate tax obligations may differ materially from amounts recorded in our financial statements and could adversely affect our business, financial condition and results of operations in the periods for which such determination is made.

Taxing authorities may successfully assert that we should have collected or in the future should collect sales and use, gross receipts, value added or similar taxes and may successfully impose additional obligations on us, and any such assessments or obligations could adversely affect our business, financial condition and results of operations.

The application of indirect taxes, such as sales and use tax, value-added tax, digital services tax, digital advertising tax, business tax, gross receipts tax, and other similar tax to platform and financial technology businesses is a complex and evolving issue. Many of the fundamental statutes and regulations that impose these taxes were established before the adoption and growth of the Internet and e-commerce. Significant judgment is required on an ongoing basis to evaluate applicable tax obligations and as a result amounts recorded are estimates and are subject to adjustments. In many cases, the ultimate tax determination is uncertain because it is not clear how new and existing statutes might apply to our business. In addition, proposed or newly enacted laws regarding indirect tax could increase our compliance obligation. Any failure by us to prepare for and to comply with the reporting and record-keeping obligations could result in penalties and other sanctions, and could adversely affect our financial condition and results of operations.

We have faced, and may face in the future, various indirect tax audits in various U.S. jurisdictions. Tax authorities may raise questions about or challenge or disagree with our calculation, reporting or collection of taxes and may require us to collect taxes in jurisdictions in which we do not currently do so or to remit additional taxes and interest, and could impose associated penalties and fees. Although we have reserved for potential payments of past tax liabilities on our financial statements, a successful assertion by one or more tax authorities could result in substantial tax liabilities in excess of such reserves as well as penalties and interest, and could harm our business, financial condition and results of operations.

As a result of these and other factors, the ultimate amount of tax obligations owed may differ from the amounts recorded in our financial statements and any such difference may adversely impact our results of operations in future periods in which we change our estimates of our tax obligations or in which the ultimate tax outcome is determined.

RISKS RELATED TO OWNERSHIP OF OUR COMMON STOCK

The trading price of our common stock may be volatile, and you could lose all or part of your investment.

The trading price of our common stock may be volatile and could be subject to fluctuations in response to various factors, some of which are beyond our control. These fluctuations could cause you to lose all or part of your investment in our common stock. Factors that could cause fluctuations in the trading price of our common stock include:

- price and volume fluctuations in the overall stock market from time to time;
- volatility in the trading prices and trading volumes of financial technology stocks;
- a reduction in the availability of loan funding and liquidity from institutional investors and the capital markets;
- quarterly fluctuations in demand for the loans we facilitate through our platform;
- changes in operating performance and stock market valuations of other financial technology companies and technology companies that offer services to financial institutions;
- sales of shares of our common stock by us or our stockholders;
- · issuance of shares of our common stock, whether in connection with an acquisition or upon conversion of some or all of the outstanding Notes;
- failure of securities analysts to maintain coverage of us, changes in financial estimates or other statements made by securities analysts or others, or our failure to meet these estimates or the expectations of investors;
- the financial projections we may provide to the public, any changes in those projections, or our failure to meet those projections;
- announcements by us or our competitors of new products, features, or services;
- the public's reaction to our press releases, other public announcements, and filings with the SEC;
- rumors and market speculation involving us or other companies in our industry;
- actual or anticipated changes in our results of operations or fluctuations in our results of operations;
- · changes in prevailing interest rates;
- fluctuations in the trading volume of our shares or the size of our public float;
- · actual or anticipated developments in our business, our competitors' businesses or the competitive landscape generally;

- litigation involving us, our industry, or both, or investigations by regulators into our operations or those of our competitors;
- compliance with government policies or regulations;
- the issuance of any cease-and-desist orders from regulatory agencies that we are subject to;
- developments or disputes concerning our intellectual property or other proprietary rights;
- market perception of the accuracy of our AI models;
- · actual or perceived data security breaches or other data security incidents;
- announced or completed acquisitions of businesses, products, services, or technologies by us or our competitors;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- · changes in accounting standards, policies, guidelines, interpretations, or principles;
- recruitment or departure of key personnel;
- development relating to our reductions in workforce announced in November 2022 and January 2023;
- other events or factors, including those resulting from war, incidents of terrorism, political unrest, natural disasters, pandemics or responses to these events; and
- general economic conditions, including economic slowdowns, recessions, rising interest and inflation rates, and tightening of credit markets.

The stock market in general has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of listed companies. Broad market and industry factors may seriously affect the market price of our common stock, regardless of our actual operating performance. In the past, following periods of volatility in the overall market and the market prices of particular companies' securities, securities class action litigation has often been instituted against these companies. For example, in May 2022, June 2022 and July 2022, we and certain of our officers were sued in purported class action lawsuits alleging violations of the federal securities laws for allegedly making materially false and misleading statements about our business, operations, and prospects. This litigation could result in substantial costs and a diversion of our management's attention and resources, which could harm our business. We may be the target of additional litigation of this type in the future as well.

We cannot guarantee that our share repurchase program will be fully consummated or that it will enhance long-term shareholder value. Share repurchases could also affect the trading price of our stock, increase volatility of our stock and diminish our cash reserves.

Although our Board of Directors has authorized a share repurchase program that does not have an expiration date, the program does not obligate us to repurchase any specific dollar amount or to acquire any specific number of shares of our common stock. We cannot guarantee that the program will be fully consummated or that it will enhance long-term stockholder value. The timing and number of shares repurchased under the program will depend on a variety of factors, including stock price, trading volume, and general business and market conditions. The program could affect the trading price of our stock, increase volatility and diminish our cash reserves. Our Board of Directors will review the program periodically and may authorize adjustments of its terms if appropriate. Any announcement of a suspension or termination of this program may result in a decrease in the trading price of our stock.

The capped call transactions may affect the price of our common stock.

In connection with the issuance of the Notes, we entered into privately negotiated capped call transactions with certain financial institutions as counterparties. The capped call transactions initially cover, subject to customary adjustments, the number of shares of our common stock initially underlying the Notes. The capped call transactions

are intended to offset the potential dilution and/or offset any cash payments we make in excess of the aggregate principal amount of converted Notes, as the case may be, as a result of conversion of the Notes.

From time to time, the counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions prior to the maturity of the Notes (and are likely to do so during any observation period related to a conversion of the Notes or following any repurchase of the Notes). This activity could also cause or prevent an increase or a decrease in the market price of our common stock.

Certain insiders have significant voting power, which could limit your ability to influence the outcome of key transactions, including a change of control.

Our directors, officers, and each of our stockholders who own greater than 5% of our outstanding capital stock and their affiliates, in the aggregate, beneficially own a significant portion of the outstanding shares of our capital stock. As a result, these stockholders, if acting together, are able to influence matters requiring approval by our stockholders, including the election of directors and the approval of mergers, acquisitions, or other extraordinary transactions. They may also have interests that differ from yours and may vote in a way with which you disagree and which may be adverse to your interests. This concentration of ownership may have the effect of delaying, preventing or deterring a change of control, could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale, and might ultimately affect the trading price of our common stock.

The large number of shares of our capital stock eligible for public sale or subject to rights requiring us to register them for public sale could depress the market price of our common stock.

The market price of our common stock could decline as a result of sales of a large number of shares of our common stock in the market, and the perception that these sales could occur may also depress the market price of our common stock. Certain stockholders are entitled, under our investors' rights agreement, to require us to register shares owned by them for public sale in the United States. In addition, we may file a registration statement to register shares reserved for future issuance under our equity compensation plans. As a result, subject to the satisfaction of applicable exercise periods, the shares issued upon exercise of outstanding stock options will be available for immediate resale in the United States in the open market.

Sales of our shares may make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate. These sales also could cause the trading price of our common stock to fall and make it more difficult for you to sell shares of our common stock.

Our common stock does not provide any rights directly related to the loans we hold.

Investors in our common stock own a form of equity that may provide returns based on either an increase in the value of the stock or any distributions made to common stockholders. Investors will not, however, receive any interest in or fees based on the loans or other assets we hold on our balance sheet. In particular, investors in our common stock will not receive any distributions directly based on principal or interest payments made by borrowers on the loans we hold. Those loans are not directly related in any way to the common stock investors' purchase.

You may be diluted by the future issuance of additional common stock in connection with our equity incentive plans, acquisitions or otherwise.

Our amended and restated certificate of incorporation authorizes us to issue 618,740,324 shares of authorized but unissued common stock and rights relating to common stock for the consideration and on the terms and conditions established by our Board of Directors in its sole discretion, whether in connection with acquisitions or otherwise. We have reserved 5,842,057 shares for issuance under our 2020 Equity Incentive Plan subject to adjustment in certain events. Any common stock that we issue, including under our 2020 Equity Incentive Plan or other equity incentive plans that we may adopt in the future, could dilute the percentage ownership held by the investors in our common stock.

We have implemented "sell-to-cover" in which shares of our common stock are sold into the market on behalf of RSU holders upon vesting of RSUs to cover tax withholding liabilities and such sales will result in dilution to our stockholders.

Under U.S. tax laws, employment tax withholding and remittance obligations for restricted stock units, or RSUs, arise in connection with their vesting. To fund the tax withholding and remittance obligations arising in connection with the vesting of RSUs, we use the "sell-to-cover" method, under which shares with a market value equivalent to the tax withholding obligation are sold by a broker on behalf of the holder of the RSUs upon vesting to cover the tax withholding liability and the cash proceeds from such sales will be remitted by us to the taxing authorities. The tax withholding due in connection with such RSU vesting is based on the then-current value of the underlying shares of our common stock. Such sales do not result in the expenditure of additional cash by us to satisfy the tax withholding obligations for RSUs, but do cause dilution to our stockholders and, to the extent a large number of shares are sold in connection with any vesting event, such sales volume may cause our price to fluctuate.

Delaware law and provisions in our amended and restated certificate of incorporation and amended and restated bylaws could make a merger, tender offer, or proxy contest difficult, thereby depressing the market price of our common stock.

Our status as a Delaware corporation and the anti-takeover provisions of the Delaware General Corporation Law may discourage, delay, or prevent a change in control by prohibiting us from engaging in a business combination with an interested stockholder for a period of three years after the person becomes an interested stockholder unless certain conditions are met, even if a change of control would be beneficial to our existing stockholders. In addition, our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that may make the acquisition of our company more difficult, including the following:

- our Board of Directors is classified into three classes of directors with staggered three-year terms and directors are only able to be removed from office for cause;
- vacancies and newly-created seats on our Board of Directors will be able to be filled only by our Board of Directors and not by stockholders;
- only the Chair of our Board of Directors, our Chief Executive Officer, our president, or a majority of our entire Board of Directors are authorized to call a special meeting of stockholders;
- · certain litigation against us or our directors, stockholders, officers or employees can only be brought in Delaware;
- advance notice procedures apply for stockholders to nominate candidates for election as directors or to bring matters before an annual meeting of stockholders; and
- any amendment of the above anti-takeover provisions in our amended and restated certificate of incorporation or amended and restated bylaws will require the approval of at least 66 2/3% of the combined voting power of our then-outstanding shares of our capital stock.

These anti-takeover defenses could discourage, delay, or prevent a transaction involving a change in control of our company. These provisions could also discourage proxy contests and make it more difficult for stockholders to elect directors of their choosing and to cause us to take other corporate actions they desire, any of which, under certain circumstances, could limit the opportunity for our stockholders to receive a premium for their shares of our capital stock, and could also affect the price that some investors are willing to pay for our common stock.

Our amended and restated bylaws designate a state or federal court located within the State of Delaware (or any federal district court, for Securities Act claims) as the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to choose the judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated bylaws provide that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, stockholders, officers, or other employees to us or our stockholders, (iii) any action arising pursuant to any provision of the Delaware General Corporation Law, our amended and restated certificate of incorporation, or our amended and restated bylaws, or (iv) any other action asserting a claim that is governed by the internal affairs doctrine shall be the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another state court in Delaware or the federal district court for the District of Delaware), in all cases subject to the court having jurisdiction over the claims at issue and the indispensable parties; provided that the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Exchange Act.

Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated bylaws also provide that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America are the sole and exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. We note, however, that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder, and that there is uncertainty as to whether a court would enforce this exclusive forum provision. Further, the enforceability of similar choice of forum provisions in other companies' governing documents has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. For example, in December 2018, the Court of Chancery of the State of Delaware determined that a provision stating that U.S. federal district courts are the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act is not enforceable. Although this decision was reversed by the Delaware Supreme Court in March 2020, other courts may still find these provisions to be inapplicable or unenforceable.

Any person or entity purchasing, holding or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to this provision. This exclusive-forum provision may limit a stockholder's ability to bring a claim in a judicial forum of its choosing for disputes with us or our directors, officers, or other employees, which may discourage lawsuits against us and our directors, officers, and other employees. This exclusive forum provision does not apply to any causes of action arising under the Exchange Act or any other claim for which the federal or other courts have exclusive jurisdiction. If a court were to find either of the exclusive-forum provisions in our amended and restated bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could harm our results of operations.

Our common stock market price and trading volume could decline if equity or industry analysts do not publish research or publish inaccurate or unfavorable research about our business.

The trading market for our common stock will depend in part on the research and reports that equity or industry analysts publish about us or our business. The analysts' estimates are based upon their own opinions and are often different from our estimates or expectations. If one or more of the analysts who cover us downgrade our common stock or publish inaccurate or unfavorable research about our business, the price of our securities would likely decline. If few securities analysts commence coverage of us, or if one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our securities could decrease, which might cause the price and trading volume of our common stock to decline.

The requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain qualified board members.

As a public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Act, the listing requirements of the Nasdaq Global Select Market and other applicable

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securities rules and regulations. Compliance with these rules and regulations will increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and increase demand on our systems and resources, especially once we are no longer an "emerging growth company." The Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and results of operations. In addition, we expect that our management and other personnel will need to divert attention from operational and other business matters to devote substantial time to these public company requirements. We cannot predict or estimate the amount of additional costs we may incur as a result of becoming a public company or the timing of such costs.

Being a public company also makes it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage, incur substantially higher costs to obtain coverage or only obtain coverage with a significant deductible. These factors could also make it more difficult for us to attract and retain qualified executive officers and qualified members of our Board of Directors, particularly to serve on our audit committee and compensation committee.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time-consuming. These laws, regulations and standards are subject to varying interpretations in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If, notwithstanding our efforts, we fail to comply with new laws, regulations and standards or our efforts differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us, and our business may be adversely affected.

Our management team has limited experience managing a public company.

Our management team has limited experience managing a publicly traded company, interacting with public company investors, and complying with the increasingly complex laws pertaining to public companies. These new obligations and constituents require significant attention from our management team and may divert their attention away from the day-to-day management of our business, which could harm our business, results of operations, and financial condition.

We do not intend to pay dividends for the foreseeable future.

We have never declared nor paid cash dividends on our capital stock. We currently intend to retain any future earnings to finance the operation and expansion of our business, as well as to fund our share repurchase program, and we do not expect to declare or pay any dividends in the foreseeable future. In addition, the terms of our existing corporate debt agreements do, and any future debt agreements may, preclude us from paying dividends. As a result, capital appreciation of our common stock, if any, will be the only way for stockholders to realize any future gains on their investment for the foreseeable future.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

Our corporate headquarters are located in San Mateo, California and Columbus, Ohio and consist of 108,015 square feet and 54,870 square feet of space, respectively, under leases that expire in February 2028 and June 2027, respectively. In addition to our headquarters, we lease 233,573 square feet of office space for origination and servicing operations in Columbus, Ohio expiring in August 2032 and we lease 12,493 square feet of office space in Austin, Texas expiring in February 2028.

We lease all of our facilities and do not own any real property. We intend to procure additional space in the future as we add employees and expand geographically. We believe our facilities are adequate and suitable for our current needs and that, should it be needed, suitable additional or alternative space will be available to accommodate our operations.

ITEM 3. LEGAL PROCEEDINGS

For a description of our material pending legal proceedings, please see "Note 11. Commitments and Contingencies" in Part II, Item 8 of this Annual Report on Form 10-K and "Risk Factors" in Part I, Item 1A of this Annual Report on Form 10-K incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information for Common Stock

Our common stock has been traded on the Nasdaq Global Select Market under the ticker symbol "UPST" since December 16, 2020. Prior to that date, there was no public trading market for our common stock.

Holders of Record

As of February 8, 2023, we had 159 holders of record of our common stock. Because many of our shares of common stock are held in street name by brokers and other nominees on behalf of stockholders, we are unable to estimate the total number of beneficial owners of our common stock represented by these holders of record.

Dividend Policy

We have never declared nor paid cash dividends on our capital stock and we do not expect to declare or pay any dividends in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our Board of Directors, subject to applicable laws, and will depend on a number of factors, including our financial condition, results of operations, capital requirements, contractual restrictions, general business conditions, and other factors that our Board of Directors may deem relevant.

Unregistered Sales of Equity Securities

The following table presents information with respect to the Company's repurchases of common stock under our share repurchase program, on a trade date basis, during the three months ended December 31, 2022:

Total Number of Shares Purchased ⁽¹⁾	Average Price Paid per Share ⁽²⁾		Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar of Shares that May Purchased Under the or Programs
		(in thousands	, except per share amounts)	
_	\$	_	\$	24
1,449	\$	19.20	1,449	2.
<u> </u>	\$	_	<u> </u>	2
1,449			1,449	\$ 2.
	Shares Purchased ⁽¹⁾ — — — — — — — — — — ———————————————	Shares Purchased(1) Pa	Shares Purchased ⁽¹⁾ Paid per Share ⁽²⁾ (in thousands	Total Number of Shares Purchased(1)

In February 2022, the board of directors authorized the Company to purchase up to \$400.0 million of common stock of the Company. The repurchases may be executed from time to time through open market purchases, in privately negotiated transactions or by other means, including through the use of trading plans intended to qualify under Rule 10b5-1. The repurchase program does not obligate the Company to acquire any particular amount of common stock, has no expiration date, and may be modified, suspended or terminated at any time at the Company's discretion. See "Note 9. Stockholders' Equity" for details related to the repurchase program.

Issuer Purchases of Equity Securities

None.

Securities Authorized for Issuance under Equity Compensation Plans

^{2.} Average price paid per share includes commission costs associated with the repurchases.

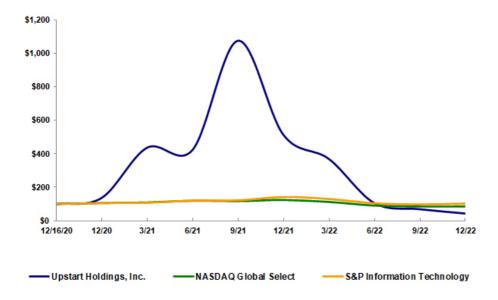
The information required by this item with respect to our equity compensation plans is incorporated by reference to our Proxy Statement for the 2023 Meeting of Stockholders to be filed with the SEC within 120 days of the year ended December 31, 2022.

Stock Performance Graph

The following graph compares the cumulative total return to stockholders on our common stock relative to the cumulative total returns of the Nasdaq Global Select Index and the S&P Information Technology Index. An investment of \$100 (with reinvestment of all dividends) is assumed to have been made in our common stock and in each index on December 16, 2020, the date our common stock began trading on the Nasdaq Global Select Market, and its relative performance is tracked through December 31, 2022. The returns shown are based on historical results and are not intended to suggest future performance.

COMPARISON OF 25 MONTH CUMULATIVE TOTAL RETURN*

Among Upstart Holdings, Inc., the NASDAQ Global Select Index and the S&P Information Technology Index



*\$100 invested on 12/16/20 in stock or 11/30/20 index, including reinvestment of dividends. Fiscal year ending December 31.

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This performance graph shall not be deemed "soliciting material" or to be "filed" with the SEC for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (Exchange Act), or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any filing of Upstart Holdings, Inc. under the Securities Act of 1933, as amended, or the Exchange Act.

ITEM 6. [RESERVED]

Management's Discussion and Analysis of Financial Condition and Results of Operations

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and related notes thereto included elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. Factors that could cause or contribute to such differences include those identified below and those discussed in the section titled "Risk Factors" and other parts of this Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results that may be expected for any period in the future.

Overview

Upstart applies modern data science and technology to the process of underwriting consumer credit. By providing our lending partners with a proprietary AI-based origination platform, we help them originate credit with higher approval rates, lower loss rates and a high degree of automation. As our technology continues to improve and additional lending partners adopt our platform, consumers benefit from improved access to affordable and frictionless credit.

We believe that banks and other traditional lenders will continue to be at the forefront of consumer lending in the United States. We believe AI lending will become increasingly critical as this industry continues to undergo a broad digital transformation. Our strategy is to partner with banks, providing them with access to an AI lending marketplace that they can configure as they originate consumer loans under their own brand, according to their own business and regulatory requirements.

Consumers can obtain Upstart-powered loans in one of two ways: either by referral from Upstart.com to one of our lending partners, or directly through our lending partners' own websites, where our lending technology and experience is bank-branded. Our direct lending partner channel represents a small but growing portion of our overall volume, and we believe this portion will continue to grow over time as we onboard new lending partners.

Our lending partners can retain loans that align with their business and risk objectives. For loans that are not retained by our lending partners, we sell to a broad base of institutional investors that invest in Upstart-powered loans. In the year ended December 31, 2022, 30% of the loans funded through our platform were retained by originating lending partners, 60% of loans were purchased by institutional investors through our loan funding programs and the remaining 10% were funded through our balance sheet. In the past, the percentage of loans funded through our balance sheet has generally decreased, while the percentage of loans purchased by institutional investors has generally increased. However, in 2022, we have increased the percentage of loans retained by Upstart. We hold R&D Loans on our balance sheet for research and development purposes, including to test and evaluate the accuracy of our AI models for these loans. R&D Loans are primarily our auto refinance and auto retail loan products, personal loan products issued to new categories of borrowers, and other new unsecured loan products. R&D Loans are not yet part of our established capital markets programs or other loan funding programs with institutional investors. The remainder of loans on our balance sheet represent core personal loans which Upstart would sell to institutional investors.

Further, in order to address recent funding constraints for our personal loans, Upstart has utilized its balance sheet to support short-term funding requirements of loans that would otherwise be purchased and held by institutional investors or securitized. While our long-term plan is to bring more committed capital from third parties to our marketplace, in the meantime, we expect to continue contributing our own capital towards funding Upstart-powered loans.

Our Economic Model

Management's Discussion and Analysis of Financial Condition and Results of Operations

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

Upstart's revenues are primarily earned in exchange for the use of our platform and for borrower referral services provided to our lending partners through our lending marketplace. Fees for these services can be either fixed or based on a variable price per unit, depending on the contractual arrangement. Platform services result in loan originations by our lending partners using our platform and referral services result in a referral of a borrower obtaining a loan from our lending partners. These fees are combined for accounting purposes as they represent a single performance obligation. We do not charge the borrowers on our platform any referral, platform or other similar fees for our loan matching services.

We also charge the holder of the loan (either a lending partner or institutional investor) a servicing fee based on the outstanding principal over the lifetime of the loan for ongoing servicing of the loan. In addition, we earn a smaller portion of our revenue from interest income for loans held on our balance sheet and gain or (loss) generated through our capital markets programs.

Loans on our platform today are predominantly sourced from Upstart.com. For these loans, we incur variable costs in the form of borrower acquisition costs and borrower verification and servicing costs. Borrower acquisition, verification and servicing costs are highly correlated with Transaction Volume, which fluctuates on a quarter by quarter basis. We continue to focus on improvements to our level of automation and Conversion Rate (as defined below) through our increasingly sophisticated risk models and our evolving channel mix which have contributed to improving our loan unit economics over time.

Factors Affecting Our Performance

Continued Improvements to Our AI Models

Much of our historical growth has been driven by improvements to our AI models. These models benefit over time from a flywheel effect that is characteristic of machine learning systems: accumulation of repayment data leads to improved accuracy of risk and fraud predictions, which results in higher approval rates and lower interest rates, leading to increased volume, and consequently greater accumulation of repayment data. This virtuous cycle describes an important mechanism by which our business grows simply through model learning and recalibration. We expect to continue to invest significantly in the development of our AI models and platform functionalities.

Beyond the ongoing accumulation of repayment data used to train our models, we also frequently make discrete improvements to model accuracy by upgrading algorithms and incorporating new variables, both of which have historically resulted in higher approval rates, more competitive loan offers, increased automation, and faster growth. As a second order effect, the impact of these improvements on our conversion funnel also allows us to unlock new marketing channels over time that have previously been unprofitable.

While the credit performance of Upstart-powered loans can be impacted by a variety of macroeconomic and other factors, we consider credit performance to be one of the most important measures of the effectiveness of our AI models. We focus on credit performance compared to the expectations set by us at the time of origination. Since 2018 through to the end of 2021, all quarterly vintages of loans retained by our lending partners, to date are currently forecasted to meet or exceed the target returns set at the time of loan origination. For loans purchased by institutional investors, all vintages from 2018 through 2020 are forecasted to deliver returns at or in excess of the targets such institutional investors were expecting to receive, while our 2021 through mid-2022 vintages have underperformed relative to target returns.

We believe that ongoing improvements to our technology in this manner will allow us to further expand access and lower rates for creditworthy borrowers, which will continue to fuel our growth. Should the pace of these improvements slow down or cease, or should we discover forms of model upgrades which improve accuracy at the expense of volume, our growth rates could be adversely affected.

Impact of Macroeconomic Environment

Management's Discussion and Analysis of Financial Condition and Results of Operations

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

In an economic downturn, we believe consumer lending will generally contract. Lending partners and institutional investors will generally require higher rates of return, which in turn increases the interest rates offered to borrowers, leading to lower borrower demand. Macroeconomic factors can also cause fluctuations of available capital in our lending marketplace due to shifts in the risk preferences of our lending partners and institutional investors. We expect these dynamics would generally invert in an economic upswing.

Loan funding provided by institutional investors started to become constrained in the second quarter of 2022 and has remained constrained, largely due to concerns about the macroeconomic environment. In response to inflationary pressure, the U.S. Federal Reserve has raised, and may continue to raise, interest rates, leading to more expensive loan offers across borrower categories. At the same time, macroeconomic uncertainty had generally made institutional investors more cautious and caused them to reduce the amount of capital available to fund Upstart-powered loans. As a result, in the fourth quarter of 2022, our Transaction Volume, Dollars decreased by 17% in comparison to the third quarter of 2022. In response to this challenging macroeconomic environment where many lenders and credit investors have significantly reduced or paused investments in Upstart-powered loans, we announced reductions in force in November 2022 and January 2023 that resulted in the termination of approximately 7% and 20% of our workforce, respectively. These steps were designed to reduce operating costs, streamline operations and return Upstart to profitability. We have completed the November 2022 reduction in workforce and expect to substantially complete the January 2023 reduction in workforce by March 31, 2023.

Further, several of our lending partners have paused or reduced loan originations in order to limit their exposure in the current macroeconomic environment. In order to create greater stability for our business, we are planning to secure committed capital from lending partners and institutional investors that will contribute loan funding consistently throughout macroeconomic cycles. In the interim period, we expect to utilize our balance sheet to support loan funding. While our goal remains to operate as a marketplace for credit, we will continue to leverage our balance sheet in the short term as we evaluate opportunities to implement a committed capital structure.

In addition, the COVID-19 pandemic has had, and continues to have, a significant impact on the U.S. economy and markets in which we operate. Starting in the second half of March 2020, the COVID-19 pandemic impacted origination volumes on our platform. The rapid rise in unemployment in the United States led to a reduction in originations by lending partners and a temporary pause in loan funding from institutional investors and capital markets. The level of government assistance that was made available to consumers starting in the second quarter of 2020 was unprecedented, driving significant reduction in loan default rates and resulting in strong credit performance of Upstart-powered loans from the second quarter of 2020 through the third quarter of 2021. Since then, most government assistance programs have expired, which has led to the credit risk of borrowers who benefited from these government assistance programs surpassing pre-pandemic levels and led to borrower default rates above historical norms.

We measure the performance of our loans primarily by comparing actual loan defaults to defaults projected by our AI models upon loan origination. Projected performance is a critical component of our loan pricing, and the accuracy of loan default projections is determined by how close the actual return will be to the level expected by our lending partners and institutional investors. The expiration of the government assistance programs had the greatest impact on higher risk borrowers, resulting in a greater increase in default rates for these groups as compared to other less risky borrowers.

We have adjusted our AI models by incorporating different types of economic data, such as unemployment levels and inflation rates, that we receive from third party sources. These adjustments impact interest rates for loans offered on our platform and, as a result, affect borrower acceptance rates of these loans. Recently, this resulted in higher interest rates for the loans being offered through our platform and lower borrower acceptance rates of such loans. But while these economic data help our AI models take into account the current macroeconomic environment, we focus on the ability of our AI models to separate high and low risk borrowers which demonstrates the resilience in the performance of our AI models and Upstart-powered loans during downward shifts in economic cycles relative

Management's Discussion and Analysis of Financial Condition and Results of Operations

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

to general consumer credit. If we do it successfully, it could strengthen our competitive positioning when we emerge from such downturns.

