

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, 2019

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from ___ to ___

Commission file number 001-38160

Redfin Corporation

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

1099 Stewart Street
Seattle

(Address of Principal Executive Offices)

Suite 600
WA

74-3064240

(I.R.S. Employer Identification No.)

98101

(Zip Code)

(206) 576-8333

Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, \$0.001 par value per share	RDFN	The Nasdaq Global Select Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer
 Non-accelerated filer Smaller reporting company
 Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the registrant's common stock held by its non-affiliates, computed by reference to the price at which the common stock was last sold, was \$1,547,297,147.

The registrant had 93,123,373 shares of common stock outstanding as of January 31, 2020.

The portions of the registrant's proxy statement to be filed in connection with the registrant's 2020 Annual Meeting of Stockholders that are responsive to the disclosure required by Part III of Form 10-K are incorporated by reference into Part III of this Form 10-K.

Redfin Corporation
Annual Report on Form 10-K
For the Year Ended December 31, 2019

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As used in this Annual Report on Form 10-K (this "Annual Report"), the terms "Redfin," "we," "us," and "our" refer to Redfin Corporation and its subsidiaries taken as a whole, unless otherwise noted or unless the context indicates otherwise.

Note Regarding Forward-Looking Statements

This Annual Report contains forward-looking statements. All statements contained in this report other than statements of historical fact, including statements regarding our future operating results and financial position, our business strategy and plans, our market growth and trends, and our objectives for future operations, are forward-looking statements. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "expect," "could," "would," "project," "plan," "potentially," "preliminary," "likely," and similar expressions are intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including those described under Item 1A. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the effect of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties, and assumptions, the future events and trends discussed in this report may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. Accordingly, you should not rely on forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, performance, or events and circumstances reflected in the forward-looking statements will be achieved or occur. We undertake no obligation to update any of these forward-looking statements for any reason after the date of this report or to conform these statements to actual results or revised expectations.

Note Regarding Industry and Market Data

This Annual Report contains information using industry publications that generally state that the information contained therein has been obtained from sources believed to be reliable, but such information may not be accurate or complete. While we are not aware of any misstatements regarding the information from these industry publications, we have not independently verified any of the data from third-party sources nor have we ascertained the underlying economic assumptions relied on therein.

PART I

Item 1. Business

Overview

We help people buy and sell homes. Our primary business is a residential real estate brokerage, representing customers in over 90 markets in the United States and Canada. We pair our own agents with our own technology to create a service that is faster, better, and costs less. We meet customers through our listings-search website and mobile application.

We use the same combination of technology and local service to originate mortgage loans and offer title and settlement services; we also buy homes directly from homeowners who want an immediate sale, taking responsibility for selling the home while the original owner moves on.

Our mission is to redefine real estate in the consumer's favor.

Representing Customers

Our brokerage efficiency results in savings that we share with our customers. Our homebuyers saved on average approximately \$1,850 per transaction in 2019. And we charge most home sellers a commission of 1% to 1.5%, compared to the 2.5% to 3% typically charged by traditional brokerages.

The results of our customer-first approach are clear. We:

- helped customers buy or sell more than 235,000 homes worth more than \$115 billion through 2019;
- drew more than 33 million monthly average visitors to our website and mobile application in 2019, 23% more compared to 2018;
- earned a net promoter score, which is a measure of customer satisfaction, that was 18% higher than competing brokerages, as measured by a study we commissioned in November 2019;
- had customers return to us for another transaction at a 59% higher rate than competing brokerages;
- sold Redfin-listed homes for nearly \$1,800 more on average compared to the list price than competing brokerages' listings in 2019, according to a study we commissioned;
- had listings on the market for an average of 36 days in 2019 compared to the industry average of 41 days, according to a study we commissioned; and, according to the same study, approximately 77% of Redfin listings sold within 90 days versus the industry average of approximately 75%; and
- employed lead agents who, in 2019, were on average three times more productive and earned a median income that was twice as much as agents at competing brokerages; our lead agents were also 24% more likely to stay with us from 2018 to 2019 than agents at competing brokerages.

To serve customers when our own agents can't due to high demand or geographic limitations, we've developed partnerships with over 3,600 agents at other brokerages. Once we refer a customer to a partner agent, that agent, not us, represents the customer from the initial meeting through closing, at which point the agent pays us a portion of her commission as a referral fee.

Complete Customer Solution

Our long-term goal is to combine brokerage, mortgage, title services, and instant offers to directly purchase a consumer's home into one solution, sharing information, coordinating deadlines, and streamlining processes so that a consumer's move is easier and often less costly. As we integrate these

services more closely over time, we believe we can help consumers move much more efficiently than a combination of stand-alone brokerages, mortgage lenders, and title companies ever could.

Redfin Mortgage underwrites mortgage loans according to investor guidelines and, after originating each loan, Redfin Mortgage sells the loans to those investors. Redfin Mortgage does not intend to retain or service mortgage loans. Redfin Mortgage has officially launched in 54 markets across Colorado, District of Columbia, Florida, Georgia, Illinois, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and Wisconsin.

We offer title and settlement services through Title Forward. Title Forward has officially launched in 28 markets across Colorado, District of Columbia, Florida, Georgia, Illinois, Maryland, Minnesota, New Jersey, Pennsylvania, Tennessee, Texas, Virginia, and Wisconsin.

We buy homes directly from homeowners and resell them to homebuyers through RedfinNow. Customers who sell through RedfinNow typically get less money for their home than they would listing their home with a real estate agent. However, they get that money faster with less risk and disruption. RedfinNow has officially launched in 13 markets across California, Colorado, Nevada, and Texas.

Competition

The residential brokerage industry is highly fragmented, with numerous active licensed agents and brokerages, and is evolving rapidly in response to technological advancements, changing customer preferences, and new offerings. We compete primarily against other residential real estate brokerages, which include franchise operations affiliated with national or local brands, and small independent brokerages. We also compete with hybrid residential brokerages, which combine Internet technology and brokerage services, and a growing number of others that operate with non-traditional real estate business models. Competition is particularly intense in some of the densely populated metropolitan markets we serve, as they are dominated by entrenched real estate brokerages and are the primary markets for innovative and well-capitalized new entrants.

We believe we compete primarily based on:

- access to timely, accurate data about homes for sale;
- traffic to our website and mobile application, which themselves are subject to competition against real estate data websites that aggregate listings and sell advertising to traditional brokers;
- the speed and quality of our service, including agent responsiveness and local knowledge;
- our ability to hire and retain agents who deliver the best customer service;
- the costs of delivering our service and the price of our service to consumers;
- consumer awareness of our service and the effectiveness of our marketing efforts;
- technological innovation; and
- depth and breadth of local referral networks.

For mortgage origination, we compete with numerous national and local multi-product banks as well as focused mortgage originators. We compete with other providers based primarily on service, product selection, interest rates, and origination fees.

For title and settlement services, we compete with numerous national and local companies that typically focus solely on these services. We compete primarily on timeliness of service and fees.

Our RedfinNow service competes with real estate companies whose primary service is buying and selling homes, and home rental companies that purchase homes and then rent them. We also compete with divisions of several residential real estate companies and a real estate data website. We compete primarily on the prices we offer customers to buy their homes.

Seasonality and Principal Markets

For the impact of seasonality on our business, see "Quarterly Results of Operations and Key Business Metrics" under Item 7. For the principal markets for our brokerage business, see "Key Business Metrics-Revenue from Top-10 Markets as a Percentage of Real Estate Services Revenue" under Item 7.

Information about our Executive Officers

Below is information regarding our executive officers. Each executive officer holds office until his or her successor is duly elected and qualified or until the officer's earlier resignation, disqualification, or removal.

- Glenn Kelman, age 49, has served as our President and Chief Executive Officer since September 2005 and one of our directors since March 2006.
- Bridget Frey, age 42, has served as our Chief Technology Officer since February 2015.
- Scott Nagel, age 54, has served as our President of Real Estate Operations since April 2013.
- Chris Nielsen, age 53, has served as our Chief Financial Officer since June 2013.
- Christian Taubman, age 41, has served as our Chief Product Officer since October 2019. Previously, Mr. Taubman served in several different roles with Amazon (a technology company) from April 2011 to October 2019. As Director - Smart Home Verticals from December 2017 to October 2019, Mr. Taubman led employees in product management, software engineering, and program management, with the mission of helping customers to connect more smart devices to Amazon's Alexa virtual assistant. As Senior Manager - International Retail Expansion from May 2016 to December 2017, Mr. Taubman led an initiative to create a faster retail international expansion model. As Senior Manager - Prime Delivery from April 2011 to May 2016, Mr. Taubman helped launch Amazon's Prime free same-day delivery benefit in the United States, United Kingdom, and Germany.
- Adam Wiener, age 41, has served as our Chief Growth Officer since May 2015. Previously, Mr. Wiener served as our Senior Vice President - Marketing, Analytics & New Business from December 2013 to May 2015.

Other Information

We were incorporated as Appliance Computing Inc. in Washington in October 2002. We reincorporated in Delaware in February 2005 and changed our name to Redfin Corporation in May 2006.

We regard our trademarks, copyrights, patents, domain names, trade secrets, and similar intellectual property as critical to our success, and we rely on trademark, copyright, and patent law, trade-secret protection, and contractual provisions and restrictions to protect our proprietary rights. Our patents expire between June 2025 and February 2034.

As of December 31, 2019, we had 3,377 employees.

Our website is www.redfin.com. Through this website, we make available, free of charge, our Annual Reports 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 Securities

Exchange Act of 1934, as soon as reasonably practicable after we file such material with, or furnish it to, the U.S. Securities and Exchange Commission (the "SEC").

Item 1A. Risk Factors

You should carefully consider the risks described below, together with all other information in this Annual Report, before investing in any of our securities. The occurrence of any single risk or any combination of risks could materially and adversely affect our business, operating results, financial condition, liquidity, or competitive position, and consequently, the value of our securities. The material adverse effects include, but are not limited to, not growing our revenue or market share at the pace that they have grown historically or at all, our revenue and market share fluctuating on a quarterly and annual basis, an extension of our history of losses and a failure to become profitable, not achieving the revenue and net income (loss) guidance that we provide, and harm to our reputation and brand.

Risks Related to Our Business and Industry

The health of the U.S. residential real estate industry and macroeconomic factors may significantly impact our business.

Our success depends largely on the health of the U.S. residential real estate industry. This industry, in turn, is affected by changes in general economic conditions, which are beyond our control. Any of the following factors could adversely affect the industry and harm our business:

- seasonal or cyclical downturns in the U.S. residential real estate industry, which may be due to any single factor, or a combination of factors, listed below, or factors which are currently not known to us or that have not historically affected the industry;
- slow economic growth or recessionary conditions;
- increased unemployment rates or stagnant or declining wages;
- inflationary conditions;
- low consumer confidence in the economy or the U.S. residential real estate industry;
- adverse changes in local or regional economic conditions in the markets that we serve, particularly our top-10 markets and markets into which we are attempting to expand;
- increased mortgage rates; reduced availability of mortgage financing; or increased down payment requirements;
- low home inventory levels, which may result from zoning regulations and higher construction costs, among other factors;
- lack of affordably priced homes, which may result from home prices growing faster than wages;
- volatility and general declines in the stock market or lower yields on individuals' investment portfolios;
- rising insurance costs that increase the expenses associated with home ownership;
- newly enacted and potential federal, state, and local legislative actions that would affect the residential real estate industry generally or in our top-10 markets, including (i) actions that would increase the tax liability arising from buying, selling, or owning real estate, (ii) actions that would change the way real estate brokerage commissions are negotiated, calculated, or paid, and (iii) potential reform relating to Fannie Mae, Freddie Mac, and other government sponsored entities that provide liquidity to the mortgage market;
- changes that cause U.S. real estate to be more expensive for foreign purchases, such as (i) increases in the exchange rate for the U.S. dollar compared to foreign currencies and (ii) foreign

regulatory changes or capital controls that make it more difficult for foreign purchasers to withdraw capital from their home countries or purchase and hold U.S. real estate;

- changed generational views on homeownership and generally decreased financial resources available for purchasing homes; and
- war, terrorism, political uncertainty, natural disasters, inclement weather, and acts of God.

Our business is concentrated in certain geographic markets. Disruptions in these markets or events that disproportionately affect these markets could harm our business. Furthermore, our failure to adapt to any substantial shift in the relative percentage of residential housing transactions from these markets to other markets in the United States could adversely affect our financial performance.

For the year ended December 31, 2019, our top-10 markets by real estate services revenue consisted of the metropolitan areas of Boston, Chicago, Denver (including Boulder and Colorado Springs), Los Angeles (including Santa Barbara), Maryland, Northern Virginia, Portland (including Bend), San Diego, San Francisco, and Seattle.

Local and regional economic conditions in these markets may differ significantly from prevailing conditions in the United States or other parts of the country. Accordingly, events may adversely and disproportionately affect demand for and sales prices of homes in these markets. Any overall or disproportionate downturn in demand or home prices in any of our largest markets, particularly if we are unable to increase revenue from our other markets, could result in a decline in our revenue and harm our business.

Our top markets are primarily major metropolitan areas, where home prices and transaction volumes are generally higher than other markets. As a result, our real estate services revenue and gross margin are generally higher in these markets than in our smaller markets. To the extent people migrate to cities outside of these markets due to lower home prices or other factors, and this migration continues to take place over the long-term, then the relative percentage of residential housing transactions may shift away from our historical top markets where we have historically generated most of our revenue. If we are unable to effectively adapt to any shift, including failing to increase revenue from other markets, then our financial performance may be harmed.

Competition in each of our lines of business is intense, and if we cannot compete effectively, our business will be harmed.

We face intense competition nationally and in each of the markets we serve for each of our businesses - residential brokerage, mortgage, title and escrow, and buying and selling homes directly. See "Competition" under Item 1 for a general discussion of the competitive conditions in each of our businesses.

Many of our competitors across each of our businesses have substantial competitive advantages, such as longer operating histories, stronger brand recognition, greater financial resources, more management, sales, marketing and other resources, superior local referral networks, perceived local knowledge and expertise, and extensive relationships with participants in the residential real estate industry, including third-party data providers such as multiple listing services ("MLSs"). Consequently, these competitors may have an advantage in recruiting and retaining agents, attracting consumers, and growing their businesses. They may also be able to provide consumers with offerings that are different from or superior to those we provide. The success of our competitors could result in our loss of market share and harm our business.

Each of our businesses also faces competition from potential new entrants, particularly those driven by technology. These potential competitors may have substantial financial support that allows them to offer services superior to ours. The introduction of additional competitors may also adversely impact our market share and harm our business.

We may be unable to maintain or improve our current technology offerings at a competitive level or develop new technology offerings that meet customer or agent expectations. Our technology offerings may also contain undetected errors or vulnerabilities.

Our technology offerings, including tools, features, and products, are key to our competitive plan for attracting potential customers and hiring and retaining lead agents. Maintaining or improving our current technology to meet evolving industry standards and customer and agent expectations, as well as developing commercially successful and innovative new technology, is challenging and expensive. For example, the nature of development cycles may result in delays between the time we incur expenses and the time we introduce new technology and generate revenue, if any, from those investments. Anticipated customer demand for a technology offering could also decrease after the development cycle has commenced, and we would not be able to recoup costs, which may be substantial, we incurred.

As standards and expectations evolve and new technology becomes available, we may be unable to identify, design, develop, and implement, in a timely and cost-effective manner, new technology offerings to meet those standards and expectations. As a result, we may be unable to compete effectively, and to the extent our competitors develop new technology offerings faster than us, they may render our offerings noncompetitive or obsolete. Additionally, even if we implemented new technology offerings in a timely manner, our customers and agents may not accept or be satisfied by the offerings.

Furthermore, our development and testing processes may not detect errors and vulnerabilities in our technology offerings prior to their implementation. Any inefficiencies, errors, technical problems, or vulnerabilities arising in our technology offerings after their release could reduce the quality of our services or interfere with our customers' and agents' access to and use of our technology and offerings.

We may be unable to obtain and provide comprehensive and accurate real estate listings quickly, or at all.

We believe that users of our website and mobile application come to us primarily because of the real estate listing data that we provide. Accordingly, if we were unable to obtain and provide comprehensive and accurate real estate listings data, our primary channels for meeting customers will be diminished. We get listings data primarily from MLSs in the markets we serve. We also source listings data from public records, other third-party listing providers, and individual homeowners and brokers. Many of our competitors and other real estate websites also have access to MLSs and other listings data, including proprietary data, and may be able to source listings data or other real estate information faster or more efficiently than we can. Since MLS participation is voluntary, brokers and homeowners may decline to post their listings data to their local MLS or may seek to change or limit the way that data is distributed. A competitor or another industry participant could also create an alternative listings data service, which may reduce the relevancy and comprehensive nature of the MLSs. If MLSs cease to be the predominant source of listings data in the markets that we serve, we may be unable to get access to comprehensive listings data on commercially reasonable terms, or at all, which may result in fewer people using our website and mobile application.

We rely on business data to make decisions and drive our machine-learning technology, and errors or inaccuracies in such data may adversely affect our business decisions and the customer experience.

We regularly analyze business data to evaluate growth trends, measure our performance, establish budgets, and make strategic decisions. Much of this data is internally generated and has not been independently verified. While our business decisions are based on what we believe to be reasonable calculations for the applicable period of measurement, there are inherent challenges in measuring and interpreting the data, and we cannot be certain that the data are accurate. Errors or inaccuracies in the data could result in poor business decisions, resource allocation, or strategic initiatives. For example, if we overestimate traffic to our website and mobile application, we may not invest an adequate amount of resources in attracting new customers or we may hire more lead agents in a given market than necessary to meet customer demand.

We also use our business data and proprietary algorithms to inform our machine learning, such as in the calculation of our *Redfin Estimate*, which provides an estimate on the market value of individual homes. If customers disagree with us or if our *Redfin Estimate* fails to accurately reflect market pricing such that we are unable to attract homebuyers or help our customers sell their homes at satisfactory prices, or at all, customers may lose confidence in us.

We may be unable to attract homebuyers and home sellers to our website and mobile application in a cost-effective manner.

Our website and mobile application are our primary channels for meeting customers. Accordingly, our success depends on our ability to attract homebuyers and home sellers to our website and mobile application in a cost-effective manner. To meet customers, we rely heavily on traffic generated from search engines and downloads of our mobile application from mobile application stores. We also rely on marketing methods such as targeted email campaigns, paid search advertising, social media marketing, and traditional media, including TV, radio, and billboards.

The number of visitors to our website and downloads of our mobile application depend in large part on how and where our website and mobile application rank in Internet search results and mobile application stores, respectively. While we use search engine optimization to help our website rank highly in search results, maintaining or improving our search result rankings is not within our control. Internet search engines frequently update and change their ranking algorithms, referral methodologies, or design layouts, which determine the placement and display of a user's search results. In some instances, Internet search engines may change these rankings in order to promote their own competing services or the services of one or more of our competitors. Similarly, mobile application stores can change how they display searches and how mobile applications are featured. For instance, editors at the Apple iTunes Store can feature prominently editor-curated mobile applications and cause the mobile application to appear larger than other applications or more visibly on a featured list.

Additionally, our marketing efforts may fail to attract the desired number of customers for a variety of reasons, including the creative treatment for our advertisements may be ineffective or new third-party email delivery policies that make it more difficult for us to execute targeted email campaigns.

If we are unable to deliver a rewarding experience on mobile devices, whether through our mobile website or mobile application, we may be unable to attract and retain customers.

Developing and supporting a mobile website and mobile application across multiple operating systems and devices requires substantial time and resources. We may not be able to consistently provide a rewarding customer experience on mobile devices and, as a result, customers we meet through our mobile website or mobile application may not choose to use our services at the same rate as customers we meet through our website.

As new mobile devices and mobile operating systems are released, we may encounter problems in developing or supporting our mobile website or mobile application for them. Developing or supporting our mobile website or mobile application for new devices and their operating systems may require substantial time and resources. The success of our mobile website and mobile application could also be harmed by factors outside of our control, such as:

- increased costs to develop, distribute, or maintain our mobile website or mobile application;
- changes to the terms of service or requirements of a mobile application store that requires us to change our mobile application development or features in an adverse manner; and
- changes in mobile operating systems, such as Apple's iOS and Google's Android, that disproportionately affect us, degrade the functionality of our mobile website or mobile application, require that we make costly upgrades to our technology offerings, or give preferential treatment to competitors' websites or mobile applications.

Our business model of employing lead agents subjects us to challenges not faced by our competitors.

As a result of our business model of employing our lead agents, our lead agents generally earn less on a per transaction basis than traditional agents who work as independent contractors at traditional brokerages. Because our model is uncommon in our industry, agents considering working for us may not understand our compensation model or may not perceive it to be more attractive than the independent contractor, commission-driven compensation model used by most traditional brokerages. If we are unable to attract, retain, effectively train, motivate, and utilize lead agents, we will be unable to grow our business and we may be required to change our compensation model, which could significantly increase our lead agent compensation or other costs.

Also as a result of employing our lead agents, we incur costs that our brokerage competitors do not, such as base pay, employee benefits, expense reimbursement, training, and employee transactional support staff. As a result, we have significant costs that, in the event of downturns in demand in the markets we serve, we will not be able to adjust as rapidly as some of our competitors. In turn, such downturns may impact us more than our competitors. Additionally, due to these costs, our lead agent turnover may be more costly to us than to traditional brokerages. Our business may be harmed if we are unable to achieve the necessary level of lead agent productivity and retention to offset their related costs.

Referring customers to our partner agents and our third-party partnerships may harm our business.

We refer customers to third-party partner agents when we do not have a lead agent available due to high demand or geographic limitations. Our dependence on partner agents can be particularly heavy in certain new markets as we build our operations to scale in those markets. Our partner agents are independent licensed agents affiliated with other brokerages, and we do not have any control over their actions. If our partner agents were to provide poor customer service, engage in malfeasance, or otherwise violate the laws and rules to which we are subject, we may be subject to legal claims and our reputation and business may be harmed.

In certain markets where RedfinNow does not currently operate, we have a partnership with Opendoor whereby home sellers can request, through Redfin's website and mobile applications, an instant offer from Opendoor to purchase their home. Home sellers will have this ability to request an Opendoor offer in addition, and as an alternative, to retaining a Redfin agent to represent them during the home selling process.

From time to time, we may enter into additional arrangements to refer consumers to, or partner with, third parties when we are unable or unwilling to serve those consumers directly.

Our arrangements with third parties may limit our market share, revenue, growth, and brand awareness. For example, referring customers to third parties potentially redirects repeat and referral opportunities to those third parties. Furthermore, to the extent we enter into a new, or seek to expand operations in an existing, market where we have an arrangement with a third party, consumers may choose to continue to work with those third parties, which limits our growth. Additionally, any third-party arrangements may also dilute the effectiveness of our marketing efforts and may lead to consumer confusion or dissatisfaction when they are offered the opportunity to work with the third party rather than us.

If we do not comply with the rules, terms of service, and policies of MLSs, our access to and use of listings data may be restricted or terminated.

We must comply with an MLS's rules, terms of service, and policies to access and use its listings data. We belong to numerous MLSs, and each has adopted its own rules, terms of service, and policies governing, among other things, how MLS data may be used and how listings data must be displayed on our website and mobile application. These rules typically do not contemplate multi-jurisdictional online brokerages like ours and vary widely among markets. They also are in some cases inconsistent with the rules of other MLSs such that we are required to customize our website, mobile application, or service to accommodate differences between MLS rules. Complying with the rules of each MLS requires significant

investment, including personnel, technology and development resources, and the exercise of considerable judgment. If we are deemed to be noncompliant with an MLS's rules, we may face disciplinary sanctions in that MLS, which could include monetary fines, restricting or terminating our access to that MLS's data, or other disciplinary measures. The loss or degradation of this listings data could materially and adversely affect traffic to our website and mobile application, making us less relevant to consumers and restricting our ability to attract customers. It also could reduce agent and customer confidence in our services and harm our business.

If we fail to comply with the requirements governing the licensing of our brokerage, mortgage, and title businesses in the jurisdictions in which we operate, then our ability to operate those businesses in those jurisdictions may be revoked.

Redfin, as a brokerage, and our agents must comply with the requirements governing the licensing and conduct of real estate brokerage and brokerage-related businesses in the markets where we operate. Furthermore, we are also required to comply with the requirements governing the licensing and conduct of mortgage and title and settlement businesses in the markets where we operate. Due to the geographic scope of our operations, we and our agents may not be in compliance with all of the required licenses at all times. Additionally, if we enter into new markets, we may become subject to additional licensing requirements. If we or our agents fail to obtain or maintain the required licenses for conducting our brokerage, mortgage, and title businesses or fail to strictly adhere to associated regulations, the relevant government authorities may order us to suspend relevant operations or impose fines or other penalties.

Our recently implemented pricing change may result in loss of customers and unintended financial consequences.

Prior to December 2019, we charged home sellers in most of our markets a 1% listing fee when using our brokerage services to sell their home. For our other markets, we charged home sellers a 1.5% listing fee. The listing fee paid by a home seller was not dependent on whether the home seller also purchased a home using our brokerage services. Starting in December 2019, we changed our listing fee across all of our markets such that home sellers pay a 1% listing fee only if they both buy and sell a home with us within a year. Otherwise, a home seller will pay a 1.5% listing fee.

This pricing change may result in fewer home sellers using our brokerage services to list their home. As a result, our market share may decrease or grow at a slower rate or our real estate services revenue may grow at a slower rate.

RedfinNow may overestimate the amount it should pay to purchase a home, and homes owned by it may significantly decline in value prior to being sold.

RedfinNow uses automated valuations and forecasts in concert with our real estate knowledge to assess what a home is worth and how much to pay for its purchase. This assessment includes estimates on time of possession, market conditions and proceeds on resale, renovation costs, and holding costs. The assessment may not be accurate, and RedfinNow may pay too much for the home to realize our desired investment return. Additionally, following its acquisition of a home, RedfinNow may need to decrease its anticipated resale price for the home if it discovers a defect in the home that was unknown at the time of acquisition. This adjustment to the price may also affect our investment return on the home.

Homes that RedfinNow owns may also rapidly lose in value due to changing market conditions, natural disasters, or other forces outside of our control. RedfinNow's geographic concentration in four states - California, Colorado, Nevada, and Texas - particularly exposes it to the factors affecting home value in those states that may not apply to the United States generally. As a result, we may be required to write down the inventory value of homes and may not be able to resell homes for more than our costs of acquiring and renovating the homes, or at all.

RedfinNow relies, in part, on third parties to renovate and repair homes before it resells the homes, and the cost or availability of third-party labor could adversely affect our holding period and investment return for homes.

Upon purchasing a home, RedfinNow frequently needs to renovate or repair parts of the home prior to listing it for resale. RedfinNow relies, in part, on third-party contractors and sub-contractors to make these renovations and repairs. These third-party providers may not be able to complete the required renovations or repairs within RedfinNow's expected timeline or proposed budget. Furthermore, if the quality of a third-party provider's work does not meet RedfinNow's expectations, then RedfinNow may need to engage another third-party contractor or subcontractor, which may also adversely affect its timeline or budget for completing renovations or repairs.

A longer than expected period for completing renovations or repairs could negatively impact RedfinNow's ability to sell a home within its anticipated timeline. This prolonged timing exposes us to factors that adversely affect the home's resale value and may result in RedfinNow selling the home for a lower price than anticipated or not being able to sell the home at all. Meanwhile, incurring more than budgeted costs would adversely affect our investment return on purchased homes.

If Redfin Mortgage were unable to sell the mortgage loans that it originates, then it will need to service the loans itself or hire a third-party servicer, and either option could impose significant costs, time, and resources on Redfin Mortgage. Additionally, we may become more exposed to adverse market conditions affecting mortgage loans.

Redfin Mortgage intends to sell the mortgage loans that it originates to investors in the secondary mortgage market. Redfin Mortgage's ability to sell its originated loans in the secondary market depends largely on there being sufficient liquidity in the secondary market and its compliance with contracts with investors who have agreed to purchase the loans. If Redfin Mortgage were unable to sell its originated loans, then it may need to establish a servicing platform or hire a third party to service the loans. Redfin Mortgage does not currently have a servicing platform, and establishing such a platform may result in significant costs and require substantial time and resources from its management. Additionally, Redfin Mortgage may be unable to retain a third-party servicer on economically feasible terms. As a result, Redfin Mortgage's inability to sell its originated loans may materially and adversely affect its operations and financial condition.

Redfin Mortgage's inability to sell loans in the secondary market also exposes us to adverse market conditions affecting mortgage loans. For example, we may be required to write down the value of the loan, which reduces the amount of our current assets. Additionally, if a homeowner were unable to make his or her mortgage payments, then we may be required to foreclose on the home securing the loan. In these situations, the proceeds from selling the home may be significantly less than the remaining amount of the loan due to Redfin Mortgage. Finally, if Redfin Mortgage borrowed under one of its warehouse credit facilities for the loan, then it may be required to immediately repay the borrowed amount, which reduces our cash on hand that is available for other corporate uses.

Our decision to expand our service offerings into new markets may consume significant financial and other resources and may not achieve the desired results.

We regularly evaluate expanding our brokerage and non-brokerage services into new markets. Any expansion may require significant expenses and the time of our key personnel, particularly at the outset of the expansion process. Expansion may also subject us to new regulatory environments, which could increase our costs as we evaluate compliance with the new regulatory regime. Notwithstanding the expenses and time devoted to expansion into a new market, we may fail to achieve the financial and market share goals associated with the expansion.

We experience variability in our financial results and operating metrics on a quarterly and annual basis and, as a result, our historical performance may not be a meaningful indicator of future performance.

We historically have experienced, and expect to continue to experience, variability, on both a quarterly and annual basis, in our financial results and operating metrics. As a result of such variability, our historical performance, including from recent quarters or years, may not be a meaningful indicator of future

performance and period-to-period comparisons also may not be meaningful. The variability may be due to the other risks described in this Item 1A, certain risks that are not currently material but may become material in the future, or risks currently unknown to us.

Cybersecurity incidents could disrupt our business or result in the loss of critical and confidential information.

Cybersecurity incidents directed at us or our third-party service providers can range from uncoordinated individual attempts to gain unauthorized access to information technology systems to sophisticated and targeted measures known as advanced persistent threats. Cybersecurity incidents are also constantly evolving, increasing the difficulty of detecting and successfully defending against them. In the ordinary course of our business, we and our third-party service providers collect and store sensitive data, including our proprietary business information and intellectual property and that of our customers and employees, including personally identifiable information. Additionally, we rely on third-parties and their security procedures for the secure storage, processing, maintenance, and transmission of information are critical to our operations. Despite measures designed to prevent, detect, address, and mitigate cybersecurity incidents, such incidents may occur to us or our third-party providers and, depending on their nature and scope, could potentially result in the misappropriation, destruction, corruption, or unavailability of critical data and confidential or proprietary information (our own or that of third parties, including personally identifiable information of our customers and employees) and the disruption of business operations. Any such compromises to our security, or that of our third-party providers, could cause customers to lose trust and confidence in us and stop using our website and mobile applications. In addition, we may incur significant costs for remediation that may include liability for stolen assets or information, repair of system damage, and compensation to customers, employees, and business partners. We may also be subject to government enforcement proceedings and legal claims by private parties.

We process, transmit, and store personal information, and unauthorized access to, or the unintended release of, this information could result in a claim for damages, regulatory action, loss of business, or unfavorable publicity.

We process, transmit, and store personal information to provide services to our customers and as an employer. As a result, we are subject to certain contractual terms, as well as federal, state, and foreign laws and regulations designed to protect personal information. While we take measures to protect the security and privacy of this information, it is possible that our security controls over personal data and other practices we follow may not prevent the unauthorized access to, or the unintended release of, personal information. If such unauthorized access or unintended release occurred, we could suffer significant damage to our brand and reputation, customers could lose confidence in the security and reliability of our services, and we could incur significant costs to address and fix these security incidents. These incidents could also lead to lawsuits and regulatory investigations and enforcement actions.

We rely on third-party licensed technology, and the inability to maintain these licenses or errors in the software we license could result in increased costs or reduced service levels.

We employ certain third-party software obtained under licenses from other companies in our technology. Our reliance on this third-party software may become costly if the licensor increases the price for the license or changes the terms of use and we cannot find commercially reasonable alternatives. Even if we were to find an alternative, integration of our technology with new third-party software may require substantial investment of our time and resources.

Any undetected errors or defects in the third-party software we license could prevent the deployment or impair the functionality of our technology, delay new service offerings, or result in a failure of our website or mobile application.

We use open source software in some aspects of our technology and may fail to comply with the terms of one or more of these open source licenses.

Our technology incorporates software covered by open source licenses. The terms of various open source licenses have not been interpreted by U.S. courts, and if they were interpreted, such licenses could be construed in a manner that imposes unanticipated restrictions on our technology. If portions of our proprietary software are determined to be subject to an open source license, we could be required to publicly release the affected portions of our source code, re-engineer all or a portion of our technologies, or otherwise be limited in our use of such software, each of which could reduce or eliminate the value of our technologies.

Moreover, our processes for controlling our use of open source software may not be effective. If we do not comply with the terms of an open source software license, we could be required to seek licenses from third parties to continue offering our services on terms that are not economically feasible, to re-engineer our technology to remove or replace the open source software, to discontinue the use of certain technology if re-engineering could not be accomplished on a timely basis, to pay monetary damages, to make generally available the source code for our proprietary technology, or to waive certain intellectual property rights.

We may be unable to secure intellectual property protection for all of our technology and methodologies, enforce our intellectual property rights, or protect our other proprietary business information.

Our success and ability to compete depends in part on our intellectual property and our other proprietary business information. To protect our proprietary rights, we rely on trademark, copyright, and patent law, trade-secret protection, and contractual provisions and restrictions. However, we may be unable to secure intellectual property protection for all of our technology and methodologies or the steps we take to enforce our intellectual property rights may be inadequate. Furthermore, we may also be unable to protect our proprietary business information from misappropriation.

If we are unable to secure intellectual property rights, our competitors could use our intellectual property to market offerings similar to ours and we would have no recourse to enjoin or stop their actions. Additionally, any of our intellectual property rights may be challenged by others and invalidated through administrative processes or litigation. Moreover, even if we secured our intellectual property rights, others may infringe on our intellectual property and we may be unable to successfully enforce our rights against the infringers because we may be unaware of the infringement or our legal actions may not be successful. Finally, others may misappropriate our proprietary business information, and we may be unaware of the misappropriation or unable to enforce our legal rights in a cost-effective manner. If any of these events were to occur, our ability to compete effectively would be impaired.

The third-party networks and mobile infrastructure that we depend on may fail, and we may be unable to maintain and scale the technology underlying our offerings.

We depend on the reliable performance of third-party networks and mobile infrastructure to provide our technology offerings to our customers and agents. The proper operation of these networks and infrastructure is beyond our control, and if they fail, we may be unable to deliver our services to our customers or provide the necessary support for our agents.

As the number of homebuyers and home sellers, agents, and listings shared on our website and mobile application and the extent and types of data grow, our need for additional network capacity and computing power will also grow. Operating our underlying technology systems is expensive and complex, and we could experience operational failures. If we experience interruptions or failures in these systems for any reason, the security and availability of our services and technologies could be affected.

Our website is hosted at a single facility, the failure of which could interrupt our website and mobile application.

Our website and mobile application are hosted at a single facility in Seattle, Washington. If this facility experiences outages or downtimes for any reason, including human error, natural disaster, power loss, telecommunications failure, physical or electronic break-ins, terrorist attack, or act of war, we could

suffer a significant interruption of our website and mobile application while we implement the disaster recovery procedures we have developed to restore the function of our website and mobile application on a cloud-based hosting service. This service interruption may be extended if we discover previously unknown errors in our disaster recovery procedures.

We are subject to a variety of federal, state and local laws, and our compliance with these laws, or the enforcement of our rights under these laws, may increase our expenses, require management's resources, or force us to change our business practices.

We are currently subject to a variety of, and may in the future become subject to additional, federal, state, and local laws. The laws include, but are not limited to, those relating to real estate, brokerage, title, mortgage, advertising, privacy and consumer protection, labor and employment, and intellectual property. These laws and their related regulations may evolve frequently and may be inconsistent from one jurisdiction to another. Additionally, certain of these laws and regulations were created for traditional real estate brokerages, and it is unclear how they may affect us given our business model that is unlike traditional brokerages or certain of our services, such as Redfin Direct, that historically have not been offered by traditional brokerages.

These laws can be costly for us to comply with or enforce. Additionally, if we are unable to comply with and become liable for violations of these laws, or if courts or regulatory bodies provide unfavorable interpretations of existing regulations, our operations in affected markets may become prohibitively expensive, consume significant amounts of management's time, or need to be discontinued.

Data protection legislation is also becoming increasingly common in the United States at both the federal and state level. For example, the California Consumer Privacy Act (the "CCPA"), took effect on January 1, 2020 and has the potential to impose additional onerous privacy requirements on companies serving California consumers, including us. We will need to carefully consider the compliance mandates of the California law as well as similar state or federal laws or interpretations currently being proposed. Additionally, the Federal Trade Commission and many state attorneys general are interpreting federal and state consumer protection laws to impose standards for the online collection, use, dissemination and security of data. The burdens imposed by the CCPA and other similar laws that may be enacted at the federal and state level may require us to modify our data processing practices and policies and to incur substantial expenditure to comply.

We are subject to costs associated with defending and resolving proceedings brought by government entities and claims brought by private parties.

We are from time to time involved in, and may in the future be subject to, government investigations or enforcement actions and private third-party claims arising from the laws to which we are subject or the contracts to which we are a party. Such investigations, actions, and claims include, but are not limited to, matters relating to employment law (including misclassification), intellectual property, privacy and consumer protection, the Real Estate Settlement Procedures Act of 1974, the Fair Housing Act of 1968 or other fair housing statutes, cybersecurity incidents, data breaches, and commercial or contractual disputes. They may also relate to ordinary-course brokerage disputes, including, but not limited to, failure to disclose property defects, failure to meet client legal obligations, commission disputes, personal injury or property damage claims, and vicarious liability based upon conduct of individuals or entities outside of our control, including partner agents and third-party contractor agents.

Any such investigations, actions, or claims can be costly to defend or resolve, require significant time from management, or result in negative publicity. Furthermore, to the extent we are unsuccessful in defending an action or claim, we may be subject to civil or criminal penalties, including significant fines or damages, the loss of ability to operate in a jurisdiction, or the need to change certain business practices (including redesigning, or obtaining a license for, our technology or modifying or ceasing to offer certain services).