We continuously monitor the direct and indirect impacts of the current macroeconomic conditions on our business, financial condition, and results of operations.

Lending Partner and Market Adoption

Lending partners play two key roles in Upstart's ecosystem: funding loans and acquiring new customers. Traditional lenders, such as banks, tend to enjoy among the most efficient sources of funding due to their expansive base of deposits. As they adopt our technology and fund a growing proportion of our marketplace transactions, offers made to borrowers will typically improve, generally leading to higher conversion rates and faster growth for our platform.

New lending partners also represent additional acquisition channels through which we can reach and source prospective new borrowers, as these lending partners develop and implement their own digital and in-branch campaigns to drive traffic from their existing customer base to our platform. We view this emerging growth channel to be additive to the marketing acquisition programs we currently run at Upstart.

To provide funding support beyond our lending partners, we have built, and continue to expand, a broad network of institutional investors that can fund Upstart-powered loans through secondary loan purchasing and issuance of pass-through certificates and asset-backed securitizations. This diverse network of capital helps to minimize our reliance on any one funding source. However, any trend towards reduced participation by lending partners will generally erode the overall competitiveness of the offers on our platform, and any declining trend in the participation of broader institutional investment markets with respect to funding availability for Upstart-powered loans will adversely affect our business.

We believe that continued focus on improving our AI models and demonstrating strong performance of Upstart-powered loans over time will allow us to further diversify our sources of capital for our lending marketplace and mitigate the volatility in our loan funding supply.

Product Expansion and Innovation

We believe that significant growth opportunities exist to apply our evolving AI technology to additional segments of credit, and we continue to invest in research and development of our products. In the second quarter of 2022, we introduced a new offering of personal loans for borrowers interested in small dollar loans. We may incur expenses to support the launch of new products and fund early loan originations. Monetization prospects for new products are uncertain, and costs associated with integrating, developing and marketing new products might not be recovered, which could weigh on our top-line growth and profitability.

In the third quarter of 2020, we announced our entry into the auto lending market and in April 2021, we acquired Prodigy Software, Inc. or Prodigy, a leader in automotive commerce software solutions. Prodigy provides a modern multi-channel car buying experience, helping dealerships serve consumers with a holistic software solution that integrates legacy systems. In addition to modernizing the car buying experience, Prodigy is helping bring Upstart's AI enabled auto loans to dealerships across the country where the vast majority of auto loans are transacted. In October 2021, we announced the launch of Upstart Auto Retail software, a cloud-based solution that enables dealerships to provide consumers with access to Upstart-powered auto loans by combining Prodigy Software and Upstart intellectual property.

Key Operating and Non-GAAP Financial Metrics

We focus on several key operating and Non-GAAP financial metrics to measure the performance of our business and help determine strategic direction. The following presents our key operating and financial metrics:

Management's Discussion and Analysis of Financial Condition and Results of Operations

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

Year Ended December 31, 2020 2021 2022 Transaction Volume, Dollars \$ 3,444,854 11,751,762 11,204,274 Transaction Volume, Number of Loans 300,379 1,314,591 1,129,672 Conversion Rate 15.2% 14.1% 23.7% Percentage of Loans Fully Automated 70% 69% 75% Contribution Profit⁽¹⁾ \$ 105,088 397,880 \$ 448,571 Contribution Margin⁽¹⁾ 46% 50% 49% Adjusted EBITDA(1) \$ 31,509 \$ 231,946 \$ 37,161 Adjusted EBITDA Margin⁽¹⁾ 13% 27% 4% Adjusted Net Income⁽¹⁾ \$ 17,496 \$ \$ 19,373 224,141 Adjusted Net Income Per Share: Basic(1) \$ 1.00 \$ 2.87 \$ 0.23 Diluted(1)

\$

0.23

2.37

0.21

Transaction Volume

We define Transaction Volume, Dollars as the total principal of loans transacted on our platform between a borrower and the originating lending partner during the period presented. We define Transaction Volume, Number of Loans as the number of loans facilitated on our platform between a borrower and the originating lending partner during the period presented. Transaction Volume is primarily driven by improvements in our AI models and technology, including our ability to streamline and automate the loan application and origination process. Increases in Transaction Volume are dependent on our loan funding programs having sufficient access to capital. Decreases in the availability of funding due to factors such as volatility in the capital markets and macroeconomic conditions will generally cause a decline in Transaction Volume. Transaction Volume can also be driven by borrower acceptance rates and their sensitivity to the interest rates offered through our platform. We believe these metrics are good proxies for our overall scale and reach as a marketplace.

Conversion Rate

We define Conversion Rate as the Transaction Volume, Number of Loans in a period divided by the number of rate inquiries received that we estimate to be legitimate, which we record when a borrower requests a loan offer on our platform. We track this metric to understand the impact of improvements to the efficiency of our borrower funnel on our overall growth. Historically, our Conversion Rate has benefited from improvements to our technology, which have made our evaluation of risk more accurate and our verification process more automated, or from the addition of lending partners that have made our offers more competitive. However, our Conversion Rate can be impacted by a variety of internal factors such as changes in the amount of origination fees that we charge or changes in the rate of returns we target for our lending partners and institutional investors. External factors, including shifts in macroeconomic conditions, also impact our Conversion Rate. For example, as the U.S. Federal Reserve raises interest rates, the average interest rates charged to borrowers for Upstart-powered loans also increase, which results in decreases to our Conversion Rate. Our ability to continue to improve our Conversion Rate depends in part on our ability to continue to improve our AI models and Percentage of Loans Fully Automated and the mix of marketing channels in any given period.

Percentage of Loans Fully Automated

Represents a non-GAAP financial measure. See the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Reconciliation of Non-GAAP Financial Measures" for further information.

Management's Discussion and Analysis of Financial Condition and Results of Operations

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

A driver of our Contribution Margin and operating efficiency is the Percentage of Loans Fully Automated, which is defined as the total number of loans in a given period originated end-to-end (from initial rate request to final funding) with no human involvement divided by the Transaction Volume, Number of Loans in the same period. We have been successful in increasing the level of loan automation on the platform over the past few years while simultaneously holding fraud rates constant and at very low levels. We believe our growth over the last several years has been driven in part by our ability to rapidly streamline and automate the loan application and origination process on our platform. We expect growth of the percentage of loans fully automated to subside in the near term. However, the expansion of our loan offerings may cause it to fluctuate from period to period depending on the loan offering mix and other external factors.

Contribution Profit and Contribution Margin

To derive Contribution Profit, we subtract from revenue from fees, net from our borrower acquisition costs as well as our borrower verification and servicing costs. To calculate Contribution Margin we divide Contribution Profit by revenue from fees, net.

The following table provides a calculation of Contribution Profit and Contribution Margin:

		Year Ended December 31,						
		2020		2021		2022		
Revenue from fees, net		228,600		801,275		907,272		
Borrower acquisition costs ⁽¹⁾	·	(91,700)		(307,613)		(302,713)		
Borrower verification and servicing costs ⁽²⁾		(31,812)		(95,782)		(155,988)		
Total direct expenses		(123,512)		(403,395)		(458,701)		
Contribution Profit	\$	105,088	\$	397,880	\$	448,571		
Contribution Margin		46 %		50 %		49 %		

⁽¹⁾ Borrower acquisition costs consist of our sales and marketing expenses adjusted to exclude costs not directly attributable to attracting a new borrower, such as payroll-related expenses for our business development and marketing teams, as well as other operational, brand awareness and marketing activities.

See the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Reconciliation of Non-GAAP Financial Measures" for a reconciliation of income from operations to Contribution Profit.

Adjusted EBITDA and Adjusted EBITDA Margin

We calculate Adjusted EBITDA as net income (loss) attributable to Upstart Holdings, Inc. common stockholders adjusted to exclude stock-based compensation expense and certain payroll tax expenses, depreciation and amortization, expense on convertible notes, provision for income taxes and acquisition-related costs. We calculate Adjusted EBITDA Margin as Adjusted EBITDA divided by total revenue. Adjusted EBITDA and Adjusted EBITDA Margin includes interest expense from corporate debt and warehouse credit facilities which is incurred in the course of earning corresponding interest income. See the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Reconciliation of Non-GAAP Financial Measures" for a reconciliation of net income (loss) attributable to Upstart Holdings, Inc. common stockholders to Adjusted EBITDA and Adjusted EBITDA Margin.

⁽²⁾ Borrower verification and servicing costs consist of payroll and other personnel-related expenses for personnel engaged in loan onboarding, verification and servicing, as well as servicing system costs. It excludes payroll and personnel-related expenses and stock-based compensation for certain members of our customer operations team whose work is not directly attributable to onboarding and servicing loans.

Management's Discussion and Analysis of Financial Condition and Results of Operations

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

Adjusted Net Income and Adjusted Net Income Per Share

We define Adjusted Net Income as net income (loss) attributable to Upstart Holdings, Inc. common stockholders exclusive of stock-based compensation expense and certain payroll tax expenses and acquisition-related costs. Adjusted Net Income Per Share is calculated by dividing Adjusted Net Income Per Share by the weighted-average common shares outstanding. See the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Reconciliation of Non-GAAP Financial Measures" for a reconciliation of net income (loss) attributable to Upstart Holdings, Inc. common stockholders to Adjusted Net Income per Share.

Components of Results of Operations

Revenue from Fees, Net

Platform and Referral Fees, Net

We charge our lending partners platform fees in exchange for usage of our AI lending marketplace, which includes collection of loan application data, underwriting of credit risk, verification and fraud detection, and the delivery of electronic loan offers and associated documentation. We also charge referral fees to our lending partners in exchange for the referral of borrowers from Upstart.com. Referral fees are charged to lending partners on a per borrower basis upon origination of a loan. These fees are charged net of any fees the lending partner charges Upstart. Upstart pays these lending partners a one-time loan premium fee upon completion of the minimum holding periods. Upstart also pays lending partners monthly loan trailing fees based on the amount and timing of principal and interest payments made by borrowers of the underlying loans. See "Note 2. Revenue" to our consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for more information about loan premium fees and trailing fees.

Servicing and Other Fees, Net

Servicing fees are calculated as a percentage of outstanding principal and are charged monthly to any entities holding loans facilitated through our marketplace, to compensate us for activities we perform throughout the loan term, including collection, processing and reconciliations of payments received, institutional investor reporting and borrower customer support. Servicing fees are recorded net of any gains, losses or changes to fair value recognized in the underlying servicing rights and obligations, which are carried as assets and liabilities on our consolidated balance sheets. Upstart currently acts as loan-servicer for substantially all outstanding loans facilitated through the Upstart marketplace. Borrower payment collections for loans that are more than 30 days past due or charged off are generally outsourced to third-party collection agencies. Upstart charges lending partners and institutional investors for collection agency fees related to their outstanding loan portfolio. Upstart also receives certain ancillary fees on a per transaction basis inclusive of late payment fees and ACH fail fees.

Interest Income and Fair Value Adjustments, Net

Interest income and fair value adjustments, net is comprised of interest income, interest expense and net changes in the fair value of financial instruments held on our consolidated balance sheets as part of our ongoing operating activities, excluding loan servicing assets and liabilities. Interest income and fair value adjustments, net also includes income from our capital market programs and realized gain (loss) on the sale of loans. Interest income and fair value adjustments, net can fluctuate based on the fair value of financial instruments held on our consolidated balance sheets. This amount has historically been a small percentage of our total revenue, and we do not manage our business with a focus on growing this component of revenue.

Sales and Marketing

Management's Discussion and Analysis of Financial Condition and Results of Operations

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

Sales and marketing expenses primarily consist of costs incurred across various advertising channels, including expenses for partnerships with third parties providing borrower referrals, direct mail and digital advertising campaigns, as well as other expenses associated with building overall brand awareness and experiential marketing costs. Sales and marketing expenses also include payroll and other personnel-related costs, including stock-based compensation expense. These costs are recognized in the period incurred. We expect that our sales and marketing expenses will generally increase in absolute dollars and may fluctuate as a percentage of our total revenue from period to period as we hire additional sales and marketing personnel, increase our marketing activities and build greater brand awareness.

Customer Operations

Customer operations expenses include payroll and other personnel-related expenses, including stock-based compensation expense, for personnel engaged in borrower onboarding, loan servicing, customer support and other operational teams. These costs also include systems, third-party services and tools we use as part of loan servicing, information verification, fraud detection and payment processing activities. These costs are recognized in the period incurred. We expect that our customer operations expenses will increase in absolute dollars and may fluctuate as a percentage of our total revenue over time, as we expand our portfolio.

Engineering and Product Development

Engineering and product development expenses primarily consist of payroll and other personnel-related expenses, including stock-based compensation expense, for the engineering and product development teams as well as the costs of systems and tools used by these teams. These costs are recognized in the period incurred. We expect that our engineering and product development expenses will increase in absolute dollars and may increase as a percentage of our total revenue over time, as we expand our engineering and product development team to continue to improve our AI models and develop new products and product enhancements.

General, Administrative and Other

General, administrative and other expenses consist primarily of payroll and other personnel-related expenses, including stock-based compensation expense, for legal and compliance, finance and accounting, human resources and facilities teams, as well as depreciation and amortization of property, equipment, software, and intangibles, professional services fees, facilities and travel expenses. These costs are recognized in the period incurred. We expect to increase the size of our general and administrative function to support the further growth of our business. As a result, we expect that our general, administrative and other expenses will increase in absolute dollars but may fluctuate as a percentage of our total revenue from period to period.

Other Income (Expense), Net

Other income (expense), net consists of funds received under the Paycheck Protection Program, or PPP, during the year ended December 31, 2021 and our voluntary repayment of the funds during the year ended December 31, 2021. During the year ended December 31, 2022 other income (expense), net primarily consists of dividend income earned on our unrestricted cash balances.

Expense on Warrants and Convertible Notes, Net

Expense on warrants and convertible notes, net is primarily comprised of the net changes in the fair value of our common and convertible preferred stock warrant liabilities for the year ended December 31, 2020 and interest expense on our convertible notes for the year ended December 31, 2021 and 2022.

Results of Operations

Management's Discussion and Analysis of Financial Condition and Results of Operations

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

The following table summarizes our historical consolidated statements of operations data:

Year Ended December 31, 2020 2022 2021 Revenue: Revenue from fees, net \$ 228,600 \$ 801,275 \$ 907,272 Interest income and fair value adjustments, net: Interest income 26,408 20,634 105,580 Interest expense (8,026)(3,274)(10,843)Fair value and other adjustments 29,954 (159,565)(13,566)4,816 47,314 (64,828)Interest income and fair value adjustments, net 842,444 Total revenue 233,416 848,589 Operating expenses(1): 99,659 Sales and marketing 333,453 345,776 Customer operations 37,581 117,579 187,994 Engineering and product development 38,802 133,999 237,247 General, administrative, and other 45,609 122,677 185,290 Total operating expenses 221,651 707,708 956,307 Income (loss) from operations 11,765 140,881 (113,863) 5,549 Other income (expense), net (5,174)9,473 (1,976)Expense on warrants and convertible notes, net (11,364)(4,684)Net income (loss) before income taxes 5,950 133,731 (109,074)(Benefit) provision for income taxes 371 (1,712)(409)Net income (loss) before attribution to noncontrolling interests 5,579 135,443 (108,665)Net loss attributable to noncontrolling interests (404)

1	(1)	Includes stock-based compensation expense as	follows:

Net income (loss) attributable to Upstart Holdings, Inc. common stockholders

	Year Ended December 31,						
	2020	2021	2022				
Sales and marketing	\$ 1,562	\$ 6,059	\$ 11,354				
Customer operations	898	6,251	9,355				
Engineering and product development	4,844	39,191	72,169				
General, administrative, and other	4,209	21,685	33,067				
Total stock-based compensation	\$ 11,513	\$ 73,186	\$ 125,945				

5,983

135,443

(108,665)

Revenue

Revenue from Fees, Net

The following table sets forth our revenue from fees, net in the years presented:

Management's Discussion and Analysis of Financial Condition and Results of Operations

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

		Year Ended I	2021 to 2022 % change		
		2021			022
Platform and referral fees, net	\$	726,161	\$	732,237	1 %
Servicing and other fees, net		75,114		175,035	133 %
Total revenue from fees, net	\$	801,275	\$	907,272	13 %

Revenue from fees, net increased \$106.0 million, or 13%, in the year ended December 31, 2022, compared to the prior year, which included an increase of \$99.9 million in servicing and other fees, net and an increase of \$6.1 million in revenue from platform and referral fees, net. The increase in the servicing and other fees, net was primarily due to a 58% increase in the outstanding principal of serviced loans.

Interest Income and Fair Value Adjustments, Net

	Year	Year Ended December 31,		
	2021		2022	% change
Interest income		20,634	105,580	412 %
Interest expense		(3,274)	(10,843)	(231)%
Fair value adjustments, net		29,954	(159,565)	(633)%
Total interest income and fair value adjustments, net	\$	47,314	\$ (64,828)	(237)%

For the year ended December 31, 2022, interest income and fair value adjustments, net decreased \$112.1 million, or 237%, compared to the prior year. The decrease was driven by a \$189.5 million decrease in fair value adjustments, net partially offset by a \$84.9 million increase in interest income due to an increase in unpaid principal balance of loans held on the consolidated balance sheets. The negative fair value adjustments were attributable to a \$101.4 million unfavorable change in the fair value of our loan portfolio and increasing charge-offs as well as a \$(58.1) million of realized loss on the sale of loans compared \$28.1 million gain on loan sales in the prior year, primarily due to the rising interest rate environment and higher loan delinquency rates.

Operating Expenses

Sales and Marketing

	Year Ended December 31,			2021 to 2022	
	2021		2022	% change	
\$	333,453	\$	345,776	4%	

Sales and marketing expenses increased by \$12.3 million, or 4%, in the year ended December 31, 2022 compared to the prior year. The increase was primarily due to a \$12.2 million increase in payroll and other personnel-related expenses driven by increased headcount. As a percentage of total revenue, sales and marketing expenses increased from 39% to 41%.

Customer Operations

	 Year Ended D	2021 to 2022	
	2021	2022	% change
Customer operations	\$ 117,579	\$187,994	60%

Customer operations expenses increased by \$70.4 million, or 60%, in the year ended December 31, 2022, compared to the prior year. The increase was primarily due to an increase of \$46.7 million in payroll and other personnel-related expenses due to a higher average headcount in 2022 compared to 2021, and a \$18.9 million

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increase in servicing expenses. As a percentage of total revenue, customer operations expenses increased from 14% to 22%.

Engineering and Product Development

	Year Ended December 31,			2021 to 2022	
	2021	2	022	% change	
Engineering and product development	\$ 133,999	\$	237,247	77%	

Engineering and product development expenses increased by \$103.2 million, or 77%, for the year ended December 31, 2022, compared to the prior year. The increase was primarily due to an increase of \$76.4 million in payroll and other personnel-related expenses driven by an increase in headcount, as well as a \$25.5 million increase in spending on consultants and other engineering support services. As a percentage of total revenue, engineering and product development expenses increased from 16% to 28%.

General, Administrative, and Other

	Year Ended December 31,			2021 to 2022	
		2021		2022	% change
General, administrative, and other	\$	122,677	\$	185,290	51%

General, administrative, and other expenses increased by \$62.6 million, or 51%, for the year ended December 31, 2022, compared to the prior year. The increase was primarily due to an increase of \$38.1 million in payroll and personnel-related costs as a result of increased headcount, an increase of \$10.4 million in office rent and other facility expenses, and a \$6.0 million increase in depreciation expense. As a percentage of total revenue, general, administrative, and other expenses increased from 14% to 22%.

Other Income (Expense), Net

	Year Ended I	2021 to 2022	
	2021	2022	% change
\$	(5,174)	\$ 9,473	283 %

In the year ended December 31, 2022, other income (expense), net increased by \$14.6 million, or 283%, compared to the prior year. The increase was primarily due to and increase of \$7.2 million in dividend income as yields on sweep investments have increased due to rising interest rates. Also, in 2021, we voluntary repaid \$5.2 million of proceeds received from the Paycheck Protection Program received in 2020.

Expense on Warrants and Convertible Notes, Net

	 Year Ended	2021 to 2022	
	2021	2022	% change
Expense on warrants and convertible notes, net	\$ 1,976	\$ 4,684	137 %

Expense on warrants and convertible notes, net increased by \$2.7 million, or 137%, in the year ended December 31, 2022, compared to the prior year. The increase was a result of a \$2.7 million increase in interest expense in convertible notes in the year ended December 31, 2022.

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Reconciliation of Non-GAAP Financial Measures

To supplement our consolidated financial statements prepared and presented in accordance with GAAP, we use the non-GAAP financial measures of Contribution Profit, Contribution Margin, Adjusted EBITDA, Adjusted EBITDA Margin, and Adjusted Net Income and Adjusted Net Income Per Share to provide investors with additional information about our financial performance and to enhance the overall understanding of our past performance and future prospects. We are presenting these non-GAAP financial measures because we believe they provide an additional tool for investors to use in comparing our core financial performance over multiple periods with the performance of other companies.

However, non-GAAP financial measures have limitations in their usefulness to investors because they have no standardized meaning prescribed by GAAP and are not prepared under any comprehensive set of accounting rules or principles. In addition, non-GAAP financial measures may be calculated differently from, and therefore may not be directly comparable to, similarly titled measures used by other companies. As a result, non-GAAP financial measures should be viewed as supplementing, and not as an alternative or substitute for, our consolidated financial statements prepared and presented in accordance with GAAP

To address these limitations, we provide a reconciliation of Contribution Profit, Contribution Margin, Adjusted EBITDA, Adjusted EBITDA Margin, and Adjusted Net Income and Adjusted Net Income Per Share to income (loss) from operations and net income (loss) attributable to Upstart Holdings, Inc. common stockholders, respectively. We encourage investors and others to review our financial information in its entirety, not to rely on any single financial measure and to view Contribution Profit, Contribution Margin, Adjusted EBITDA, Adjusted EBITDA Margin, Adjusted Net Income, and Adjusted Net Income Per Share in conjunction with their respective related GAAP financial measures.

Contribution Profit and Contribution Margin

We use Contribution Profit and Contribution Margin as part of our overall assessment of performance, including the preparation of our annual operating budget and quarterly forecasts, to evaluate the effectiveness of our business strategies, and to communicate with our Board of Directors concerning our financial performance. We believe Contribution Profit and Contribution Margin are useful to investors for period-to-period comparisons of our business and in evaluating and understanding our operating results and ability to scale. Contribution Profit and Contribution Margin are also useful to investors because our management uses Contribution Profit and Contribution Margin, in conjunction with financial measures prepared in accordance with GAAP, to evaluate our operating results and financial performance and the effectiveness of our strategies.

Contribution Profit and Contribution Margin have limitations as an analytical tool, and should not be considered in isolation or as a substitute for analysis of our results as reported under GAAP. Contribution Profit and Contribution Margin are not GAAP financial measures of, nor do they imply, profitability. Even if our revenue exceeds variable expenses over time, we may not be able to achieve or maintain profitability, and the relationship of revenue to variable expenses is not necessarily indicative of future performance. Contribution Profit and Contribution Margin do not reflect all of our variable expenses and involve some judgment and discretion around what costs vary directly with loan volume. Other companies that present Contribution Profit and Contribution Margin may calculate it differently and, therefore, similarly titled measures presented by other companies may not be directly comparable to ours.

The following table presents a reconciliation of income (loss) from operations to Contribution Profit and Contribution Margin. We define Operating Margin as our income (loss) from operations divided by revenue from fees, net.

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Year Ended December 31, 2020 2021 2022 Revenue from fees, net 228,600 801,275 907,272 Income (loss) from operations 140,881 11,765 (113,863)Operating Margin 5 % 18 % (13)%Sales and marketing, net of borrower acquisition costs⁽¹⁾ \$ 7.959 25,840 \$ 43 063 \$ Customer operations, net of borrower verification and servicing costs⁽²⁾ 5,769 21,797 30,186 Engineering and product development 38,802 133,999 237,247 General, administrative, and other 185,290 45,609 122,677 Interest income and fair value adjustments, net (4,816)(47.314)64,828 Contribution Profit 105 088 397,880 446,751 Contribution Margin 50 % 49

Adjusted EBITDA and Adjusted EBITDA Margin

We believe that Adjusted EBITDA and Adjusted EBITDA Margin are useful for investors to use in comparing our financial performance with the performance of other companies for the following reasons:

- Adjusted EBITDA and Adjusted EBITDA Margin are widely used by investors and securities analysts to measure a company's operating
 performance without regard to items such as depreciation, and interest expense, that can vary substantially from company to company depending
 upon their financing and capital structures, and the method by which assets were acquired; and
- Adjusted EBITDA and Adjusted EBITDA Margin eliminate the impact of certain items such as stock-based compensation expense and certain
 payroll tax expense, warrant expense and acquisition-related costs that may obscure trends in the underlying performance of our business; and
- Adjusted EBITDA and Adjusted EBITDA Margin provide consistency and comparability with our past financial performance, and facilitate
 comparisons with other companies, many of which use similar non-GAAP financial measures to supplement their GAAP results.

Our use of Adjusted EBITDA and Adjusted EBITDA Margin has limitations as an analytical tool, and these measures should not be considered in isolation or as a substitute for analysis of our financial results as reported under GAAP. Some of these limitations are as follows:

- Although depreciation expense is a non-cash charge, the assets being depreciated may have to be replaced in the future, and Adjusted EBITDA and Adjusted EBITDA Margin does not reflect cash capital expenditure requirements for such replacements or for new capital expenditure requirements;
- Adjusted EBITDA and Adjusted EBITDA Margin exclude stock-based compensation expense and certain employer payroll taxes on employee stock
 transactions. Stock-based compensation expense has been, and will continue to be for the foreseeable future, a significant recurring expense for our
 business and an important part of our compensation strategy. The amount of employer payroll tax-related expense on employee stock transactions is
 dependent on our stock price and other factors that are beyond our control and which not correlate to the operation of the business;

⁽¹⁾ Borrower acquisition costs were \$91.7 million, \$307.6 million and \$302.7 million for the year ended December 31, 2020, 2021 and 2022 respectively. Borrower acquisition costs consist of our sales and marketing expenses adjusted to exclude costs not directly attributable to attracting a new borrower, such as payroll-related expenses for our business development and marketing teams, as well as other operational, brand awareness and marketing activities.

⁽²⁾ Borrower verification and servicing costs were \$31.8 million, \$95.8 million and \$157.8 million for the year ended December 31, 2020, 2021 and 2022, respectively. Borrower verification and servicing costs consist of payroll and other personnel-related expenses for personnel engaged in loan onboarding, verification and servicing, as well as servicing system costs. It excludes payroll and personnel-related expenses and stock-based compensation for certain members of our customer operations team whose work is not directly attributable to onboarding and servicing loans.

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- Adjusted EBITDA and Adjusted EBITDA Margin do not reflect: (1) changes in, or cash requirements for, our working capital needs; (2) interest
 expense, or the cash requirements necessary to service interest or principal payments on our debt, which reduces cash available to us; or (3) tax
 payments that may represent a reduction in cash available to us; and
- the expenses and other items that we exclude in our calculation of Adjusted EBITDA and Adjusted EBITDA Margin may differ from the expenses
 and other items, if any, that other companies may exclude from Adjusted EBITDA and Adjusted EBITDA Margin when they report their operating
 results.

Because of these limitations, Adjusted EBITDA and Adjusted EBITDA Margin should be considered along with other operating and financial performance measures presented in accordance with GAAP. The following table provides a reconciliation of net income (loss) attributable to Upstart Holdings, Inc. common stockholders and net income (loss) attributable to Upstart Holdings, Inc. common stockholders margin to Adjusted EBITDA Margin. We define Net Income (Loss) Margin as net income (loss) attributable to Upstart Holdings, Inc. common stockholders divided by total revenue.

	Year Ended December 31,				
	 2020		2021		2022
Total revenue	\$ 233,416	\$	848,589	\$	842,444
Net income (loss) attributable to Upstart Holdings, Inc. common stockholders	5,983		135,443		(108,665)
Net Income (Loss) Margin	3 %		16 %		(13)%
Adjusted to exclude the following:					
Stock-based compensation and certain payroll tax expenses ⁽¹⁾	\$ 11,513	\$	87,461	\$	128,038
Depreciation and amortization	2,278		7,541		13,513
Expense on warrants and convertible notes, net	11,364		1,976		4,684
(Benefit) provision for income taxes	371		(1,712)		(409)
Acquisition-related costs	_		1,237		_
Adjusted EBITDA	\$ 31,509	\$	231,946	\$	37,161
Adjusted EBITDA Margin	 13 %		27 %		4 %

⁽¹⁾ Payroll tax expenses include the employer payroll tax-related expense on employee stock transactions, as the amount is dependent on our stock price and other factors that are beyond our control and do not correlate to the operation of our business.