As described in Item 3, we are currently the subject of a claim alleging that we had misclassified our associate agents as independent contractors instead of employees. While we have previously settled

similar complaints, there is no assurance that we will be able to settle this claim on similar terms or at all. Accordingly, this complaint may be costly to resolve, require significant time from management, result in negative publicity, or require us to change certain business practices related to our associate agents. Furthermore, we may be subject to additional lawsuits or administrative proceedings for similar claims, which may have similar negative effects on us.

We have also, in the past, been the subject of complaints alleging that we had improperly classified certain of our employees as exempt from minimum wage and overtime laws. The legal tests for determining overtime exemptions consider many factors that vary from state to state and have evolved based on case law, regulations, and legislative changes, as well as complicated factual analysis. We may be subject to additional complaints or administrative proceedings regarding our employee classification.

We may fail to maintain an effective system of disclosure controls or internal control over financial reporting as we grow our business.

We have established, and intend to maintain, effective disclosure controls and internal control over financial reporting. However, as our current lines of business grow or if we enter into new lines business, we may need to develop new, or revise existing, controls. Any failure to develop new, or revise existing, controls could result in our failure to maintain effective disclosure controls or internal control over financial reporting. Any such failure could cause us to not meet our financial reporting obligations, require us to restate previously issued financial statements, or cause investors to lose confidence in our reported financial statements, even after we remedy the failure.

Some of our potential losses may not be covered by insurance. We may not be able to obtain or maintain adequate insurance coverage.

We maintain insurance to cover costs and losses from certain risk exposures in the ordinary course of our operations, but our insurance may not cover one hundred percent of the costs and losses from all events. We are responsible for certain retentions and deductibles that vary by policy, and we may suffer losses that exceed our insurance coverage limits by a material amount. We may also incur costs or suffer losses arising from events against which we have no insurance coverage. In addition, large-scale market trends or the occurrence of adverse events in our business may raise our cost of procuring insurance or limit the amount or type of insurance we are able to secure. We may not be able to maintain our current coverage, or obtain new coverage, in the future on commercially reasonable terms or at all. Incurring uninsured or underinsured costs or losses could harm our business.

Risks Related to Our Indebtedness

We may not have sufficient cash flow to make the payments required by our convertible senior notes, and a failure to make payments when due may result in the entire principal amount of the notes becoming due prior to the notes' maturity, which may result in our bankruptcy.

We are required to pay interest on our convertible senior notes on a semi-annual basis. In addition, holders of our convertible senior notes have the right to require us to repurchase their notes upon the occurrence of a fundamental change at a repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest. Furthermore, if the conditional conversion feature of our convertible senior notes is triggered, holders of our notes will be entitled to convert the notes at any time during specified periods at their option. Upon conversion, we will be required to make cash payments in respect of the notes being converted, 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).

Our ability to make these payments depends on having sufficient cash on hand when the payments are due. Our cash availability, in turn, depends on our future performance, which is subject to the other risks described in this Item 1A. If we are unable to generate sufficient cash flow to make the payments when due, then we may be required to adopt one or more alternatives, such as selling assets, refinancing the notes, or raising additional capital. However, we may not be able to engage in any of these activities or engage in these activities on desirable terms.

Our failure to make payments when due may result in an event of default under the indenture governing our convertible senior notes and cause the entire \$143,750,000 principal amount, plus accrued and unpaid interest, to become due immediately and prior to the maturity date. Any such acceleration of the principal amount could result in our bankruptcy. In a bankruptcy, the holders of our convertible senior notes would have a claim to our assets that is senior to the claims of holders of our common stock.

Our net working capital may be materially reduced if the conditional conversion feature of our convertible senior notes is triggered. Additionally, any conversion of our notes may dilute the ownership interest of our stockholders and depress the price of our common stock.

Prior to the close of business on the business day preceding April 15, 2023, our convertible senior notes have a convertible conversion feature that allows holders of the notes to convert all or a portion of their notes during the times and upon any of the conditions described below:

- during any calendar quarter commencing after the calendar quarter ending on December 31, 2018 (and only during such calendar quarter), if the last reported sale price of our 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 of the notes on each applicable trading day;
- during the five business day period after any five consecutive trading day period in which the trading price per \$1,000 principal amount of our notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate of our notes on each such trading day;
- if we call any or all of our notes for redemption, at any time prior to the close of business on the scheduled trading day prior to the redemption date; or
- upon the occurrence of specified corporate events.

Between April 15, 2023 and the close of business on the second scheduled trading day preceding July 15, 2023, holders may convert all or a portion of their notes without such conditions.

In the event the conditional conversion feature of our convertible senior notes is triggered, then we could be required under accounting rules to reclassify all or a portion of the outstanding principal of the notes as a current, rather than long-term, liability, even if holders do not elect to convert their notes. Any such reclassification would result in a material reduction of our net working capital.

Upon any conversion of our convertible senior notes, we have the option to pay or deliver, as the case may be, cash, shares of our common stock, or a combination of cash and shares of our common stock. If we elect to settle our conversion obligation in shares of our common stock or a combination of cash and shares of our common stock, then the conversion of some or all of our convertible senior notes may dilute the ownership interests of our stockholders and adversely affect the trading price of our common stock. In addition, the existence of the notes may encourage short selling by market participants because the conversion of the notes could be used to satisfy short positions.

RedfinNow relies on a secured revolving credit facility to finance its purchase of certain homes. RedfinNow intends to rely on proceeds from the sale of financed homes to repay amounts owed under such facility, but in certain instances, such proceeds may be insufficient or unavailable to repay the amounts owed.

Pursuant to a secured revolving credit facility with Goldman Sachs Bank USA ("Goldman Sachs"), RedfinNow Borrower, which is a wholly owned subsidiary of Redfin Corporation, may borrow money to partially fund purchases of homes for our properties business. RedfinNow Borrower has the option of repaying amounts owed with respect to a particular financed home upon the sale of such home and using

the proceeds from such sale. However, there is no assurance the sale proceeds will equal or exceed the amounts owed.

Additionally, in certain instances, RedfinNow Borrower may be required to repay amounts owed with respect to a financed home prior to the sale of that home. For example, the amount that RedfinNow Borrower is eligible to borrow for a home, which we refer to as the advance rate, depends, in part, on how long it has owned that home. As RedfinNow Borrower owns a home past certain time periods, the advance rate decreases and it becomes obligated to repay all or a portion of the borrowed funds. Additionally, a home must satisfy certain criteria to be eligible for financing under the facility. If a financed home ceases to satisfy the criteria, then RedfinNow Borrower must immediately repay all amounts owed with respect to the home. If either of these scenarios occur, then RedfinNow Borrower will be unable to rely on the proceeds from the sale of the home for repayment.

In the situations described above, RedfinNow Borrower must use its cash on hand to repay the amounts owed. To the extent it does not have sufficient cash and is unable to make the required repayments, then RedfinNow Borrower may default under the facility.

Our inability to comply with the terms of RedfinNow's secured revolving credit facility may adversely affect our properties business and, in some instances, give the lenders recourse to Redfin Corporation when the value of the assets securing the facility are insufficient to cover the amounts owed to the lenders.

Borrowings under our secured revolving credit facility are secured by RedfinNow Borrower's assets, including the financed homes, as well as the equity interests in RedfinNow Borrower. To the extent RedfinNow Borrower is unable to make payments when due under the facility, or it or certain other Redfin entities are unable to comply with the facility's ongoing representations and warranties or covenants (including financial covenants of Redfin Corporation), then an event of default may occur. An event of default would require RedfinNow Borrower to immediately repay all amounts owed under the facility and cause RedfinNow Borrower to be unable to borrow from the facility. As a result, our properties business will need to rely solely on our available cash to fund home purchases, and to the extent cash is unavailable, our properties business would be unable to purchase the homes required for its growth. Furthermore, an event of default may result in Goldman Sachs owning RedfinNow Borrower's equity interests or its assets, including any financed homes and cash held by RedfinNow Borrower, and result in our properties business losing a portion of its assets.

While the lenders' recourse in most situations following an event of default is only to RedfinNow Borrower or its assets, Redfin Corporation has guaranteed amounts owed under the facility and certain expenses in situations involving "bad acts" by a Redfin entity. To the extent a Redfin entity commits a "bad act," then Redfin Corporation may become obligated to pay such amounts owed or certain expenses.

If Redfin Mortgage is unable to obtain sufficient financing through warehouse credit facilities to fund its origination of mortgage loans, then we may be unable to grow our mortgage origination business.

Redfin Mortgage relies on borrowings from its warehouse credit facilities to fund substantially all of the mortgage loans that it originates. See Note 14 to our consolidated financial statements for the current terms of Redfin Mortgage's warehouse credit facilities. To grow its business, Redfin Mortgage depends, in part, on having sufficient borrowing capacity under its current facilities or obtaining additional borrowing capacity under new facilities. If it were unable to receive the necessary capacity, or receive such capacity on acceptable terms, and did not have cash on hand available, then Redfin Mortgage may be unable to maintain or increase the amount of mortgage loans that it originates, which will adversely affect its growth.

Redfin Mortgage has historically been unable to meet certain financial covenants contained in its warehouse credit facilities. While each lender has historically waived these breaches of the financial covenants, there is no assurance that every lender will continue to do so in the event of future covenant breaches. If a lender were to enforce its remedies for a future breach, which may include the right to seize pledged mortgage loans and obtain rights and income related to the loans, then Redfin Mortgage may lose

a portion of its assets and will be unable to rely on the facility to fund its mortgage originations, which may adversely affect Redfin Mortgage's business.

The cross-acceleration and cross-default provisions in the agreements governing our indebtedness may result in an immediate obligation to repay all of our outstanding indebtedness.

The indenture governing our convertible senior notes and one of our warehouse credit facilities contain cross-acceleration provisions while our secured revolving credit facility and two of our warehouse credit facilities contain cross-default provisions. These provisions could have the effect of creating an event of default under an agreement for our indebtedness, despite our compliance with that agreement, due solely to an event of default or failure to pay amounts owed under another agreement for our indebtedness. Accordingly, all or a significant portion of our outstanding indebtedness could become immediately payable due solely to our failure to comply with the terms of a single agreement governing our indebtedness.

Certain provisions in the agreements governing our indebtedness may delay or prevent an otherwise beneficial takeover attempt of us.

Certain provisions in the agreements governing our indebtedness may make it more difficult or expensive for a third party to acquire us. These provisions may have the effect of delaying or preventing a takeover that would otherwise be beneficial to our stockholders.

For example, the indenture for our convertible senior notes will require us to repurchase our convertible senior notes for cash upon the occurrence of a fundamental change (as defined in the indenture) of us and, in certain circumstances, to increase the conversion rate for a holder that converts its notes in connection with a make-whole fundamental change. A takeover of us may trigger the requirement that we repurchase our convertible senior notes and/or increase the conversion rate, which could make it more costly for a potential acquirer to engage in such takeover.

Furthermore, under the loan agreement for our secured revolving credit facility, an event of default occurs upon a change in control (as defined in the loan agreement), unless Goldman Sachs, as the administrative agent, consents to the change in control. Accordingly, a takeover may require us and the third-party acquirer to obtain Goldman Sachs's consent.

If the London Inter-Bank Offered Rate ("LIBOR") is discontinued, interest payments under our secured revolving credit facility and certain warehouse credit facilities may be calculated using another reference rate.

In July 2017, the United Kingdom Financial Conduct Authority ("FCA"), which regulates LIBOR, announced that the FCA intends to phase out the use of LIBOR by the end of 2021. In response, the U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, has proposed replacing U.S. dollar LIBOR with the Secured Overnight Financing Rate ("SOFR"), which is a new index calculated by short-term repurchase agreements and backed by U.S. Treasury securities. The market transition away from LIBOR towards SOFR is expected to be complicated, and there is no guarantee that SOFR will become a widely accepted benchmark in place of LIBOR. LIBOR is used as a benchmark rate throughout our secured revolving credit facility and certain of our warehouse credit facilities and some of these agreements do not provide fallback language for circumstances in which LIBOR ceases to be published. The transition process may involve, among other things, increased volatility and illiquidity in markets for instruments that currently rely on LIBOR and may result in increased borrowing costs, the effectiveness of related transactions such as hedges, uncertainty under our secured revolving credit facility and certain of our warehouse credit facilities, or difficult and costly processes to amend such documentation. There remains uncertainty regarding the future utilization of LIBOR and the nature of any replacement rate, and we are uncertain what impact a transition away from LIBOR may have on our business, financial results, and operations.

Risks Relating to Ownership of Our Common Stock

Provisions of Delaware or Washington law and our governing documents could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders.

We are governed by Section 203 of the Delaware General Corporation Law (the "DGCL"), which prohibits a person who owns at least 15% of our common stock from engaging in a "business combination" (as defined in the DGCL) with us for a period of three years after the date of the transaction in which the person reached such ownership threshold, unless the business combination is approved in a prescribed manner and subject to certain exceptions. Furthermore, Chapter 23B.19 of the Washington Business Corporation Act (the "WBCA") may apply to us if we qualify as a "target corporation" under the WBCA. To the extent it applies, Chapter 23B.19 would prohibit us from engaging in a "significant business transaction" (as defined in the WBCA) with a person who owns at least 10% of our common stock for a period of five years following the date of the transaction in which the person reached such ownership threshold, unless the significant business transaction is approved in a prescribed manner and subject to certain exceptions. These provisions of Delaware or Washington law could, under certain circumstances, also depress the market price of our common stock.

As discussed in the "Anti-Takeover Provisions" section of the Description of Common Stock filed as [Exhibit 4.2](#) to this Annual Report (which we incorporate into this Item 1A by reference), certain provisions in our restated certificate of incorporation and restated bylaws may have an effect of delaying, deferring or preventing a change in control of us.

Our restated certificate of incorporation designates the Court of Chancery of the State of Delaware and the U.S. federal district courts as the exclusive forums for certain types of actions that may be initiated by our stockholders. These provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or employees, which may discourage lawsuits with respect to such claims.

Our restated certificate of incorporation provides that, unless we consent in writing to an alternative forum, the Court of Chancery of the State of Delaware (the "Court of Chancery") will be 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, officers, or employees to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the DGCL, our restated certificate of incorporation, or our restated bylaws, (iv) any action to interpret, apply, enforce or determine the validity of our restated certificate of incorporation or our restated bylaws, or (iv) any action asserting a claim that is governed by the internal affairs doctrine. This exclusive forum provision does not apply to actions arising under the Securities Exchange Act of 1934, or, as described below, the Securities Act of 1933.

Our restated certificate of incorporation further provides that, unless we consent in writing to an alternative forum, the U.S. federal district courts will be the exclusive forum for any complaint asserting a cause of action arising under the Securities Act of 1933. However, the Court of Chancery has ruled that exclusive forum provisions for claims under the Securities Act of 1933 are not enforceable as a matter of Delaware law. This ruling is currently on appeal in the Delaware Supreme Court. Accordingly, this exclusive forum provision in our restated certificate of incorporation is subject to and contingent upon a final adjudication in the State of Delaware of the enforceability of such provision. Regardless of whether this provision is enforceable, stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

None.

Item 3. Legal Proceedings

On August 28, 2019, one of our former independent contractor licensed sales associates, which we call associate agents, filed a complaint against us in the Superior Court of California, County of San Francisco. The plaintiff initially pled the complaint as a class action and alleged that we misclassified her as an independent contractor instead of an employee. The plaintiff also sought representative claims under California's Private Attorney General Act ("PAGA"). On December 6, 2019, we filed a motion to compel arbitration and asserted that the plaintiff had agreed to arbitrate her claims and had waived all class claims. Following that filing, we and the plaintiff stipulated to allow the plaintiff to amend her complaint to dismiss the class action claim and assert only claims under PAGA. On January 14, 2020, pursuant to the parties' stipulation, the court granted the plaintiff leave to file a first amended complaint, and she filed her first amended complaint on January 30, 2020. Following this stipulation, only the plaintiff's claims under PAGA will proceed. The plaintiff continues to seek unspecified penalties for alleged violations of PAGA.

Item 4. Mine Safety Disclosures

None.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information, Holders of Record, and Dividends

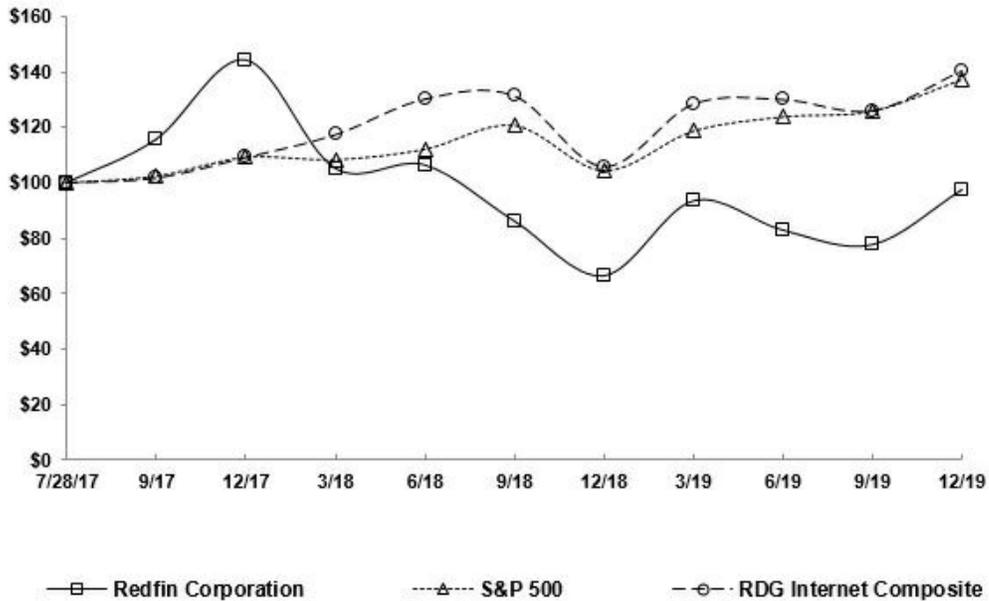
Our common stock is listed on The Nasdaq Global Select Market under the symbol "RDFN."

As of January 31, 2020, we had 151 holders of record of our common stock.

We have no intention of paying cash dividends in the foreseeable future.

Stock Performance Graph

The graph below compares the cumulative total return of a \$100 investment in our common stock with the cumulative total return of the same investment in the S&P 500 Index and the RDG Composite Index. The period shown commences on July 28, 2017, which was our common stock's first day of trading after our initial public offering ("IPO"), and ends on December 31, 2019.



Unregistered Sales of Securities

During the period covered by this Annual Report, we did not sell any equity securities that were not registered under the Securities Act of 1933.

Use of IPO Proceeds

On July 27, 2017, the SEC declared effective the Registration Statement on Form S-1 (file number 333-219093) for our IPO. There has been no change to the information provided under "Use of Proceeds" in Part II, Item 2 of our Quarterly Report on Form 10-Q for the quarter ended June 30, 2017.

Purchases of Equity Securities

During the quarter ended December 31, 2019, there were no purchases of our common stock by or on behalf of us or any of our affiliated purchasers, as such term is defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934.

Item 6. Selected Financial Data

The selected financial data set forth below should be read in conjunction with the information contained in Items 7 and 8.