Adjusted Net Income and Adjusted Net Income Per Share

We define Adjusted Net Income as net income (loss) attributable to Upstart Holdings, Inc. common stockholders exclusive of stock-based compensation expense and certain payroll tax expense and acquisition-related costs. Adjusted Net Income Per Share is calculated by dividing Adjusted Net Income Per Share by the weighted-average common shares outstanding. We believe Adjusted Net Income and Adjusted Net Income Per Share are useful measures for investors in evaluating our ability to generate earnings, more readily compare between past and future periods, and provide comparability of our performance with the performance of other companies.

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Year Ended December 31, 2020 2021 2022 Net income (loss) attributable to Upstart Holdings, Inc. common \$ 5,983 \$ 135,443 \$ (108,665)stockholders Adjusted to exclude the following: Stock-based compensation and certain payroll tax expenses⁽¹⁾ 11,513 87,461 128,038 Acquisition-related costs 1,237 17,496 19,373 \$ 224,141 Adjusted Net Income Net income (loss) per share: Basic \$ 1.73 (1.31)\$ \$ Diluted \$ 1.43 \$ (1.31)Adjusted Net Income per Share: \$ 1.00 \$ 2.87 0.23 Basic \$ Diluted 0.23 2.37 \$ 0.21 Weighted-average common shares outstanding: Basic 17,513,670 78,106,359 82,771,268 Diluted 76,098,275 92,023,924 94,772,641

Liquidity and Capital Resources

Sources and Uses of Cash

Since inception, we have financed our operations, corporate investments, and capital expenditures primarily through the sale of convertible preferred stock, convertible promissory notes, term loans and draws on our revolving credit facilities, and cash generated from operations.

In December 2020, we completed our Initial Public Offering ("IPO") which resulted in \$167.4 million of proceeds, net of underwriting discounts and commissions, and before deducting deferred offering costs of \$7.9 million. In April 2021, we completed a follow-on offering, in which 2,300,000 shares of common stock (including the exercise in full of the underwriters option to purchase 300,000 shares) were issued and sold at \$120.00 per share. We received net proceeds of \$263.9 million after deducting underwriting discounts and commissions of \$11.0 million and offering expenses of \$1.0 million. In August 2021, we issued \$661.3 million aggregate principal amount of 0.25% convertible senior notes due 2026, or the Notes, (including the exercise in full of the initial purchasers' option of an additional \$86.3 million aggregate principal of additional Notes) in a private placement to qualified institutional buyers. The net proceeds from the sale of the Notes were \$645.5 million after deducting debt issuance costs.

As of December 31, 2022, our primary source of liquidity was cash of \$422.4 million. We also held \$5.0 million of investments in certificates of deposit with maturities greater than three months as of December 31, 2022. Certificates of deposit provide a secondary source of liquidity since they can be converted into cash in a timely manner. Changes in the balance of cash are generally a result of working capital fluctuations and the timing of purchases and sales of loans facilitated through our marketplace. To finance purchases of certain loans facilitated through our lending marketplace, we rely on our warehouse credit facilities through the special-purpose trusts, or the warehouse trusts and corporate cash.

⁽¹⁾ Payroll tax expenses includes the amount of employer payroll tax-related expense on employee stock transactions, as the amount is dependent on our stock price and other factors that are beyond our control and do not correlate to the operation of our business.

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Our convertible senior notes have a principal balance of \$661.3 million and bear interest at a rate of 0.25% per year, payable semiannually in arrears on February 15 and August 15 of each year. The Notes mature on August 15, 2026 unless earlier converted, redeemed, or repurchased in accordance with their terms. See "Note 8. Borrowings" in Part II, Item 8 of this Form 10-K for further details on our Notes.

Our warehouse credit facilities, which mature in 2024, allow us to borrow up to \$175.0 million under the ULT Credit Facility to purchase unsecured personal loans and up to \$200.0 million under the UAWT Credit Facility to purchase secured auto loans. As of December 31, 2022, we have drawn an aggregate of \$336.5 million on our warehouse credit facilities. See "Note 8. Borrowings" in Part II, Item 8 of this Form 10-K for further details on our warehouse credit facilities.

We lease office facilities under operating lease agreements which expire between 2027 and 2032. Our cash requirements related to these lease agreements are \$120.3 million, of which \$15.1 million is expected to be paid within the next 12 months. See "Note 10. Leases" in Part II, Item 8 of this Form 10-K for further details on our operating lease obligations.

We have committed to purchase loans from certain lending partners at the conclusion of the required holding period, which is generally equal to three business days. As of December 31, 2022, the total loan purchase commitment was \$17.8 million. See "Note 11. Commitments and Contingencies" in Part II, Item 8 of this Form 10-K for further details on our loan purchase obligations.

While we believe that our cash on hand and our cash flow from operations will be sufficient to meet our liquidity needs for at least the next 12 months, our future capital requirements will depend on multiple factors, including our revenue growth, working capital requirements, volume of loan purchases for product development purposes or during market downturns, and our capital expenditures. We may decide to raise additional capital through the sale of equity, equity-linked or debt securities or other debt financing arrangements. If we raise additional funds by issuing equity or equity-linked securities, our stockholders may experience dilution. Future debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. Any debt or equity financing that we raise may contain terms that are not favorable to us or our stockholders. Further, if we are unable to raise additional capital when our cash balances and cash generated by operations are insufficient to satisfy liquidity needs, our results of operations and financial condition would be materially and adversely impacted.

Cash Flows

The following table summarizes our cash flows during the years indicated:

	Year Ended December 31,			
	'	2021		2022
Net cash provided by (used in) operating activities	\$	168,353	\$	(674,681)
Net cash used in investing activities		(143,877)		(114,125)
Net cash provided by financing activities		855,432		130,032
Net increase (decrease) in cash and restricted cash	\$	879,908	\$	(658,774)

Net Cash from Operating Activities

Our main sources of cash provided by operating activities are our revenue from fees earned under contracts with lending partners and institutional investors and interest income we receive for loans held on our balance sheet.

Our main uses of cash in our operating activities include payments to marketing partners, vendor payments, payroll and other personnel-related expenses, payments for facilities, and other general business expenditures.

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Net cash used in operating activities was \$674.7 million for the year ended December 31, 2022, which primarily consisted of a decrease of \$848.7 million in net operating assets and liabilities, adjustments for non-cash items of \$282.6 million, and net loss of \$108.7 million. The decrease in net operating assets and liabilities was primarily related to \$7,807.4 million in purchases of loans held-for-sale, partially offset by \$6,828.6 million in proceeds from the sale of loans classified as held-for-sale and \$152.0 million in principal payments received for loans held-for-sale.

Net Cash from Investing Activities

Net cash used in investing activities was \$114.1 million for the year ended December 31, 2022 as a result of \$149.3 million purchases of loans held-for-investment and \$14.1 million in capitalized software, partially offset by \$43.3 million in principal payments received for loans held-for-investment, and \$14.3 million in proceeds from sale of loans held-for-investment.

Net Cash from Financing Activities

Net cash provided by financing activities was \$130.0 million for the year ended December 31, 2022 as a result of \$688.8 million proceeds from borrowings, partially offset by \$400.9 million in payments on borrowings and \$177.9 million in repurchases of common stock.

Composition of Retained Loan Portfolio

As of December 31, 2022, we held \$1,010.4 million of loans on our consolidated balance sheet. \$492.1 million of these loans were originated for research and development purposes, primarily in support of our auto lending products and expansion of our unsecured personal loan product to new categories of borrowers. We also held \$518.3 million of core personal loans which would otherwise be immediately purchased by institutional investors. We will continue to utilize our capital to support research and development activities and, at times, as a funding source for core personal loans during periods of marketplace funding constraints. The extent and timing of utilizing our capital as a funding source for loans will largely depend on the availability of capital in our marketplace relative to the demand from qualified borrowers and our business priorities. We plan to sell retained loans to institutional investors over time in the form of secondary sales or securitizations.

Off-Balance Sheet Arrangements

In the ordinary course of business, we engage in activities that are not reflected on our consolidated balance sheets, generally referred to as off-balance sheet arrangements. These activities involve transactions with unconsolidated VIEs, including our sponsored and co-sponsored securitization transactions, which we contractually service. We use these transactions to provide a source of liquidity to finance our business and to diversify our institutional investor base. If we are the retaining sponsor, we are required by law to retain at least 5% of the credit risk of the securities issued in these securitizations. We provide additional information regarding transactions with unconsolidated VIEs in "Note 3. Variable Interest Entities" in Part II, Item 8 of this Annual Report on Form 10-K.

Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements requires us to make judgments, estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ significantly from our estimates. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected. Our significant accounting policies are described in "Note 1. Description of Business and Significant Accounting Policies" in Part II, Item 8 of this Annual Report on Form 10-K.

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Fair Value

We have elected the fair value option for loans, notes receivable and residual certificates. We believe the estimate of fair value of these financial instruments requires significant judgment. We use a discounted cash flow model to estimate the fair value of these financial instruments based on the present value of estimated future cash flows. This model uses both observable and unobservable inputs and reflects our best estimates of the assumptions a market participant would use to calculate fair value. Primary inputs that require significant judgment include discount rates, credit risk rates and expected prepayment rates. These inputs are based on historical performance of loans facilitated through our platform, as well as the consideration of market participant requirements.

We have also elected the fair value option for servicing assets and liabilities. We record servicing assets and liabilities at estimated fair value when we transfer loans which qualify as sales under Topic 860, Transfers and Servicing. We use a discounted cash flow model to estimate the fair value of loan servicing assets and liabilities. The cash flows in the valuation model represent the difference between the servicing fees charged to institutional investors and an estimated market servicing fee. Since servicing fees are generally based on the monthly unpaid principal balance of the underlying loans, the expected cash flows in the model incorporate estimated credit risk and expected prepayments on the loans. For further information on fair value measurement refer to "Note 4. Fair Value Measurement" in Part II, Item 8 of this Annual Report on Form 10-K.

Evaluation for Impairment of Goodwill and Acquired Intangible Assets

Assets acquired and liabilities assumed in a business combination are recognized at their estimated fair value as of the acquisition date. The excess purchase price over the fair value of assets acquired and liabilities assumed is recorded as goodwill. The allocation of fair values may be subject to adjustment after the initial allocation for up to a one-year period, with the corresponding offset to goodwill. For further information on business combinations refer to "*Note 5*. *Acquisitions*" in Part II, Item 8 of this Annual Report on Form 10-K.

Goodwill is reviewed for impairment annually, or more frequently if an event or a change in circumstances indicates that goodwill may be impaired. For further information on goodwill, refer to "Note 1. Description of Business and Significant Accounting Policies" and "Note 6. Goodwill and Intangible Assets" in Part II, Item 8 of this Annual Report on Form 10-K.

Stock-Based Compensation

The determination of the amount of stock-based compensation expense to be recorded requires us to develop estimates to be used in the calculation of the grant date fair value of stock options and purchase rights granted under our employee stock purchase plan. We estimate the grant date fair value of stock options and employee purchase rights using the Black-Scholes option-pricing model. Performance-based restricted stock units are initially measured at fair value using a Monte Carlo simulation. The use of the Black-Scholes model and Monte Carlo simulation requires us to make key assumptions such as expected option term and volatility to determine the fair value of a stock option. We estimate the expected term based on the simplified method, which is the weighted-average time to vesting and the contractual maturity. Volatility is estimated based on the average volatility for comparable publicly-traded companies, over a period equal to the expected term of the award grants. For further information on stock-based compensation refer to "Note 9. Stockholders' Equity" in Part II, Item 8 of this Annual Report on Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risks in the ordinary course of our business, which primarily relate to fluctuations in market discount rates, credit risks, and interest rates. We are exposed to market risk directly through loans and securities held on our consolidated balance sheets, access to the securitization markets, institutional investor demand for loans facilitated through our marketplace, and availability of funding under our current credit facilities and term loans.

Discount Rate Risk

Discount rate sensitivity refers to the risk of loss to future earnings, values or future cash flows that may result from changes in market discount rates.

As of December 31, 2021 and 2022, we were exposed to market discount rate risk on \$252.5 million and \$1,010.4 million, respectively, of loans held on our consolidated balance sheets. The fair value of these loans is estimated using a discounted cash flow methodology, where the discount rate represents an estimate of the required rate of return by market participants. The discount rates for loans retained on our balance sheet may change due to changes in expected loan performance or changes in the expected returns of similar financial instruments available in the market. Any gains and losses from discount rate changes are recorded in earnings. A hypothetical 100 basis point and 200 basis point increase in the discount rate would result in a \$3.4 million and \$6.7 million decrease, respectively, in the fair value of loans held on our consolidated balance sheet as of December 31, 2021 and a \$12.0 million and \$23.7 million decrease, respectively, as of December 31, 2022.

Credit Risk

Credit risk refers to the risk of loss of the loans on our consolidated balance sheets arising from individual borrower default due to inability or unwillingness to meet their financial obligations. The performance of certain financial instruments, including loans, securitization notes and residual certificates, on our consolidated balance sheets are dependent on the credit performance of loans facilitated by us. To manage this risk, we monitor borrower payment performance through our lending marketplace and utilize our AI capabilities to price loans in a manner that we believe is reflective of their credit risk.

The fair values of these loans, securitization notes, and residual certificates are estimated based on a discounted cash flow model which involves the use of significant unobservable inputs and assumptions. These instruments are sensitive to changes in credit risk. As of December 31, 2021 and 2022, we were exposed to credit risk on \$252.5 million and \$1,010.4 million, respectively, of loans held on our consolidated balance sheet. These loans bear fixed interest rates and are carried on our consolidated balance sheets at fair value. As of December 31, 2021, a hypothetical 10% and 20% increase in credit risk would result in a \$4.0 million and \$7.9 million decrease, and as of December 31, 2022, a hypothetical 10% and 20% increase in credit risk would result in a \$11.9 million and \$23.9 million decrease in the fair value of loans held on our consolidated balance sheets, respectively.

As of December 31, 2021 and 2022, we are exposed to credit risk of \$1,191.2 million and \$532.5 million, respectively, related to cash and restricted cash held in business checking accounts and interest-bearing deposit accounts at various financial institutions in the United States. We are exposed to credit risk in the event of default by these financial institutions to the extent the amount recorded on our consolidated balance sheets exceeds the insured amounts by the Federal Deposit Insurance Corporation, or FDIC. We reduce credit risk by placing our cash and restricted cash in reputable institutions.

Interest Rate Risk

An increase in interest rates typically results in an increase in the rate of return required by lending partners and institutional investors, and therefore leads to a decrease in borrower demand. Higher interest rates also correspond with higher payment obligations for borrowers, which may reduce the ability of individual borrowers to remain current on their obligations, leading to increased delinquencies, defaults, customer bankruptcies and charge-

offs, and decreasing recoveries, all of which could have a material adverse effect on our business. We expect these outcomes would generally invert in an environment of decreasing interest rates.

An increase or decrease in interest rates may also impact our exposure to interest rate risk on our warehouse credit facilities. As of December 31, 2021 and 2022, we were exposed to interest rate risk on \$48.0 million and \$336.5 million, respectively, under our warehouse credit facilities, which bear floating interest rates. Changes in interest rates may impact our cost of borrowing. From time to time, we enter into interest rate hedges in connection with our warehouse credit facilities.

Our inability or failure to manage market risks could harm our business, financial condition or results of operations.

Equity Investment Risk

Our non-marketable equity securities are subject to a wide variety of market-related risks that could substantially reduce or increase the carrying value of our investments.

Our non-marketable equity investments are in equity securities of privately-held companies without readily determinable fair values. We elected to account for each such investment using the measurement alternative which is cost less impairment, if any, and adjusted for changes resulting from observable price changes in orderly transactions for an identical or similar investment in the same issuer. The determination of whether an orderly transaction is for an identical or similar investment requires significant management judgment and is inherently complex due to the lack of readily available market data. We consider factors such as differences in the rights and preferences of the investments and the extent to which those differences would affect the fair values of each investment. We also assess our non-marketable equity securities for impairment on a quarterly basis. Our impairment analysis encompasses an assessment of both qualitative and quantitative factors including the investee's financial metrics, market acceptance of the investee's product or technology, general market conditions and liquidity considerations. Adjustments and impairments are recorded in other expense on the consolidated statements of operations and comprehensive income (loss) upon recognition of such adjustments or impairments. As of December 31, 2021 and 2022, the carrying value of our non-marketable equity securities, which do not have readily determinable fair values, totaled \$40.0 million and \$41.3 million, respectively.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Upstart Holdings, Inc.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Upstart Holdings, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Upstart Holdings, Inc. and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of operations and comprehensive income (loss), convertible preferred stock and stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 16, 2023, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Loans and Loan Servicing Assets and Liabilities at Fair Value — Refer to Notes 1 and 4 to the financial statements

Critical Audit Matter Description

The Company has elected the fair value option for loans, which are valued using unobservable inputs significant to the fair value measurement. The Company estimates the fair value of these loans using a discounted cash flow model based on the present value of estimated future cash flows. This model uses both observable and unobservable inputs and reflects the Company's best estimates of the assumptions a market participant would use to

calculate the fair value. The fair value methodology considers historical defaults, losses and recoveries to project future losses and net cash flows on loans that are discounted using an estimate of market rates of return. Primary inputs that require significant judgment include discount rates and credit risk rates. These inputs are based on historical performance of loans facilitated through the Company's platform, as well as management's consideration of assumptions a market participant would use.

The Company has also elected the fair value option for loan servicing assets and liabilities, which are valued using unobservable inputs significant to the fair value measurement. The Company estimates the fair value of its loan servicing assets and liabilities using a discounted cash flow model based on the difference between the servicing fees charged to institutional investors and an estimated market servicing fee on the monthly unpaid principal balance of the underlying loans.

Given the significant judgments made by management in selecting the unobservable inputs used in estimating the fair value of loans and loan servicing assets and liabilities, performing audit procedures to evaluate the reasonableness of management's judgments related to the selection of the market servicing fee for loan servicing assets and liabilities, and discount rates, and credit risk rates for loans required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the unobservable inputs used by management to estimate the fair value of loans and loan servicing assets and liabilities included the following, among others:

- We tested the effectiveness of management's internal controls relating to estimation of the fair value of loans and loan servicing assets and liabilities, including controls related to management's selection of the discount rates, and credit risk rates for loans and market servicing fee for loan servicing assets and liabilities.
- · We evaluated the accuracy and completeness of the data used in estimation of the fair value of loans and loan servicing assets and liabilities.
- With the assistance of our fair value specialists, we developed independent estimates of the fair value of loans and loan servicing assets and liabilities and compared our estimates to the Company's estimates.

/s/ Deloitte & Touche LLP

San Francisco, California February 16, 2023

We have served as the Company's auditor since 2015.

Upstart Holdings, Inc. Consolidated Balance Sheets

(In thousands, except share data)

		December 31, 2021		December 31, 2022
Assets				
Cash	\$	986,608	\$	422,411
Restricted cash		204,633		110,056
Loans (at fair value)		252,477		1,010,421
Property, equipment, and software, net		24,259		44,168
Operating lease right of use assets		96,118		86,335
Non-marketable equity securities		40,000		41,250
Goodwill		67,062		67,062
Intangible assets, net		19,906		15,631
Other assets (includes \$18,388 and \$42,648 at fair value as of December 31, 2021 and December 31, 2022, respectively)		129,392		138,720
Total assets ^(a)	\$	1,820,455	\$	1,936,054
Liabilities and Stockholders' Equity				
Liabilities:				
Accounts payable	\$	6,563	\$	18,715
Payable to investors		107,598		90,777
Borrowings		695,432		986,394
Accrued expenses and other liabilities (includes \$13,095 and \$8,820 at fair value as of December 31, 2021 and December 31, 2022, respectively)	l	103,418		66,946
Operating lease liabilities		100,366		100,787
Total liabilities ^(a)		1,013,377		1,263,619
Stockholders' equity:	_	, ,	_	,,-
Common stock, \$0.0001 par value; 700,000,000 shares authorized; 83,659,665 and 81,259,676 shares issued and				
outstanding as of December 31, 2021 and December 31, 2022, respectively		8		8
Additional paid-in capital		740,849		714,871
Retained earnings (accumulated deficit)		66,221		(42,444)
Total stockholders' equity		807,078		672,435
Total liabilities and stockholders' equity	\$	1,820,455	\$	1,936,054

⁽a) The following table presents information on assets and liabilities related to variable interest entities ("VIEs") that are consolidated by Upstart Holdings, Inc. at December 31, 2021 and December 31, 2022. The assets in the table below may only be used to settle obligations of consolidated VIEs and are in excess of those obligations. The holders of the beneficial interests do not have recourse to the general credit of Upstart Holdings, Inc. The assets and liabilities in the table below include third-party assets and liabilities of consolidated VIEs and exclude intercompany balances that eliminate in consolidation.

Upstart Holdings, Inc. Consolidated Balance Sheets

(In thousands, except share data)

	D	ecember 31, 2021	December 31, 2022
Assets			
Cash	\$	7,700	\$ 838
Restricted cash		79,561	13,147
Loans (at fair value)		245,972	958,822
Other assets (includes \$7,571 and \$2,244 at fair value as of December 31, 2021 and December 31, 2022, respectively)		8,792	11,674
Total assets	\$	342,025	\$ 984,481
Liabilities			
Borrowings	\$	48,536	\$ 336,452
Accrued expenses and other liabilities		778	1,378
Total liabilities		49,314	337,830
Total net assets	\$	292,711	\$ 646,651

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Operations and Comprehensive Income (Loss)

(In thousands, except share and per share data)

Year Ended December 31 2020 2021 2022 Revenue: Revenue from fees, net \$ 228,600 \$ 801,275 \$ 907,272 Interest income and fair value adjustments, net: Interest income 26,408 20,634 105,580 Interest expense (8,026)(3,274)(10,843)Fair value and other adjustments(a) 29,954 (13,566)(159,565)Total interest income and fair value adjustments, net 4,816 47,314 (64,828)Total revenue 233,416 848,589 842,444 Operating expenses: 99,659 Sales and marketing 333,453 345,776 187,994 37,581 117,579 Customer operations Engineering and product development 38,802 133,999 237,247 122,677 185,290 General, administrative, and other 45,609 956,307 Total operating expenses 221,651 707,708 Income (loss) from operations 11,765 140,881 (113,863)5,549 Other income (expense), net (5,174)9,473 (11,364)(4,684)Expense on warrants and convertible notes, net (1,976)5,950 133,731 (109,074)Net income (loss) before income taxes 371 (Benefit) provision for income taxes (1,712)(409)5,579 Net income (loss) before attribution to noncontrolling interests 135,443 (108,665)(404)Net loss attributable to noncontrolling interests 135,443 (108,665)5,983 Net income (loss) attributable to Upstart Holdings, Inc. common stockholders Net income (loss) attributable to Upstart Holdings, Inc. common stockholders per share, \$ 1.73 \$ basic (1.31)Net income (loss) attributable to Upstart Holdings, Inc. common stockholders per share, diluted \$ 1.43 \$ (1.31)Weighted-average number of shares outstanding used in computing net income per share (loss) attributable to Upstart Holdings, Inc. common stockholders, basic 17,513,670 78,106,359 82,771,268 Weighted-average number of shares outstanding used in computing net income (loss) per share attributable to Upstart Holdings, Inc. common stockholders, diluted 17,513,670 94,772,641 82,771,268

The accompanying notes are an integral part of these consolidated financial statements.

⁽a) Includes \$1,014 from related parties expense and \$4,238 of related parties fair value adjustments for the year ended December 31, 2020. There were no related party balances for the years ended year ended December 31, 2021 and 2022.

Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit)

(In thousands, except share data)

	Conver Preferred	l Stock	Common		Additional Paid-in	Retained Earnings (Accumulated	Total Upstart Holdings, Inc. Stockholders' Equity	Noncontrolling	Total Stockholders'
Balance as of December 31, 2019	Shares 47,349,577	Amount 162,546	Shares 14.561,398	Amount 8 2	Capital \$ 12.489	Deficit) \$ (75,205)	(Deficit) \$ (62,714)	Interest \$ 1.026	Equity (Deficit) \$ (61,688)
Conversion of convertible preferred	47,349,577	102,540	14,561,398	\$ 2	5 12,489	\$ (75,205)	\$ (62,/14)	\$ 1,026	5 (61,688)
stock to common stock upon initial public offering	(47,349,577)	(162,546)	47,349,577	4	162,542	_	162,546	_	162,546
Issuance of common stock upon initial public offering, net of underwriting discounts, commissions, and offering costs	_	_	9,000,000	Ī	159,487	_	159,488	_	159,488
Issuance of common stock upon exercise of stock options	_	_	1,284,468	_	2,362	_	2,362	_	2,362
Issuance of common stock in connection with an incentive agreement	_	_	282,750	_	1,696	_	1,696	_	1,696
Exercise of convertible preferred stock warrant into preferred stock and issuance of common stock upon initial public offering	_	_	600,208	_	12,183	_	12,183	_	12,183
Exercise of common stock warrants	_	_	235,625	_	2,971	_	2,971	_	2,971
Reclass of warrant liability upon termination of repurchase obligation	_	_	_	_	2,945	_	2,945	_	2,945
Stock-based compensation expense	_	_	_	_	12,005	_	12,005	_	12,005
Incentive share expense	_	_	_	_	787	_	787	_	787
Return of capital on interest in consolidated VIEs	_	_	_	_	_	_	_	(622)	(622)
Net income (loss)		_				5,983	5,983	(404)	5,579
Balance as of December 31, 2020	_	\$ —	73,314,026	\$ 7	\$ 369,467	\$ (69,222)	\$ 300,252	s —	\$ 300,252
Issuance of common stock upon exercise of stock options	_	_	7,047,722	_	14,736	_	14,736	_	14,736
Issuance of common stock upon settlement of restricted stock units	_	_	32,775	_	_	_	_	_	_
Exercise of common stock warrants	_	_	72,407	_	_	_	_	_	_
Stock-based compensation expense	_	_	_	_	76,327	_	76,327	_	76,327
Shares withheld related to net share settlement of restricted stock units	_	_	(1,730)	_	(236)	_	(236)	_	(236)
Issuance of common stock in connection with acquisition	_	_	650,740	_	71,003	_	71,003	_	71,003
Issuance of common stock in connection with follow-on offering, net of underwriting discounts, commissions, and offering costs	_	_	2,300,000	1	263,930	_	263,931	_	263,931
Issuance of common stock under employee stock purchase plan	_	_	243,725	-	4,145	_	4,145	_	4,145
Purchase of capped calls	_	_	_	_	(58,523)	_	(58,523)	_	(58,523)
Net income	_	_	_	_	_	135,443	135,443	_	135,443

Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit)

(In thousands, except share data)

-	Conver Preferred		Common	Common Stock Shares Amount		Retained Earnings (Accumulated Deficit)	Total Upstart Holdings, Inc. Stockholders' Equity (Deficit)	Noncontrolling Interest	Total Stockholders' Equity (Deficit)
Balance as of December 31, 2021	_	s –	83,659,665	\$ 8	\$ 740,849	\$ 66,221	\$ 807,078	\$ —	\$ 807,078
Issuance of common stock upon exercise of stock options	_	_	2,464,572	1	12,353	_	12,354		12,354
Issuance of common stock upon settlement of restricted stock units	_	_	866,717	_	_	_	_	_	_
Shares withheld related to net share settlement of restricted stock units	_	_	(619)	_	(16)	_	(16)	_	(16)
Repurchase and retirement of restricted stock	_	_	(10,279)	_	_	_	_	_	_
Stock-based compensation expense	_	_	_	_	131,905	_	131,905	_	131,905
Issuance of common stock under employee stock purchase plan	_	_	162,796	_	7,662	_	7,662	_	7,662
Repurchases of stock	_	_	(5,883,176)	(1)	(177,882)	_	(177,883)	_	(177,883)
Net loss	_	_	_	_	_	(108,665)	(108,665)	_	(108,665)
Balance as of December 31, 2022	_	s –	81,259,676	\$ 8	\$ 714,871	\$ (42,444)	\$ 672,435	s	\$ 672,435

The accompanying notes are an integral part of these consolidated financial statements.

Upstart Holdings, Inc. Consolidated Statements of Cash Flows

(In thousands)

		2020	 2021	2022
Cash flows from operating activities	'	_		
Net income (loss) before attribution to noncontrolling interests	\$	5,579	\$ 135,443 \$	(108,665)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:				
Change in fair value of financial instruments ^(a)		29,049	(228)	168,878
Stock-based compensation		11,513	73,186	125,945
Gain on loan servicing arrangement, net		(1,530)	(6,916)	(28,739)
Depreciation and amortization		2,278	7,541	13,513
Incentive share expense		787	_	_
Non-cash interest expense		73	1,983	3,047
Net changes in operating assets and liabilities:				
Purchase of loans held-for-sale		(2,657,075)	(8,932,604)	(7,807,429)
Proceeds from sale of loans held-for-sale		2,588,552	8,826,045	6,828,617
Principal payments received for loans held-for-sale		18,218	8,659	152,018
Other assets		(13,186)	(62,042)	4,173
Operating lease liability and right-of-use asset		251	3,126	10,204
Accounts payable		7,033	(7,513)	11,878
Payable to investors		19,446	62,097	(16,821)
Accrued expenses and other liabilities		4,709	59,576	(31,300)
Net cash provided by (used in) operating activities		15,697	168,353	(674,681)
Cash flows from investing activities				
Principal payments received for loans held by consolidated securitizations		24,018	_	_
Purchase of loans held-for-investment		(9,655)	(159,398)	(149,298)
Proceeds from sale of loans held-for-investment		97,340	51,403	14,289
Principal payments received for loans held-for-investment		15,758	24,532	43,311
Principal payments received for notes receivable and repayments of residual certificates		14,665	11,458	6,736
Purchase of non-marketable equity securities			(40,000)	(1,250)
Purchase of notes receivable and residual certificates		(4)	_	_
Purchase of property and equipment		(1,355)	(8,427)	(8,825)
Capitalized software costs		(4,250)	(6,688)	(14,088)
Purchase of certificates of deposit		_	_	(5,000)
Acquisition, net of cash acquired		_	(16,757)	_
Net cash provided by (used in) investing activities		136,517	(143,877)	(114,125)
Cash flows from financing activities				
Proceeds from initial public offering, net of underwriting discounts and offering costs		159,488	_	_
Proceeds from secondary offering, net of underwriting discounts, commissions, and offering costs			263,931	_

Upstart Holdings, Inc. Consolidated Statements of Cash Flows (Continued)

(In thousands)

	Year Ended December 31,					
		2020		2021		2022
Proceeds from borrowings		92,057		718,422		688,813
Payment of debt issuance costs		_		(15,727)		_
Purchase of capped calls		_		(58,523)		_
Taxes paid related to net share settlement of equity awards		_		(236)		(16)
Payments made on securitization notes and certificates(b)		(26,126)		_		_
Repayments of borrowings		(148,113)		(71,316)		(400,898)
Distributions made to noncontrolling interests		(622)		_		_
Proceeds from exercise of convertible preferred stock warrants		6		_		_
Proceeds from issuance of common stock under employee stock purchase plan		_		4,145		7,662
Proceeds from exercise of stock options		2,362		14,736		12,354
Repurchases of common stock				_		(177,883)
Net cash provided by financing activities		79,052		855,432		130,032
Change in cash and restricted cash		231,266		879,908		(658,774)
Cash and restricted cash						
Cash and restricted cash at beginning of year		80,067		311,333		1,191,241
Cash and restricted cash at end of year	\$	311,333	\$	1,191,241	\$	532,467
Supplemental disclosures of cash flow information						
Cash paid for interest	\$	8,028	\$	3,274	\$	12,473
Cash paid for income taxes				2,300		328
Cash paid for amounts included in the measurement of lease liabilities		4,158		4,553		11,084
Supplemental disclosures of non-cash investing and financing activities						
Capitalized stock-based compensation expense	\$	492	\$	3,141	\$	5,960
Residual certificates retained under unconsolidated securitization		_				4,680
Reclassification of common stock warrant liability related to cashless exercise		2,971		_		
Reclassification of preferred stock warrant liability related to cash exercise		12,177		_		_
Reclassification of common stock warrant liability to equity upon termination of repurchase option		2,945		_		_
Issuance of common stock in connection with acquisition				80,256		_

⁽a) Includes \$(4,238) from related parties for the year ended December 31, 2020. There were no related party balances for the year ended December 31, 2021 and 2022.

⁽b) Includes \$1,034 paid to related parties for the year ended December 31, 2020. There were no related party balances for the year ended December 31, 2021 and 2022.

Upstart Holdings, Inc. Consolidated Statements of Cash Flows (Continued)

(In thousands)

The following presents cash and restricted cash by category within the consolidated balance sheets:

		December 31, 2021			December 31, 2022
Cash	\$	S	986,608	\$	422,411
Restricted cash			204,633		110,056
Total cash and restricted cash	<u> </u>	5 1	,191,241	\$	532,467

The accompanying notes are an integral part of these consolidated financial statements.

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

1. Description of Business and Significant Accounting Policies

Description of Business

Upstart Holdings, Inc. and its subsidiaries (together "Upstart", the "Company", "we", or "our") apply modern data science and technology to the process of originating consumer credit. The Company helps originate credit, including personal and auto loans, by providing lending partners with access to a proprietary, cloud-based, artificial intelligence lending marketplace. As the Company's technology continues to improve and additional lending partners adopt the Upstart platform, consumers benefit from improved access to affordable and frictionless credit. The Company currently operates in the United States and is headquartered in San Mateo, California and Columbus, Ohio. The Company's fiscal year ends on December 31.

Basis of Presentation and Consolidation

The Company has one reportable segment. The Company's chief operating decision maker, the Chief Executive Officer, reviews financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance. The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP") and include the accounts of the Company, its wholly-owned subsidiaries, and consolidated variable interest entities ("VIEs"). All intercompany accounts and transactions have been eliminated. The Company's functional and reporting currency is the U.S. dollar.

Initial Public Offering

On December 16, 2020, the Company completed an IPO, in which 9,000,000 shares of common stock were issued and sold at \$20.00 per share, resulting in net proceeds of \$167.4 million after deducting underwriting discounts and commissions of \$12.6 million.

In November 2020, the outstanding Series B preferred stock warrant was exercised to purchase 600,208 shares of preferred stock. Upon consummation of the IPO in December 2020, the related 600,208 shares of preferred stock automatically converted into common stock. Additionally, all shares of convertible preferred stock outstanding automatically converted into 47,349,577 shares of common stock.

The Company incurred deferred offering costs consisting primarily of incremental accounting, legal, and other fees related to the IPO. Prior to the IPO, all deferred offering costs were capitalized within other assets on the consolidated balance sheets. Upon completion of the IPO, \$7.9 million of deferred offering costs were reclassified into stockholders' equity (deficit) as a reduction of the net proceeds received from the IPO.

Follow-on Offering

On April 13, 2021, the Company completed a follow-on offering, in which 2,300,000 shares of common stock (including the exercise in full of the underwriters' option to purchase 300,000 additional shares) were issued and sold at \$120.00 per share. The Company received net proceeds of \$263.9 million after deducting underwriting discounts and commissions of \$11.0 million and offering expenses of \$1.0 million. Offering expenses consisted of incremental accounting, legal, and other fees incurred related to the follow-on offering.

Use of Estimates

The preparation of the consolidated financial statements in conformity with GAAP requires that management make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods.

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

Significant estimates and assumptions made in the accompanying consolidated financial statements, which Management believes are critical in understanding and evaluating the Company's reported financial results include: (i) fair value determinations; (ii) stock-based compensation; (iii) consolidation of VIEs; and (iv) the evaluation for impairment of goodwill and acquired intangible assets. The Company bases its estimates on various factors it believes to be reasonable under the circumstances. Actual results could differ from those estimates and such differences could affect the results of operations reported in future periods.

Variable Interest Entities

A legal entity is considered a VIE if it has either a total equity investment that is insufficient to finance its operations without additional subordinated financial support or whose equity holders lack the characteristics of a controlling financial interest. The Company's variable interests arise from contractual, ownership, or other monetary interests in the entity. The Company consolidates a VIE when it is deemed to be the primary beneficiary. The Company determines it is the primary beneficiary if it has the power to direct activities that most significantly impact the VIE's economic performance and has the obligation to absorb losses or the right to receive benefits of the VIE that could be potentially significant to the VIE. The Company assesses whether or not it is the primary beneficiary of a VIE on an ongoing basis.

Cash and Restricted Cash

Cash consists of bank deposits held in business checking and interest-bearing deposit accounts. As of December 31, 2021 and 2022, the Company did not have any cash equivalent balances, defined as highly liquid financial instruments purchased with original maturities of three months or less.

Restricted cash primarily consists of deposit accounts that are held in our custody but restricted for regulatory or legal purposes. This balance includes amounts that are: (i) received from borrowers for interest and principal applied to loans as part of loan servicing, but not yet distributed to institutional investors; (ii) collateral for financing of loan purchases on the Upstart platform; (iii) purchase price received from institutional investors; (iv) collateral for letters of credit the Company is required to maintain under its operating lease agreements; and (v) pledged collateral under the Company's warehouse facilities.

Fair Value Measurement

Assets and liabilities recorded at fair value on a recurring basis on the consolidated balance sheets are categorized based upon the level of judgment associated with the inputs used to measure their fair values. Fair value is defined as the exchange price that would be received for an asset or an exit price that would be paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The price used to measure fair value is not adjusted for transaction costs. The principal market is the market in which the Company would sell or transfer the asset with the greatest volume and level of activity for the asset. In determining the principal market for an asset or liability, it is assumed that the Company has access to the market as of the measurement date. If no market for the asset exists, or if the Company does not have access to the principal market, a hypothetical market is used.

The authoritative guidance on fair value measurements establishes a three-tier fair value hierarchy for disclosure of fair value measurements as follows:

Level 1—Unadjusted quoted market prices in active markets for identical assets or liabilities;

Level 2— Inputs (other than quoted prices included in Level 1) are either directly or indirectly observable for the asset or liability. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active; and

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

Level 3— Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Assets and liabilities measured at fair value on a recurring basis include loans, notes receivable and residual certificates, loan servicing assets and liabilities, and trailing fee liabilities. When developing fair value measurements, the Company maximizes the use of observable inputs and minimizes the use of unobservable inputs.

However, for certain instruments, the Company must utilize unobservable inputs in determining fair value due to the lack of observable inputs in the market, which requires greater judgment in measuring fair value. In instances where there is limited or no observable market data, fair value measurements for assets and liabilities are based primarily upon the Company's own estimates, and the measurements reflect information and assumptions that management believes a market participant would use in pricing the asset or liability.

Financial Instruments not Measured at Fair Value

The Company's financial instruments not measured at fair value consist primarily of cash, restricted cash, and other assets (excluding certain financial instruments, which are measured at fair value, such as loan servicing assets), accounts payable, payable to investors, and other liabilities (excluding certain financial instruments, such as loan servicing liabilities and trailing fee liabilities which are measured at fair value). Payable to investors includes amounts of loan repayments not yet distributed to institutional investors, as well as amounts received from institutional investors but not yet invested directly in whole loans or notes payable. The carrying values of these financial instruments are approximates of their respective fair values due to their short-term nature.

Borrowings are presented at par, net of debt issuance costs and amortized over the contractual term using the effective interest method, with accrued interest included as part of accrued expenses and other liabilities on the consolidated balance sheets. The carrying value of borrowings associated with the warehouse credit facilities and risk retention funding loans approximates the fair value due to their relatively short maturities. The estimated fair value of the Notes as of December 31, 2021 and 2022 was approximately \$627.5 million and \$364.8 million, respectively, which represent Level 2 valuations in the fair value hierarchy. The estimated fair value was determined based on the estimated or actual bids and offers of the Notes in an over-the-counter market. The carrying value of the Notes of December 31, 2021 and 2022 was \$646.9 million and \$649.9 million, respectively.

Transfer of Financial Assets

Upstart-powered loans originated by lending partners are either retained by the lending partners, purchased by the Company and immediately sold to institutional investors under loan sale agreements, or purchased and held by the Company for a period of time before being sold to third-party investors, or held to maturity by the Company for the primary purpose of product research and development. Loans retained and held on the Company's consolidated balance sheets are classified as either held-for-investment or held-for-sale, and loans purchased for immediate resale to third-party investors are classified as held-for-sale. Immediate loan resales to institutional investors are accounted for as transfers of financial assets when the Company surrenders control of these loan assets. These sales typically occur shortly after the origination of the loans by the lending partner and the Company's subsequent acquisition of the loans from the originating lending partner. Loans sold to institutional investors are derecognized from the Company's consolidated balance sheets at the time of sale in accordance with the Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") 2014-11 Topic 860, Transfers and Servicing. The Company records an asset or a liability at fair value for its estimated post-sale servicing obligations. The Company also records liabilities net of fair value for contingent obligations to repurchase loans that do not conform to the representations and warranties made to the loan purchaser at the time of sale. These liabilities are included within other liabilities on the Company's consolidated balance sheets.

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Loan Servicing Assets and Liabilities

Loan servicing assets and liabilities are recognized at fair value when the Company transfers loans, which qualify as sales under Topic 860 with servicing rights retained or when the Company enters into servicing agreements with lending partners who retain Upstart-powered loans. A loan servicing asset or liability exists depending on whether the revenue from servicing is expected to more than adequately compensate the Company for carrying out its servicing obligations.

Loan servicing assets and liabilities are recorded in other assets and other liabilities, respectively, in the consolidated balance sheets, with changes in fair value recorded in servicing revenue, net, which is part of revenue from fees, net in the consolidated statements of operations and comprehensive income (loss). Refer to "Note 2. Revenue" for further details.

Property, Equipment, and Software, Net

Property, equipment, and software are stated at cost less accumulated depreciation and amortization. Depreciation and amortization are recognized using the straight-line method over the estimated useful lives of the assets, which are generally three years for internally developed software, computer and networking equipment, and furniture and fixtures. Leasehold improvements are depreciated over the shorter of the remaining lease term or the estimated useful life.

Internally developed software is capitalized upon completion of the preliminary project stage, when it becomes probable that the project will be completed, and the software will be used as intended. Capitalized costs primarily consist of salaries and payroll related costs for employees directly involved in development efforts. Costs related to the preliminary project stage and activities occurring after the implementation of the software are expensed as incurred. Costs incurred for software upgrades are capitalized if they result in additional functionalities or substantial enhancements.

The Company evaluates its long-lived assets for potential impairment when events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. When such an event occurs the carrying amount of the asset is reduced to its estimated fair value. There were no impairments of long-lived assets as of December 31, 2021 and 2022.

Leases

The Company determines if an arrangement is or contains a lease at inception. Operating leases are recorded on the consolidated balance sheets with right-of-use assets representing the right to use the underlying asset and lease liabilities representing the obligation to make lease payments. Right-of-use assets ("ROU") and lease liabilities are recognized at lease commencement primarily based on the present value of lease payments over the lease term, and as necessary, at modification. The operating lease ROU assets also include any initial direct costs, lease payments made prior to lease commencement, and lease incentives received. Variable lease payments are expensed as incurred and are not included within the ROU asset and lease liability calculation. Variable lease payments primarily include reimbursements of costs incurred by lessors for common area maintenance and utilities. The Company's lease terms are the non-cancelable period including any rent-free periods provided by the lessor and may include options to extend or terminate the lease when it is reasonably certain that it will exercise that option. At lease inception, and in subsequent periods as necessary, the Company estimates the lease term based on its assessment of extension and termination options that are reasonably certain to be exercised. Lease costs for lease payments are recognized on a straight-line basis over the lease term. As the rate implicit on the Company's leases is not readily determinable, the Company uses its secured incremental borrowing rate to determine the present value of lease payments. The incremental borrowing rate is the rate of interest that the Company would have to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term and in a similar economic environment. As of December 31, 2021 and 2022, the Company did not have any material finance leases.

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The Company has elected not to separate lease and non-lease components for any leases within its existing classes of assets and, as a result, accounts for any lease and non-lease components as a single lease component. The Company has immaterial leases with a term of 12 months or less.

Revenue Recognition

The Company's revenue consists of two components: revenue from fees, net and interest income and fair value adjustments, net. The revenue from fees, net line item on the consolidated statements of operations and comprehensive income (loss) is primarily comprised of platform and referral fees, net, which are recognized based on FASB ASU 2014-09 Topic 606, Revenue from Contracts with Customers. Refer to "Note 2. Revenue" for further information.

Operating Expenses

Sales and marketing

Sales and marketing expenses primarily consist of costs incurred across various advertising channels, including expenses for partnerships with third-parties providing borrower referrals, direct mail and digital advertising campaigns, as well as other expenses associated with building overall brand awareness and experiential marketing costs. Sales and marketing expenses also include payroll and other personnel-related costs, including stock-based compensation expense, for related teams. These costs are recognized in the period incurred.

Customer operations

Customer operations expenses include payroll and other personnel-related expenses, including stock-based compensation expense, for personnel engaged in onboarding, loan servicing, customer support and other related operational teams. These costs also include costs of third-party collection agencies and other systems and tools the Company uses as part of information verification, fraud detection, and payment processing activities. These costs are recognized in the period incurred.

Engineering and product development

Engineering and product development expenses primarily consist of payroll and other employee-related expenses, including stock-based compensation expenses, for the engineering and product development teams as well as the costs of systems and tools used by these teams. These costs are recognized in the period incurred.

General, administrative, and other

General, administrative, and other expenses consist primarily of payroll and other employee-related expenses, including stock-based compensation expense for legal and compliance, finance and accounting, human resources and facilities teams, as well as depreciation and amortization of property, equipment and software, professional services fees, facilities and travel expenses. These costs are recognized in the period incurred.

Stock-Based Compensation

The Company issues stock options, restricted stock units ("RSUs"), performance-based restricted stock units ("PRSUs"), and restricted stock to employees and non-employees, including directors and third-party service providers, and employee stock purchase rights granted under the Company's employee stock purchase plan ("ESPP"). Stock options and employee stock purchase rights granted under the ESPP are initially measured at fair value at the date of grant using the Black-Scholes option-pricing model. RSUs and restricted stock are measured at the fair market value of our common stock at the grant date. PRSUs are initially measured at fair value using a Monte Carlo simulation model. Stock-based compensation expenses are recognized based on their respective grant-date fair values. Forfeitures are estimated at the time of grant and revised, as necessary, in subsequent periods if

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actual forfeitures differ from initial estimates. Stock-based compensation expense is recorded net of estimated forfeitures, such that the expense is recorded only for those awards that are expected to vest.

Business Combinations

The Company accounts for business combinations using the acquisition method of accounting which requires the fair values of assets acquired and liabilities assumed to be recognized in the consolidated financial statements. Assets acquired and liabilities assumed in a business combination are recognized at their estimated fair value as of the acquisition date. The excess purchase price over the fair value of assets acquired and liabilities assumed is recorded as goodwill. The allocation of fair values may be subject to adjustment after the initial allocation for up to a one-year period, with the corresponding offset to goodwill. Acquisition-related costs, such as legal and consulting fees, are recognized separately from the business combination and are expensed as incurred.

Non-marketable Equity Securities

The Company's strategic investments consists of non-marketable equity securities on the consolidated balance sheets which are investments in privately held companies. Non-marketable equity securities do not have a readily determinable fair value and are measured by the Company at cost less impairment, if any, and adjusted for changes resulting from observable price changes in orderly transactions for an identical or similar investment in the same issuer (the "measurement alternative"). Gains and losses on the investment, realized and unrealized, are recognized in other income (expense), net on our consolidated statements of operations and comprehensive income (loss) and a new carrying value is established for the investment upon such recognition of the gains and losses. There have been no unrealized or realized gains and losses or impairments related to the non-marketable equity securities accounted for under the measurement alternative for the years presented. As of December 31, 2021 and 2022, the carrying value of our non-marketable equity securities was \$40.0 million and \$41.3 million respectively.

The determination of whether an orderly transaction is for an identical or similar investment requires significant management judgment. In its evaluation, the Company considers factors such as differences in the rights and preferences of the investment and the extent to which those differences would affect the fair value of the investment. In the event the Company identifies an observable price change from an orderly transaction for an identical or similar investment of the same issuer, the Company must estimate the fair value of its strategic investments using the most recent data available. The Company's impairment analysis encompasses an assessment of both qualitative and quantitative factors.

Goodwill and Intangible Assets

Goodwill represents the excess of the purchase price over the fair value of identifiable net assets acquired. Goodwill is reviewed for impairment annually, or more frequently if an event or a change in circumstances indicates that goodwill may be impaired. We first assess qualitative factors to determine if it is more likely than not that the fair value of the reporting unit is less than its carrying value. Examples of qualitative factors include, but are not limited to, a significant adverse change in legal factors or in the business climate, a significant decline in our stock price, a significant decline in our projected revenue or cash flows, or the presence of other indicators that would indicate a reduction in the fair value of a reporting unit. If the Company concludes that it is more likely than not that the fair value of the reporting unit is less than its carrying value, a quantitative test is performed. We perform a quantitative goodwill impairment test by determining the fair value of the reporting unit and comparing it to the carrying value of the reporting unit. If the fair value of the reporting unit is greater than the reporting unit's carrying value, then the carrying value of the reporting unit is deemed to be recoverable. If the carrying value of the reporting unit is greater than the reporting unit's fair value, goodwill is impaired and written down to the reporting unit's fair value.

Acquired intangible assets are recorded at fair value on the date of acquisition and amortized on a straight-line basis over their estimated useful lives. Acquired intangible assets are presented net of accumulated amortization on the consolidated balance sheets. The Company reviews the carrying amounts of intangible assets for impairment

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whenever an event or change in circumstances indicates that the carrying amount of the assets may not be recoverable. We measure the recoverability of intangible assets by comparing the carrying amount of each asset to the future undiscounted cash flows we expect the asset to generate. Impairment is measured by the amount in which the carrying value of the asset exceeds its fair value. In addition, we periodically evaluate the estimated remaining useful lives of long-lived intangible assets to determine whether events or changes in circumstances warrant a revision to the remaining period of amortization.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance may be established to reduce the deferred tax asset to the level at which it is "more likely than not" that the tax asset or benefits will be realized. Realization of tax benefits of deductible temporary differences and operating loss carryforwards depends on having sufficient taxable income of an appropriate character within the carry back or carryforward periods.

The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained upon review by the taxing authority. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

Other Income (Expense), Net

In April 2020, the Company received a forgivable loan under the Paycheck Protection Program ("PPP"), totaling \$5.3 million with a stated annual interest rate of 1%. All loan payments are deferred for six months if not forgiven under the provisions of the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"). The loan and accrued interest are forgivable for borrowers who use the loan proceeds for eligible expenses during a twenty-four week period following the borrower's receipt of the loan and maintain payroll and employee headcount. The Company has used the full proceeds of the loan for eligible expenses within the required period. The Company determined that forgiveness of the loan under the CARES Act was reasonably assured and recorded the full amount of proceeds as other income in the consolidated statement of operations and comprehensive income (loss) in 2020. In March 2021, the Company voluntarily repaid proceeds received under the Paycheck Protection Program plus accrued interest totaling \$5.3 million. The Company recognized the loan principal repayment as an other expense.

In the year ended December 31, 2022, Other income (expense), net primarily consists of dividend income earned by the Company on its unrestricted cash balance which is recognized in the period earned.

Net Income (Loss) Per Share Attributable to Common Stockholders of Upstart Holdings, Inc. Stockholders

The Company follows the two-class method when computing net income (loss) per common share when shares are issued that meet the definition of participating securities. The two-class method determines net income (loss) per common share for each class of common stock and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires income available to common stockholders for the period to be allocated between common stock and participating securities based upon their respective rights to receive dividends as if all income for the period had been distributed. The Company's convertible preferred stock contractually entitles the holders of such shares to participate in dividends but does not contractually require the holders of such shares to participate in the Company's losses. Accordingly, for the periods

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where the Company is in a net loss position, the Company does not allocate any net loss attributable to common stockholders to the convertible preferred stock.

Basic net income (loss) per share attributable to common stockholders is computed by dividing the net income (loss) attributable to common stockholders by the weighted-average number of common shares outstanding for the period.

Diluted net income (loss) per share is the amount of net income (loss) available to each share of common stock outstanding during the reporting period, adjusted to include the effect of potentially dilutive common shares. Potentially dilutive common shares include incremental shares issued for convertible preferred stock, stock options, unvested RSUs, purchase rights committed under the ESPP, convertible debt, warrants to purchase convertible preferred stock and warrants to purchase common stock. The calculation of diluted net income (loss) per share excludes all anti-dilutive common shares. For periods in which the Company reports net losses, basic and diluted net loss per share attributable to Upstart Holdings, Inc.'s common stockholders are the same because potentially dilutive common shares are not assumed to have been issued if their effect is anti-dilutive.

Recently Adopted Accounting Pronouncements

The Company did not adopt any new accounting standard during the year ended December 31, 2022:

Recently Issued Accounting Pronouncements

In March 2020, the FASB issued ASU 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting followed by ASU 2021-01, Reference Rate Reform, Scope issued in January 2021 and ASU 2022-06 in December 2022. ASU 2020-04, ASU 2021-01 and ASU 2022-06 provide temporary optional expedients and exceptions for applying U.S. GAAP to contracts, hedging relationships, and other transactions that reference the London Interbank Offered Rate or another reference rate expected to be discontinued because of reference rate reform, if certain criteria are met. The optional guidance in ASU 2020-04, ASU 2021-01, and ASU 2022-06 is effective for a limited period of time through December 31, 2024 and may be applied prospectively to contract modifications and hedging relationships. The Company does not expect the adoption of this guidance will have a material impact on the Company's consolidated financial statements or related disclosures.

In October 2021, the FASB issued ASU 2021-08, Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers. The new guidance requires contract assets and contract liabilities acquired in a business combination to be recognized and measured by the acquirer on the acquisition date in accordance with ASC 606, Revenue from Contracts with Customers, as if it had originated the contracts. Under the current business combinations guidance, such assets and liabilities are recognized by the acquirer at fair value on the acquisition date. The ASU is effective December 15, 2022, with early adoption permitted. The ASU is to be applied prospectively to business combinations occurring on or after the effective date of the amendment (or if adopted early as of an interim period, as of the beginning of the fiscal year that includes the interim period of early application). This standard has no impact on acquired contract assets or liabilities from business combinations occurring prior to the effective date of adoption. The Company does not expect the adoption of this guidance will have a material impact on the Company's condensed consolidated financial statements or related disclosures.

2. Revenue

Revenue from fees, net

The Company disaggregates revenue from fees by type of service for the years presented as follows:

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Year Ended December 31 2020 2021 2022 Revenue from fees, net: \$ \$ \$ 732,237 Platform and referral fees, net 200,257 726,161 Servicing and other fees, net 28,343 75,114 175,035 Total revenue from fees, net 228,600 801.275 907 272

Platform and referral fees, net

The Company enters into contracts with lending partners to provide access to a cloud-based artificial intelligence lending marketplace developed by the Company (the "Upstart platform") to enable lending partners to originate unsecured personal and secured auto loans. The Upstart platform includes a cloud-based application (through Upstart.com or a lending partner-branded program) for submitting loan applications, verifying information provided within submitted applications, risk underwriting (through a series of proprietary technology solutions), delivery of electronic loan offers, and if the offer is accepted by the borrower, electronic loan documentation signed by the borrower. Lending partners can specify certain parameters of loans they are willing to originate. Under these contracts, lending partners can choose to use Upstart's referral services, which allow them to access new borrowers through Upstart's marketing channels.

After origination, Upstart-powered loans are either retained by lending partners, purchased by the Company for immediate resale to institutional investors under loan sale agreements, or purchased and held by the Company. For loans purchased by the Company, Upstart pays lending partners a one-time loan premium fee upon completion of the minimum contractual holding period. Upstart also pays lending partners monthly loan trailing fees based on the amount and timing of principal and interest payments made by borrowers of the underlying loans. Both the loan premium fees and loan trailing fees are consideration payable to customers and are recorded as a reduction to platform and referral fees, net, which is part of revenue from fees, net, in the consolidated statements of operations and comprehensive income (loss). The Company recognized \$8.3 million, \$23.6 million, and \$27.7 million of loan premium fees and loan trailing fees as contrarevenue within platform and referral fees, net during the year ended December 31, 2020, 2021 and 2022 respectively.

As of December 31, 2021 and 2022, the Company recognized \$4.3 million and \$4.9 million of loan trailing fee liability, respectively, which is recorded at fair value and included within accrued expenses and other liabilities on the Company's consolidated balance sheets. Refer to "Note 4. Fair Value Measurement" for additional information on changes in fair value associated with trailing fee liabilities.

The Company's arrangements for platform and referral services typically consist of an obligation to provide one or both of these services to customers, which are our lending partners, on a when and if needed basis (a stand-ready obligation), and revenue is recognized as such services are performed. Additionally, the services have the same pattern and period of transfer, and when provided individually or together, are accounted for as a single combined performance obligation representing a series of distinct services.

Platform and referral services are typically provided under a fixed or variable price per unit based on a percentage of the value of loans originated each period with certain lending partners subject to minimum fees; however, pricing for these services may also be based on usage fees, calculated as a percentage of each loan originated. The nature of the Company's promise is to stand-ready and provide continuous access to and process transactions through the platform. Platform and referral fees represent variable consideration as loan origination volume is not known at contract inception. These fees are determined each time a loan is originated. Fees for platform and referral services are typically billed and paid on either a daily or monthly basis. As such, the Company's contracts with customers do not include a significant financing component.