	As of and for Year Ended December 31,				
	2019 ⁽¹⁾⁽²⁾	2018 ⁽²⁾	2017	2016	2015
	(in thousands, except per share amounts)				
Statements of Operations Data					
Revenue	\$ 779,796	\$ 486,920	\$ 370,036	\$ 267,196	\$ 187,338
Cost of revenue	635,693	367,496	258,216	184,452	138,492
Total operating expenses	223,349	163,358	127,792	105,528	79,135
Loss from operations	(79,246)	(43,934)	(15,972)	(22,784)	(30,289)
Net loss	(80,805)	(41,978)	(15,002)	(22,526)	(30,236)
Accretion of redeemable convertible preferred stock	—	—	(175,915)	(55,502)	(102,224)
Net loss attributable to common stock—basic and diluted	(80,805)	(41,978)	(190,917)	(78,028)	(132,460)
Net loss per share attributable to common stock—basic and diluted	(0.88)	(0.49)	(4.47)	(5.42)	(9.87)
Balance Sheet Data					
Cash, cash equivalents, and investments	\$ 335,686	\$ 432,608	\$ 208,342	\$ 65,779	\$ 87,341
Inventory	74,590	22,694	3,382	—	—
Working capital	366,411	450,029	204,349	60,445	83,234
Total assets	596,213	542,821	281,955	133,477	125,054
Convertible senior notes, net	119,716	113,586	—	—	—
Redeemable convertible preferred stock	—	—	—	655,416	599,914
Total stockholders' equity (deficit)	331,446	371,938	235,430	(563,734)	(495,713)

(1) 2019 amounts reflect our adoption of the new lease accounting standard, which resulted in the recording of right of use assets and corresponding lease liabilities. As of December 31, 2019, total assets increased \$52,004 compared to the prior periods, which were not restated and reflect our historical accounting policies. See Note 1 to our consolidated financial statements for additional information.

(2) 2019 and 2018 revenue reflect our adoption of a new revenue accounting standard, which we adopted using the modified retrospective method. This change did not have a material impact on our financial results. We did not restate 2017, 2016, and 2015 revenue for the new standard, and they reflect our historical accounting policies.

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 together with our consolidated financial statements, the accompanying notes, and other information included in this Annual Report. In particular, the risk factors contained in Item 1A may reflect trends, demands, commitments, events, or uncertainties that could materially impact our results of operations and liquidity and capital resources.

The following discussion contains forward-looking statements, such as statements regarding our future operating results and financial position, our business strategy and plans, our market growth and trends, and our objectives for future operations. See "Note Regarding Forward-Looking Statements" for more information about relying on these forward-looking statements. The following discussion also contains information using industry publications. See "Note Regarding Industry and Market Data" for more information about relying on these industry publications.

When we use the term "basis points" in the following discussion, we refer to units of one-hundredth of one percent.

Overview

We help people buy and sell homes. Our primary business is a residential real estate brokerage, representing customers in over 90 markets in the United States and Canada. We pair our own agents with our own technology to create a service that is faster, better, and costs less. We meet customers through our listings-search website and mobile application.

We use the same combination of technology and local service to originate mortgage loans and offer title and settlement services; we also buy homes directly from homeowners who want an immediate sale, taking responsibility for selling the home while the original owner moves on.

Our mission is to redefine real estate in the consumer's favor.

Key Business Metrics

In addition to the measures presented in our consolidated financial statements, we use the following key metrics to evaluate our business, develop financial forecasts, and make strategic decisions.

	Year Ended December 31,		
	2019	2018	2017
Monthly average visitors (in thousands)	33,473	27,261	22,623
Real estate services transactions			
Brokerage	53,235	42,954	35,038
Partner	11,939	11,608	10,755
Total	65,174	54,562	45,793
Real estate services revenue per transaction			
Brokerage	\$ 9,326	\$ 9,459	\$ 9,429
Partner	2,267	2,229	1,971
Aggregate	8,033	7,921	7,677
Aggregate home value of real estate services transactions (in millions)	\$ 30,532	\$ 25,812	\$ 21,280
U.S. market share by value	0.93 %	0.81 %	0.67 %
Revenue from top-10 Redfin markets as a percentage of real estate services revenue	63 %	67 %	69 %
Average number of lead agents	1,553	1,390	1,023

Monthly Average Visitors

The number of, and growth in, visitors to our website and mobile application are important leading indicators of our business activity because these channels are the primary ways we meet customers. For a particular period, monthly average visitors refers to the average of the number of unique visitors to our website and mobile application for each of the months in that period. Monthly average visitors are influenced by, among other things, market conditions that affect interest in buying or selling homes, the level and success of our marketing programs, seasonality, and how our website appears in search results. We believe we can continue to increase monthly visitors, which helps our growth.

Given the lengthy process to buy or sell a home, a visitor during one month may not convert to a revenue-generating customer until many months later, if at all.

When we refer to "monthly average visitors" for a particular period, we are referring to the average number of unique visitors to our website and our mobile applications for each of the months in that period, as measured by Google Analytics, a product that provides digital marketing intelligence. Google Analytics tracks visitors using cookies, with a unique cookie being assigned to each browser or mobile application on a device. For any given month, Google Analytics counts all of the unique cookies that visited our website and mobile applications during that month. Google Analytics considers each unique cookie as a unique visitor. Due to third-party technological limitations, user software settings, or user behavior, it is possible that Google Analytics may assign a unique cookie to different visits by the same person to our website or mobile application. In such instances, Google Analytics would count different visits by the same person as separate visits by unique visitors. Accordingly, reliance on the number of unique cookies counted by Google Analytics may overstate the actual number of unique persons who visit our website or our mobile applications for a given month.

Real Estate Services Transactions

We record a brokerage real estate services transaction when one of our lead agents represented the homebuyer or home seller in the purchase or sale, respectively, of a home. We record a partner real estate services transaction (i) when one of our partner agents represented the homebuyer or home seller in the purchase or sale, respectively, of a home or (ii) since the third quarter of 2019 after we commenced a referral partnership with Opendoor, when a Redfin customer sold his or her home to a third-party institutional buyer following our introduction of that customer to the buyer. We include a single transaction twice when our lead agents or our partner agents serve both the homebuyer and the home seller of the transaction. Additionally, when one of our lead agents represents RedfinNow in its sale of a home, we include that transaction as a brokerage real estate services transaction.

Increasing the number of real estate services transactions is critical to increasing our revenue and, in turn, to achieving profitability. Real estate services transaction volume is influenced by, among other things, the pricing and quality of our services as well as market conditions that affect home sales, such as local inventory levels and mortgage interest rates. Real estate services transaction volume is also affected by seasonality and macroeconomic factors.

Real Estate Services Revenue per Transaction

Real estate services revenue per transaction, together with the number of real estate services transactions, is a factor in evaluating revenue growth. We also use this metric to evaluate pricing changes. Changes in real estate services revenue per transaction can be affected by, among other things, our pricing, the mix of transactions from homebuyers and home sellers, changes in the value of homes in the markets we serve, the geographic mix of our transactions, and the transactions we refer to partner agents and any third-party institutional buyer. We calculate real estate services revenue per transaction by dividing brokerage, partner, or aggregate revenue, as applicable, by the corresponding number of real estate services transactions in any period.

We generally generate more real estate services revenue per transaction from representing homebuyers than home sellers. However, we believe that representing home sellers has unique strategic value, including the marketing power of yard signs and digital marketing campaigns, and the market effect of controlling listing inventory. To keep revenue per brokerage transaction about the same from year to year,

we expect to reduce our commission refund to homebuyers if more of our brokerage transactions come from home sellers.

From 2018 to 2019, the percentage of brokerage transactions from home sellers increased from slightly over 40% to approximately 44%. However, due to the nationwide pricing change we implemented in December 2019, we expect a minimal increase, no change, or possible decrease in this percentage from 2019 to 2020.

Aggregate Home Value of Real Estate Services Transactions

The aggregate home value of brokerage and partner real estate services transactions is an important indicator of the health of our business, because our revenue is largely based on a percentage of each home's sale price. This metric is affected chiefly by the number of customers we serve, but also by changes in home values in the markets we serve. We compute this metric by summing the sale price of each home represented in a real estate services transaction. We include the value of a single transaction twice when our lead agents or our partner agents serve both the homebuyer and home seller of the transaction.

U.S. Market Share by Value

Increasing our U.S. market share by value is critical to our ability to grow our business and achieve profitability over the long term. We believe there is a significant opportunity to increase our share in the markets we currently serve.

We calculate the aggregate value of U.S. home sales by multiplying the total number of U.S. existing home sales by the mean sale price of these homes, each as reported by the National Association of REALTORS®. We calculate our market share by aggregating the home value of brokerage and partner real estate services transactions. Then, in order to account for both the sell- and buy-side components of each transaction, we divide that value by two-times the estimated aggregate value of U.S. home sales.

Revenue from Top-10 Markets as a Percentage of Real Estate Services Revenue

Our top-10 markets by real estate services revenue are the metropolitan areas of Boston, Chicago, Denver (including Boulder and Colorado Springs), Los Angeles (including Santa Barbara), Maryland, Northern Virginia, Portland (including Bend), San Diego, San Francisco, and Seattle. This metric is an indicator of the geographic concentration of our real estate services segment. We expect our revenue from top-10 markets to decline as a percentage of our total real estate services revenue over time.

Average Number of Lead Agents

The average number of lead agents, in combination with our other key metrics such as the number of brokerage transactions, is a basis for calculating agent productivity and is one indicator of the potential future growth of our business. We systematically evaluate traffic to our website and mobile application and customer activity to anticipate changes in customer demand, helping determine when and where to hire lead agents.

We calculate the average number of lead agents by taking the average of the number of lead agents at the end of each month included in the period.

Components of Our Results of Operations

Revenue

We generate revenue primarily from commissions and fees charged on each real estate services transaction closed by our lead agents or partner agents, and from the sale of homes .

Real Estate Services Revenue

Brokerage Revenue—Brokerage revenue includes our offer and listing services, where our lead agents represent home buyers and home sellers. We recognize commission-based brokerage revenue upon closing of a brokerage transaction, less the amount of any commission refunds, closing-cost reductions, or promotional offers that may result in a material right. Brokerage revenue is affected by the number of brokerage transactions we close, the mix of brokerage transactions, home-sale prices, commission rates, and the amount we give to customers.

Partner Revenue—Partner revenue consists of fees paid to us from partner agents or under other referral agreements, less the amount of any payments we make to customers. We recognize these fees as revenue on the closing of a transaction. Partner revenue is affected by the number of partner transactions closed, home-sale prices, commission rates, and the amount we refund to customers. If the portion of customers we introduce to our own lead agents increases, we expect the portion of revenue closed by partner agents to decrease.

Properties Revenue

Properties Revenue—Properties revenue consists of revenue earned when we sell homes that were previously bought directly from homeowners. Properties revenue is recorded at closing on a gross basis, representing the sales price of the home. RedfinNow is our primary properties offering.

Other Revenue

Other Revenue—Other services revenue includes fees earned from mortgage origination services, title settlement services, Walk Score data services, and advertising. Substantially all fees and revenue from other services are recognized when the service is provided.

Intercompany Eliminations

Intercompany Eliminations—Revenue earned from transactions between operating segments are eliminated in consolidating our financial statements. Intercompany transactions primarily consist of services performed from our real estate services segment for our properties segment.

Cost of Revenue and Gross Margin

Cost of revenue consists primarily of personnel costs (including base pay, benefits, and stock-based compensation), transaction bonuses, home-touring and field expenses, listing expenses, home costs related to our properties segment, office and occupancy expenses, and depreciation and amortization related to fixed assets and acquired intangible assets. Home costs related to our properties segment include home purchase costs, capitalized improvements, selling expenses directly attributable to the transaction, and home maintenance expenses.

Gross profit is revenue less cost of revenue. Gross margin is gross profit expressed as a percentage of revenue. Our gross margin has and will continue to be affected by a number of factors, but the most important are the mix of revenue from our relatively higher-gross-margin real estate services segment and our relatively lower-gross-margin properties segment, real estate services revenue per transaction, agent and support-staff productivity, personnel costs and transaction bonuses, and, for properties, the home purchase costs.

Operating Expenses

Technology and Development

Our primary technology and development expenses are building software for our customers, lead agents, and support staff to work together on a transaction, and building a website and mobile application to meet customers looking to move. These expenses primarily include personnel costs (including base pay,

benefits, and stock-based compensation), data licenses, software and equipment, and infrastructure such as for data centers and hosted services. The expenses also include amortization of capitalized internal-use software and website and mobile application development costs. We expense research and development costs as incurred and record them in technology and development expenses. Our technology and development expense grew 41% year-over-year for the three months ended December 31, 2019, and we expect approximately the same amount of growth in this expense for the first six months of 2020.

Marketing

Marketing expenses consist primarily of media costs for online and offline advertising, as well as personnel costs (including base pay, benefits, and stock-based compensation). In 2019, we incurred approximately \$36 million in offline advertising media costs, compared to around \$12 million for 2018. We expect approximately the same offline advertising media costs in 2020 as incurred in 2019.

General and Administrative

General and administrative expenses consist primarily of personnel costs (including base pay, benefits, and stock-based compensation), facilities costs and related expenses for our executive, finance, human resources, and legal organizations, depreciation related to our fixed assets, and fees for outside services. Outside services are principally comprised of external legal, audit, and tax services.

Interest Income

Interest income consists primarily of interest earned on our cash, cash equivalents and investments.

Interest Expense

Interest expense consists primarily of interest payable and the amortization of debt discounts and issuance cost related to our convertible senior notes, which we issued in July 2018. Interest is payable on the notes at the rate of 1.75% semiannually in arrears on January 15 and July 15.

Beginning in August 2019, interest expense also includes interest on borrowings and the amortization of debt issuance costs related to our secured revolving credit facility. Interest for the facility is payable weekly at a rate of one-month LIBOR (subject to a floor of 0.50%) plus 2.65%.

Results of Operations

The following tables set forth our results of operations for the periods presented and as a percentage of our revenue for those periods.

	Year Ended December 31,		
	2019	2018	2017
	(in thousands)		
Revenue	\$ 779,796	\$ 486,920	\$ 370,036
Cost of revenue ⁽¹⁾	635,693	367,496	258,216
Gross profit	144,103	119,424	111,820
Operating expenses:			
Technology and development ⁽¹⁾	69,765	53,797	42,532
Marketing ⁽¹⁾	76,710	44,061	32,251
General and administrative ⁽¹⁾	76,874	65,500	53,009
Total operating expenses	223,349	163,358	127,792
Loss from operations	(79,246)	(43,934)	(15,972)
Interest income	7,146	5,416	882
Interest expense	(8,928)	(3,681)	—
Other income, net	223	221	88
Net loss	\$ (80,805)	\$ (41,978)	\$ (15,002)

(1) Includes stock-based compensation as follows:

	Year Ended December 31,		
	2019	2018	2017
	(in thousands)		
Cost of revenue	\$ 6,087	\$ 5,567	\$ 2,902
Technology and development	12,362	7,576	3,325
Marketing	1,418	662	487
General and administrative	7,947	6,633	4,387
Total	\$ 27,814	\$ 20,438	\$ 11,101

	Year Ended December 31,		
	2019	2018	2017
	(as a percentage of revenue)		
Revenue	100.0 %	100.0 %	100.0 %
Cost of revenue ⁽¹⁾	81.5	75.5	69.8
Gross profit	18.5	24.5	30.2
Operating expenses:			
Technology and development ⁽¹⁾	8.9	11.0	11.6
Marketing ⁽¹⁾	9.8	9.0	8.7
General and administrative ⁽¹⁾	9.9	13.5	14.3
Total operating expenses	28.6	33.5	34.6
Loss from operations	(10.1)	(9.0)	(4.4)
Interest income	0.9	1.1	0.3
Interest expense	(1.1)	(0.8)	—
Other income, net	—	—	—
Net loss	(10.3)%	(8.7)%	(4.1)%

(1) Includes stock-based compensation as follows:

	Year Ended December 31,		
	2019	2018	2017
	(as a percentage of revenue)		
Cost of revenue	0.8 %	1.1 %	0.8 %
Technology and development	1.6	1.6	0.9
Marketing	0.2	0.1	0.1
General and administrative	1.0	1.4	1.2
Total	3.6 %	4.2 %	3.0 %

Comparison of the Years Ended December 31, 2019 and 2018

Revenue

	Year Ended December 31,		Change	
	2019	2018	Dollars	Percentage
	(in thousands, except percentages)			
Real estate services revenue				
Brokerage revenue	\$ 496,480	\$ 406,293	\$ 90,187	22 %
Partner revenue	27,060	25,875	1,185	5
Total real estate services revenue	523,540	432,168	91,372	21
Properties revenue	240,507	44,993	195,514	435
Other revenue	17,634	9,882	7,752	78
Intercompany elimination	(1,885)	(123)	(1,762)	1,433
Total revenue	\$ 779,796	\$ 486,920	\$ 292,876	60
Percentage of revenue				
Real estate services revenue				
Brokerage	63.6 %	83.4 %		
Partner revenue	3.5	5.3		
Total real estate services revenue	67.1	88.7		
Properties revenue	30.8	9.3		
Other revenue	2.3	2.0		
Intercompany elimination	(0.2)	—		
Total revenue	100.0 %	100.0 %		

In 2019, revenue increased by \$292.9 million, or 60%, as compared with 2018. Brokerage revenue represented \$90.2 million, or 31%, of the increase. Brokerage revenue grew 22% during the period, driven by a 24% increase in brokerage real estate transactions and a 1% decrease in real estate services revenue per brokerage transaction. The increase in brokerage transactions was attributable to higher levels of customer awareness of Redfin and increasing customer demand for Redfin services. Properties revenue grew \$195.5 million, or 435%, as compared with 2018, driven by greater market presence and consumer awareness of RedfinNow, which resulted in a 407% increase in the number of homes sold. Other revenue increased \$7.8 million, or 78%, as compared with 2018.

Cost of Revenue and Gross Margin

	Year Ended December 31,		Change	
	2019	2018	Dollars	Percentage
(in thousands, except percentages)				
Cost of revenue				
Real estate services	\$ 373,150	\$ 309,069	\$ 64,081	21 %
Properties	245,189	46,613	198,576	426
Other	19,239	11,937	7,302	61
Intercompany elimination	(1,885)	(123)	(1,762)	1,433
Total cost of revenue	<u>\$ 635,693</u>	<u>\$ 367,496</u>	<u>\$ 268,197</u>	<u>73</u>
Gross profit				
Real estate services	\$ 150,390	\$ 123,099	\$ 27,291	22 %
Properties	(4,682)	(1,620)	(3,062)	189
Other	(1,605)	(2,055)	450	(22)
Total gross profit	<u>\$ 144,103</u>	<u>\$ 119,424</u>	<u>\$ 24,679</u>	<u>21</u>
Gross margin (percentage of revenue)				
Real estate services	28.7 %	28.5 %		
Properties	(1.9)	(3.6)		
Other	(9.1)	(20.8)		
Total gross margin	18.5	24.5		

In 2019, total cost of revenue increased by \$268.2 million, or 73%, as compared with 2018. This increase in cost of revenue was primarily attributable to a \$180.8 million increase in home purchase costs and related capitalized improvements, due to selling more homes by our properties business, a \$50.3 million increase in personnel costs and transaction bonuses due to increased headcount and increased brokerage transactions, respectively, and a \$13.7 million increase in home-touring and field costs.

Total gross margin decreased 600 basis points for 2019 as compared with 2018, driven primarily by the relative growth of our properties business compared to our real estate services and other businesses, partially offset by improvements in real estate services, properties and other gross margin.

In 2019, real estate services gross margin increased 20 basis points as compared with 2018. This was primarily attributable to a 110 basis-point decrease in personnel costs and transaction bonuses as a percentage of revenue. This was partially offset by a 30 basis-point increase in home-touring and field costs, a 30 basis-point increase in occupancy and office expenses, and a 20 basis-point increase in listing expenses, each as a percentage of revenue.