The Company had no material contract assets, contract liabilities, or deferred contract costs recorded as of December 31, 2021 and 2022. The Company had \$44.8 million and \$31.1 million of accounts receivable that are

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included in other assets on the consolidated balance sheets related to contracts with customers as of December 31, 2021 and 2022, respectively. The standard payment terms on accounts receivable are 30 days. The Company's allowance for bad debt and bad debt expense were immaterial for the years presented.

The Company capitalizes incremental costs of obtaining a contract with a customer, which are certain sales commissions paid to employees in connection with the acquisition of lending partners. Capitalized costs are amortized over the expected period of benefit, which we have determined, based on an analysis, to be three years. The Company applies the practical expedient to expense costs to obtain contracts with customers if the amortization period is one year or less. As of December 31, 2021 and 2022, the Company had an immaterial amount of contract costs capitalized within other assets on the consolidated balance sheets. The Company amortized an immaterial amount of capitalized contracts costs to sales and marketing in the consolidated statements of operations and comprehensive income (loss) for the years presented.

Customers accounting for greater than 10% of total revenue were as follows:

	Y	Year Ended December 31,					
	2020	2021	2022				
Customer A	63%	56%	45%				
Customer B	18%	27%	28%				

Customers accounting for greater than 10% of accounts receivable were as follows:

	December 31,	December 31,
	2021	2022
Customer C	25%	23%
Customer D	33%	*

^{*} Less than 10%

Servicing and other fees, net

The Company also enters into contracts with lending partners and institutional investors to provide loan servicing for the life of Upstart-powered loans. These services commence upon origination of these loans by lending partners and include collection, processing and reconciliations of payments received, institutional investor reporting and borrower customer support as well as distribution of funds to the holders of the loans. The Company charges the loan holder a monthly servicing fee calculated based on a predetermined percentage of the outstanding principal balance. Servicing fees also include certain ancillary fees charged on a per transaction basis for processing late payments and payments declined due to insufficient funds. Servicing fees are recognized in the period the services are provided. Loan servicing fees are not within the scope of ASC 606 and are accounted for under ASC 860, Transfers and Servicing.

Servicing and other fees, net also include gains and losses on assets and liabilities recognized under loan servicing arrangements for loans retained by lending partners or loans sold to institutional investors. Such gains or losses are recognized based on whether the benefits of servicing are expected to be more or less than adequate compensation for servicing obligations performed by the Company. Servicing fees also include changes in fair value of loan servicing assets and liabilities in the years presented. Refer to "Note 4. Fair Value Measurement" for additional information on changes in fair value associated with servicing assets and liabilities.

The Company recognized a net gain related to loan servicing rights upon loan sales for the years presented as follows:

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	 Year Ended December 31,					
	 2020 2021 2022			2022		
Net gain related to loan servicing rights	\$ 1,530	\$	6,916	\$	28,739	

The Company charges lending partners and institutional investors for collection agency fees related to their outstanding loan portfolio. The Company either performs borrower collection activities in-house, or outsources to third-party collection agencies particularly for loans that are more than 30 days past due or charged off. The Company has discretion in hiring the collection agencies and determining the scope of their work. As the principal in the arrangement, the Company recognizes gross revenue from collection agency fees in the period that the services are provided. Upstart also receives certain ancillary borrower fees inclusive of late payment fees and ACH fail fees. Revenue from collection agency fees and borrower fees are included in servicing and other fees, net as part of revenue from fees, net in the Company's consolidated statements of operations and comprehensive income (loss). The total fees charged by collection agencies are also recognized in the period incurred and reported as part of customer operations expenses.

The Company recognized collection agency fees and borrower fees, which are included in servicing and other fees, net for the years presented as follows:

	Year Ended December 31,						
		2020		2021		2022	
Collection agency fees	\$	2,777	\$	4,473	\$	10,519	
Borrower fees	\$	2,093	\$	7,289	\$	25,208	

Interest Income and Fair Value Adjustments, Net

Interest income and fair value adjustments, net is comprised of interest income, interest expense and net changes in the fair value of financial instruments, held in the Company's normal course of business at fair value, including loans and notes receivable and residual certificates.

The following table presents components of the interest income and fair value adjustments, net presented in the Company's consolidated statements of operations and comprehensive income (loss):

	Year Ended December 31,						
	2020	2021	2022				
Interest income	26,408	\$ 20,634	\$ 105,580				
Interest expense	(8,026)	(3,274)	(10,843)				
Fair value and other adjustments							
Unrealized gain (loss), charge-offs, and other adjustments, net	(11,459)	1,894	(101,422)				
Realized gain (loss) on sale of loans, net(1)	(2,107)	28,060	(58,143)				
Total fair value and other adjustments	(13,566)	29,954	(159,565)				
Total interest income and fair value adjustments, net	\$ 4,816	\$ 47,314	\$ (64,828)				

Includes \$(2.1) million and \$28.1 million of income (loss) from capital market programs, net for the year ended December 31, 2020 and 2021, respectively. There was no income (loss) recognized from capital market programs, net for the year ended December 31, 2022.

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Interest income

Interest income is recognized based on the terms of the underlying agreements with borrowers for loans held on the Company's consolidated balance sheets and is earned over the life of a loan.

Interest income also includes accrued interest earned on outstanding loans but not collected. Loans that have reached a delinquency of over 120 days are classified as non-accrual status and any accrued interest recorded in relation to these loans is reversed in the respective period. The Company does not record an allowance for credit losses on accrued interest receivable. As of December 31, 2021 and 2022, the Company has recorded \$2.6 million and \$12.8 million of accrued interest income in loans on the consolidated balance sheets, respectively.

Interest expense

Interest expense is primarily related to interest recorded on the Company's borrowings on warehouse credit facilities. Interest expense includes accrued interest incurred but not paid. Accrued interest expenses were immaterial as of December 31, 2021 and 2022.

Fair value and other adjustments, net

Fair value and other adjustments, net include changes in fair value of financial instruments, other than loan servicing assets and liabilities. These adjustments are recorded in the Company's consolidated statements of operations and comprehensive income (loss) and include both realized and unrealized changes to the value of related assets and liabilities. Refer to "Note 4. Fair Value Measurement" for additional information.

Fair value and other adjustments, net also includes gain (loss) recognized through our capital markets programs and amounts received from borrowers for previously charged-off loans held on the Company's consolidated balance sheets. These amounts are recognized in the period when amounts are received or the transaction is completed.

3. Variable Interest Entities

Consolidated VIEs

The Company consolidates VIEs in which the Company has a variable interest and is determined to be the primary beneficiary. This determination is based on whether the Company has a variable interest (or combination of variable interests) that provides the Company with (a) the power to direct the activities that most significantly impact the VIE's economic performance and (b) the obligation to absorb losses or right to receive benefits that could be potentially significant to the VIE. The Company continually reassesses whether it is the primary beneficiary of a VIE throughout the entire period the Company is involved with the VIE.

The Company also determines whether decision-maker or service-provider fees are variable interests. Decision-maker or service-provider fees are not considered variable interests when the arrangement does not expose the Company to risks of loss that a potential VIE was designed to pass on to its variable interest holders, the fees are commensurate, the arrangement is at market, and the Company does not have any other interests (including direct interests and certain indirect interests held through related parties) that absorb more than an insignificant amount of a VIE's potential variability. This determination can have a significant impact on the Company's consolidation analysis, as it could affect whether a legal entity is a VIE and whether the Company is the primary beneficiary of a VIE. When the Company's decision-maker or service-provider fee is not a variable interest, the Company is viewed as acting as a fiduciary for the potential VIE.

Warehouse Entities

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The Company established Upstart Loan Trust and Upstart Auto Warehouse Trust to enter into warehouse credit facilities for the purpose of purchasing Upstart-powered loans. See "*Note 8. Borrowings*" for additional information. The entities are Delaware statutory trusts that are structured to be bankruptcy-remote, with third-party banks operating as trustees.

Other Consolidated VIE

Upstart Loan Trust 2, a Delaware statutory trust, holds loans facilitated through the Upstart platform that are not pledged or eligible to be pledged to the Company's warehouse credit facilities.

The following tables present a summary of financial assets and liabilities from the Company's involvement with consolidated VIEs:

	Assets		Liabilities		Net Assets
December 31, 2021					
Total consolidated VIEs	\$ 342,025	\$	49,314	\$	292,711
	Assets Liabilities			Net Assets	
December 31, 2022					
Total consolidated VIEs	\$ 984,481	\$	337,830	\$	646,651

The Company's continued involvement in all of its securitizations in which it is the sponsor includes loan servicing rights and obligations for which it receives servicing fees over the life of the underlying loans. The Company monitors its status as the primary beneficiary and in case of reconsideration events, updates the analysis accordingly.

Unconsolidated VIEs

The Company's transactions with unconsolidated VIEs include securitizations of unsecured personal whole loans and sales of whole loans to VIEs. While the Company continues to be involved with the unconsolidated VIEs in its role as the sponsor and the servicer of these transactions, the Company does not hold a significant economic interest in these entities and has determined that it is not the primary beneficiary of these entities. The Company's unconsolidated VIEs include entities established as the issuers and grantor trusts for various securitization transactions.

In cases where the VIEs are not consolidated and the transfer of the loans from the Company to the securitization trust meets sale accounting criteria, the Company recognizes a gain or loss on sales of loans. The net proceeds of the sale represent the fair value of any assets obtained or liabilities incurred as part of the transaction. The assets are transferred into a trust such that the assets are legally isolated from the creditors of the Company and are not available to satisfy obligations of the Company. These assets can only be used to settle obligations of the underlying securitization trusts.

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

The following tables summarize the aggregate value of assets and liabilities of unconsolidated VIEs in which the Company holds a variable interest but is not the primary beneficiary:

	Assets	Liabilities	Net Assets	Ma	aximum Exposure to Losses
December 31, 2021					
Securitizations and other	\$ 217,321	\$ 160,248	\$ 57,073	\$	15,503

	Assets	Liabilities	Net Assets	M	aximum Exposure to Losses
December 31, 2022					
Securitizations and other	\$ 364,013	\$ 265,040	\$ 98,973	\$	13,311

The Company's maximum exposure to loss from its involvement with unconsolidated VIEs represents the estimated loss that would be incurred under severe, hypothetical circumstances, for which the Company believes the possibility is remote, such as where the value of securitization notes and senior and residual certificates the Company holds as part of the risk retention requirement declines to zero.

The investors and the securitization trusts have no direct recourse to the Company's assets, and holders of the securities issued by the securitization trusts can look only to the assets of the securitization trusts that issued their securities for payment. The beneficial interests held by the Company and its affiliates are subject principally to the credit and prepayment risk stemming from the underlying unsecured personal whole loans.

The carrying value of assets that relate to variable interests in unconsolidated VIEs consists of \$8.3 million and \$6.2 million of securitization notes and residual certificates which are included in other assets on the consolidated balance sheets as of December 31, 2021 and 2022, respectively. The Company also had \$7.2 million and \$7.1 million of cash deposits made to reserve accounts for related securitizations, included in other assets on the consolidated balance sheets as of December 31, 2021 and 2022, respectively.

Off-Balance Sheet Loans

Off-balance sheet loans relate to securitization transactions for which the Company has some form of continuing involvement, including as servicer. For a loan related to securitization transactions where servicing is the only form of continuing involvement, the Company would only experience a loss if it were required to repurchase such a loan due to a breach in representations and warranties associated with its loan sale or servicing contracts.

The Company routinely contributes loans to securitization transactions which it co-sponsors as a non-retaining sponsor. As a non-retaining sponsor and a servicer of these transactions, the Company does not retain economic risk in these transactions. Contributions of loans to these securitizations are recognized as transfers under ASC 860, Transfers and Servicing.

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

4. Fair Value Measurement

The following tables presents assets and liabilities measured at fair value:

		December 31, 2021							
	Le	vel 1	Level 2	Level 3	To	tal			
Assets									
Loans	\$	— \$	— \$	252,477	\$	252,477			
Notes receivable and residual certificates		_	_	8,288		8,288			
Loan servicing assets		_	_	18,388		18,388			
Total assets	\$	<u> </u>	<u> </u>	279,153	\$	279,153			
Liabilities									
Loan servicing liabilities	\$	— \$	— \$	8,780	\$	8,780			
Trailing fee liabilities		_	_	4,315		4,315			
Total liabilities	\$	<u> </u>	<u> </u>	13.095	\$	13.095			

		December 31, 2022							
	Le	vel 1	Level 2	Level 3	Total				
Assets									
Loans	\$	- \$	\$	1,010,421 \$	1,010,421				
Notes receivable and residual certificates		_	_	6,181	6,181				
Loan servicing assets		_	_	36,467	36,467				
Total assets	\$	<u> </u>	<u> </u>	1,053,069 \$	1,053,069				
Liabilities									
Loan servicing liabilities	\$	— \$	— \$	3,968 \$	3,968				
Trailing fee liabilities				4,852	4,852				
Total liabilities	\$	<u> </u>	<u> </u>	8,820 \$	8,820				

Financial instruments are categorized in the fair value hierarchy based on the significance of unobservable factors in the overall fair value measurement. Since the Company's loans, notes receivable and residual certificates, loan servicing assets and liabilities, and trailing fee liabilities do not trade in an active market with readily observable prices, the Company uses significant unobservable inputs to measure the fair value of these assets and liabilities.

There were no transfers between Level 1, Level 2 or Level 3 of the fair value hierarchy during the years presented.

Loans

Loans included in the Company's consolidated balance sheets are classified as either held-for-sale or held-for-investment based on the Company's intent and ability to sell the loans prior to maturity. Loan held-for-investment are generally held for research and development purposes, primarily in support of new products and expansion into new categories of borrowers. From time to time the Company transfers loans between classifications based on changes in the Company's intent. As of December 31, 2021, \$142.7 million and \$109.8 million of loans held on the Company's consolidated balance sheets were classified as held-for-sale and held-for-investment,

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

respectively. As of December 31, 2022, \$882.8 million and \$127.6 million of loans held on the Company's consolidated balance sheets were classified as held-for-sale and held-for-investment, respectively.

Valuation Methodology

Loans held-for-sale and held-for-investment are measured at estimated fair value using a discounted cash flow model. The fair valuation methodology considers projected prepayments and historical defaults, losses and recoveries to project future losses and net cash flows on loans. Net cash flows are discounted using an estimate of market rates of return. The fair value of these loans also includes accrued interest.

Significant Inputs and Assumptions

The following table presents quantitative information about the significant unobservable inputs used for the Company's Level 3 fair value measurements for loans held-for-investment and held-for-sale:

		December 31, 2021			December 31, 2022	
	Minimum	Maximum	Weighted Average	Minimum	Maximum	Weighted Average
Discount rate	3.42 %	16.49 %	7.29 %	6.36 %	22.28 %	11.87 %
Credit risk rate (1)	0.08 %	55.79 %	17.98 %	0.01 %	93.09 %	16.93 %
Prepayment rate (1)	8.70 %	88.12 %	40.35 %	0.08 %	93.43 %	40.49 %

- (1) Expressed as a percentage of the original principal balance of the loans.
- (2) Unobservable inputs were weighted by relative fair value.

Discount rates—The discount rates are rates of return used to discount future expected cash flows to arrive at a present value, which represents the fair value. The discount rates used for the projected net cash flows are the Company's estimates of the rates of return that market participants would require when investing in these financial instruments with cash flows dependent on credit quality of the related loan. A risk premium component is implicitly included in the discount rates to reflect the amount of compensation market participants require due to the uncertainty inherent in the instruments' cash flows resulting from risks such as credit and liquidity.

Credit risk rates—The credit risk rates are an estimate of the net cumulative principal payments that will not be repaid over the entire life of a financial instrument. The credit risk rates are expressed as a percentage of the original principal amount of the instrument. The estimated net cumulative loss represents the sum of the net losses estimated to occur each month of the life of the instrument, net of the average recovery expected to be received.

Prepayment rates—Prepayment rates are an estimate of the cumulative principal prepayments that will occur over the entire life of a loan as a percentage of the original principal amount of the loan. The assumption regarding cumulative prepayments impact the projected balances and expected terms of the loans.

The above inputs are similarly used in estimating fair value of related financial instruments. Refer to the Assets related to Securitization Transactions section below for more information.

Significant Recurring Level 3 Fair Value Input Sensitivity

The below table presents the sensitivity of the loans held-for-sale and held-for-investment to adverse changes in key assumptions used in the valuation model as of December 31, 2021 and 2022, respectively.

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

December 31, 2021 2022 Fair value of loans 252,477 1,010,421 Discount rates 100 basis point increase (3,392)(11,979)(6,709)200 basis point increase (23,720)Expected credit loss rates on underlying loans (3,959)10% adverse change (11,927)20% adverse change (7,927)(23,852)Expected prepayment rates 10% adverse change (239)(2,284)20% adverse change (512)(4,530)

Rollforward of Level 3 Fair Values

The following tables include a rollforward of the loans classified within Level 3 of the fair value hierarchy:

	Lo	ans Held-for- Sale	Loans Held-for- Investment	Total
Fair value at December 31, 2020	\$	60,232	\$ 18,228	\$ 78,460
Purchases of loans ⁽¹⁾		219,128	159,398	378,526
Sale of loans(1)		(123,370)	(40,602)	(163,972)
Purchase of loans for immediate resale ⁽¹⁾		8,713,476	_	8,713,476
Immediate resale of loans ⁽¹⁾		(8,713,476)	_	(8,713,476)
Repayments received ⁽¹⁾		(10,578)	(22,612)	(33,190)
Changes in fair value recorded in earnings		(3,284)	(5,770)	(9,054)
Changes in accrued interest and other charges		557	1,150	1,707
Fair value at December 31, 2021	\$	142,685	\$ 109,792	\$ 252,477
Reclassification of loans ⁽¹⁾		103,677	(103,677)	
Purchases of loans ⁽¹⁾		1,807,787	149,344	1,957,131
Sale of loans ⁽¹⁾		(914,369)	_	(914,369)
Purchase of loans for immediate resale ⁽¹⁾		5,992,148	_	5,992,148
Immediate resale of loans(1)		(5,992,148)	_	(5,992,148)
Repayments received ⁽¹⁾		(180,135)	(15,194)	(195,329)
Changes in fair value recorded in earnings		(85,567)	(14,215)	(99,782)
Changes in accrued interest and other charges		8,732	1,561	10,293
Fair value at December 31, 2022	\$	882,810	\$ 127,611	\$ 1,010,421

⁽¹⁾ Represents the unpaid principal balance.

The following table presents the aggregate fair value and aggregate principal outstanding of all loans and loans that were 90 days or more past due included in the consolidated balance sheets:

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

	Loans				Loans > 90 Days Past Due			
		December 31, December 31, 2021 2022			December 31, 2021		December 31, 2022	
Outstanding principal balance	\$	277,228	\$	1,047,714	\$	1,979	\$	9,006
Net fair value and accrued interest adjustments		(24,751)		(37,293)		(1,692)		(7,006)
Fair value ⁽¹⁾	\$	252,477	\$	1,010,421	\$	287	\$	2,000

⁽¹⁾ Includes \$50.1 million and \$397.7 million of auto loans as of December 31, 2021 and 2022, respectively, of which an immaterial amount is 90 days or more past due for each year presented.

The Company places loans on non-accrual status at 120 days past due. Any accrued interest recorded in relation to these loans is reversed in the respective period. The Company charges-off loans no later than 120 days past due.

Assets related to Securitization Transactions

As of December 31, 2021 and 2022, the Company held notes receivable and residual certificates with an aggregate fair value of \$8.3 million and \$6.2 million, respectively within other assets on the Company's consolidated balance sheets. The balances consist of securitization notes and residual certificates retained from securitization transactions.

Valuation Methodology

The discounted cash flow methodology, which is used to estimate the fair value of notes receivable and residual certificates, uses the same projected net cash flows as their related loans. This model uses inputs that are inherently judgmental and reflect the Company's best estimates of the assumptions a market participant would use to calculate fair value.

Significant Inputs and Assumptions

The following table presents quantitative information about the significant unobservable inputs used for the Company's Level 3 fair value measurements of assets related to securitization transactions:

	D	ecember 31, 2021		D	ecember 31, 2022	
	Minimum	Maximum	Weighted- Average ⁽²⁾	Minimum	Maximum	Weighted- Average (2)
Notes receivable and residual certificates						
Discount rate	4.96 %	15.72 %	6.78 %	8.42 %	22.27 %	12.79 %
Credit risk rate (1)	0.04 %	50.69 %	18.47 %	0.59 %	50.69 %	18.43 %
Prepayment rate (1)	15.60 %	36.08 %	27.82 %	10.90 %	88.73 %	42.66 %

⁽¹⁾ Expressed as a percentage of the original principal balance of the loans underlying the financial instruments.

Significant Recurring Level 3 Fair Value Input Sensitivity

The securities issued in the securitization transactions are senior or subordinated based on the waterfall criteria of loan payments to each security class, with the residual interest (the "residual certificates") issued being the

⁽²⁾ Unobservable inputs were weighted by relative fair value.

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

first to absorb credit losses in accordance with the waterfall criteria. Accordingly, the residual certificates are the most sensitive to adverse changes in credit risk rates. Depending on the specific securitization, a hypothetical increase in the credit risk rate of 10% to 20% would result in significant decreases in the fair value of the residual certificates. On average, a hypothetical increase in the credit risk rate under a discounted cash flow methodology of 20% would result in a 27% decrease in the fair value of the residual certificates.

The fair value of the securities are sensitive to adverse changes in discount rates, which represent estimates of the rates of return that institutional investors would require when investing in financial instruments with similar risk and return characteristics. On average, a hypothetical 100 basis point increase in discount rates under a discounted cash flow methodology results in a decrease in fair value of the securities (including securitization notes and residual certificates) of 0.69% and 1.10% as of December 31, 2021 and 2022, respectively. On average, a hypothetical 200 basis point increase in discount rates results in a decrease in fair value of the securities (including securitization notes and residual certificates) of 1.37% and 2.18% as of December 31, 2021 and 2022, respectively.

The fair value of securitization notes and residual certificates are not sensitive to adverse changes in expected prepayment rates as such changes would not result in a significant impact on the fair value as of December 31, 2021 and 2022.

Rollforward of Level 3 Fair Values

The following tables include a rollforward of the notes receivable and residual certificates related to securitization transactions classified by the Company within Level 3 of the fair value hierarchy:

	Notes Receivable and Residual Certificates
Fair value at December 31, 2020	\$ 19,074
Repayments and settlements	(11,458)
Changes in fair value recorded in earnings	672
Fair value at December 31, 2021	\$ 8,288
Residual certificates retained under unconsolidated securitization transaction	 4,680
Repayments and settlements	(6,736)
Changes in fair value recorded in earnings	(51)
Fair value at December 31, 2022	\$ 6,181

Loan Servicing Assets and Liabilities

Valuation Methodology

Loan servicing assets and liabilities are measured at estimated fair value using a discounted cash flow model. The cash flows in the valuation model represent the difference between the contractual servicing fees charged to institutional investors and an estimated market servicing rate. Since contractual servicing fees are generally based on the monthly unpaid principal balance of the underlying loans, the expected cash flows in the model incorporate estimates of net losses and prepayments.

Significant Inputs and Assumptions

The following table presents quantitative information about the significant unobservable inputs used for the Company's Level 3 fair value measurements for loan servicing assets and liabilities:

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

December 31, 2021 December 31, 2022 Weighted-Average Weighted-Average Maximum Maximum Minimum Minimum Discount rate 13.00 % 20.00 % 17.69 % 13.00 % 20.00 % 17.20 % Credit risk rate (1) 0.03 % 52.78 % 18.36 % 0.03 % 91.76 % 16.22 % Market-servicing rate (3)(4)(5) 3.73 % 0.62 % 3.72 % 0.62 % 0.62 % 0.62 % Prepayment rate (1) 5.99 % 91.43 % 36.39 % 0.53 % 91.99 % 41.19 %

Discount rates—The discount rates are the Company's estimate of the rates of return that market participants in servicing rights would require when investing in similar servicing rights. Discount rates for servicing rights on existing loans are adjusted to reflect the time value of money and a risk premium intended to reflect the amount of compensation market participants would require due to the uncertainty associated with these instruments' cash flows.

Credit risk rates—The credit risk rates are the Company's estimate of the net cumulative principal payments that will not be repaid over the entire life of a loan expressed as a percentage of the original principal amount of the loan. The assumption regarding net cumulative losses impact the projected balances and expected terms of the loans, which are used to project future servicing revenues.

Market-servicing rates—Market-servicing rate is an estimated measure of adequate compensation for a market participant, if one was required. The rate is expressed as a fixed percentage of outstanding principal balance per annum. The estimate considers the profit that would be demanded in the marketplace to service the portfolio of outstanding loans subject to the Company's servicing agreements.

Prepayment rates—Prepayment rates are the Company's estimate of the cumulative principal prepayments that will occur over the entire life of a loan as a percentage of the original principal amount of the loan. The assumption regarding cumulative prepayments impact the projected balances and expected terms of the loans, which are used to project future servicing revenues.

Significant Recurring Level 3 Fair Value Input Sensitivity

The table below presents the fair value sensitivity of loan servicing assets and liabilities to adverse changes in key assumptions. The fair value of loan servicing assets and liabilities is not sensitive to adverse changes in discount rates as such changes would not result in a significant impact on the fair value as of December 31, 2021 and 2022, respectively.

	December 31,	December 31,
	2021	2022
Fair value of loan servicing assets	\$ 18,388	\$ 36,467
Expected market-servicing rates		
10% market-servicing rates increase	(5,539)	(9,989)
20% market-servicing rates increase	(11,002)	(19,950)

⁽¹⁾ Expressed as a percentage of the original principal balance of the loans underlying the servicing arrangement.

⁽²⁾ Unobservable inputs were weighted by relative fair value.

⁽³⁾ Excludes ancillary fees that would be passed on to a third-party servicer.

⁽⁴⁾ Expressed as a percentage of the outstanding principal balance of the loan.

⁽⁵⁾ Includes personal loans and auto loans.

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

	D	ecember 31, 2021	Decemb 202	,
Fair value of loan servicing liabilities	\$	8,780	\$	3,968
Expected market-servicing rates				
10% market-servicing rates increase		5,357		2,303
20% market-servicing rates increase		10,788		4,640

Rollforward of Level 3 Fair Values

The following tables present a rollforward of the loan servicing assets and liabilities classified by the Company within Level 3 of the fair value hierarchy:

	Loan Servicing Assets	Loan Servicing Liabilities
Fair value at December 31, 2020	\$ 6,831	\$ 8,254
Sale of loans	21,240	 14,324
Changes in fair value recorded in earnings	(9,683)	(13,798)
Fair value at December 31, 2021	\$ 18,388	\$ 8,780
Sale of loans	31,041	2,302
Changes in fair value recorded in earnings	(12,962)	(7,114)
Fair value at December 31, 2022	\$ 36,467	\$ 3,968

Trailing Fee Liabilities

The Company pays certain lending partners monthly trailing fees based on the amount and timing of principal and interest payments made by borrowers of the underlying loans. Significant inputs used for estimating the fair value of trailing fee liabilities included discount rates of 3.42% to 16.49% and credit risk rates of 0.08% to 55.79% as of December 31, 2021 and discount rates of 6.36% to 22.28% and credit risk rates of 0.01% to 93.09% as of December 31, 2022.

The fair value sensitivity of trailing fee liabilities to adverse changes in key assumptions would not result in a material impact on the Company's financial position.

Rollforward of Level 3 Fair Values

The following tables include a rollforward of trailing fee liabilities classified by the Company within Level 3 of the fair value hierarchy:

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

	Trailing Fee Liabilities
Fair value at December 31, 2020	\$ 1,276
Issuances	4,275
Repayments and settlements	(1,240)
Changes in fair value recorded in earnings	4
Fair value at December 31, 2021	\$ 4,315
Issuances	3,898
Repayments and settlements	(3,001)
Changes in fair value recorded in earnings	(360)
Fair value at December 31, 2022	\$ 4,852

5. Acquisitions

In April 2021, the Company completed its acquisition of Prodigy Software, Inc. ("Prodigy"). Prodigy provides an e-commerce platform for car dealerships which enables both online and in-store vehicle discovery, credit application, and checkout. Prodigy provides a modern multi-channel car buying experience, helping dealerships serve consumers with a holistic software solution that integrates legacy systems. In addition to modernizing the car buying experience, Prodigy has brought Upstart's AI enabled auto loans to dealerships across the country where a significant number of auto loans are transacted. In October 2021, we announced the launch of Upstart Auto Retail software, a cloud-based solution that enables dealerships to provide consumers with access to Upstart-powered auto loans by combining Prodigy Software and Upstart intellectual property.