In 2019, properties gross margin increased 170 basis points as compared with 2018. This was primarily attributable to a 90 basis-point decrease in home purchase costs and related capitalized improvements, a 30 basis-point decrease in personnel costs, and a 30 basis-point decrease in listing expenses, each as a percentage of revenue.

In 2019, other gross margin increased 1,170 basis points as compared with 2018. This was primarily attributable to a 340 basis-point decrease in personnel costs, a 310 basis-point decrease in operating expenses, a 290 basis-point decrease in office and occupancy expenses, and a 230 basis-point decrease in depreciation and amortization, each as a percentage of revenue.

Operating Expenses

	Year Ended December 31,		Change	
	2019	2018	Dollars	Percentage
(in thousands, except percentages)				
Technology and development	\$ 69,765	\$ 53,797	\$ 15,968	30 %
Marketing	76,710	44,061	32,649	74
General and administrative	76,874	65,500	11,374	17
Total operating expenses	\$ 223,349	\$ 163,358	\$ 59,991	37
<i>Percentage of revenue</i>				
Technology and development	8.9 %	11.0 %		
Marketing	9.8	9.0		
General and administrative	9.9	13.5		
Total operating expenses	28.6 %	33.5 %		

In 2019, technology and development expenses increased by \$16.0 million, or 30%, as compared with 2018. The increase was primarily attributable to a \$13.5 million increase in personnel costs due to increased headcount.

In 2019, marketing expenses increased by \$32.6 million, or 74%, as compared with 2018. The increase was primarily attributable to a \$29.2 million increase in marketing media costs as we expanded advertising.

In 2019, general and administrative expenses increased by \$11.4 million, or 17%, as compared with 2018. The increase was attributable to an \$7.2 million increase in personnel costs, largely the result of increases in headcount to support continued growth, a \$2.0 million increase in outside services expenses, primarily Internet-based software services, and a \$1.3 million increase in corporate events costs.

Comparison of the Years Ended December 31, 2018 and 2017

Revenue

	Year Ended December 31,		Change	
	2018	2017	Dollars	Percentage
(in thousands, except percentages)				
Real estate services revenue				
Brokerage revenue	\$ 406,293	\$ 330,372	\$ 75,921	23 %
Partner revenue	25,875	21,198	4,677	22
Total real estate services revenue	432,168	351,570	80,598	23
Properties revenue	44,993	10,491	34,502	329
Other revenue	9,882	7,975	1,907	24
Intercompany elimination	(123)	—	(123)	N/A
Total revenue	\$ 486,920	\$ 370,036	\$ 116,884	32
<i>Percentage of revenue</i>				
Real estate services revenue				
Brokerage revenue	83.4 %	89.3 %		
Partner revenue	5.3	5.7		
Total real estate services revenue	88.7	95.0		
Properties revenue	9.3	2.8		
Other revenue	2.0	2.2		
Intercompany elimination	—	—		
Total revenue	100.0 %	100.0 %		

In 2018, revenue increased by \$116.9 million, or 32%, as compared with 2017. Brokerage revenue represented \$75.9 million, or 65%, of the increase. Brokerage revenue grew 23% during the period, driven by a 23% increase in brokerage real estate transactions and a 0.3% increase in real estate services revenue per brokerage transaction. The increase in brokerage transactions was attributable to higher levels of customer awareness of Redfin and increasing customer demand for Redfin services. Properties revenue increased \$34.5 million or 329% as compared with 2017, driven by greater market presence and consumer awareness of RedfinNow, which resulted in a 267% increase in the number of homes sold. Other revenue increased \$1.9 million or 24%, as compared with 2017.

Cost of Revenue and Gross Margin

	Year Ended December 31,		Change	
	2018	2017	Dollars	Percentage
(in thousands, except percentages)				
Cost of revenue				
Real estate services	\$ 309,069	\$ 237,832	\$ 71,237	30 %
Properties	46,613	10,384	36,229	349
Other	11,937	10,000	1,937	19
Intercompany elimination	(123)	—	(123)	N/A
Total cost of revenue	\$ 367,496	\$ 258,216	\$ 109,280	42
Gross profit				
Real estate services	\$ 123,099	\$ 113,738	\$ 9,361	8 %
Properties	(1,620)	107	(1,727)	N/A
Other	(2,055)	(2,025)	(30)	(1)
Total gross profit	\$ 119,424	\$ 111,820	\$ 7,604	7
Gross margin (percentage of revenue)				
Real estate services	28.5 %	32.4 %		
Properties	(3.6)	1.0		
Other	(20.8)	(25.4)		
Total gross margin	24.5	30.2		

In 2018, total cost of revenue increased by \$109.3 million, or 42%, as compared with 2017. This increase in cost of revenue was primarily attributable to a \$34.8 million increase in personnel costs due to increased lead agent and related support-staff headcount, a \$32.6 million increase in home purchase costs and related capitalized improvements, due to selling more homes by our properties business, a \$17.9 million increase in transaction bonuses, and a \$12.6 million increase in home-touring and field costs.

Total gross margin decreased 570 basis points for 2018 as compared with 2017, driven primarily by a decrease in real estate services gross margin and the growth of our properties business.

In 2018, real estate services gross margin decreased 390 basis points as compared with 2017. This was primarily attributable to a 210 basis-point increase in personnel costs, a 60 basis-point increase in transaction bonuses, a 60 basis-point increase in home-touring and field costs, a 30 basis-point increase in operating costs, and a 25 basis-point increase in listing expenses, each as a percentage of revenue.

In 2018, we decreased the number of customers introduced to our lead agents as compared with 2017, but did not see improvement in customer close rate. That change resulted in us hiring more lead agents, which contributed significantly to the 210 basis-point increase in personnel costs and stock-based compensation from 2017 to 2018.

In 2018, properties gross margin decreased 460 basis points as compared with 2017. This was primarily attributable to a 280 basis-point increase in the home purchase costs and related capitalized

improvements, a 110 basis-point increase in personnel costs, and a 70 basis-point increase in transaction bonuses, each as a percentage of revenue.

In 2018, other gross margin increased 460 basis points as compared with 2017. This was primarily attributable to a 230 basis-point decrease in operating expenses, a 170 basis-point decrease in depreciation and amortization, and a 90 basis-point decrease in office and occupancy expenses, each as a percentage of revenue. This was partially offset by a 50 basis-point increase in personnel costs.

Operating Expenses

	Year Ended December 31,		Change	
	2018	2017	Dollars	Percentage
(in thousands, except percentages)				
Technology and development	\$ 53,797	\$ 42,532	\$ 11,265	26 %
Marketing	44,061	32,251	11,810	37
General and administrative	65,500	53,009	12,491	24
Total operating expenses	<u>\$ 163,358</u>	<u>\$ 127,792</u>	<u>\$ 35,566</u>	28
<i>Percentage of revenue</i>				
Technology and development	11.0 %	11.6 %		
Marketing	9.0	8.7		
General and administrative	<u>13.5</u>	<u>14.3</u>		
Total operating expenses	<u>33.5 %</u>	<u>34.6 %</u>		

In 2018, technology and development expenses increased by \$11.3 million, or 26%, as compared with 2017. The increase was primarily attributable to a \$10.3 million increase in personnel costs due to increased headcount and a \$1.4 million increase in outside services including cloud-based technology. These expenses were related to improving real estate services operations, and building new capabilities for Redfin Mortgage and properties.

In 2018, marketing expenses increased by \$11.8 million, or 37%, as compared with 2017. The increase was primarily attributable to an \$11.1 million increase in marketing media costs as we expanded advertising.

In 2018, general and administrative expenses increased by \$12.5 million, or 24%, as compared with 2017. The increase was attributable to a \$8.1 million increase in personnel costs, largely the result of increases in headcount to support continued growth, a \$3.2 million increase in outside services expenses, driven by public-company compliance requirements, including the design, implementation, and assessment of the operating effectiveness of internal control over our financial reporting and related audit.

Quarterly Results of Operations and Key Business Metrics

The following tables set forth our unaudited quarterly statements of operations data for the most recent eight quarters, as well as the percentage that each line item represents of our revenue for each quarter presented. The information for each quarter has been prepared on a basis consistent with our consolidated financial statements and reflect, in the opinion of management, all adjustments of a normal, recurring nature that are necessary for a fair presentation of the financial information contained in those statements. The following quarterly financial data should be read in conjunction with our consolidated financial statements.

Quarterly Results

	Three Months Ended							
	Dec. 31, 2019	Sep. 30, 2019	Jun. 30, 2019	Mar. 31, 2019	Dec. 31, 2018	Sep. 30, 2018	Jun. 30, 2018	Mar. 31, 2018
Revenue	\$ 233,191	\$ 238,683	\$ 197,780	\$ 110,141	\$ 124,129	\$ 140,255	\$ 142,642	\$ 79,893
Cost of revenue ⁽¹⁾	193,565	185,306	149,434	107,388	97,920	97,950	97,429	74,197
Gross profit	39,626	53,377	48,346	2,753	26,209	42,305	45,213	5,696
Operating expenses:								
Technology and development ⁽¹⁾	19,345	18,801	16,063	15,556	13,692	14,310	13,033	12,762
Marketing ⁽¹⁾	8,099	8,361	27,050	33,201	8,054	8,236	14,435	13,336
General and administrative ⁽¹⁾	18,992	18,779	17,654	21,448	16,969	16,470	15,288	16,772
Total	46,436	45,941	60,767	70,205	38,715	39,016	42,756	42,870
Income (loss) from operations	(6,810)	7,436	(12,421)	(67,452)	(12,506)	3,289	2,457	(37,174)
Interest income	1,341	1,576	1,913	2,316	2,334	1,775	729	577
Interest expense	(2,365)	(2,274)	(2,153)	(2,136)	(2,071)	(1,610)	—	—
Other income, net	51	44	36	92	21	21	21	158
Net income (loss)	\$ (7,783)	\$ 6,782	\$ (12,625)	\$ (67,180)	\$ (12,222)	\$ 3,475	\$ 3,207	\$ (36,439)
Net income (loss) per share—basic and diluted	\$ (0.08)	\$ 0.07	\$ (0.14)	\$ (0.74)	\$ (0.14)	\$ 0.04	\$ 0.04	\$ (0.44)

(1) Includes stock-based compensation as follows:

	Three Months Ended							
	Dec. 31, 2019	Sep. 30, 2019	Jun. 30, 2019	Mar. 31, 2019	Dec. 31, 2018	Sep. 30, 2018	Jun. 30, 2018	Mar. 31, 2018
Cost of revenue	\$ 1,689	\$ 1,605	\$ 1,328	\$ 1,465	\$ 1,506	\$ 1,370	\$ 1,392	\$ 1,300
Technology and development	3,701	3,320	2,685	2,656	2,241	2,135	1,726	1,473
Marketing	393	390	349	286	231	155	157	119
General and administrative	2,239	2,195	1,514	1,999	1,988	1,838	1,503	1,304
Total	\$ 8,022	\$ 7,510	\$ 5,876	\$ 6,406	\$ 5,966	\$ 5,498	\$ 4,778	\$ 4,196

	Three Months Ended							
	Dec. 31, 2019	Sep. 30, 2019	Jun. 30, 2019	Mar. 31, 2019	Dec. 31, 2018	Sep. 30, 2018	Jun. 30, 2018	Mar. 31, 2018
	(as a percentage of revenue)							
Revenue	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Cost of revenue ⁽¹⁾	83.0	77.6	75.6	97.5	78.9	69.8	68.3	92.9
Gross profit	17.0	22.4	24.4	2.5	21.1	30.2	31.7	7.1
Operating expenses								
Technology and development ⁽¹⁾	8.3	7.9	8.1	14.1	11.0	10.2	9.1	16.0
Marketing ⁽¹⁾	3.5	3.5	13.7	30.1	6.5	5.9	10.1	16.7
General and administrative ⁽¹⁾	8.1	7.9	8.9	19.5	13.7	11.7	10.7	21.0
Total	19.9	19.3	30.7	63.7	31.2	27.8	29.9	53.7
Income (loss) from operations	(2.9)	3.1	(6.3)	(61.2)	(10.1)	2.4	1.8	(46.6)
Interest income	0.6	0.7	1.0	2.1	1.9	1.3	0.5	0.7
Interest expense	(1.0)	(1.0)	(1.1)	(1.9)	(1.7)	(1.1)	—	—
Other income, net	—	—	—	0.1	—	—	—	0.2
Net income (loss)	(3.3)%	2.8 %	(6.4)%	(61.0)%	(9.9)%	2.6 %	2.3%	(45.7)%

(1) Includes stock-based compensation as follows:

	Three Months Ended							
	Dec. 31, 2019	Sep. 30, 2019	Jun. 30, 2019	Mar. 31, 2019	Dec. 31, 2018	Sep. 30, 2018	Jun. 30, 2018	Mar. 31, 2018
Cost of revenue	0.7%	0.7%	0.7%	1.3%	1.2%	1.0%	1.0%	1.6%
Technology and development	1.6	1.4	1.4	2.4	1.8	1.5	1.2	1.9
Marketing	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1
General and administrative	1.0	0.9	0.8	1.8	1.6	1.3	1.1	1.7
Total	3.5%	3.2%	3.1%	5.8%	4.8%	3.9%	3.4%	5.3%

Services revenue for the periods above has followed a seasonal pattern largely consistent with the residential real estate industry. Accordingly, services revenue in 2019 and 2018 increased sequentially from the first quarter to the second quarter. In 2019, services revenue increased sequentially by 0.4% from the second quarter to the third quarter. In 2018, services revenue declined sequentially by 2% from the second quarter to the third quarter, we believe as the result of less favorable market conditions compared to a typical year. Services revenue in the fourth quarters of 2019 and 2018 declined sequentially.

Cost of services revenue has also reflected seasonality. Cost of services revenue in 2019 and 2018 increased sequentially from the first quarter to the second quarter, and then declined sequentially in the third quarter. In the fourth quarters of 2019 and 2018, the cost of services revenue declined sequentially due to lower real estate services transaction volume.

Product revenue for the period above has risen from the first quarter through the fourth quarter for 2019 and 2018. This is largely the result of greater market presence and consumer awareness of RedfinNow in 2019 and 2018. Cost of product revenue has largely followed the sequential pattern of product revenue.

Marketing expenses are influenced by seasonal factors and the timing of advertising campaigns. We have historically spent more on advertising during the first half of the year than the second half of the year. Technology and development expenses are influenced period to period by the timing of development project expenses, including the additional use of contract software developers as well as the utilization of interns, who typically work with us during the third quarter.

Quarterly Key Business Metrics

	Dec. 31, 2019	Sep. 30, 2019	Jun. 30, 2019	Mar. 31, 2019	Dec. 31, 2018	Sep. 30, 2018	Jun. 30, 2018	Mar. 31, 2018
Monthly average visitors (in thousands)	30,595	35,633	36,557	31,107	25,212	29,236	28,777	25,820
Real estate services transactions								
Brokerage	13,122	16,098	15,580	8,435	9,822	12,876	12,971	7,285
Partner	2,958	3,499	3,357	2,125	2,749	3,333	3,289	2,237
Total	16,080	19,597	18,937	10,560	12,571	16,209	16,260	9,522
Real estate services revenue per transaction								
Brokerage	\$ 9,425	\$ 9,075	\$ 9,332	\$ 9,640	\$ 9,569	\$ 9,227	\$ 9,510	\$ 9,628
Partner	2,369	2,295	2,218	2,153	2,232	2,237	2,281	2,137
Aggregate	8,127	7,865	8,071	8,134	7,964	7,790	8,048	7,869
Aggregate home value of real estate services transactions (in millions)	\$ 7,588	\$ 9,157	\$ 8,986	\$ 4,800	\$ 5,825	\$ 7,653	\$ 7,910	\$ 4,424
U.S. market share by value	0.94%	0.96%	0.94%	0.83%	0.81%	0.85%	0.83%	0.73%
Revenue from top-10 Redfin markets as a percentage of real estate services revenue	62%	63%	64%	64%	66%	66%	68%	66%
Average number of lead agents	1,526	1,579	1,603	1,503	1,419	1,397	1,415	1,327

Similar to our revenue, monthly average visitors to our website and mobile application has typically followed a seasonal pattern, increasing sequentially in 2019 and 2018 from the first quarter to the second quarter. In 2019, monthly average visitors decreased 3% from the second quarter to the third quarter. In

2018 monthly average visitors increased 2% from the second quarter to the third quarter. Monthly average visitors declined sequentially during the fourth quarters of 2019 and 2018 following seasonality.

Liquidity and Capital Resources

As of December 31, 2019, we had cash and cash equivalents of \$234.7 million and investments of \$101.0 million, which consist primarily of operating cash on deposit with financial institutions, money market instruments, and U.S. treasury securities.

Also as of December 31, 2019, we had \$143.8 million aggregate principal amount of convertible senior notes outstanding. The notes mature on July 15, 2023, unless earlier repurchased, redeemed or converted, and interest is payable in arrears on January 15 and July 15 of each year.

As we continue to expand our properties business, we expect to incur significant additional cash outlay compared to historical periods due to costs related to the business, such as the home purchase price, capitalized improvement costs, and home maintenance expenses. For the year ended December 31, 2019, we relied on a combination of our cash on hand and borrowings from a secured revolving credit facility to fund the home purchase price. We relied solely on our cash on hand to fund capitalized improvement costs and home maintenance expenses. See Note 4 to our consolidated financial statements for more information on changes to inventory related to home purchases, additions to inventory from capitalized improvements, and relief of inventory from the sales of homes for our properties business. See Note 14 to our consolidated financial statements for more information regarding the secured revolving credit facility.

Our mortgage business has significant cash requirements due to the period of time between its origination of a mortgage loan and the sale of that loan. Historically, it has relied on warehouse credit facilities with different lenders to fund substantially the entire portion of the mortgage loans that it originates. Once our mortgage business sells a loan in the secondary mortgage market, it uses the proceeds to reduce the outstanding balance under the related facility. See Note 14 to our consolidated financial statements and the discussion under "Risks Related to Our Indebtedness" in Item 1A for more information regarding these warehouse credit facilities, including our mortgage business's failure to satisfy a financial covenant under two facilities.

We believe that our existing cash and cash equivalents and investments, together with cash we expect to generate from future operations and borrowings from our properties business's secured revolving credit facility and our mortgage business's warehouse credit facilities, will provide sufficient liquidity to meet our operational needs and fulfill our debt obligations. However, our liquidity assumptions may change or prove to be incorrect, and we could exhaust our available financial resources sooner than we currently expect. As a result, we may seek new sources of credit financing or elect to raise additional funds through equity, equity-linked, or debt financing arrangements. We cannot assure you that any additional financing will be available to us on acceptable terms or at all.

Cash Flows

The following table summarizes our cash flows for the periods indicated:

	Year Ended December 31,		
	2019	2018	2017
	(in thousands)		
Net cash provided by (used in) operating activities	\$ (107,610)	\$ (36,702)	\$ 5,355
Net cash used in investing activities	(115,912)	(10,303)	(10,364)
Net cash provided by financing activities	31,883	273,402	149,822

Net Cash Provided By (Used In) Operating Activities

Our operating cash flows result primarily from cash generated by commissions paid to us from our real estate services business and sales of homes from our properties business. Our primary uses of cash from operating activities include payments for personnel-related costs, including employee benefits and bonus programs, marketing and advertising activities, purchases of homes for our properties business, and outside services costs. Additionally, our mortgage business generates a significant amount operating cash flow activity from the origination and sale of loans held for sale.

Net cash used in operating activities was \$107.6 million for the year ended December 31, 2019, primarily attributable to a net loss of \$80.8 million, offset by \$49.7 million of non-cash items related to stock-based compensation, depreciation and amortization expenses, amortization of debt discounts and issuances costs, and lease expense related to right-of-use assets. Changes in assets and liabilities increased cash used in operating activities by \$76.5 million driven primarily by an increase of \$51.9 million in inventory related to our properties business and a \$17.1 million increase in net loans held for sale related to our mortgage business.

Net cash used in operating activities was \$36.7 million for the year ended December 31, 2018, primarily attributable to a net loss of \$42.0 million, offset by \$28.9 million of non-cash items related to stock-based compensation, depreciation and amortization expenses, and amortization of debt discounts and issuances costs. Changes in assets and liabilities increased cash used in operating activities by \$26.2 million driven primarily by an increase of \$19.3 million in inventory related to our properties business. This was partially offset by a \$4.2 million increase in accrued liabilities due primarily to \$3.3 million of payroll liabilities.

Net cash provided by operating activities in 2017 consisted of \$15.0 million of net losses, an \$18.3 million positive impact from non-cash items related stock based compensation and depreciation and amortization expenses, an \$8.4 million reduction in miscellaneous receivables when the landlord for our Seattle headquarters office reimbursed us for tenant improvements, and a \$4.9 million net increase in accrued expenses and accounts payable due to the timing of when amounts came due. These benefits were partially offset by a \$4.2 million increase in prepaid expenses, the introduction of \$3.4 million in home purchases from testing our properties business, a \$2.7 million increase in accounts receivable due to the collection and timing of real estate services transactions that had closed, and \$1.9 million in mortgage loans funded but not yet sold.

Net Cash Used In Investing Activities

Our primary investing activities include the purchase of investments and property and equipment, primarily related to capitalized software development expenses and leasehold improvements.

Net cash used in investing activities was \$115.9 million for the year ended December 31, 2019, primarily attributable to \$100.4 million in net investments in U.S. treasury securities, \$7.9 million related to equipment, furnishings and leasehold improvements for new or expansion of existing office space, and \$7.1 million of capitalized software development expenses.

Net cash used in investing activities was \$10.3 million for the year ended December 31, 2018, primarily attributable to \$8.3 million of purchases of property and equipment, related to \$5.3 million of capitalized software development expenses and \$1.2 million of leasehold improvements, and a \$2.0 million equity investment.

Net cash used in investing activities in 2017 consisted of \$12.1 million of fixed asset purchases, including \$6.5 million of leasehold improvements, equipment and furnishings for our new Seattle headquarters office space and \$4.4 million of capitalized software development expenses. This was partially offset by a net \$1.8 million from the sale and maturity of short-term investments as we liquidated all our short-term investments by the end of 2017.

Net Cash Provided By Financing Activities

Our primary financing activities have come from our initial public offering in August 2017, our follow-on offerings of common stock and convertible senior notes in July 2018, and the sale of shares pursuant to stock option exercises and our 2017 Employee Stock Purchase Plan ("ESPP"). Additionally, our mortgage business generates a significant amount of financing cash flow activity due to borrowings from and repayments to its warehouse credit facilities. In July 2019, a special purpose entity for our properties business entered into a secured revolving credit facility to support the financing of home purchases in our properties segment. For the year ended December 31, 2019, borrowings under the facility were not significant and accordingly, the facility had limited cash flow activity. However, we expect to utilize the facility to a greater extent during 2020, and accordingly, expect cash flow activity resulting from the facility to increase during 2020.

Net cash provided by financing activities was \$31.9 million for the year ended December 31, 2019, primarily attributable to a \$16.6 million increase in our net borrowings under warehouse credit facilities, and \$16.1 million in proceeds from the sale of shares under our equity compensation plans.

Net cash provided by financing activities was \$273.4 million for the year ended December 31, 2018, primarily attributable to net proceeds from our follow-on offerings of common stock and convertible senior notes. The net proceeds consisted of \$107.6 million from the issuance of common stock and \$139.0 million from the issuance of notes.

Net cash provided by financing activities in 2017 primarily consisted of \$144.5 million in net proceeds from our initial public offering, \$3.0 million in proceeds from the sale of shares pursuant to stock options exercises and \$2.0 million in net borrowings from warehouse credit facilities for mortgage origination.

Contractual Obligations

Contractual obligations are cash amounts that we are obligated to pay as part of certain contracts that we have entered into during the normal course of business. Below is a table that shows our contractual obligations as of December 31, 2019:

	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
	(in thousands)				
Convertible senior notes	\$ 143,750	\$ —	\$ —	\$ 143,750	\$ —
Interest on convertible senior notes	10,063	2,516	5,031	2,516	—
Operating leases	82,936	14,776	27,758	23,488	16,914
Finance leases	226	60	120	46	—
Purchase obligations	32,853	22,926	9,927	—	—
Total	\$ 269,828	\$ 40,278	\$ 42,836	\$ 169,800	\$ 16,914

Payment of the principal amount of our convertible senior notes and any accrued and unpaid interest may be accelerated as a result of an "event of default" or "fundamental change," each as defined in the indenture governing the notes.

Our operating and finance leases include direct lease obligations, excluding any taxes, insurance and other related expenses.

Our purchase obligations primarily relate to the noncancelable portion of commitments related to our network infrastructure, our annual employee meeting, and homes that we are under contract to purchase. We do not include in the table above obligations under contracts that we can cancel without significant penalty.

Critical Accounting Policies and Estimates

Discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP"). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and related disclosure of contingent assets and liabilities, revenue, and expenses at the date of the financial statements. Generally, we base our estimates on historical experience and on various other assumptions in accordance with GAAP that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

Critical accounting policies and estimates are those that we consider the most important to the portrayal of our financial condition and results of operations because they require our most difficult, subjective, or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. Based on this definition, we have identified the critical accounting policies and estimates addressed below. In addition, we have other key accounting policies and estimates that are described in Note 1 to our consolidated financial statements.

Revenue Recognition

Our key revenue components are brokerage revenue, partner revenue, property revenue, and other revenue. Of these, we consider the most critical of our revenue recognition policies relate to commissions and fees charged on brokerage transactions closed by our lead agents, and from the sale of homes. We recognize commission-based brokerage revenue upon closing of a brokerage transaction, less the amount of any commission refunds, closing-cost reductions, or promotional offers that may result in a material right. We determined that brokerage revenue primarily contains a single performance obligation that is satisfied upon the closing of a real estate services transaction, at which point the entire transaction price is earned. We evaluate our brokerage contracts and promotional pricing to determine if there are any additional material rights and allocate the transaction price based on standalone selling prices.

Properties revenue is earned when we sell homes that were previously bought directly from homeowners. Our contracts with customers contain a single performance obligation that is satisfied upon a transaction closing. Properties revenue is recorded at closing on a gross basis, representing the sales price of the home.

We have utilized the practical expedient in Accounting Standards Codification ("ASC") 606 and elected not to capitalize contract costs for contracts with customers with durations less than one year. We do not have significant remaining performance obligations or contract balances.

See Note 1 to our consolidated financial statements for further discussion of our revenue recognition policy.

Inventory

Our inventory represents homes purchased with the intent of resale and are accounted for under the specific identification method. Direct home acquisition and improvement costs are capitalized and tracked directly with each specific home. Homes are stated in inventory at cost and are reviewed on a home by home basis. When evidence exists that the net realizable value of a home is lower than its cost, we recognize the difference as a loss in the period in which it occurs. In determining net realizable value, management must use judgment and estimates, including assessment of readily available market value indicators such as the Redfin Estimate and other third-party home value indicators, assessment of a current listing or pending offer price if either are available, and the value of any improvements made to the home. If a home's estimated market value is less than the inventory cost then the home is written down to net realizable value. While no significant adjustments were required to our home inventory as of and for the year ended December 31, 2019, material adjustments may be required in the future due to changing market conditions, natural disasters, or other forces outside of our control.

See Note 4 to our consolidated financial statements for a breakdown of our inventory categories and summary of any net realizable write-downs.

Recent Accounting Standards

For information on recent accounting standards, see Note 1 to our consolidated financial statements.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Our primary operations are within the United States and in the first quarter of 2019 we launched limited operations in Canada. We are exposed to market risks in the ordinary course of our business. These risks primarily consist of fluctuations in interest rates.

Interest Rate Risk

Our investment policy allows us to maintain a portfolio of cash equivalents and investments in a variety of securities, including U.S. treasury and agency issues, bank certificates of deposit that are 100% insured by the Federal Deposit Insurance Corporation, and SEC-registered money market funds that consist of a minimum of \$1 billion in assets and meet the above requirements. The goals of our investment policy are liquidity and capital preservation. We do not enter into investments for trading or speculative purposes.

As of December 31, 2019, we had cash and cash equivalents of \$234.7 million and investments of \$101.0 million. Our investments are comprised of available-for-sale securities that consist primarily of U.S. treasury securities with maturities of two years or less. We believe that we do not have any material exposure to changes in the fair value of these assets as a result of changes in interest rates due to the relatively short-term nature and risk profile of our portfolio. Declines in interest rates, however, would reduce future investment income. A 100 basis-point decline in interest rates, occurring during and sustained throughout any of the periods presented, would not have been material.

We are exposed to interest rate risk on our mortgage loans held for sale and interest rate lock commitments ("IRLCs") associated with our mortgage loan origination services. We manage this interest rate risk through the use of forward sales commitments on both a best effort whole loans basis and on a mandatory basis. Forward sales commitments entered in to on a mandatory basis are done through the use of commitments to sell mortgage-backed securities. We do not enter into or hold derivatives for trading or speculative purposes. The fair value of our IRLCs and forward sales commitments are reflected in other current assets and accrued liabilities, as applicable, with changes in the fair value of these commitments recognized as revenue. The net fair value change for the periods presented were not material.

See Note 3 to our consolidated financial statements for a summary of the fair value of our forward sales commitments and our IRLCs.

Foreign Currency Exchange Risk

As our operations in Canada have been limited, and we do not maintain a significant balance of foreign currency, we do not currently face significant risk with respect to foreign currency exchange rates.

Item 8. Financial Statements and Supplementary Data

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Redfin Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Redfin Corporation and subsidiaries (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of operations, changes in redeemable convertible preferred stock and stockholders' equity/(deficit), and cash flows, for each of the three years in the period ended December 31, 2019, 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, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, 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, 2019, 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 12, 2020, 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 Matters

Critical audit matters are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ Deloitte & Touche LLP

Seattle, Washington

February 12, 2020

We have served as the Company's auditor since 2013.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Redfin Corporation

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Redfin Corporation and subsidiaries (the "Company") as of December 31, 2019, 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, 2019, 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, 2019, of the Company and our report dated February 12, 2020, 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

Seattle, Washington

February 12, 2020

Redfin Corporation and Subsidiaries
Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	December 31,	
	2019	2018
Assets		
Current assets		
Cash and cash equivalents	\$ 234,679	\$ 432,608
Restricted cash	12,769	6,446
Short-term investments	70,029	—
Accounts receivable, net	19,223	15,363
Inventory	74,590	22,694
Loans held for sale	21,985	4,913
Prepaid expenses	14,822	11,916
Other current assets	3,496	2,307
Total current assets	451,593	496,247
Property and equipment, net	39,577	25,187
Right-of-use assets, net	52,004	—
Long-term investments	30,978	—
Goodwill and intangibles, net	11,504	11,992
Other non-current assets	10,557	9,395
Total assets	\$ 596,213	\$ 542,821
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	\$ 2,122	\$ 2,516
Accrued liabilities	37,979	30,837
Other payables	7,884	6,544
Warehouse credit facilities	21,302	4,733
Secured revolving credit facility	4,444	—
Current lease liabilities	11,408	—
Current portion of deferred rent	43	1,588
Total current liabilities	85,182	46,218
Non-current lease liabilities	59,869	—
Deferred rent	—	11,079
Convertible senior notes, net	119,716	113,586
Total liabilities	264,767	170,883
Commitments and contingencies (Note 7)		
Stockholders' equity		
Common stock—par value \$0.001 per share; 500,000,000 shares authorized; 93,001,597 and 90,151,341 shares issued and outstanding, respectively	93	90
Additional paid-in capital	583,097	542,829
Accumulated other comprehensive income	42	—
Accumulated deficit	(251,786)	(170,981)
Total stockholders' equity	331,446	371,938
Total liabilities and stockholders' equity	\$ 596,213	\$ 542,821

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

Redfin Corporation and Subsidiaries
Consolidated Statements of Comprehensive Loss
(in thousands, except share and per share amounts)

	Year Ended December 31,		
	2019	2018	2017
Revenue			
Service	\$ 539,288	\$ 441,927	\$ 359,545
Product	240,508	44,993	10,491
Total revenue	<u>779,796</u>	<u>486,920</u>	<u>370,036</u>
Cost of revenue			
Service	390,504	320,883	247,832
Product	245,189	46,613	10,384
Total cost of revenue	<u>635,693</u>	<u>367,496</u>	<u>258,216</u>
Gross profit	<u>144,103</u>	<u>119,424</u>	<u>111,820</u>
Operating expenses			
Technology and development	69,765	53,797	42,532
Marketing	76,710	44,061	32,251
General and administrative	76,874	65,500	53,009
Total operating expenses	<u>223,349</u>	<u>163,358</u>	<u>127,792</u>
Loss from operations	<u>(79,246)</u>	<u>(43,934)</u>	<u>(15,972)</u>
Interest income	7,146	5,416	882
Interest expense	(8,928)	(3,681)	—
Other income, net	223	221	88
Net loss	<u>\$ (80,805)</u>	<u>\$ (41,978)</u>	<u>\$ (15,002)</u>
Accretion of redeemable convertible preferred stock	—	—	(175,915)
Net loss attributable to common stock—basic and diluted	<u>\$ (80,805)</u>	<u>\$ (41,978)</u>	<u>\$ (190,917)</u>
Net loss per share attributable to common stock—basic and diluted	<u>\$ (0.88)</u>	<u>\$ (0.49)</u>	<u>\$ (4.47)</u>
Weighted average shares of common stock—basic and diluted	91,583,533	85,669,039	42,722,114
Net loss	<u>\$ (80,805)</u>	<u>\$ (41,978)</u>	<u>\$ (190,917)</u>
Other comprehensive income:			
Foreign currency translation adjustments	33	—	—
Unrealized gain on available-for-sale securities	9	—	—
Total comprehensive loss	<u>\$ (80,763)</u>	<u>\$ (41,978)</u>	<u>\$ (190,917)</u>

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

Redfin Corporation and Subsidiaries
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2019	2018	2017
Operating Activities			
Net loss	\$ (80,805)	\$ (41,978)	\$ (15,002)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:			
Depreciation and amortization	9,230	8,465	7,176
Stock-based compensation	27,814	20,438	11,101
Amortization of debt discount and issuance costs	6,385	2,584	—
Non-cash lease expense	6,940	—	—
Other	(663)	—	—
Change in assets and liabilities:			
Accounts receivable, net	(3,861)	(2,029)	(2,709)
Inventory	(51,896)	(19,312)	(3,382)
Prepaid expenses and other assets	(3,539)	(5,725)	4,450
Accounts payable	(394)	617	(252)
Accrued liabilities and other payables	7,459	4,509	5,115
Lease liabilities	(7,209)	—	—
Deferred rent	1	(1,249)	749
Origination of loans held for sale	(395,638)	(86,023)	(11,008)
Proceeds from sale of loans originated as held for sale	378,566	83,001	9,117
Net cash (used in) provided by operating activities	(107,610)	(36,702)	5,355
Investing activities			
Purchases of property and equipment	(15,533)	(8,303)	(12,113)
Purchases of investments	(136,265)	(2,000)	(992)
Sales of investments	11,486	—	2,741
Maturities of investments	24,400	—	—
Net cash used in investing activities	(115,912)	(10,303)	(10,364)
Financing activities			
Proceeds from the issuance of shares resulting from employee equity plans	16,107	23,407	3,003
Tax payments related to net share settlements on restricted stock units	(5,126)	(1,426)	—
Borrowings from warehouse credit facilities	388,586	83,842	10,746
Repayments of warehouse credit facilities	(372,017)	(81,125)	(8,730)
Borrowings from secured revolving credit facility	4,444	—	—
Other payables - deposits held in escrow	883	2,158	273
Proceeds from issuance of convertible notes, net of issuance costs	—	138,953	—
Proceeds from initial public offering, net of underwriting discounts	—	—	148,088
Payment of initial public offering costs	—	—	(3,558)
Proceeds from follow on offering	—	107,593	—
Cash paid for debt issuance costs	(922)	—	—
Principal payments under finance lease obligations	(72)	—	—
Net cash provided by financing activities	31,883	273,402	149,822
Effect of exchange rate changes on cash and cash equivalents	32	—	—
Net change in cash, cash equivalents, and restricted cash	(191,607)	226,397	144,813
Cash, cash equivalents, and restricted cash:			
Beginning of period	439,055	212,658	67,845
End of period	\$ 247,448	\$ 439,055	\$ 212,658
Supplemental disclosure of cash flow information			
Cash paid for interest	2,460	—	—
Non-cash transactions			
Conversion of redeemable convertible preferred stock to common stock	—	—	831,331
Accretion of redeemable convertible preferred stock	—	—	(175,915)
Stock-based compensation capitalized in property and equipment	(1,280)	(522)	(268)
Leasehold improvements paid directly by lessor	(6,230)	(1,980)	(822)

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

Redfin Corporation and Subsidiaries
Consolidated Statements of Changes in Redeemable Convertible Preferred Stock and Stockholders' Equity/(Deficit)
(in thousands, except share amounts)

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Stockholders' Equity/(Deficit)
	Shares	Amount	Shares	Amount				
Balance, January 1, 2017	55,422,002	\$ 655,416	14,687,024	\$ 15	\$ —	\$ (563,749)	\$ —	\$ (563,734)
Cumulative stock-based compensation adjustment	—	—	—	—	522	(522)	—	—
Issuance of common stock related to initial public offering, net	—	—	10,615,650	10	148,078	—	—	148,088
Initial public offering costs	—	—	—	—	(3,708)	—	—	(3,708)
Issuance of common stock pursuant to exercise of stock options	—	—	744,215	1	3,000	—	—	3,001
Stock-based compensation	—	—	—	—	11,369	—	—	11,369
Accretion of redeemable convertible preferred stock	—	175,915	—	—	(8,690)	(167,225)	—	(175,915)
Conversion of redeemable convertible preferred stock to common stock	(55,422,002)	(831,331)	55,422,002	55	213,781	617,495	—	831,331
Net loss	—	—	—	—	—	(15,002)	—	(15,002)
Balance, December 31, 2017	—	\$ —	81,468,891	\$ 81	\$ 364,352	\$ (129,003)	\$ —	\$ 235,430
Issuance of common stock pursuant to employee stock purchase plan	—	—	425,228	1	6,587	—	—	6,588
Issuance of common stock pursuant to exercise of stock options	—	—	3,203,528	3	16,817	—	—	16,820
Issuance of common stock pursuant to settlement of restricted stock units	—	—	306,079	—	—	—	—	—
Common stock surrendered for employees' tax liability upon settlement of restricted stock units	—	—	(88,721)	—	(1,426)	—	—	(1,426)
Issuance of common stock related to follow-on offering, net	—	—	4,836,336	5	107,588	—	—	107,593
Equity component of convertible senior notes, net	—	—	—	—	27,951	—	—	27,951
Stock-based compensation	—	—	—	—	20,960	—	—	20,960
Net loss	—	—	—	—	—	(41,978)	—	(41,978)
Balance, December 31, 2018	—	\$ —	90,151,341	\$ 90	\$ 542,829	\$ (170,981)	\$ —	\$ 371,938
Issuance of common stock pursuant to employee stock purchase plan	—	—	490,717	—	6,732	—	—	6,732
Issuance of common stock pursuant to exercise of stock options	—	—	1,666,162	2	9,568	—	—	9,570
Issuance of common stock pursuant to settlement of restricted stock units	—	—	966,037	1	(1)	—	—	—
Common stock surrendered for employees' tax liability upon settlement of restricted stock units	—	—	(272,660)	—	(5,126)	—	—	(5,126)
Stock-based compensation	—	—	—	—	29,095	—	—	29,095
Other comprehensive income (loss)	—	—	—	—	—	—	42	42
Net loss	—	—	—	—	—	(80,805)	—	(80,805)
Balance, December 31, 2019	—	\$ —	93,001,597	\$ 93	\$ 583,097	\$ (251,786)	\$ 42	\$ 331,446

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

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Redfin Corporation and Subsidiaries
Notes to Consolidated Financial Statements
(in thousands, except share and per share amounts)

Note 1: Description of Business and Summary of Significant Accounting Policies

Description of Business—Redfin Corporation was incorporated in October 2002 and is headquartered in Seattle, Washington. We operate an online real estate marketplace and provide real estate services, including assisting individuals in the purchase or sale of their home. We also provides title and settlement services, originate and sell mortgages, and buy and sell homes. We have operations located in multiple states across the United States and certain provinces in Canada.