The total consideration the Company provided for Prodigy was \$89.0 million, comprised of the following:

	Apı	il 8, 2021
Fair value of Upstart common stock issued to Prodigy stockholders ⁽¹⁾	\$	70,121
Cash paid to common and preferred stockholders, warrant holders, and vested option holders ⁽²⁾		17,151
Fair value of assumed Prodigy options attributable to pre-combination service period		889
Transactions costs paid by Upstart on behalf of Prodigy		883
Total purchase consideration	\$	89,044

⁽¹⁾ The fair value is based on 568,539 shares of Company common stock at \$123.33 per share, the closing stock price on April 8, 2021, and 87,339 shares are held in escrow as security for certain indemnification obligations of former Prodigy stockholders.

Excluded from the total purchase consideration above are 82,201 shares of the Company's restricted common stock ("restricted stock") with a fair value of \$10.1 million issued to certain Prodigy employees. The restricted stock is subject to transfer restrictions and a repurchase option and is contingent upon the employees' continued employment with the Company. The repurchase option will lapse with respect to 1/8th of the shares of restricted stock at the end of each successive three-month period following the closing date of the Prodigy acquisition. The Company will record stock-based compensation expense straight-line over the two-year period that the repurchase option lapses.

The acquisition has been accounted for as a business combination. The purchase consideration was allocated to the tangible and intangible assets and liabilities acquired as of the acquisition date, with the excess recorded to goodwill as shown below. The values assigned to the assets acquired and liabilities assumed were based

^{(2) \$1.9} million of the cash paid is being held in escrow as security for certain indemnification obligations of former Prodigy stockholders.

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

on estimates of fair value available to us as of the date of acquisition, and adjusted during the measurement period which ended on January 1, 2022. No material adjustments to the fair value of assets and liabilities were made during the measurement period.

The following table summarizes the fair values of the assets acquired and liabilities assumed as of the acquisition date:

	April 8, 2021
Goodwill	\$ 66,866
Acquisition-related intangible assets	23,200
Cash	1,479
Deferred tax liability, net	(2,328)
Other assets acquired and liabilities assumed, net	 (173)
Total purchase consideration	\$ 89,044

The goodwill recognized was primarily attributable to the opportunity to bring Upstart's AI enabled auto loans to dealerships across the country where the vast majority of loans are transacted. The goodwill is not deductible for U.S. federal income tax purposes.

The Company recognized acquisition-related costs of \$1.2 million in the year ended December 31, 2021, which are included in the general and administrative expense in the consolidated statement of operations and comprehensive income (loss). No acquisition-related costs were incurred during the year ended December 31, 2022.

The following table summarizes the fair values of the acquisition-related intangible assets acquired as of the acquisition date:

	fair values (in thousands)	Useful life (years)
Developed technology	\$ 9,400	3.0
Trade name	100	2.0
Customer relationships	13,700	12.0
Total acquisition-related intangible assets	\$ 23,200	

The fair values of the acquisition-related intangibles were determined using the following methodologies: replacement cost method, the relief from royalty method, and the with/without method, a form of the income approach, for developed technology, trade name, and customer relationships, respectively. The acquired intangible assets have a total weighted-average amortization period of 8.3 years at the time of acquisition.

We have included the financial results of the acquired business in our consolidated financial statements from the date of acquisition. These revenues and expenses were immaterial for the year ended December 31, 2021. Pro forma results of operations have not been presented because the effects of this acquisition were not material to our financial results.

6. Goodwill and Intangible Assets

Goodwill

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

During the year ended December 31, 2022, there were no changes in the carrying amount of goodwill of \$67.1 million on the Company's consolidated balance sheets.

Intangible Assets

Acquired intangible assets subject to amortization are as follows:

	December 31, 2021						
	Gross Carrying Accumulated Amount Amortization			Net Carrying Amount	Weighted-Av Remaining U Life (Year		
Developed technology	\$ 9,400	\$	2,349	\$	7,051		
Customer relationships	13,700		856		12,844		
	\$ 23,100	\$	3,205	\$	19,895		

December 31, 2022 Weighted-Av **Gross Carrying** Accumulated **Net Carrying** Remaining U Amount Amortization Amount Life (Year Developed technology 9,400 5,483 3,917 Customer relationships 13,700 1,998 11,702 23,100 7,481 15,619

Amortization expense was \$3.3 million and \$4.3 million for the year ended December 31, 2021 and 2022 respectively.

Expected future amortization expense for intangible assets as of December 31, 2022 is as follows:

Fiscal Years:	
2023	\$ 4,275
2024	1,925
2025	1,142
2026	1,142
2027	1,142
Thereafter	5,993
Total	\$ 15,619

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

7. Balance Sheet Components

Other Assets

Other assets consisted of the following:

]	December 31, 2021	1	December 31, 2022
Servicing fees and other receivables	\$	55,518	\$	46,652
Loan servicing assets (at fair value)		18,388		36,467
Prepaid expenses		30,012		16,740
Other assets		8,809		22,678
Deposits		8,377		10,002
Notes receivable and residual certificates (at fair value)		8,288		6,181
Total other assets	\$	129,392	\$	138,720

Servicing fees and other receivables represent amounts recognized as revenue but not yet collected in relation to servicing and other agreements with institutional investors and lending partners.

Property, Equipment, and Software, Net

Property, equipment, and software, net consisted of the following:

	December 31, 2021	December 31, 2022
Internally developed software	\$ 17,735	\$ 37,783
Leasehold improvements	7,450	13,074
Computer and networking equipment	3,796	6,049
Furniture and fixtures	3,199	4,421
Total property, equipment, and software	 32,180	61,327
Accumulated depreciation and amortization	(7,921)	(17,159)
Total property, equipment, and software, net	\$ 24,259	\$ 44,168

For the year ended December 31, 2020, 2021 and 2022, depreciation and amortization expense on property, equipment, and software was \$2.3 million, \$4.2 million and, \$13.5 million respectively. Capitalized internally developed software balances, net of accumulated amortization, were \$13.5 million and \$27.4 million as of December 31, 2021 and 2022, respectively.

Accrued Expenses and Other Liabilities

Accrued expenses and other liabilities consisted of the following:

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

	December 31, 2021	December 31, 2022
Accrued expenses	\$ 48,207	\$ 23,506
Accrued payroll	37,293	21,825
Loan servicing liabilities (at fair value)	8,780	3,968
Trailing fee liability (at fair value)	4,315	4,852
Other liabilities	4,823	12,795
Total accrued expenses and other liabilities	\$ 103,418	\$ 66,946

8. Borrowings

The following table presents the aggregate principal outstanding of all loans mentioned in this note that are included in the consolidated balance sheets:

		Borrowings			
	December 31, December 2021 2022			December 31, 2022	
Warehouse credit facilities	\$	48,030	\$	336,452	
Risk retention funding loan		507		_	
Convertible senior notes		661,250		661,250	
Total payments due		709,787		997,702	
Unamortized debt discount		(14,355)		(11,308)	
Total borrowings	\$	695,432	\$	986,394	

Warehouse Credit Facilities

Upstart Loan Trust Credit Facility

In November 2015, the Company's consolidated VIE, Upstart Loan Trust ("ULT"), entered into a revolving credit and security agreement with a third-party lender (the "ULT Warehouse Credit Facility"). The credit and security agreement for the ULT Warehouse Credit Facility was amended and restated in its entirety in May 2020 and has been further amended from time to time. Under the revolving credit and security agreement, as amended from time to time, the ULT Warehouse Credit Facility provides an aggregate of \$175.0 million financing capacity of which \$100.0 million is committed and \$75.0 million is uncommitted. ULT may borrow up to this capacity until the earlier of June 15, 2023 and the occurrence of an accelerated amortization event. Accelerated amortization events include, but is not limited to, failure to satisfy certain loan performance metrics or the occurrence of an event of default. The proceeds may only be used to purchase unsecured personal loans and to pay fees and expenses related to the credit facility. The ULT Warehouse Credit Facility matures on the earlier of June 15, 2024 or acceleration of the facility following an event of default, upon which date 100% of the outstanding principal amount, together with any accrued and unpaid interest, becomes due and payable. The ULT Warehouse Credit Facility bears a floating interest rate of Compounded Secured Overnight Financing Rate ("SOFR") plus a spread ranging from 1.90% to 3.28% per annum, due and payable monthly in arrears. The Company is also subject to a monthly unused fee ranging from 0.20% to 1.00% per annum on the undrawn balance. The maximum advance rate under the ULT Warehouse Credit Facility on outstanding principal of loans held by ULT was 85% as of December 31, 2021 and 72.5% as of December 31, 2022.

The ULT Warehouse Credit Facility contains certain financial covenants. As of December 31, 2021 and 2022, ULT was in compliance with all applicable covenants under the ULT Warehouse Credit Facility. The creditors

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of ULT have no recourse to the general credit of the Company, except for certain limited obligations of ULT to its creditors that are guaranteed by the Company. The Company does not guarantee the credit performance of the loans owned by ULT, and the loans and other assets owned by ULT are not available to settle the claims of creditors of the Company.

The following table includes the aggregate balances held by ULT that were pledged as collateral for the ULT Warehouse Credit Facility and included in loans at fair value and restricted cash in the consolidated balance sheets:

	U	ULT Warehouse Credit Facility				
	Decemb	December 31, 2021				
Outstanding borrowings	\$	48,030 \$	163,773			
Aggregate outstanding principal of loans pledged as collateral		76,865	228,895			
Aggregate fair value of loans purchased and held by ULT		142,687	256,024			
Restricted cash pledged as collateral	\$	76,256 \$	8,547			

Upstart Auto Warehouse Trust Credit Facility

In December 2021, the Company's consolidated VIE, Upstart Auto Warehouse Trust ("UAWT"), entered into a revolving credit and security agreement with a third-party lender (the "UAWT Warehouse Credit Facility"). The credit and security agreement for the UAWT Warehouse Credit Facility was amended and restated in its entirety in August 2022 and has been further amended from time to time. Under the revolving credit and security agreement, UAWT may borrow up to \$200 million until the earlier of January 2023 and the occurrence of an accelerated amortization event. An accelerated amortization event includes, but is not limited to, failure to satisfy certain loan performance metrics or the occurrence of an event of default. The proceeds may only be used to purchase secured auto loans originated using Upstart's platform and to pay fees and expenses related to the credit facility. The UAWT Warehouse Credit Facility matures in January 2024. The entire amount of the outstanding principal and accrued interest and fees may be prepaid at any time without penalty. Borrowings under the UAWT Warehouse Credit Facility bears interest per annum at a rate equivalent to the weighted-average cost of commercial paper notes issued by the lender (the "UAWT Benchmark Rate"), plus a spread ranging from 2.2% to 3.5%. In the event the UAWT Benchmark Rate cannot be adequately ascertained or available, the UAWT Benchmark Rate will be replaced with an alternative rate such as SOFR. In addition, the UAWT Warehouse Credit Facility is also subject to a monthly unused fee of 0.50% per annum on the undrawn balance. The maximum advance rate under the UAWT Auto Warehouse Trust Credit Facility on outstanding principal of loans held by UAWT was 82.5% as of December 31, 2021 and 2022.

The UAWT Warehouse Credit Facility contains certain financial covenants. As of December 31, 2021 and 2022, UAWT was in compliance with all applicable covenants under the UAWT Warehouse Credit Facility. The creditors of UAWT have no recourse to the general credit of the Company, except for certain limited obligations of UAWT to its creditors that are guaranteed by the Company.

The following table includes the aggregate balances held by UAWT that were pledged as collateral for the UAWT Warehouse Credit Facility and included in loans at fair value and restricted cash in the consolidated balance sheets as of December 31, 2022. The Company had no outstanding borrowings or loans owned by UAWT that were pledged as collateral under the UAWT Warehouse Credit Facility as of December 31, 2021.

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UAWT Warehouse Credit FacilityDecember 31,
2022Outstanding borrowings\$ 172,679Aggregate outstanding principal of loans pledged as collateral221,847Aggregate fair value of loans purchased and held by UAWT216,539Restricted cash pledged as collateral\$ 843

Convertible Senior Notes

On August 20, 2021, the Company issued \$661.3 million aggregate principal amount of 0.25% convertible senior notes due 2026 ("Notes") pursuant to an indenture (the "Indenture"), (including the exercise in full of the initial purchasers' option of an additional \$86.3 million aggregate principal of additional notes) in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. The net proceeds from the sale of the Notes were \$645.5 million after deducting debt issuance costs.

The Notes represent senior unsecured obligations of the Company and bear interest at a rate of 0.25% per year, payable semiannually in arrears on February 15 and August 15 of each year beginning on February 15, 2022. The Notes mature on August 15, 2026 unless earlier converted, redeemed, or repurchased in accordance with their terms.

The Notes will be convertible at an initial conversion rate of 3.5056 shares of our common stock per \$1,000 principal amount of Notes, which is equivalent to an initial conversion price of \$285.26 per share, subject to adjustment if certain events occur. Following certain corporate events that may occur prior to the maturity date or following our issuance of a notice of redemption, the Company will increase the conversion rate for a holder who elects to convert its Notes in connection with such corporate event or during the related redemption period in certain circumstances. Additionally, upon the occurrence of a corporate event that constitutes a "fundamental change" per the Indenture, holders of the Notes may require the Company to repurchase for cash all or a portion of their respective notes at a purchase price equal to 100% of the principal amount of the Note plus accrued and unpaid interest.

Holders may convert their Notes at their option any time prior to the close of business on the business day immediately preceding May 15, 2026 only under the following circumstances:

- (1) during any calendar quarter commencing after December 31, 2021 (and only during such calendar quarter), if the last reported sale price of the Common Stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;
- (2) during the five business-day period after any five consecutive trading-day period in which the trading price per \$1,000 principal amount of Notes for each trading day of such five consecutive trading-day period was less than 98% of the product of the last reported sale price of the Common Stock and the conversion rate on each such trading day;
- (3) if we call any or all of the Notes for redemption, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or
 - (4) upon the occurrence of specified corporate events.

On or after May 15, 2026, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders of the Notes may convert all or any portion of their Notes regardless of the

Notes to Consolidated Financial Statements

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foregoing conditions. Upon conversion, the Company will pay or deliver, as the case may be, either cash, shares of common stock or a combination of cash and shares of common stock, at its election.

The Company may not redeem the Notes prior to August 20, 2024. The Company may redeem for cash all or any portion of the Notes, at our option, on or after August 20, 2024, if the last reported sale price of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading-day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which the Company provides a notice of redemption at a redemption price equal to 100% of the principal amount of the Notes to be redeemed, plus any accrued and unpaid interest to, but excluding, the redemption date.

The Company accounted for the issuance of the Notes as a single liability at par as the conversion feature does not require bifurcation as a derivative under ASC 815 and the Notes were not issued at a substantial premium. Debt issuance costs related to the Notes totaled \$15.7 million and consisted of underwriting fees and third-party offering costs, which are amortized to interest expense using the effective interest method over the contractual term. For the year ended December 31, 2021 and 2022, the Company recorded immaterial coupon interest expense and \$1.4 million and \$3.0 million of amortization of debt issuance costs, respectively, within expense on warrants and convertible notes, net on the consolidated statements of operations and comprehensive income (loss). The effective interest rate of the Notes is 0.7%.

Capped Call Transactions

The Company used \$58.5 million of the net proceeds from the Notes to enter into privately negotiated capped call instruments ("Capped Calls") with certain financial institutions. The Capped Calls each have an initial strike price of \$285.26 per share, subject to certain adjustments, which corresponds to the initial conversion price of the Notes. The Capped Calls each have an initial cap price of \$400.36 per share. The Capped Calls cover, subject to anti-dilution adjustments, 2.3 million shares of common stock. The Capped Calls are expected to reduce the potential dilution to common stock upon any conversion of Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of converted Notes, as the case may be, in the event the market price per share of common stock, as measured under the terms of the Capped Call, is greater than the strike price of the Capped Call, with such reduction and/or offset subject to a cap. If, however, the market price per share of the common stock, as measured under the terms of the Capped Call, exceeds the cap price of the Capped Calls, there would be dilution and/or there would not be an offset of such potential cash payments, in each case, to the extent that such market price per share of the common stock exceeds the cap price of the Capped Calls. The Capped Calls expire on August 15, 2026, subject to earlier exercise.

The Capped Calls were determined to be freestanding financial instruments that meet the criteria for classification in equity; as such the Capped Calls were recorded as a reduction of additional paid-in capital within stockholders' equity.

The following table summarizes the aggregate amount of maturities of all borrowings as of December 31, 2022:

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	December 31, 2022
2023	\$ —
2024	336,452
2025	_
2026	661,250
2027	_
Thereafter	-
Total	\$ 997,702

9. Stockholders' Equity

Common Stock Reserved for Future Issuance

In December 2020, the Company's amended and restated certificate of incorporation became effective, which authorizes the issuance of 700,000,000 shares of common stock with a par value of \$0.0001 per share. Shares of common stock reserved for issuance, on an as-converted basis, are as follows:

	December 31, 2021	December 31, 2022
Options issued and outstanding	12,785,176	12,547,010
RSUs outstanding	1,508,615	6,046,796
PRSUs outstanding	_	687,500
Shares available for future issuance under 2020 plan	9,979,700	5,842,057
Shares available for issuance under ESPP	1,869,302	2,543,089
Total	26,142,793	27,666,452

Share Repurchase Program

In February 2022, the Board of Directors authorized the Company to purchase up to \$400.0 million of common stock of the Company. The Company may repurchase shares from time to time through open market purchases, in privately negotiated transactions or by other means, including through the use of trading plans intended to qualify under Rule 10b5-1. The repurchase program does not obligate the Company to acquire any particular amount of its common stock, and may be suspended or terminated by the Company at any time at its discretion without prior notice.

The Company records share repurchases on the settlement date. Repurchased shares are subsequently retired and returned to the status of authorized but unissued. The Company's policy for share retirements is to allocate the excess between par value and the repurchase price, including costs and fees, to additional paid-in capital. During the year ended December 31, 2022, the Company repurchased, and subsequently retired, 5.9 million shares for \$177.9 million at an average cost of \$30.24 per share. As of December 31, 2022, \$222.1 million remains available for future purchases of our common stock under the share repurchase program.

Equity Incentive Plans

In 2012, the Company adopted the Equity Incentive Plan ("2012 Equity Incentive Plan") authorizing the granting of incentive stock options ("ISOs") and non-statutory stock options ("NSOs") to eligible participants.

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Under the 2012 Equity Incentive Plan, the exercise price of an ISO and NSO shall not be less than 100% of the estimated fair value of the shares on the date of grant, as determined by the Board of Directors. The exercise price of an ISO granted to a 10% stockholder shall not be less than 110% of the estimated fair value of the shares on the date of grant, as determined by the Board of Directors. Options generally vest over four years and are exercisable for up to 10 years after the date of grant if the employee provides service to the Company for at least three years.

In October 2020, our Board of Directors adopted, and in November 2020 our Board of Directors amended and our stockholders approved, our 2020 Equity Incentive Plan which was effective on December 14, 2020. The Company terminated the 2012 Equity Incentive Plan immediately prior to effectiveness of the 2020 Equity Incentive Plan with respect to the grant of future awards. However, our 2012 Equity Incentive Plan continues to govern the terms and conditions of the outstanding awards granted under our 2012 Equity Incentive Plan.

The 2020 Equity Incentive Plan authorizes granting of ISOs, NSOs, stock appreciation rights, restricted stock, restricted stock units, or RSUs, and performance awards. In addition, the 2020 Equity Incentive Plan also includes any shares subject to awards granted under our 2012 Equity Incentive Plan that, on or after December 15, 2020, expire or otherwise terminate without having been exercised or issued in full, are tendered to or withheld by us for payment of an exercise price or for satisfying tax withholding obligations, or are forfeited to or repurchased by us due to failure to vest. The maximum number of shares that may be added to the 2020 Equity Incentive Plan pursuant to outstanding awards under the 2012 Equity Incentive Plan is 15,000,000 shares. The number of shares available for issuance under our 2020 Equity Incentive Plan also includes an annual increase on the first day of each fiscal year beginning with 2021 in an amount equal to the lesser of 15,000,000 shares or 5% of the outstanding shares of our common stock on the last day of our immediately preceding fiscal year.

In connection with the Company's acquisition of Prodigy, the Company assumed the Prodigy Software, Inc. 2015 Stock Incentive Plan (the "Prodigy Plan"), under which certain unvested options under the Prodigy Plan were assumed by the Company. The assumed options are subject to the same terms and conditions that were applicable to them under the Prodigy Plan, except that (i) the assumed options relate to shares of Upstart's common stock, and (ii) the number of shares of Upstart's common stock was the result of an adjustment based upon a ratio as described further in the Registration Statement on Form S-8 filed with the SEC on April 16, 2021.

Stock Options

The following table summarizes stock option activity for the year ended December 31, 2022:

	Number of Options	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Life (years)	Aggregate Intrinsic Value
Balances at December 31, 2021	12,785,176	\$ 10.23	6.8	\$ 1,803,812
Options granted	2,816,559	30.61		
Options exercised	(2,464,572)	5.03		
Options cancelled and forfeited	(590,153)	35.33		
Balances at December 31, 2022	12,547,010	14.65	6.6	77,289
Options exercisable – December 31, 2022	7,935,324	5.66	5.2	70,278
Options vested and expected to vest – December 31, 2022	12,473,914	\$ 14.57	6.5	\$ 77,265

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying awards and the fair value of the Company's stock as of December 31, 2022. The aggregate intrinsic value of options exercised for the year ended December 31, 2020, 2021 and 2022 was \$50.0 million, \$1.391.7 million, and

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\$157.3 million respectively. The weighted-average grant date fair value of options granted during the year ended December 31, 2020, 2021 and 2022 was \$11.04, \$62.06, and \$15.60 per share, respectively. The total fair value of options vested for the year ended December 31, 2020, 2021 and 2022 was \$7.9 million, \$23.5 million, and \$23.2 million respectively.

As of December 31, 2022, total unrecognized stock-based compensation expense related to unvested stock options was \$59.4 million, which is expected to be recognized over a remaining weighted-average period of 2.5 years.

In May 2021, the Company amended an employee stock option agreement which resulted in a modification of the vesting of a certain number of option shares. The Company valued the amended stock options as of the modification date. Based on the Black-Scholes option pricing model, incremental stock-based compensation expense of \$4.4 million resulting from the modification was recognized during the year ended December 31, 2021.

Restricted Stock Units

The Company grants RSUs to employees and nonemployees. RSUs vest upon satisfaction of a service-based condition, which is generally satisfied over one to four years. The following table summarizes RSU activity for the year ended December 31, 2022:

	Number of Shares	Weighted-Average Grant Date Fair Value Per Share
Unvested at December 31, 2021	1,508,615	\$ 140.10
RSUs granted	5,876,225	37.19
RSUs vested	(866,717)	82.32
RSUs cancelled and forfeited	(471,327)	102.87
Unvested at December 31, 2022	6,046,796	\$ 51.28

As of December 31, 2022, total unrecognized stock-based compensation expense related to outstanding unvested RSUs was \$261.9 million, which is expected to be recognized over a remaining weighted-average period of 2.8 years.

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Restricted Stock

In connection with the Prodigy acquisition in April 2021, 82,201 shares of the Company's restricted stock were issued to certain Prodigy employees. The restricted stock is subject to restrictions which lapse on a quarterly basis over two years. Refer to "Note 5. Acquisitions" for further information.

The following table summarized Restricted Stock activity for the year ended December 31, 2022:

	Number of Shares	Weighted-Average Grant Date Fair Value Per Share
Unvested at December 31, 2021	61,651	\$ 123.33
Forfeited	(10,279)	123.33
Vested	(41,101)	123.33
Unvested at December 31, 2022	10,271	\$ 123.33

As of December 31, 2022, total unrecognized stock-based compensation expense related to restricted stock was immaterial.

Performance-based Restricted Stock Units

On February 18, 2022, the Compensation Committee of the Board of Directors, after extensive consultation with its independent compensation consultants, approved the grant of a PRSU award to an executive for 687,500 shares that will generally vest at the end of a period of seven years based on the achievement of certain stock price targets for the Company's common stock.

Except as otherwise provided in the Performance Award Agreement, the PRSU award will vest only if the executive is employed on a full-time basis through January 1, 2029 (the "Final Measurement Date") and only to the extent that the company stock price targets are met. The first time that performance will be measured is on January 1, 2027 and achievement will be determined based on the average closing price of the Company's stock on the 60 consecutive trading days ending immediately prior to that date. If any company stock price target is met at that time, up to 40% of the cumulative PRSUs possible for such company stock price target will be followed and if any higher company stock price target is met, up to 80% of the cumulative PRSUs possible for such company stock price target, less any PRSUs that previously vested, will vest. On the Final Measurement Date, the same procedure will be followed and the cumulative PRSUs possible for the highest company stock price target met at such time, less any PRSUs that previously became eligible to vest, will become eligible to vest. All PRSUs which did not meet the Company stock price targets on the Final Measurement Date will be forfeited.

The ability to become eligible to vest only in up to 40% of the cumulative PRSUs possible after five years and only up to 80% of the cumulative PRSUs possible after six years was intentionally structured to ensure that sustained long-term stock price performance must be achieved. The 40% and 80% limitations do not apply in the case of a change in control prior to the Final Measurement Date.

Compensation expense associated with the PRSUs is recognized using the straight-line attribution method for each of the nine vesting tranches over the respective derived service period. The weighted-average grant date fair value using the Monte Carlo simulation was \$68.76 per share. The Company recognizes stock-based compensation expense for awards subject to market-based vesting conditions regardless of whether these conditions will be achieved or not, and stock-based compensation expense for any such awards is not reversed if the market condition is not met. As of December 31, 2022, total unrecognized stock-based compensation expense related to outstanding

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unvested PRSUs was \$39.7 million, which is expected to be recognized over a remaining weighted-average period of 4.7 years.

2020 Employee Stock Purchase Plan

Our ESPP provides for consecutive six-month offering periods. The offering periods are scheduled to start on the first trading day on or after February 15 and August 15 of each year. The ESPP permits participants to purchase shares in the amount of 85% of the lower of the fair market value of our shares of common stock on the first trading day of the offering period or on the exercise date. During the year ended December 31, 2022, 162,796 shares of common stock were purchased under the ESPP.

As of December 31, 2022, total unrecognized stock-based compensation expense related to the ESPP was immaterial.

Fair Value of Awards Granted

In determining the fair value of stock-based awards, the Company uses a Black-Scholes option-pricing model for its options granted and ESPP purchase rights and a Monte Carlo simulation model for its PRSUs. The inputs used for estimating the fair values of options granted, ESPP purchase rights and PRSUs granted during the period include:

Fair Value of Common Stock—The fair value of the Company's common stock is determined by the closing price, on the date of grant, of its common stock, which is traded on the Nasdaq Global Select Market.

Expected Term—The expected term represents the period that the Company's stock options and ESPP purchase rights are expected to be outstanding. We estimate the expected term based on the simplified method, which is the weighted-average time to vesting and the contractual maturity. The expected term for PRSUs is the simulation term, the time period from the valuation date to the end of the performance measurement period.

Volatility—Because the Company has not had an active trading market for its common stock for a sufficient period of time, the expected volatility is estimated based on the average volatility for comparable publicly-traded companies, over a period equal to the expected term of the stock option grants.

Risk-free Interest Rate—The risk-free interest rate assumption is based on the U.S. Treasury zero coupon issues in effect at the time of grant for periods corresponding with the expected term of the option.

Dividends—The Company has never paid dividends on its common stock and does not anticipate paying dividends on common stock for the foreseeable future. Therefore, the Company uses an expected dividend yield of zero.

The following assumptions were used to estimate the fair value of options granted:

		Year Ended December 31,			
	2020 2021 2022				
Expected term (in years)	5.3 – 10.0	5.3 – 6.9	5.1 - 7.0		
Expected volatility	53.23% - 72.02%	45.98% - 65.01%	47.58% - 52.96%		
Risk-free interest rate	0.33% - 1.50%	0.62% - 1.34%	1.70% - 4.23%		
Dividend yield	%	%	%		

The following assumptions were used to estimate the fair value of the February 2022 PRSUs granted:

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Expected term (in years)	6.9
Expected volatility	48.43%
Risk-free interest rate	1.89%
Dividend yield	<u> </u>

The following assumptions were used to estimate the fair value of ESPP purchase rights:

	Year Ended	l December 31,
	2021	2022
Expected term (in years)	0.5 - 0.6	0.5
Expected volatility	61.65% - 152.95%	91.98% - 179.35%
Risk-free interest rate	0.05% - 0.09%	0.72% - 3.13%
Dividend yield	<u> </u> %	%

Stock-Based Compensation

The Company recorded stock-based compensation in the following expense categories in its consolidated statements of operations and comprehensive income (loss) for employees and nonemployees:

	Year Ended December 31,				
	2020		2021		2022
Sales and marketing	\$ 1,5	62 \$	6,059	\$	11,354
Customer operations	8	98	6,251		9,355
Engineering and product development	4,8	44	39,191		72,169
General, administrative, and other	4,2	.09	21,685		33,067
Total	\$ 11,5	\$ 13	73,186	\$	125,945

10. Leases

The Company's operating leases expire between 2027 and 2032 and are primarily for its corporate headquarters in San Mateo, California and Columbus, Ohio, as well as additional office space in Columbus, Ohio and Austin, Texas. Certain leases have rent abatement, escalating rent payment provisions, lease renewal options, and tenant allowances. Rent expense is recognized on a straight-line basis over the non-cancelable lease term, except when it is reasonably certain that the renewal option will be exercised. For leases where the Company is reasonably certain to exercise a renewal option, such option periods have been included in the determination of the Company's ROU assets and lease liabilities on our consolidated balance sheets.

In connection with the Company's lease agreements, letters of credit were issued on behalf of the Company for the benefit of the landlord in an aggregate amount of \$3.4 million. The letters of credit are secured by certificates of deposit which are included in restricted cash on the consolidated balance sheets.

As of December 31, 2022, future minimum lease payments are as follows:

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	Operating L	
2023	\$	15,091
2024		17,054
2025		17,544
2026		18,055
2027		17,745
Thereafter		34,816
Total undiscounted lease payments		120,305
Less: Tenant improvement receivables		(3,341)
Less: Present value adjustment		(16,177)
Operating lease liabilities	\$	100,787

The Company did not have any material finance leases in any year presented. The Company's operating lease expense consists of rent and variable lease payments. Variable lease payments such as common area maintenance and parking fees, were included in operating expenses. Rent expense for the Company's short-term leases was immaterial for the years presented. Operating lease expense was as follows:

	Year Ended December 31,						
		2020		2021		2022	
Rent expense	\$	5,264	\$	7,756	\$	15,916	
Variable lease payments		1,357		1,650		3,696	

Supplemental cash flow and non-cash information related to the Company's operating leases was as follows:

	Year Ended December 31,			
		2020	2021	2022
Cash paid for amounts included in the measurement of lease liabilities	\$	4,158	\$ 4,553	\$ 11,084
Total right-of-use assets capitalized		5,506	83,463	1,826

Supplemental balance sheet information related to the Company's operating leases was as follows:

	December 31, 2022
Weighted-average remaining lease term (in years)	7.28
Weighted-average discount rate	3.85%

11. Commitments and Contingencies

Commitments

The Company has loan purchase obligations under the Company's loan agreements with certain lending partners. These lending partners retain ownership of the loans facilitated through Upstart's platform for three days or

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longer (the "holding period") after origination, as required under the respective agreements. The Company has committed to purchase the loans at the conclusion of the required holding period. As of December 31, 2021 and 2022, the total loan purchase commitment included outstanding principal balance of \$111.3 million and \$17.8 million, respectively.

Contingencies

Accounting for contingencies requires the Company to use judgment related to both the likelihood of a loss and the estimate of the amount or range of loss. The Company records a loss contingency when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The Company discloses material contingencies when it believes a loss is not probable but reasonably possible and may voluntarily provide information on additional contingencies.

From time to time the Company is subject to, and it is presently involved in, various litigation and legal proceedings arising from the ordinary course of business activities the outcome of which the Company cannot reasonably determine. Other than the class actions described below, the Company does not believe that it is presently a party to any litigation of which the outcome would individually, or taken together, have a material adverse effect on our business, operating results, cash flows, or financial condition. As of December 31, 2021 and 2022, no loss contingency has been recorded in connection with legal proceedings.

Indemnifications

In the ordinary course of business, the Company may provide indemnifications of varying scope and terms to vendors, directors, officers and other parties with respect to certain matters. In addition, the Company has entered into indemnification agreements with directors and certain officers and employees that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors, officers or employees. No demands have been made upon the Company to provide indemnification under such agreements, and thus, there are no claims that the Company is aware of that could have a material effect on the Company's consolidated financial statements.

Repurchases

Under the terms of the loan purchase and loan servicing agreements between the Company and institutional investors, as well as in agreements with investors in securitizations and pass-through certificate transactions, the Company may, in certain circumstances, become obligated to repurchase loans from such institutional investors. Generally, these circumstances include the occurrence of verifiable identity theft, the failure of sold loans to meet the terms of certain loan-level representations and warranties that speak as of the time of origination or sale, the failure to comply with other contractual terms with the institutional investors, or a violation of the applicable federal, state, or local lending laws.

The maximum potential amount of future payments associated under this obligation is the outstanding balances of the loans sold to the institutional investors, which at December 31, 2021 and 2022 is \$12,905.5 million and \$15,551.1 million, respectively. Actual payments made relating to the Company's repurchase and indemnification obligations were immaterial. The Company has recorded contingent liabilities as of December 31, 2021 and 2022 of immaterial amounts to cover estimated future obligations related to these contractual terms. These amounts are included in accrued expenses and other liabilities on the Company's consolidated balance sheets.

Legal

On May 13, 2022, a purported class action lawsuit was filed in the United States District Court, Northern District of California, captioned Ward v. Upstart Holdings, Inc., et al., Case No. 5:22-cv-02856-BLF (N.D. Cal.) against the Company, the Company's Chief Executive Officer, and Chief Financial Officer alleging, among other

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

things, that the defendants made false and/or misleading statements or omissions about the Company's business, operations, and prospects in violation of Section 10(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and Rule 10b-5 promulgated thereunder, as well as Section 20(a) of the Exchange Act. The Ward lawsuit claimed unspecified damages and legal fees.

Between May 19, 2022 and June 22, 2022, two additional related purported class action lawsuits were filed in the United States District Court, Northern District of California, captioned Plymouth County Retirement Association v. Upstart Holdings, Inc., et al., Case No. 3:22-cv-02973-WHO (N.D. Cal.) and Zhang v. Upstart Holdings, Inc., et al., Case No. 3:22-cv-03668-JD (N.D. Cal.). On July 7, 2022, a related purported class action lawsuit was filed in the United States District Court, Southern District of Ohio, captioned Handelsbanken Fonder AB v. Upstart Holdings, Inc., et al., Case No. 2:22-cv-02706-SDM-EPD (S.D. Ohio). The Zhang, Plymouth County, and Handelsbanken Fonder actions named the same defendants and made similar allegations to those in the Ward action.

On July 11, 2022, plaintiffs in the Zhang and Plymouth County actions filed notices voluntarily dismissing their lawsuits without prejudice. On July 12, 2022, motions to appoint lead plaintiff and lead counsel were filed in both the Ward action and the Handelsbanken Fonder action. On July 26, 2022, plaintiff in the Ward action filed a notice voluntarily dismissing his lawsuit without prejudice, and on July 27, 2022, plaintiff in the Handelsbanken Fonder action filed a notice voluntarily dismissing its lawsuit without prejudice.

On July 26, 2022, an additional lawsuit was filed in United States District Court, Southern District of Ohio, captioned Crain v. Upstart Holdings, Inc. et al., Case No. 2:22-cv-02935-ALM-EPD (S.D. Ohio) against the Company, the Company's Chief Executive Officer, and Chief Financial Officer. The Crain lawsuit makes allegations similar to those in the Handelsbanken Fonder action and alleges that the defendants made false and/or misleading statements or omissions about the Company's business, operations, and prospects in violation of Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder, as well as Section 20(a) of the Exchange Act. The Crain lawsuit claims unspecified damages and legal fees. On August 16, 2022, the court appointed a lead plaintiff and approved lead counsel in the Crain action. On December 5, 2022, the lead plaintiff filed a consolidated amended complaint, which names the same defendants as the previous complaint, along with two Company executives, as well as Third Point LLC and its CEO and Third Point Ventures LLC and its managing partner (also a former Upstart board member). The consolidated amended complaint brings the same claims as the previous complaint but adds a claim under Section 20A of the Exchange Act. Under the current scheduling order, defendants will file a motion to dismiss on or before February 24, 2023. No hearing date has been set for that motion.

On July 28, 2022, a derivative lawsuit was filed in United States District Court, Southern District of Ohio, captioned OConnor v. Huber et al., Case No. 2:22-cv-02961-EAS-KAJ (S.D. Ohio). The OConnor action includes allegations similar to those in the Crain complaint, and names as defendants each of the Company's current board members and its Chief Financial Officer. The Company is named as a nominal defendant. The OConnor action includes claims for violation of Section 10(b) of the Exchange Act and Rule 10b-5 promulgated thereunder, breach of fiduciary duty, aiding and abetting breach of fiduciary duty, unjust enrichment, and waste of corporate assets. The OConnor action seeks unspecified monetary damages and an accounting from the individual defendants. The OConnor action also seeks unspecified corporate governance and internal procedure modifications, punitive damages, and legal fees.

On October 7, 2022, a second derivative lawsuit was filed in United States District Court, Southern District of Ohio, captioned Chung v. Huber et al., No. 2:22-cv-03620-MHW-CMV (S.D. Ohio). The Chung action includes allegations similar to those in the OConnor complaint, and names as defendants each of the Company's current board members, a former board member, and its Chief Financial Officer. The Company is named as a nominal defendant. The Chung action includes claims for violation of Section 10(b), 14(a), and 21D of the Exchange Act, breach of fiduciary duties, unjust enrichment, abuse of control, gross mismanagement, and waste of corporate assets. The Chung action seeks unspecified monetary damages, restitution, and attorney's fees and costs from the individual defendants. It also seeks corporate governance and internal procedure modifications.

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

On December 12, 2022, in response to a joint motion by the parties, the Court consolidated the OConnor and Chung matters, appointed co-lead counsel, and stayed the consolidated case until resolution of the related Crain securities class action.

On February 3, 2023, a third derivative lawsuit was filed, in the United States District Court, District of Delaware, captioned Hsu v. Girouard, et al., 1:23-cv-00132-UNA (D. Del.). The Hsu action includes allegations similar to those in the consolidated derivative matter pending in Ohio, and names as defendants each of the Company's current board members, a former board member, and its Chief Financial Officer. The Company is named as a nominal defendant. The Hsu action includes claims for violation of Section 14(a) of the Exchange Act as well as breach of fiduciary duties, and seeks unspecified monetary damages, restitution, and attorney's fees and costs from the individual defendants. It also seeks corporate governance and internal procedure modifications.

The Company believes the claims in the above-referenced lawsuits are without merit and intends to defend itself vigorously.

Given the uncertainty of litigation described above, the preliminary stage of the cases, and the legal standards that must be met for, among other things, class certification and success on the merits, the Company cannot estimate the reasonably possible loss or range of loss that may result from these actions.

12. Income Taxes

Income (loss) before income taxes consisted entirely of income (loss) from domestic operations of \$6.0 million, \$133.7 million and \$(109.1) million for the calendar year ended December 31, 2020, 2021 and 2022, respectively. Income tax (benefit) expense included in the statements of operations and comprehensive income (loss) consisted of the following:

	Year Ended December 31,				
		2020	2021	2022	
Current:					
Federal	\$		\$	\$ —	
State		371	229	174	
Total current tax expense		371	229	174	
Deferred:					
Federal			(1,435)	41	
State		<u> </u>	(506)	(624)	
Total deferred tax expense	·	_	(1,941)	(583)	
Total (benefit) provision for income taxes	\$	371	\$ (1,712)	\$ (409)	

Income tax expense differed from the amount computed by applying the Federal statutory income tax rate of 21% to net income (loss) before income taxes for the year ended December 31, 2022 as a result of the following:

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

Year Ended December 31, 2020 2022 2021 Federal tax at statutory rate 1,271 \$ 28,084 \$ (22,906)State income taxes, net of federal tax benefit 369 (248)(448)2,371 Fair value adjustment on warrants (236,726)(4,490)Stock-based compensation (1,476)Research and development credit (1,231)(19,103)(6,333)PPP loan forgiveness (CARES Act) (1,110)1,110 26,263 Change in valuation allowance 273 222,230 309 Tax return to tax provision adjustment (216)(34)Section 162(m) limitation 2,653 6,494 Noncontrolling interests 85 702 Other 35 322 371 (1,712) (409)(Benefit) provision for income taxes

The tax effects of temporary differences that gave rise to significant portions of the Company's deferred tax assets and liabilities related to the following:

	December 31,		
	2021	2022	
Deferred tax assets:			
Net operating loss carryforwards	\$ 297,851	\$ 304,879	
Operating lease liabilities	29,870	29,052	
Research and development credits	29,046	38,796	
Capitalized research and experimental expenditures	_	28,732	
Convertible debt transactions	15,184	10,734	
Stock-based compensation	9,895	13,714	
Accruals and reserves	6,908	2,948	
Investment in partnerships	1,020	801	
Amortization	111	90	
Other	573	631	
Total deferred tax assets	390,458	430,377	
Less: valuation allowance	(351,542)	(387,976)	
Deferred tax assets – net of valuation allowance	38,916	42,401	
Deferred tax liabilities:			
Right of use asset	28,606	24,887	
Servicing rights	2,859	9,368	
Intangible assets	5,911	4,502	
Depreciation	2,123	3,644	
Total deferred tax liabilities	39,499	42,401	
Net deferred tax liabilities	\$ (583)	\$	

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

Management believes that, based on available evidence, both positive and negative, it is more likely than not that the deferred tax assets will not be utilized, and as such the Company maintains a full valuation allowance at December 31, 2022. The valuation allowance increased by \$36.4 million for the year ended December 31, 2022 primarily as a result of current year activities.

As of December 31, 2022, the Company had approximately \$1,012.0 million and \$1,400.6 million of federal and state (post-apportioned) net operating losses (NOL), that will begin to expire in 2035 and 2034, respectively. The Company also has Federal and California research and development tax credits of \$40.1 million and \$19.1 million, respectively. The Federal research credits will begin to expire in 2032 and the California research credits have no expiration date. The Internal Revenue Code ("IRC") limits the amount of NOL carryforwards that a company may use in a given year in the event of certain cumulative changes in ownership over a three-year period as described in Section 382 of the IRC. Utilization of NOL carryforwards and credits may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. The annual limitation may result in the expiration of net operating losses and credits before utilization. The Company performed an ownership analysis and identified ownership changes in prior years, as defined under IRC Section 382 and 383, however neither resulted in a material limitation that will reduce the total amount of NOL carryforwards and credits that can be utilized.

A reconciliation of the beginning and ending balances of gross unrecognized tax benefits is as follows:

	Year Ended December 31,					
		2020		2021		2022
Balance at beginning of year	\$	1,031	\$	1,820	\$	13,904
Additions for tax positions of prior years		_		461		885
Tax positions related to the current year		789		11,623		3,685
Balance at end of year	\$	1,820	\$	13,904	\$	18,474

If recognized, all of the unrecognized tax benefits would not impact the effective tax rate due to the valuation allowance against certain deferred tax assets. As of December 31, 2022, the Company had \$18.5 million unrecognized income tax benefits and there was an increase of \$4.6 million to the Company's unrecognized tax benefits during the year. The Company does not anticipate any significant increases or decreases to unrecognized tax benefits during the next twelve months. The Company's policy is to classify interest and penalties associated with unrecognized tax benefits as income tax expense. The Company had no interest or penalty accruals associated with uncertain tax benefits in its consolidated balance sheet and consolidated statement of operations and comprehensive income (loss) for the tax year ended December 31, 2022.

The Company files income tax returns in the U.S. Federal jurisdiction and various state and local jurisdictions. The Company is not currently under examination by income tax authorities in federal, state, or local jurisdictions. However, because the Company has net operating losses and credits carried forward in several jurisdictions, certain items attributable to closed tax years are still subject to adjustment by applicable taxing authorities through an adjustment to tax attributes carried forward to open years. All tax returns will remain open for examination by the federal and most state taxing authorities for three years and four years, respectively, from the date of utilization of any net operating loss carryforwards or research and development credits.

13. Related Party Transactions

Since the Company's inception, it has engaged in various immaterial transactions with its executive officers and directors, holders of more than 10% of its voting securities, and their affiliates. During the year ended December 31, 2021, a related party investor and its affiliates participated in consolidated securitization transactions sponsored and serviced by the Company by receiving cash distributions on previously purchased securitization notes or residual certificates.

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

The Company had no material related party transactions in the year ended December 31, 2021 and 2022.

14. Net Income (Loss) Per Share Attributable to Upstart Holdings, Inc. Common Stockholders

Basic net income (loss) attributable to Upstart Holdings, Inc. common stockholders per common share is based on the weighted-average common shares outstanding during the relevant year. Diluted net income (loss) attributable to Upstart Holdings, Inc. common stockholders per share is based on the weighted-average common shares outstanding during the relevant year adjusted for the dilutive effect of share-based awards and convertible debt. Basic and diluted net income (loss) attributable to Upstart Holdings, Inc. common stockholders per share are computed independently for each period presented, which involves the use of different weighted-average share count figures relating to quarterly and year-to-date periods. As a result, and after factoring the effect of rounding to the nearest cent per share, the sum of each fiscal quarter-to-date basic and diluted net income (loss) attributable to Upstart Holdings, Inc. common stockholders per share may not equal year-to-date basic and diluted net income (loss) attributable to Upstart Holdings, Inc. common stockholders per share.

For years in which the Company reports net losses, basic and diluted net loss per share are the same because potentially dilutive common shares are not assumed to have been issued if their effect is anti-dilutive.

		Year	r Ended December 3	1,	
	2020		2021		2022
Numerator:					
Net income (loss) attributable to Upstart Holdings, Inc. common stockholders	\$ 5,983	\$	135,443	\$	(108,665)
Less: noncumulative dividends to preferred stockholders	(5,983)		<u> </u>		<u> </u>
Net income (loss) attributable to common stockholders, basic and diluted	 		135,443		(108,665)
Denominator:					
Weighted-average common shares outstanding used to calculate net income (loss) per share attributable to Upstart Holdings, Inc. common stockholders, basic	17,513,670		78,106,359		82,771,268
Weighted-average effect of dilutive securities	_		16,666,282		_
Weighted-average common shares outstanding used to calculate net income (loss) per share attributable to Upstart Holdings, Inc. common stockholders, diluted	17,513,670		94,772,641		82,771,268
Net income (loss) per share attributable to Upstart Holdings, Inc. common stockholders, basic	\$ _	\$	1.73	\$	(1.31)
Net income (loss) per share attributable to Upstart Holdings, Inc. common stockholders, diluted	\$ _	\$	1.43	\$	(1.31)

The following securities were excluded from the computation of diluted net income (loss) attributable to Upstart Holdings, Inc. common stockholders per share for the years presented, due to their anti-dilutive effect. These amounts represent the number of instruments outstanding at the end of each respective year:

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

Year Ended December 31. 2020 2021 2022 19,600,223 12,547,010 Options to purchase common stock 461,157 Unvested RSUs 506,302 6,046,796 Unvested PRSUs 687,500 Purchase rights committed under the ESPP 101,397 Convertible debt 75,000 2,318,078 2,318,078 19,675,223 3,285,537 21,700,781 Total

15. Subsequent Events

The Company has evaluated events that have occurred through the filing date of this Form 10-K. Based on its evaluation, other than any items recorded or disclosed within the consolidated financial statement and related notes, including as discussed below, the Company has determined no subsequent events were required to be recognized or disclosed.

Warehouse Amendment

On January 31, 2023, Upstart Auto Warehouse Trust, the Company's consolidated variable interest entity ("UAWT"), entered into the Omnibus Amendment to the Credit Agreement with a third-party lender which extended the last date by which UAWT may make a drawdown from its existing \$200 million credit facility (the "UAWT Credit Facility") until the earlier of June 2024 or an accelerated amortization event. The UAWT Credit Facility matures in June 2025, at which time all outstanding amounts owed must be repaid. The UAWT Credit Facility bears interest per annum at a rate equivalent to the weighted-average cost of commercial paper notes issued by the lender (the "UAWT Benchmark Rate"), plus a spread ranging from 3.0% to 4.0% and the maximum advance rate under the credit facility on outstanding principal of loans held by UAWT is 80%. All other key terms of the Amended Credit Agreement were otherwise the same as described in *Note 8. Borrowings*.

Reduction in Workforce

On January 31, 2023, in response to the challenging macro environment where many lenders and credit investors have significantly reduced or paused loan originations, the Company implemented a plan of reorganization (the "January 2023 Plan"). The January 2023 Plan is designed to reduce operating costs, streamline operations and return the Company to profitability. The January 2023 Plan involves a reduction of Upstart's current workforce by approximately 20%, or approximately 365 employees.

The Company estimates that it will incur approximately \$15 million in total charges in connection with the January 2023 Plan. The Company expects these charges to be in the form of future cash expenditures related to severance payments, employee benefits and taxes. In addition to these charges, the Company expects to recognize approximately \$3 million of one-time non-cash savings related to the reversal of previously expensed stock-based compensation associated with forfeited stock awards. The Company expects that most of the charges and cash expenditures related to the January 2023 Plan will be incurred or completed in the quarter ending March 31, 2023. The Company intends to exclude any charges related to the January 2023 Plan from its calculation of adjusted EBITDA and adjusted net income.

When the January 2023 Plan is fully implemented, the Company expects to realize cash savings of approximately \$57 million in operating expenses, primarily related to employee cash compensation and benefits, over the next 12 months. The Company also expects to realize additional non-cash savings of approximately \$42 million related to stock-based compensation through 2025.

Notes to Consolidated Financial Statements

(Tabular Amounts in Thousands, Except Share and Per Share Data and Ratios, or as Noted)

The Company may incur other charges or cash expenditures not currently contemplated as a result of or in connection with the January 2023 Plan.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation and supervision of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2022, our disclosure controls and procedures were designed and function effectively to provide reasonable assurance that information required to be disclosed by us in reports filed or submitted under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(d) and 15d-15(d) under the Exchange Act) that occurred during the year ended December 31, 2022 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting. Our management, including our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on its evaluation under the framework in Internal Control - Integrated Framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2022.

The effectiveness of our internal control over financial reporting as of December 31, 2022 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report which appears in Part II, Item 8 of this Annual Report on Form 10-K.

Limitations on Effectiveness of Controls and Procedures

Our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of disclosure controls and procedures must reflect the fact there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will

succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Due to inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Upstart Holdings, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Upstart Holdings, Inc. and subsidiaries (the "Company") as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated February 16, 2023, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that

controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP

San Francisco, California

February 16, 2023

ITEM 9B. OTHER INFORMATION

Not applicable.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

We maintain a Code of Ethics that incorporates our code of ethics applicable to all employees, including all directors and executive officers. Our Code of Ethics is published on our Investor Relations website at ir.upstart.com under "Governance." We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding amendments to, or waiver from, a provision of the Company's Code of Ethics by posting such information on the website address and location specified above.

The remaining information required by this item is incorporated by reference to the definitive Proxy Statement for our 2023 Annual Meeting of Stockholders, which will be filed with the SEC no later than 120 days after December 31, 2022.

ITEM 11. EXECUTIVE COMPENSATION

The remaining information required by this item will be set forth in our Proxy Statement and is incorporated herein by reference. The Proxy Statement will be filed with the SEC no later than 120 days after December 31, 2022.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item will be set forth in our Proxy Statement and is incorporated herein by reference. The Proxy Statement will be filed with the SEC no later than 120 days after December 31, 2022.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item will be set forth in our Proxy Statement and is incorporated herein by reference. The Proxy Statement will be filed with the SEC no later than 120 days after December 31, 2022.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Our principal accountant is Deloitte & Touche, LLP. The information required by this item will be set forth in our Proxy Statement and is incorporated herein by reference. The Proxy Statement will be filed with the SEC no later than 120 days after December 31, 2022.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

We have filed the following documents as part of this Form 10-K:

1. Consolidated Financial Statements

2. Financial Statement Schedules

Financial statement schedules have been omitted because they are not required, not applicable, not present in amounts sufficient to require submission of the schedule, or the required information is shown in the Consolidated Financial Statements or Notes thereto.

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3. Exhibits

The exhibits listed below are filed as part of this Annual Report on Form 10-K or are incorporated herein by reference, in each case as indicated below.

EXHIBIT INDEX

			Incorporated by Reference		
Exhibit Number	Description	Form	File No.	Exhibit	Filing Date
3.1	Amended and Restated Certificate of Incorporation.	10-K	001-39797	3.1	February 18, 2022
3.2	Amended and Restated Bylaws.	8-K	001-39797	3.2	November 18, 2022
4.1	Form of Common Stock Certificate.	S-1/A	333-249860	4.1	December 4, 2020
4.2	Amended and Restated Investors' Rights Agreement among the registrant and certain holders of its capital stock, amended as of December 31, 2018.	S-1	333-249860	4.2	November 6, 2020
4.3*	Description of Capital Stock.				
4.4	Indenture, dated August 20, 2021, between the registrant and U.S. Bank National Association.	8-K	001-39797	4.1	August 20, 2021

10.13(c)

			I	ncorporated by	Reference
Exhibit Number	Description	Form	File No.	Exhibit	Filing Date
4.5	Form of 0.25% Convertible Senior Note due 2026 (included in the indenture filed as Exhibit 4.4).	8-K	001-39797	4.2	August 20, 2021
10.1+	Form of Indemnification Agreement between the registrant and each of its directors and executive officers.	S-1/A	333-249860	10.1	December 4, 2020
0.2+	2020 Equity Incentive Plan and related form agreements.	10-Q	001-39797	10.1	November 12, 2021
0.3+	2012 Stock Plan and related form agreements.	S-1/A	333-249860	10.3	November 6, 2020
0.4+	Employee Incentive Compensation Plan.	S-1/A	333-249860	10.4	December 4, 2020
0.5+	2020 Employee Stock Purchase Plan.	S-1/A	333-249860	10.5	December 4, 2020
0.6+	Prodigy Software, Inc. 2015 Stock Incentive Plan and related form agreements.	S-8	333-255270	4.4	April 16, 2021
0.7+	Amended and Restated Executive Change in Control and Severance Policy and related participation.	8-K	001-39797	10.1	November 18, 2022
0.8+	Outside Director Compensation Policy.	10-K	001-39797	10.7	February 18, 2022
0.9+	Performance Award Agreement between the registrant and Paul Gu.	8-K	001-39797	10.1	February 23, 2022
0.10+*	Employment Offer Letter, dated October 6, 2022, between Upstart Network, Inc. and Scott Darling.				
0.11	Sub-Sublease Agreement, dated April 1, 2019, between the registrant and Snowflake, Inc.	S-1	333-249860	10.8	November 5, 2020
0.12	Sublease, dated September 13, 2021, between Upstart Network, Inc. and Open Text, Inc.	10-Q	001-39797	10.3	November 12, 2021
0.13^	Third Amended and Restated Loan Program Agreement, dated January 1, 2019, between Upstart Network, Inc. and Cross River Bank, amended by Amendments thereto, each dated November 20, 2019 and November 25, 2020, and Auto Loan Program Agreement Addendum thereto, dated November 25, 2020.	S-1/A	333-249860	10.13	December 4, 2020
0.13(a)^	Amendment No. 3 to Third Amended and Restated Loan Program Agreement, dated May 25, 2021, between Upstart Network, Inc. and Cross River Bank.	10-Q	001-39797	10.3	August 13, 2021
0.13(b)^	Amendment No. 4 to Third Amendment and Restated Loan Program Agreement, dated September 30, 2022, between Upstart Network, Inc. and Cross River Bank.	10-Q	001-39797	10.3	November 9, 2022
0.12(a)	C UP : I P A A A A A A A A A A A A A A A A A A	10.0	001 20707	10.4	N

10-Q

001-39797

10.4

November 9, 2022

Small Business Loan Program Agreement Addendum to Third Amended and Restated Loan Program Agreement, dated June 28, 2022, between Upstart Network, Inc. and Cross River Bank.

			I	ncorporated by	Reference
Exhibit Number	Description	Form	File No.	Exhibit	Filing Date
10.14^	Third Amended and Restated Loan Sale Agreement, dated January 1, 2019, between Upstart Network, Inc. and Cross River Bank, amended by Amendment No. 1 thereto and Auto Loan Program Sale Agreement Addendum thereto, each dated November 25, 2020.	S-1/A	333-249860	10.14	December 4, 2020
10.14(a)^	Amendment No. 2 to Third Amended and Restated Loan Sale Agreement, dated May 25, 2021, between Upstart Network, Inc. and Cross River Bank.	10-Q	001-39797	10.2	August 13, 2021
10.14(b)^	Amendment No. 3 to Third Amendment and Restated Loan Sale Agreement, dated September 30, 2022, between Upstart Network, Inc. and Cross River Bank.	10-Q	001-39797	10.2	November 9, 2022
10.14(c)	Small Business Loan Program Sale Agreement Addendum to Third Amended and Restated Loan Sale Agreement, dated June 28, 2022, between Upstart Network, Inc. and Cross River Bank.	10-Q	001-39797	10.5	November 9, 2022
10.15^	Second Amended and Restated Promotion Agreement, dated November 6, 2020, between Upstart Network, Inc. and Credit Karma Offers, Inc.	S-1/A	333-249860	10.15	November 6, 2020
10.15(a)*	Amendment No. 1 to Second Amended and Restated Promotion Agreement, dated May 5, 2022, between Upstart Network, Inc. and Credit Karma Offers, Inc.				
10.15(b)^	Amendment No. 2 to Second Amended and Restated Promotion Agreement, dated August 9, 2022, between Upstart Network, Inc. and Credit Karma Offers, Inc.	10-Q	001-39797	10.1	November 9, 2022
10.16^	Amended and Restated TransUnion Master Agreement for Consumer Reporting and Ancillary Services, dated November 25, 2020, between Upstart Network, Inc. and TransUnion LLC.	S-1/A	333-249860	10.16	December 7, 2020
10.17^	Amended and Restated Billing Agent Agreement, dated November 25, 2020, between Upstart Network, Inc. and Trans Union LLC.	S-1/A	333-249860	10.17	December 7, 2020
10.18	Form of Capped Call Confirmation.	8-K	001-39797	10.1	August 20, 2021
21.1*	List of subsidiaries of the registrant.				
23*	Consent of Independent Registered Public Accounting Firm.				
24.1	Power of Attorney (included in the signature page hereto).				
31.1*	Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				

			Incorporated by Reference		
Exhibit Number	Description	Form	File No.	Exhibit	Filing Date
31.2*	Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
32.1*	Certifications of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101.INS*	Inline XBRL Instance Document				
101.SCH*	Inline XBRL Taxonomy Extension Schema Document				
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document				
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document				

Filed herewith.