Initial Public Offering—On August 2, 2017, we completed our IPO whereby 10,615,650 shares of common stock were sold at a price of \$15.00 per share, which included 1,384,650 shares pursuant to the underwriters' option to purchase additional shares. We received net proceeds of \$144,380 after deducting the underwriting discount and offering expenses directly attributable to the IPO. Upon the closing of the IPO, all shares of the outstanding redeemable convertible preferred stock automatically converted into 55,422,002 shares of common stock on a one-for-one basis.

Basis of Presentation—The consolidated financial statements and accompanying notes have been prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP").

Principles of Consolidation—The consolidated financial statements include the accounts of Redfin and its wholly owned subsidiaries, including those entities in which we have a variable interest and of which we are the primary beneficiary. Intercompany transactions and balances have been eliminated.

Certain Significant Risks and Business Uncertainties—We are subject to the risks and challenges associated with companies at a similar stage of development. These include dependence on key individuals, successful development and marketing of our offerings, and competition with larger companies with greater financial, technical, and marketing resources. Further, to achieve substantially higher revenue in order to become profitable, we may require additional funds that may not be available or may not be on terms that are acceptable to us.

We operate in the online real estate marketplace and, accordingly, can be affected by a variety of factors. For example, our management believes that any of the following factors could have a significant negative effect on our future financial position, results of operations, and cash flows: negative macroeconomic factors affecting the health of the U.S. residential real estate industry, negative factors disproportionately affecting markets where the we derive most of our revenue, intense competition in the U.S. residential real estate industry, our inability to maintain or improve our technology offerings, our failure to obtain and provide comprehensive and accurate real estate listings, errors or inaccuracies in the business data that we rely on to make decisions, and our inability to attract homebuyers and home sellers to our website and mobile application.

Use of Estimates—The preparation of consolidated financial statements, in conformity with GAAP, requires our management to make estimates and assumptions that affect the reported amounts of assets and liabilities and results of operations during the respective periods. Our estimates include, but are not limited to, valuation of deferred income taxes, stock-based compensation, net realizable value of inventory, capitalization of website and software development costs, the incremental borrowing rate for the determination of the present value of lease payments, recoverability of intangible assets with finite lives, fair value of our mortgage loans held for sale, fair value of reporting units for purposes of evaluating goodwill for impairment, and the fair value of the convertible feature related to our convertible senior notes (see Note 14). The amounts ultimately realized from the affected assets or ultimately recognized as liabilities will depend on, among other factors, general business conditions and could differ materially in the near term from the carrying amounts reflected in the consolidated financial statements.

Cash and Cash Equivalents—We consider all highly liquid investments originally purchased by us with original maturities of three months or less at the date of purchase to be cash equivalents and classified as available-for-sale. Our cash equivalents consist primarily of money market instruments. We maintain cash and cash equivalent balances with financial institutions that exceed federally-insured limits.

Restricted Cash and Other Payables—Restricted cash primarily consists of cash held in escrow on behalf of real estate buyers using our title and settlement services. Since we do not have rights to the cash, a corresponding customer deposit liability in the same amount is recognized in the consolidated balance sheets in other payables. When a real estate services transaction closes, the restricted cash transfers from escrow and the corresponding deposit liability is reduced. In addition, we have other restricted cash that is specifically designated to repay borrowings under warehouse credit facilities and the secured revolving credit facility.

Investments—We have two types of investments: (i) available-for-sale investments that are available to support our operational needs and which are reported on the balance sheet as short-term and long-term investments and (ii) long-term equity investments accounted for under the cost method, which are reported in other non-current assets.

Available-for-sale

Our short-term and long-term investments consist primarily of U.S. treasury securities, all of which are classified as available-for-sale. Available-for-sale debt securities are recorded at fair value, and unrealized holding gains and losses are recorded as a component of accumulated other comprehensive income. Available-for-sale securities with maturities of one year or less and those identified by management at the time of purchase to be used to fund operations within one year are classified as short-term. All other available-for-sale securities are classified as long-term. We evaluate our available-for-sale securities, both ones classified as cash equivalents and as investments, for other-than-temporary impairment on a quarterly basis. Unrealized losses are charged against net earnings when a decline in fair value is determined to be other than temporary. We review factors to determine whether a loss is other than temporary, such as the length and extent of the fair value decline, the financial condition and near-term prospects of the issuer, and whether we have the intent to sell or will more likely than not be required to sell before the securities' anticipated recovery, which may be at maturity. Realized gains and losses are accounted for using the specific identification method. Purchases and sales are recorded on a trade date basis.

Cost Method Investments

Our long-term equity investment consist of a purchased equity interest in a privately held company for approximately \$2,000. The investment is an equity security without a readily determinable fair value and is accounted for at cost minus any impairment, plus or minus changes resulting from observable price changes in orderly transactions for identical or similar investments of the same issuer. We perform a qualitative assessment to consider impairment indicators and evaluate whether the investment is impaired as of the end of each reporting period.

Fair Value—We account for certain assets and liabilities at fair value. Fair value is defined as the exchange price that would be received for an asset or an exit price 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. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The current accounting guidance for fair value measurements defines a three-level valuation hierarchy for disclosures as follows:

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

Level 2—Inputs other than quoted prices included within Level 1 that are observable, unadjusted quoted prices in markets that are not active, or other inputs that are observable such as quoted prices for similar assets or liabilities in active markets, or can be corroborated by observable market data.

Level 3—Unobservable inputs that are supported by little or no market activity and require us to develop our own assumptions.

The categorization of a financial instrument within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Our financial instruments consist of Level 1, Level 2, and Level 3 assets and (liabilities).

Concentration of Credit Risk—Financial instruments that potentially subject us to concentrations of credit risk are primarily cash and cash equivalents and investments. We generally place our cash and cash equivalents and investments with major financial institutions we deem to be of high-credit-quality in order to limit our credit exposure. We maintain our cash accounts with financial institutions where, at times, deposits exceed federal insurance limits.

Inventory—Our inventory represents homes purchased with the intent of resale and are accounted for under the specific identification method. Direct home acquisition and improvement costs are capitalized and tracked directly with each specific home. Homes are stated in inventory at cost and are reviewed on a home by home basis. If a home's estimated market value is less than the inventory cost then the home is written down to net realizable value.

We classify inventory into three categories: homes for sale, homes not available for sale, and homes under improvement. Homes for sale represent homes that are currently listed on the market for sale. Homes not available for sale are generally recently purchased homes that have been temporarily rented back by the prior owner and are not listed on the market for sale. The rental period is typically less than 30 days. Homes-under-improvement are homes that are in the process of being prepared to be listed for sale.

Variable Interest Entities—In connection with establishing a secured revolving credit facility to support the financing of homes that it purchases, RedfinNow formed a special purpose entity called RedfinNow Borrower, which is a wholly owned subsidiary of Redfin Corporation. We have determined that RedfinNow Borrower is a variable interest entity ("VIE") and that we are the primary beneficiary of the variable interest in RedfinNow Borrower based on our power to direct the activities that most significantly impact the economic outcomes of the entity through our role in designing the entity and managing the homes purchased and sold by the entity. We have potentially significant variable interest in the entity based upon our equity interest held in the VIE. As we have concluded that we are the primary beneficiary, we have included the accounts of the VIE in our consolidated financial statements. The lenders of the secured revolving credit facility do not have recourse against the general credit of the primary beneficiary beyond the circumstances disclosed in Note 14. See Note 14 for a summary of the secured revolving credit facility, including outstanding borrowings associated with the VIE and related collateral.

Loans Held for Sale—Redfin Mortgage, a wholly owned subsidiary of Redfin Corporation, began originating residential mortgage loans in March 2017. Such mortgage loans are intended to be sold in the secondary mortgage market within a short period of time following origination. Mortgage loans held for sale consist of single-family residential loans collateralized by the underlying home. Mortgage loans held for sale are recorded at fair value based on either sale commitments or current market quotes for mortgage loans with similar characteristics.

Other Current Assets—Other current assets consist primarily of miscellaneous non-trade receivables and interest rate lock commitments from mortgage origination operations (see Derivative Instruments below).

Derivative Instruments—Redfin Mortgage is party to IRLCs with customers resulting from mortgage origination operations. IRLCs for single family mortgage loans that Redfin Mortgage intends to sell are considered free-standing derivatives. All free-standing derivatives are required to be recorded on our consolidated balance sheets at fair value. Since Redfin Mortgage can terminate a loan commitment if the borrower does not comply with the terms of the contract, and some loan commitments may expire without being drawn upon, these commitments do not necessarily represent future cash requirements.

Interest rate market risk, related to the residential mortgage loans held for sale and IRLCs, is offset using forward sales commitments. We manage this interest rate risk through the use of forward sales commitments on both a best effort whole loans basis and on a mandatory basis. Forward sales commitments entered in to on a mandatory basis are done through the use of commitments to sell mortgage-backed securities. We do not enter into or hold derivatives for trading or speculative purposes. Changes in the fair value of IRLCs and forward sales commitments are recognized as revenue, and the fair values are reflected in other current assets and accrued liabilities, as applicable. We estimate the fair value of an interest rate lock commitment based on current market quotes for mortgage loans with similar characteristics, net of origination costs and fees adjusting for the probability that the mortgage loan will not fund according to the terms of commitment (referred to as a pull-through factor). The fair value measurements of our forward sales commitments use prices quoted directly to us from our counterparties.

Property and Equipment—Property and equipment is recorded at cost and depreciated using the straight-line method over the estimated useful lives. Depreciation and amortization is included in cost of revenue, technology and development, and general and administrative and is allocated based on estimated usage for each class of asset.

Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the related asset. Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation are removed from the accounts, and any resulting gain or loss is reflected in the consolidated statements of operations. Repair and maintenance costs are expensed as incurred.

Costs incurred in the preliminary stages of website and software development are expensed as incurred. Once an application has reached the development stage, direct internal and external costs relating to upgrades or enhancements that meet the capitalization criteria are capitalized in property and equipment and amortized on a straight-line basis over their estimated useful lives. Maintenance and enhancement costs (including those costs in the post-implementation stages) are typically expensed as incurred, unless such costs relate to substantial upgrades and enhancements to the websites (or software) that result in added functionality, in which case the costs are capitalized as well.

Capitalized software development activities placed in service are amortized over the expected useful lives of those releases. We view capitalized software costs as either internal use, or market and product expansion. Currently, internal use and expansion useful lives are estimated at two to three years.

Estimated useful lives of website and software development activities are reviewed annually or whenever events or changes in circumstances indicate that intangible assets may be impaired and adjusted as appropriate to reflect upcoming development activities that may include significant upgrades or enhancements to the existing functionality.

Intangible Assets—Intangible assets are finite lived and mainly consist of trade names, developed technology, and customer relationships and are amortized over their estimated useful lives of ten years. The useful lives were determined by estimating future cash flows generated by the acquired intangible assets. Amortization expense is included in cost of revenue.

Impairment of Long-Lived Assets—Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Recoverability of assets to be held and used is measured first by a comparison of the

carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. If such asset were considered to be impaired, an impairment loss would be recognized when the carrying amount of the asset exceeds the fair value of the asset. To date, no such impairment has occurred.

Goodwill—Goodwill represents the excess of the purchase price over the fair value of the net tangible assets and identifiable intangible assets acquired in a business combination. Goodwill is not amortized, but is subject to impairment testing. We assess the impairment of goodwill on an annual basis, during the fourth quarter, or whenever events or changes in circumstances indicate that goodwill may be impaired. We assess goodwill for possible impairment by performing a qualitative assessment to determine whether it is more likely than not that the fair value of the reporting unit is less than its carrying amount. If we qualitatively determine that it is not more likely than the fair value of the reporting unit is less than its carrying amount, then no additional impairment steps are necessary.

We performed a qualitative assessment and determined that it was not more likely than not that the fair value of our reporting unit for which goodwill has been assigned was less than its carrying amount. In evaluating whether it was more likely than not that the fair value of our reporting unit was less than its carrying amount we considered macroeconomic conditions, industry and market considerations, cost factors, overall financial performance, other relevant entity-specific events, potential events affecting its reporting unit, and changes in the fair value of our common stock. The primary qualitative factors we have considered in our analysis are our overall financial performance and the fair value of the reporting unit for which goodwill was assigned, which was substantially in excess of its book value. The aggregate carrying value of goodwill was \$9,186 at December 31, 2019 and 2018. There have been no accumulated impairments to goodwill.

Other Non-current Assets—Other assets consists primarily of leased building security deposits and an equity investment accounted for under the cost method.

Leases—The extent of our lease commitments consists of operating leases for physical office locations with terms ranging from one to 11 years and finance leases for vehicles with terms of four years. We have accounted for the portfolio of leases by disaggregation based on the nature and term of the lease. Generally, the leases require a fixed minimum rent with contractual minimum rent increases over the term of the lease. Leases with an initial term of twelve months or less are not recorded on the balance sheet, but rather lease expense from these leases is recognized on a straight-line basis over the term of the lease.

When available, the rate implicit in the lease to discount lease payments to present value would be used; however, none of our significant leases as of December 31, 2019 provide a readily determinable implicit rate. Therefore, we must estimate our incremental borrowing rate for each portfolio of leases to discount the lease payments based on information available at lease commencement.

We have evaluated the performance of existing leases in relation to our leasing strategy and have determined that most renewal options would not be reasonably certain to be exercised.

The right of use asset and related lease liability are determined based on the lease component of the consideration in each lease contract. We have evaluated our lease portfolio for appropriate allocation of the consideration in the lease contracts between lease and nonlease components based on standalone prices and determined the allocation per the contracts to be appropriate.

Foreign Currency Translation—Our international operations generally use their local currency as their functional currency. Assets and liabilities are translated at exchange rates in effect at the balance sheet date. Income and expense accounts are translated at the average monthly exchange rates during the year. Resulting translation adjustments are reported as a component of other comprehensive income and recorded in accumulated other comprehensive income on our consolidated balance sheets.

Income Taxes—Income taxes are accounted for using an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the consolidated financial statement and tax bases of assets and liabilities at the applicable enacted tax rates. We establish a valuation allowance for deferred tax assets if it is more likely than not that these items will expire before we are able to realize their benefits or if future deductibility is uncertain.

We believe that it is currently more likely than not that our deferred tax assets will not be realized and as such, have recorded a full valuation allowance for these assets. We evaluate the likelihood of the ability to realize deferred tax assets in future periods on a quarterly basis, and, when appropriate evidence indicates, will release the valuation allowance accordingly. The determination to provide a valuation allowance is dependent upon the assessment of whether it is more likely than not that sufficient taxable income will be generated to utilize the deferred tax assets. Based on the weight of the available evidence, which includes our historical operating losses, lack of taxable income, and accumulated deficit, we have provided a full valuation allowance against the U.S. tax assets resulting from the tax losses and credits carried forward.

Revenue Recognition—We generate revenue primarily from commissions and fees charged on each real estate services transaction closed by our lead agents or partner agents, and from the sale of homes. Our key revenue components are brokerage revenue, partner revenue, property revenue, and other revenue.

We have utilized the practical expedient in ASC 606 and elected not to capitalize contract costs for contracts with customers with durations of less than one year. We do not have significant remaining performance obligations or contract balances.

Revenue earned but not received is recorded as accrued revenue in accounts receivable on our consolidated balance sheets, net of an allowance for doubtful accounts. Accrued revenue consisting of commission revenue, is known and is clearing escrow, and therefore it is not estimated.

Nature and Disaggregation of Revenue

Real Estate Services

Brokerage Revenue—Brokerage revenue includes our offer and listing services, where our lead agents represent home buyers and home sellers. We recognize commission-based brokerage revenue upon closing of a brokerage transaction, less the amount of any commission refunds, closing-cost reductions, or promotional offers that may result in a material right. The transaction price is calculated by taking the agreed upon commission rate and applying that to the home's selling price. Brokerage revenue primarily contains a single performance obligation that is satisfied upon the closing of a real estate services transaction, at which point the entire transaction price is earned. We are not entitled to any commission until the performance obligation is satisfied and are not owed any commission for unsuccessful transactions, even if services have been provided. We may offer promotional pricing which results in a material right to our customers and represents an additional performance obligation, in which the transaction price is allocated based on standalone selling prices. Our promotional pricing offers have not resulted in a material impact to timing of revenue recognition or contract liabilities with our customers for the periods presented.

Partner Revenue—Partner revenue consists of fees paid to us from partner agents or under other referral agreements, less the amount of any payments we make to customers. We recognize these fees as revenue on the closing of a transaction. The transaction price is a fixed percentage of the partner agent's commission. The partner agent or other entity related to our referral agreements directly remits the referral fee revenue to us. We are not entitled to any referral fee revenue until the related referred real estate services transaction closes.

Properties

Properties Revenue—Properties revenue consists of revenue earned when we sell homes that were previously bought directly from homeowners. Properties revenue is recorded at closing on a gross basis, representing the sales price of the home. Our contracts with customers contain a single performance obligation that is satisfied upon a transaction closing. We do not offer warranties for sold homes, and there are no continuing performance obligations following the transaction close date.

Other

Other Revenue—Other services revenue includes fees earned from mortgage origination services, title settlement services, Walk Score data services, and advertising. Substantially all fees and revenue from other services are recognized when the service is provided. Mortgage banking services are not subject to the guidance in ASC 606 as the scope of the standard does not apply to revenue on contracts accounted for under *Transfers and Servicing (Topic 860)* but are included in other services revenue to reconcile total revenue presented on the consolidated statements of operations to the disaggregation of revenue table below.

Intercompany Eliminations

Intercompany Eliminations—Revenue earned from transactions between operating segments are eliminated in consolidating our financial statements. Intercompany transactions primarily consist of services performed from our real estate services segment for our properties segment.