ITEM 16. FORM 10-K SUMMARY

None.

Indicates management contract or compensatory plan.

Portions of this exhibit (indicated by asterisk) have been excluded because such information is both (i) not material and (ii) would be competitively harmful if publicly disclosed.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Date: February 16, 2023

Upstart Holdings, Inc

By: /s/ Dave Girouard

Dave Girouard Chief Executive Officer and Director (Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Dave Girouard, Sanjay Datta and Scott Darling, and each of them, as his or her true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such individual in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or the individual's substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Annual Report on Form 10-K has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ Dave Girouard	Chief Executive Officer and Director	February 16, 2023
Dave Girouard	(Principal Executive Officer)	
/s/ Sanjay Datta	Chief Financial Officer	February 16, 2023
Sanjay Datta	(Principal Financial Officer)	
/s/ Natalia Mirgorodskaya	Corporate Controller	February 16, 2023
Natalia Mirgorodskaya	(Principal Accounting Officer)	
/s/ Sukhinder Singh Cassidy	Director	February 16, 2023
Sukhinder Singh Cassidy		
/s/ Kerry Cooper	Director	February 16, 2023
Kerry Cooper		

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/s/ Paul Gu	Director	February 16, 2023
Paul Gu		
//2/		F.1. 16.0000
/s/ Mary Hentges	Director	February 16, 2023
Mary Hentges		
/ / I. CCII. I	P: /	E.I. 16 2022
/s/ Jeff Huber	Director	February 16, 2023
Jeff Huber		
/s/ Ciaran O'Kelly	Director	February 16, 2023
Ciaran O'Kelly	Director	1 cordary 10, 2023
Charan & Itony		
/s/ Hilliard C. Terry III	Director	February 16, 2023
Hilliard C. Terry III		

DESCRIPTION OF CAPITAL STOCK

The following description of capital stock of Upstart Holdings, Inc. ("us", "our", "we," or the "Company") is a summary of the rights of our common stock and certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws as currently in effect. This summary does not purport to be complete and is qualified in its entirety by the provisions of our amended and restated certificate of incorporation, amended and restated bylaws, and Amended and Restated Investors' Rights Agreement ("IRA"), each previously filed with the Securities and Exchange Commission and incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.3 is a part, as well as to the applicable provisions of the Delaware General Corporation Law (the "DGCL"). We encourage you to read our amended and restated certificate of incorporation, amended and restated bylaws, IRA, and the applicable provisions of the DGCL carefully.

General

Our authorized capital stock consists of 770,000,000 shares, \$0.0001 par value per share of which:

- 700,000,000 shares are designated as common stock; and
- 70,000,000 shares are designated as preferred stock.

Common Stock

Dividend Rights

Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of our common stock are entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine.

Voting Rights

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. We have not provided for cumulative voting for the election of directors in our amended and restated certificate of incorporation. Our amended and restated certificate of incorporation establishes a classified board of directors that is divided into three classes with staggered three-year terms. Only the directors in one class will be subject to election by a plurality of the votes cast at each annual meeting of stockholders, with the directors in the other classes continuing for the remainder of their respective three-year terms.

No Preemptive or Similar Rights

Our common stock is not entitled to preemptive rights, and is not subject to conversion, redemption or sinking fund provisions.

Right to Receive Liquidation Distributions

If we become subject to a liquidation, dissolution or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock and any participating preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

Preferred Stock

Pursuant to our amended and restated certificate of incorporation, our board of directors will have the authority, subject to limitations prescribed by the DGCL, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences, and rights of the shares of each series and any of its qualifications, limitations, or restrictions, in each case without further vote or action by our stockholders. Our board of directors can also increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of the Company and might adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. We have no current plan to issue any shares of preferred stock.

Registration Rights

Certain holders of our common stock are entitled under the IRA to rights with respect to the registration of their shares under the Securities Act. The registration rights set forth in the IRA will expire four years following our initial public offering, which occurred in December 2020, or, with respect to any particular stockholder, when such stockholder is able to sell all of its shares pursuant to Rule 144 of the Securities Act during any 90-day period. We will pay the registration expenses (other than underwriting discounts and commissions) of the holders of the shares registered pursuant to the demand registrations and piggyback registrations described below. Holders of our preferred stock participating in any S-3 registrations below will pay their own registration expenses. In an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions, to limit the number of shares such holders may include.

Demand Registration Rights

Certain holders of our common stock are entitled to demand registration rights pursuant to the IRA. At any time beginning six months after the effective date of our initial public offering, the holders of at least 50% of these shares then outstanding can request that we register the offer and sale of their shares. Such request for registration must cover securities, the aggregate public offering price of which, after payment of underwriting discounts and commissions, is at least \$5,000,000. We are obligated to effect only two such registrations. If we determine that it would be seriously detrimental to us and our stockholders to effect such a demand registration, we have the right to defer such registration, not more than once in any 12-month period, for a period of up to 120 days.

Piggyback Registration Rights

If we propose to register the offer and sale of our common stock under the Securities Act, in connection with the public offering of such common stock, certain holders of our common stock will be entitled to certain "piggyback" registration rights allowing the holders to include their shares in such registration, subject to certain marketing and other limitations. As a result, whenever we propose to file a registration statement under the Securities Act, other than with respect to (i) a registration in which the only common stock being registered is common stock issuable upon conversion of debt securities that are also being registered; (ii) a registration related to any employee benefit plan or a corporate reorganization or other transaction covered by Rule 145 promulgated under the Securities Act; or (iii) a registration on any registration form which does not include substantially the same information as would be required to be included in a registration statement covering the public offering of our common stock, the holders of these shares are entitled to notice of the registration and have the right, subject to certain limitations, to include their shares in the registration.

S-3 Registration Rights

After 180 days following the completion of our initial public offering, certain holders of our common stock are entitled to certain Form S-3 registration rights pursuant to the IRA. The holders of at least 50% of these shares then outstanding may make a written request that we register the offer and sale of their shares on a registration statement on Form S-3 if we are eligible to file a registration statement on Form S-3 so long as the request covers securities the anticipated aggregate public offering price of which, after payment of underwriting discounts and commissions, is at least \$1,000,000. These stockholders may make an unlimited number of requests for registration on Form S-3; however, we will not be required to effect a registration on Form S-3 if we have effected two such registrations within the 12-month period preceding the date of the request or if we have already previously effected three such registrations. Additionally, if we determine that it would be seriously detrimental to us and our stockholders to effect such a registration, we have the right to defer such registration, not more than once in any 12-month period, for a period of up to 120 days.

Anti-Takeover Provisions

Certain provisions of Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws, which are summarized below, may have the effect of delaying, deferring or discouraging another person from acquiring control of the Company. They are also designed, in part, to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms.

Delaware Law

We are governed by the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- the business combination or transaction which resulted in the stockholder becoming an interested stockholder was approved by the board of directors prior to the time that the stockholder became an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the

transaction commenced, excluding shares owned by (i) directors who are also officers of the corporation and (ii) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

at or subsequent to the time the stockholder became an interested stockholder, the business combination was approved by the board of directors and
authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the
outstanding voting stock which is not owned by the interested stockholder.

In general, Section 203 defines a "business combination" to include mergers, asset sales, and other transactions resulting in financial benefit to a stockholder and an "interested stockholder" as a person who, together with affiliates and associates, owns, or within three years did own, 15% or more of the corporation's outstanding voting stock. These provisions may have the effect of delaying, deferring or preventing changes in control of our company.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws Provisions

Our amended and restated certificate of incorporation and our amended and restated bylaws, includes a number of provisions that could deter hostile takeovers or delay or prevent changes in control of our board of directors or management team, including the following:

Board of Directors Vacancies

Our amended and restated certificate of incorporation and amended and restated bylaws authorize only our board of directors to fill vacant directorships, including newly created seats. In addition, the number of directors constituting our board of directors is permitted to be set only by a resolution adopted by a majority vote of our entire board of directors. These provisions would prevent a stockholder from increasing the size of our board of directors and then gaining control of our board of directors by filling the resulting vacancies with its own nominees. This will make it more difficult to change the composition of our board of directors and will promote continuity of management.

Classified Board

Our amended and restated certificate of incorporation and amended and restated bylaws provide that our board of directors is classified into three classes of directors. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of us as it is more difficult and time consuming for stockholders to replace a majority of the directors on a classified board of directors.

Stockholder Action; Special Meeting of Stockholders

Our amended and restated certificate of incorporation provide that our stockholders may not take action by written consent, but may only take action at annual or special meetings of our stockholders. As a result, a holder controlling a majority of our capital stock would not be able to amend our amended and restated bylaws or remove directors without holding a meeting of our stockholders called in accordance with our amended and restated bylaws. Our amended and restated bylaws further provides that special meetings of our stockholders may be called only by a majority of our board of directors, the chairperson of our board of directors, our President or our Chief Executive Officer, thus prohibiting a stockholder from calling a special meeting. These provisions might delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.

Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our amended and restated bylaws provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders or to nominate candidates for election as directors at our annual meeting of stockholders. Our amended and restated bylaws also specify certain requirements regarding the form and content of a stockholder's notice. These provisions might preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of the Company.

No Cumulative Voting

The Delaware General Corporation Law provides that stockholders are not entitled to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. Our amended and restated certificate of incorporation does not provide for cumulative voting.

Directors Removed Only for Cause

Our amended and restated certificate of incorporation provides that stockholders may remove directors only for cause.

Amendment of Charter Provisions

Any amendment of the above provisions in our amended and restated certificate of incorporation would require approval by holders of at least 66 2/3% of our then outstanding capital stock.

Issuance of Undesignated Preferred Stock

Our board of directors has the authority, without further action by our stockholders, to issue up to 70,000,000 shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by our board of directors. The existence of authorized but unissued shares of preferred stock would enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or other means.

Exclusive Forum

Our amended and restated bylaws provide that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf; (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, stockholders, officers, or other employees to us or our stockholders; (iii) any action arising pursuant to any provision of the Delaware General Corporation Law or our certificate of incorporation or bylaws; or (iv) any other action asserting a claim that is governed by the internal affairs doctrine shall be the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another state court in Delaware or the federal district court for the District of Delaware), in all cases subject to the court having jurisdiction over the claims at issue and the indispensable parties; provided that the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Exchange Act. Our amended and restated bylaws further provide that, unless we consent in writing to the selection of an

alternative forum, the federal district courts of the United States will be the sole and exclusive forum for resolving any complaints asserting a cause of action arising under the Securities Act. Any person or entity purchasing, holding or otherwise acquiring any interest in our securities shall be deemed to have notice of and consented to this provision. Although we believe these provisions benefit us by providing increased consistency in the application of Delaware law for the specified types of actions and proceedings, the provisions may have the effect of discouraging lawsuits against us or our directors and officers. This exclusive forum provision will not apply to any causes of action arising under the Exchange Act or any other claim for which the federal or other courts have exclusive jurisdiction.

Limitations of Liability and Indemnification

Section 145 of the Delaware General Corporation Law authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnity to officers, directors, and other corporate agents.

Our amended and restated certificate of incorporation contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for the following:

- any breach of their duty of loyalty to our company or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law;
- · any transaction from which they derived an improper personal benefit.

Any amendment to, or repeal of, these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to that amendment or repeal. If the DGCL is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the Delaware General Corporation Law.

In addition our amended and restated bylaws provide that we will indemnify, to the fullest extent permitted by law, any person who is or was a party or is threatened to be made a party to any action, suit or proceeding by reason of the fact that he or she is or was one of our directors or officers or is or was serving at our request as a director or officer of another corporation, partnership, joint venture, trust or other enterprise. Our amended and restated bylaws provide that we may indemnify to the fullest extent permitted by law any person who is or was a party or is threatened to be made a party to any action, suit or proceeding by reason of the fact that he or she is or was one of our employees or agents or is or was serving at our request as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise. Our amended and restated bylaws also provide that we must advance expenses incurred by or on behalf of a director or officer in advance of the final disposition of any action or proceeding, subject to limited exceptions.

Further, we have entered into or will enter into indemnification agreements with each of our directors and executive officers that may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements require us, among other things, to indemnify our directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements also require us to advance all expenses incurred by the directors and executive officers in investigating or defending any

such action, suit or proceeding. We believe that these agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

The limitation of liability and indemnification provisions that are expected to be included in our amended and restated certificate of incorporation, amended and restated bylaws, and the indemnification agreements that we have entered into or will enter into with our directors and executive officers may discourage stockholders from bringing a lawsuit against our directors and executive officers for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against our directors and executive officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and executive officers as required by these indemnification provisions. At present, we are not aware of any pending litigation or proceeding involving any person who is or was one of our directors, officers, employees or other agents or is or was serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, for which indemnification is sought, and we are not aware of any threatened litigation that may result in claims for indemnification.

We have obtained insurance policies under which, subject to the limitations of the policies, coverage is provided to our directors and executive officers against loss arising from claims made by reason of breach of fiduciary duty or other wrongful acts as a director or executive officer, including claims relating to public securities matters, and to us with respect to payments that may be made by us to these directors and executive officers pursuant to our indemnification obligations or otherwise as a matter of law.

Certain of our non-employee directors may, through their relationships with their employers, be insured or indemnified against certain liabilities incurred in their capacity as members of our board of directors.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, located at 6201 15th Avenue, Brooklyn, NY 11219.

Listing

Our common stock is listed on the Nasdaq Global Select Market under the symbol "UPST".



October 6, 2022

Scott Darling

Dear Scott:

Upstart Network, Inc., a Delaware corporation (the "Company"), is pleased to offer you employment with the Company on the terms described below.

- **1. Position**. You will start in a full-time position as Chief Legal Officer and you will initially report to Dave Girouard, CEO. By signing this letter, you confirm with the Company that you are under no contractual or other legal obligations that would prohibit you from performing your duties with the Company.
- 2. Compensation and Employee Benefits. You will be paid a starting salary at the rate of \$410,000.00 per year, payable on the Company's regular payroll dates. You will be eligible to earn a target discretionary bonus in 2022 of 75% based on company and individual performance. You are eligible for the current year bonus if you join the Company by September 30th of the year. If you join after, you're eligible for the yearly bonus the following year. You will also receive a signing bonus of \$100,000.00 payable in your first two paychecks. If during the first 12 months your employment is terminated voluntarily, you must refund a portion of the bonus by offset of last check and direct payment of remaining balance. The amount of the signing bonus refund shall be in an amount prorated to the portion of the first 12 months that you do not work at the Company. You will also be an "Eligible Employee" at the Tier 2 level under Upstart Holding, Inc.'s Executive Change in Control and Severance Policy (the "Severance Policy"), and your Participation Agreement under such Policy is attached hereto as Exhibit A. In addition, notwithstanding anything in this offer letter, the other terms of your employment or any Company policies, if you are subject to a Non-CIC Qualified Termination at any time, you will be eligible to receive the applicable Salary Severance and COBRA Benefit set forth below upon a Non-CIC Qualified Termination. A Non-CIC Qualified Termination is a termination of your employment either (x) by the Company without Cause (as defined in the Severance Policy), in either case, outside of the Change in Control Period (as defined in the Severance Policy).
 - Salary Severance: 12 months, provided that if such Non-CIC Qualified Termination occurs in the first 12 months of your employment such Salary Severance will be 6 months.
 - COBRA Benefit: 12 months, provided that if such Non-CIC Qualified Termination occurs in the first 12 months of your employment such COBRA Benefit will be 6 months.

3. Equity

Restricted Stock Units. You will be recommended for a grant of restricted stock units ("RSUs") for shares of common stock of Upstart Holdings, Inc., the parent company of the Company ("Upstart Holdings"), with an economic value of \$4,000,000.00 (the "RSU Economic Value") to be calculated as follows: if approved by Upstart Holdings' Compensation Committee of its Board of Directors (the "Compensation Committee"), you will receive a number of RSUs, rounded up to the nearest unit, equal to the RSU Economic Value divided by the average closing price of Upstart Holdings' common stock on the NASDAQ Global Select Market during a sixty (60) trading day period prior to the date of grant. Subject to your continued employment, your RSUs will be earned on a four-year quarterly vesting schedule such that 1/16th of the RSU shares will be earned each quarter after your vesting commencement date. Your RSUs will be subject to the terms and conditions applicable to RSUs granted under the applicable stock plan, as described in that plan and the applicable RSU agreement, which you will be required to sign.

Stock Options. Subject to the approval of the Compensation Committee, you will also be granted a stock option to purchase shares of Upstart Holdings' common stock with an economic value of \$4,000,000.00 (the "Stock Option Economic Value"). The Stock Option Economic Value will be converted into a number of option shares using a RSUs to options ratio of 45% (roughly 2.2 options for each RSU granted). The exercise price of the stock option will be equal to the fair market value of Upstart Holding's common stock on the date the stock option is granted. Your stock option will be subject to the terms and conditions applicable to stock options granted under the applicable stock plan, as described in that plan and the applicable stock option agreement, which you will be required to sign. Subject to your continued employment, your stock option will be earned on a four-year monthly vesting schedule such that 1/48th of the total option shares will be earned each month after your vesting commencement date.

- **4. Confidential Information and Invention Assignment Agreement.** Like all Company employees, you will be required, as a condition of your employment with the Company, to sign the Company's enclosed standard Confidential Information and Invention Assignment Agreement.
- **5. Employment Relationship.** Employment with the Company is for no specific period of time. Your employment with the Company will be "at will," meaning that either you or the Company may terminate your employment at any time and for any reason, with or without cause. Any contrary representations, which may have been made to you are superseded by this offer. This is the full and complete agreement between you and the Company on this term. Although your job duties, title, compensation, as well as the Company's personnel policies and procedures, may change from time to time, the "at will" nature of your employment may only be changed in an express written agreement signed by you and the Company's Chief Executive Officer.

- **6. Outside Activities.** While you render services to the Company, you agree that you will not engage in any other employment, consulting or other business activity without the written consent of the Company. In addition, while you render services to the Company, you will not assist any person or entity in competing with the Company, in preparing to compete with the Company or in hiring any employees or consultants of the Company.
- **7. Withholding Taxes.** All forms of compensation referred to in this letter are subject to applicable withholding and payroll taxes.
- **8. Entire Agreement.** This letter supersedes and replaces any prior understandings or agreements, whether oral, written or implied, between you and the Company regarding the matters described in this letter.

If you wish to accept this offer, please sign and date both the enclosed duplicate original of this letter and the enclosed Confidential Information and Invention Assignment Agreement and return them to me. As required, by law, your employment with the Company is also contingent upon your providing legal proof of your identity and authorization to work in the United States.

Sincerely,

UPSTART NETWORK, INC.

/s/ Dave Girouard

Dave Girouard, Chief Executive Officer

ACCEPTED AND AGREED:

Name: Scott Darling
Signature: /s/ Scott Darling

Date: 10/6/2022

Anticipated Start Date: December 5, 2022

Exhibit A:

Executive Change in Control and Severance Policy Participation Agreement

This Participation Agreement ("Agreement") is made and entered into by and between Scott Darling on the one hand, and Upstart Holdings, Inc. (the "Company") on the other.

You have been designated as eligible to participate in the Company's Executive Change in Control and Severance Policy (the "Policy"), a copy of which is attached hereto, pursuant to which you are eligible to receive the applicable Salary Severance, COBRA Benefit, Equity Benefits and Bonus Severance in the amounts set forth below upon a Qualified Termination, subject to the terms and conditions of the Policy. Capitalized terms used but not defined in this Agreement have the meanings given to them in the Policy.

- Salary Severance: 12 monthsCOBRA Benefit: 12 months
- Equity Benefits: 100%
- Bonus Severance: 100% of applicable target bonus, provided that such Bonus Severance will be subject to the proration set forth in Section 6(i) of the Policy.
- (a) You agree that the Policy and the Agreement constitute the entire agreement of the parties hereto and supersede in their entirety all prior representations, understandings, undertakings or agreements (whether oral or written and whether expressed or implied) of the parties and will specifically supersede any change in control severance and/or change in control provisions of any offer letter, employment agreement, or equity award agreement entered into between you and the Company.
- (b) This Agreement may be executed in counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

By its signature below, each of the parties signifies its acceptance of the terms of the Policy, in the case of the Company by its duly authorized officer effective as of the last date set forth below.

UPSTART HOLDINGS, INC. ELIGIBLE EMPLOYEE

By: /s/ Dave Girouard

Dave Girouard, Chief Executive Officer Signature: /s/ Scott Darling

Date: 10/6/2022 Date: 10/6/2022



AMENDMENT NO. 1 TO PROMOTION AGREEMENT

This Amendment No. 1 to Promotion Agreement (the "Amendment") is dated as of May 5, 2022 (the "Effective Date"), between Credit Karma Offers, Inc. ("Credit Karma") and Upstart Network, Inc. ("Advertiser"), and together with Credit Karma, the "Parties", and each, a "Party".

WHEREAS, the Parties have entered into that certain Second Amended & Restated Promotion Agreement (Personal Loans) dated as November 6, 2020, including all addenda and amendments entered into from time to time by the parties (the "*Existing Agreement*");

WHEREAS, pursuant to Section 13.4 of the Existing Agreement, the amendment contemplated by the Parties must be contained in a written agreement signed by the Parties.

NOW, THEREFORE, in consideration of the promises set forth above and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

- 1. <u>Definitions</u>. Capitalized terms used and not defined in this Amendment have the respective meanings assigned to them in the Existing Agreement.
 - Amendments to the Existing Agreement. As of the Effective Date, the Existing Agreement is hereby amended as follows:
 - a) A new Section 2.4(e) shall be added to the Existing Agreement to read as follows:
 - "(e) <u>Advertiser MBE Data</u>. During its performance under this Agreement, Advertiser may transfer to the MBE, or elsewhere into Company's environment, certain de- identified and/or aggregated user data, or request that a third party, such as a credit bureau, transfer the data on its behalf (collectively, "*Advertiser MBE Data*"). Advertiser hereby agrees, with respect to the Advertiser MBE Data:
 - i. Advertiser represents and warrants that it has been legally authorized to collect the Advertiser MBE Data and to transfer it to the MBE.
 - ii. Advertiser represents and warrants that it will use the Advertiser MBE Data, after transfer into the MBE, in a manner that is compliant with applicable law, including but not limited to the Equal Credit Opportunity Act (ECOA), the Gramm-Leach Bliley Act (GLBA), and the Fair Credit Reporting Act (FCRA).
 - iii. Advertiser will not transfer into the MBE any Advertiser MBE Data that (x) could be used to identify an individual or (y) would allow Advertiser to re-identify individuals or otherwise reverse-engineer individually-identifiable data
 - iv. Advertiser will not use Advertiser MBE Data, or combine the Advertiser MBE Data with other data in the MBE, to identify an individual or reverse-engineer individually-identifiable data."
 - b) Section 5 of the Existing Agreement shall be replaced in its entirety with "Omitted".

- c) Section 7 of Exhibit A (*Reporting*) of the Existing Agreement shall be replaced in its entirety with the following language:
 - "7. Reporting. Advertiser will deliver to Company a daily, rolling historical report detailing certain user-level data at a minimum, the information set forth in **Exhibit B**, and to the extent Advertiser can reasonably gather and share such data, regarding the performance of the Advertiser Products, for at least the past forty-five (45) days, provided that Advertiser agrees to continue delivering all the data that it has been delivering to Company prior to and as of the Effective Date. Advertiser may share additional reporting on a weekly or monthly basis via ad hoc reporting files or other means, outside the daily rolling historical report. Requested changes to this reporting (either content or cadence) must be agreed upon by both Parties in advance. In no event will any of the reporting contain Nonpublic Personal Information of a customer of Advertiser or Upstart Partner. To the extent either Party reasonably determines that the sharing of any such information does not comply with applicable law, then the Parties agree to negotiate in good faith to share such other information that is legally permitted to achieve the anticipated practical benefits intended by the information sharing. Notwithstanding the foregoing: (a) Advertiser shall provide the "Lightbox (LB) Only" reporting data in accordance with this Section on a date no later than October 1, 2022, and (b) until such date, Advertiser shall provide the "Lightbox (LB) Only" reporting data on a weekly basis."
- d) Exhibit B of the Existing Agreement shall be replaced in its entirety with the Exhibit B (Reporting) attached hereto.
- 3. <u>Limited Effect</u>. Except as expressly provided in this Amendment, all of the terms and provisions of the Existing Agreement are and will remain in full force and effect and are hereby ratified and confirmed by the Parties. Without limiting the generality of the foregoing, the amendments contained herein will not be construed as an amendment to or waiver of any other provision of the Existing Agreement or as a waiver of or consent to any further or future action on the part of either Party that would require the waiver or consent of the other Party. On and after the Effective Date, each reference in the Existing Agreement to "this Agreement," "the Agreement," "herein" or words of like import will mean and be a reference to the Existing Agreement as amended by this Amendment.
- 4. <u>Miscellaneous</u>. This Amendment is governed by, and construed in accordance with, the laws of the State of California, without regard to the conflict of laws provisions of such State. The headings in this Amendment are for reference only and do not affect the interpretation of this Amendment. This Amendment may be executed in counterparts, each of which is deemed an original, but all of which constitutes one and the same agreement. Delivery of an executed counterpart of this Amendment electronically or by facsimile shall be effective as delivery of an original executed counterpart of this Amendment. This Amendment constitutes the sole and entire agreement of the Parties with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter.

IN WITNESS WHEREOF, the Parties have executed this Amendment as of the date first written above.

ADVERTISER CREDIT KARMA

By: /s/ Ada OrtegaBy: /s/ Gannesh BharadhwajName: Ada OrtegaName: Gannesh BharadhwajTitle: Head of ProcurementTitle: GM, Karma Scale

SUBSIDIARIES OF THE REGISTRANT

Name of Subsidiary	Jurisdiction of Incorporation
Upstart Network, Inc.	Delaware
Upstart Loan Trust	Delaware
Upstart Loan Trust 2	Delaware
Upstart Auto Warehouse Trust	Delaware

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement Nos. 333-262867, 333-255270 and 333-251388 on Form S-8 of our reports dated February 16, 2023, relating to the financial statements of Upstart Holdings, Inc., and the effectiveness of Upstart Holdings, Inc.'s internal control over financial reporting, appearing in the Annual Report on Form 10-K of Upstart Holdings, Inc. for the year ended December 31, 2022.

/s/ DELOITTE & TOUCHE LLP

San Francisco, California February 16, 2023

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a), AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

- I, Dave Girouard, certify that:
- 1. I have reviewed this Annual Report on Form 10-K of Upstart Holdings, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
- (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
- (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
- (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
- (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
- (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 16, 2023

UPSTART HOLDINGS, INC.

By: /s/ Dave Girouard

Dave Girouard Name:

Title:

Chief Executive Officer (Principal Executive Officer)

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a), AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

- I, Sanjay Datta, certify that:
- 1. I have reviewed this Annual Report on Form 10-K of Upstart Holdings, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
- (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
- (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
- (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
- (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
- (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 16, 2023

UPSTART HOLDINGS, INC.

By: /s/ Sanjay Datta

Sanjay Datta Name:

Title:

Chief Financial Officer (Principal Financial Officer)

CERTIFICATIONS OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER PURSUANT TO

18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Dave Girouard, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of Upstart Holdings, Inc. for the quarter ended December 31, 2021 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Upstart Holdings, Inc.

Date: February 16, 2023 By: /s/ Dave Girouard

Name: Dave Girouard

Title: Chief Executive Officer and President

(Principal Executive Officer)

I, Sanjay Datta, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of Upstart Holdings, Inc. for the quarter ended December 31, 2021 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Upstart Holdings, Inc.

Date: February 16, 2023 By: /s/ Sanjay Datta

Name: Sanjay Datta

Title: Chief Financial Officer

(Principal Financial Officer)