Accounts Receivable and Allowance for Doubtful Accounts—We establish an allowance for doubtful accounts after reviewing historical experience, age of accounts receivable balances and any other known conditions that may affect collectability. The majority of our transactions are processed through escrow and collectability is not a significant risk. Accounts receivable related to real estate services and properties transactions represents closed transactions for which the cash has not yet been received.

Cost of Revenue—Cost of revenue consists primarily of personnel costs (including base pay, benefits, and stock-based compensation), transaction bonuses, home-touring and field expenses, listing expenses, home costs related to our properties segment, office and occupancy expenses, and depreciation and amortization related to fixed assets and acquired intangible assets. Home costs related to our properties segment include home purchase costs, capitalized improvements, selling expenses directly attributable to the transaction, and home maintenance expenses.

Technology and Development—Technology and development expenses primarily include personnel costs (including base pay, benefits, and stock-based compensation), data licenses, software and equipment, and infrastructure such as for data centers and hosted services. The expenses also include amortization of capitalized internal-use software and website and mobile application development costs. We expense research and development costs as incurred and record them in technology and development expenses.

Advertising and Advertising Production Costs—We expense advertising costs as they are incurred and production costs as of the first date the advertisement takes place. Advertising costs totaled \$62,536, \$33,457, and \$21,902 in 2019, 2018, and 2017 respectively, and are included in marketing expenses. Advertising production costs totaled \$2,029, \$1,644, and \$1,609 in 2019, 2018, and 2017, respectively, and are included in marketing expenses.

Stock-based Compensation—We account for stock-based compensation by measuring and recognizing as compensation expense the fair value of all share-based payment awards made to employees, including stock options and restricted stock unit awards, and shares forecasted to be issued pursuant to our ESPP, in each case based on estimated grant date fair values. Stock-based compensation expense is recognized over the requisite service period on a straight-line basis. The Black-Scholes-Merton option-pricing model is used to determine the fair value for stock options and shares forecasted to be issued pursuant to our ESPP. For restricted stock unit awards and performance

stock unit awards we use the market value of our common stock on the date of grant to determine the fair value of the award.

In valuing stock options and shares forecasted to be issued pursuant to our ESPP, we make assumptions about expected life, stock price volatility, risk-free interest rates and expected dividends.

Expected Life—The expected term was estimated using the simplified method allowed under guidance from the U.S. Securities and Exchange Commission as our historical share option exercise experience does not provide a reasonable basis upon which to estimate expected term.

Volatility—The expected stock price volatility for our common stock was estimated by taking the average historical price volatility for industry peers based on daily price observations. Industry peers consist of several public companies in the real estate brokerage and technology industries.

Risk-Free Rate—The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options for each option group.

Dividend Yield—We have never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, an expected dividend yield of zero was used.

Forfeiture Rate—Beginning on January 1, 2017, we adopted Accounting Standard Update ("ASU") 2016-09 and elected to account for forfeitures as they occur.

Recently Adopted Accounting Pronouncements—In January 2019, we adopted ASU 2016-02, *Leases (Topic 842)*, using the optional alternative transition method under ASU 2018-11, *Leases (Topic 842) Targeted Improvements*. The optional alternative transition method applies the new leases standard at the adoption date and recognizes a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. We evaluated our portfolio of leases upon adoption and determined a cumulative-effect adjustment to the opening balance of retained earnings was not needed, as the portfolio of leases contained only operating leases.

We elected the package of practical expedients permitted under the transition guidance within the standard, allowing us to carry forward the historical lease classification, carry forward the conclusions on whether current or expired contracts contain leases, and carry forward the accounting for initial direct costs for existing leases. Additionally, we elected the practical expedient for use of hindsight to determine the lease term for existing leases whereby we evaluated the performance of existing leases in relation to our leasing strategy and determined that most renewal options would not be reasonably certain to be exercised. This resulted in the shortening of lease terms for the existing leases.

Adoption of the standard resulted in the recording of right of use assets and corresponding lease liabilities of \$33,953 and \$49,395, respectively, as of January 1, 2019, the difference of which is due to lease incentives. Further description of the impact of this pronouncement is included in Note 6.

In January 2019, we adopted the guidance in the SEC's final rule under Release No. 33-10532, *Disclosure Update and Simplification*. In August 2018, the SEC issued the final rule amending certain disclosure requirements that were redundant, duplicative, overlapping, outdated, or superseded. In addition, the amendments expanded the disclosure requirements on the analysis of stockholders' equity for interim financial statements. Under the amendments, an analysis of changes in each caption of stockholders' equity presented in the balance sheet must be provided in a note or separate statement. The analysis should present a reconciliation of the beginning balance to the ending balance of each period for which a statement of comprehensive income is required to be filed.

In August 2018, the Financial Accounting Standards Board (the "FASB") issued authoritative guidance under ASU 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software: Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service*

Contract. The ASU requires implementation costs incurred by customers in cloud computing arrangements (i.e., hosting arrangements) to be capitalized under the same premises of authoritative guidance for internal-use software, and deferred over the noncancelable term of the cloud computing arrangements plus any option renewal periods that are reasonably certain to be exercised by the customer or for which the exercise is controlled by the service provider. The ASU is effective for public entities for fiscal years beginning after December 15, 2019 and early adoption is permitted. We elected to early adopt this standard in the third quarter of 2019 on a prospective basis, which did not result in a material effect on our consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820)*, which modifies the disclosures on fair value measurements by removing the requirement to disclose the amount and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy and the policy for timing of such transfers. The ASU expands the disclosure requirements for Level 3 fair value measurements, primarily focused on changes in unrealized gains and losses included in other comprehensive income. The ASU is effective for public entities for fiscal years beginning after December 15, 2019, with early adoption permitted. We have elected to early adopt this ASU and determined the adoption did not result in a material impact to the disclosures included in Note 3.

Recently Issued Accounting Pronouncements—In June 2016, the FASB issued authoritative guidance under ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326)*, which modifies the measurement of credit losses on financial instruments. This guidance requires the use of an expected loss impairment model for instruments measured at amortized cost based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectibility of the reported amount. For available-for-sale debt securities, an entity is required to recognize credit losses through an allowance for credit losses rather than as an impairment. The ASU is effective for interim and annual reporting periods beginning after December 15, 2019, and early adoption is permitted. The adoption of this guidance requires a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. We have completed an assessment of the impact of the new standard on our consolidated financial statements and do not expect a material impact.

Note 2: Segment Reporting and Revenue

In operation of the business, our management, including our chief operating decision maker, who is also our Chief Executive Officer, evaluates the performance of our operating segments based on revenue and gross profit. We do not analyze discrete segment balance sheet information related to long-term assets, all of which are located in the United States. All other financial information is presented on a consolidated basis. We have five operating segments and two reportable segments, real estate services and properties.

We generate revenue primarily from commissions and fees charged on real estate services transactions closed by our lead agents or partner agents, and from the sale of homes. Our key revenue components are brokerage revenue, partner revenue, properties revenue, and other revenue.

Information on each of the reportable and other segments and reconciliation to consolidated net loss is as follows:

	Year Ended December 31,		
	2019	2018	2017
Real estate services			
Brokerage revenue	\$ 496,480	\$ 406,293	\$ 330,372
Partner revenue	27,060	25,875	21,198
Total real estate services revenue	523,540	432,168	351,570
Cost of revenue	373,150	309,069	237,832
Gross profit	\$ 150,390	\$ 123,099	\$ 113,738
Properties			
Revenue	240,507	44,993	10,491
Cost of revenue	245,189	46,613	10,384
Gross profit	\$ (4,682)	\$ (1,620)	\$ 107
Other			
Revenue	17,634	9,882	7,975
Cost of revenue	19,239	11,937	10,000
Gross profit	\$ (1,605)	\$ (2,055)	\$ (2,025)
Intercompany eliminations			
Revenue	(1,885)	(123)	—
Cost of revenue	(1,885)	(123)	—
Gross profit	\$ —	\$ —	\$ —
Consolidated			
Revenue	779,796	486,920	370,036
Cost of revenue	635,693	367,496	258,216
Gross profit	\$ 144,103	\$ 119,424	\$ 111,820
Operating expenses	223,349	163,358	127,792
Interest income	7,146	5,416	882
Interest expense	(8,928)	(3,681)	—
Other income, net	223	221	88
Net loss	\$ (80,805)	\$ (41,978)	\$ (15,002)

Revenue earned but not received is recorded as accounts receivable on our consolidated balance sheets, net of an allowance for doubtful accounts. Accounts receivable consists primarily of commission revenue and proceeds from the sale of homes and are known, and therefore it is not estimated.

The following table presents the detail of accounts receivable for the periods presented:

	Year Ended December 31,	
	2019	2018
Accounts receivable	\$ 19,388	\$ 15,529
Less: Allowance for doubtful accounts	(165)	(166)
Accounts receivable, net	\$ 19,223	\$ 15,363

The following table presents the activity in the allowance for doubtful accounts for the periods presented:

	Year Ended December 31,		
	2019	2018	2017
Balance, beginning of period	\$ 166	\$ 160	\$ 150
Charges	(15)	43	81
Write-offs	14	(37)	(71)
Balance, end of period	\$ 165	\$ 166	\$ 160

Note 3: Financial Instruments

A summary of assets and (liabilities) as of December 31, 2019 and 2018 related to our financial instruments, measured at fair value on a recurring basis and as reflected in our consolidated balance sheets, is set forth below:

	Balance as of December 31, 2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
Cash equivalents				
Money market funds	\$ 221,442	\$ 221,442	\$ —	\$ —
Short-term investments				
U.S. treasury securities	70,029	70,029	—	—
Loans held for sale	21,985	—	21,985	—
Prepaid expenses and other current assets				
Forward sales commitments	4	—	4	—
Interest rate lock commitments	496	—	—	496
Total prepaid expenses and other current assets	500	—	4	496
Long-term investments				
U.S. treasury securities	30,978	30,978	—	—
Total assets	\$ 344,934	\$ 322,449	\$ 21,989	\$ 496
Liabilities				
Accrued liabilities				
Forward sales commitments	\$ 57	\$ —	\$ 57	\$ —
Interest rate lock commitments	58	—	—	58
Total liabilities	\$ 115	\$ —	\$ 57	\$ 58

	Balance as of December 31, 2018	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
Cash equivalents				
Money market funds	\$ 425,776	\$ 425,776	\$ —	\$ —
Loans held for sale	4,913	—	4,913	—
Prepaid expenses and other current assets				
Interest rate lock commitments	254	—	—	254
Total prepaid expenses and other current assets	254	—	—	254
Total assets	\$ 430,943	\$ 425,776	\$ 4,913	\$ 254
Liabilities				
Accrued liabilities				
Forward sales commitments	\$ 141	\$ —	\$ 141	\$ —
Total liabilities	\$ 141	\$ —	\$ 141	\$ —

There was no significant activity within Level 3 financial instruments during the periods presented.

See Note 14 for the carrying amount and estimated fair value of our convertible senior notes.

Assets and liabilities recognized or disclosed at fair value on a nonrecurring basis include items such as property and equipment, goodwill and other intangible assets, cost method investments, and other assets. These assets are measured at fair value if determined to be impaired. We did not record any significant nonrecurring fair value measurements after initial recognition for the year ended December 31, 2019.

The following table summarizes the cost or amortized cost, gross unrealized gains and losses, and estimated fair market value of our cash, money market funds, restricted cash and available-for-sale investments as of December 31, 2019 and 2018:

December 31, 2019							
	Fair Value Hierarchy	Cost or Amortized Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value	Short-term Investments	Long-term Investments
Cash	N/A	13,237	—	—	13,237	—	—
Money markets funds	Level 1	221,442	—	—	221,442	—	—
Restricted cash	N/A	12,769	—	—	12,769	—	—
U.S. treasury securities	Level 1	100,998	31	(22)	101,007	70,029	30,978
Total		348,446	31	(22)	348,455	70,029	30,978

December 31, 2018							
	Fair Value Hierarchy	Cost or Amortized Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value	Short-term Investments	Long-term Investments
Cash	N/A	6,832	—	—	6,832	—	—
Money markets funds	Level 1	425,776	—	—	425,776	—	—
Restricted cash	N/A	6,446	—	—	6,446	—	—
Total		439,054	—	—	439,054	—	—

There were no other than temporary impairments during the periods presented.

Note 4: Inventory

A summary of inventory as of December 31, 2019 and 2018 is as follows:

	December 31,	
	2019	2018
Homes for sale	\$ 36,982	\$ 12,649
Homes not available for sale	3,163	2,328
Homes under improvement	34,445	7,717
Inventory	<u>\$ 74,590</u>	<u>\$ 22,694</u>

Inventory costs include direct home acquisition costs and any capitalized improvements, net of lower of cost or net realizable value write-downs applied on a specific home basis. As of December 31, 2019 and December 31, 2018, lower of cost or net realizable value write-downs were \$143 and \$190, respectively.

The following is the inventory activity for the year ended December 31, 2019:

Inventory as of December 31, 2018	\$ 22,694
Purchases and capitalized improvements to inventory	274,758
Relief of inventory to cost of revenue	(222,909)
Lower of cost or net realizable value write-downs, net	47
Inventory as of December 31, 2019	<u>\$ 74,590</u>

Note 5: Property and Equipment

A summary of property and equipment as of December 31, 2019 and 2018 is as follows:

	Useful Lives (years)	December 31,	
		2019	2018
Leasehold improvements	Shorter of lease term or economic life	\$ 28,141	\$ 19,285
Website and software development costs	2-3	27,602	19,948
Computer and office equipment	3	4,846	2,956
Software	3	595	595
Furniture	7	6,965	3,933
Construction in progress		475	—
Property and equipment, gross		68,624	46,717
Accumulated depreciation and amortization		(29,047)	(21,530)
Property and equipment, net		<u>\$ 39,577</u>	<u>\$ 25,187</u>

Depreciation and amortization expense for property and equipment amounted to \$8,742, \$7,977, and \$6,688 for the years ended December 31, 2019, 2018, and 2017, respectively. We capitalized software development costs, including stock-based compensation, of \$8,396, \$5,796, and \$4,887 during the years ended December 31, 2019, 2018, and 2017, respectively.

Note 6: Leases

The components of lease activity were as follows:

Lease Cost	Classification	Year Ended December 31, 2019	
Operating lease cost:			
Operating lease cost ⁽¹⁾	Cost of revenue	\$	7,970
Operating lease cost ⁽¹⁾	Operating expenses		3,648
Total operating lease cost		\$	11,618
Finance lease cost:			
Amortization of right-of-use assets	Cost of revenue	\$	20
Interest on lease liabilities	Cost of revenue		3
Total finance lease cost		\$	23

(1) Includes lease expense with initial terms of twelve months or less of \$2,180 for the year ended December 31, 2019.

Maturity of Lease Liabilities	Operating Leases		Financing Leases	
2020	\$	14,776	\$	60
2021		14,252		60
2022		13,506		60
2023		12,541		46
2024		10,947		—
Thereafter		16,914		—
Total lease payments	\$	82,936	\$	226
Less: Interest and other ⁽¹⁾		(11,865)		(21)
Present value of lease liabilities	\$	71,071	\$	205

(1) Interest and other consists of interest expense related to capitalized right of use operating lease liabilities of \$10,132, interest expense related to capitalized right of use financing lease liabilities of \$21, commitments related to operating leases that have not yet commenced, and operating leases with initial terms of twelve months or less.

Lease Term and Discount Rate	December 31, 2019	
Weighted average remaining operating lease term (years)		6.1
Weighted average remaining finance lease term (years)		3.8
Weighted average discount rate for operating leases		4.4 %
Weighted average discount rate for finance leases		5.4 %

Supplemental Cash Flow Information	Year Ended December 31, 2019	
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	\$	9,868
Operating cash flows from finance leases		3
Financing cash flows from finance leases		14
Right of use assets obtained in exchange for lease liabilities		
Operating leases	\$	58,669
Finance leases		274

Note 7: Commitments and Contingencies

Legal Proceedings—On August 28, 2019, one of our former associate agents filed a complaint against us in the Superior Court of California, County of San Francisco alleging that we misclassified her as an independent contractor instead of an employee. Given the preliminary stage of this case and the claims and issues presented, we cannot estimate a range of reasonably possible losses.

In addition to the matter discussed above, from time to time, we are involved in litigation, claims, and other proceedings arising in the ordinary course of our business. Except for the matter discussed

above, we do not believe that any of the pending litigation, claims, and other proceedings are material to our business.

Leases and Other Commitments—We lease office space under noncancelable operating leases with terms ranging from one to 11 years and vehicles under noncancelable finance leases with terms of four years. Generally, the operating leases require a fixed minimum rent with contractual minimum rent increases over the lease term. Other commitments relate to homes that are under contract to purchase through our properties business but that have not closed, and network infrastructure for our data operations.

Future payments due under these agreements as of December 31, 2019 are as follows:

	Leases ⁽¹⁾	Other Commitments
2020	\$ 14,836	\$ 26,048
2021	14,312	4,779
2022	13,566	5,148
2023	12,587	—
2024 and thereafter	27,861	—
Total future minimum payments	<u>\$ 83,162</u>	<u>\$ 35,975</u>

(1) The future minimum lease payments are presented on the same basis as the financial information presented in our consolidated financial statements and notes for the year ended December 31, 2018, as included in our Annual Report on Form 10-K for such period.

Note 8: Acquired Intangible Assets

The following table presents details of our intangible assets subject to amortization as of December 31, 2019 and 2018.

	Useful Live (years)	December 31, 2019			December 31, 2018		
		Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Trade Names	10	\$ 1,040	\$ (546)	\$ 494	\$ 1,040	\$ (442)	\$ 598
Developed technology	10	2,980	(1,564)	1,416	2,980	(1,266)	1,714
Customer relationships	10	860	(452)	408	860	(366)	494
		<u>\$ 4,880</u>	<u>\$ (2,562)</u>	<u>\$ 2,318</u>	<u>\$ 4,880</u>	<u>\$ (2,074)</u>	<u>\$ 2,806</u>

Amortization expense totaled \$488 for each year ended December 31, 2019, and 2018. We will recognize the remaining amortization expense of \$2,318 over a five-year period, with the first four years recognizing expense of \$488 per year, and the fifth year recognizing expense of \$366.

Note 9: Accrued Liabilities

The following table presents the detail of accrued liabilities as of the dates presented:

	December 31,	
	2019	2018
Accrued compensation and benefits	\$ 30,462	\$ 22,862
Miscellaneous accrued liabilities	7,517	7,975
Total accrued liabilities	<u>\$ 37,979</u>	<u>\$ 30,837</u>

Note 10: Other Payables

Other payables consists primarily of customer deposits for cash held in escrow on behalf of real estate buyers using our title and settlement services. Since we do not have rights to the cash, the customer deposits are recorded as a liability with a corresponding asset in the same amount recorded within restricted cash.

The following table presents the detail of other payables as of the dates presented:

	December 31,	
	2019	2018
Customer deposits	\$ 7,109	\$ 6,226
Miscellaneous payables	775	318
Total other payables	<u>\$ 7,884</u>	<u>\$ 6,544</u>

Note 11: Equity and Equity Compensation Plans

Common Stock—As of December 31, 2019 and 2018, our amended and restated certificate of incorporation authorized us to issue 500,000,000 shares of common stock with a par value of \$0.001 per share.

Preferred Stock—As of December 31, 2019 and 2018, our amended and restated certificate of incorporation authorized us to issue 10,000,000 shares of preferred stock at a par value of \$0.001, of which no shares were outstanding.

Amended and Restated 2004 Equity Incentive Plan—We granted stock options under our 2004 Equity Incentive Plan, as amended ("2004 Plan"), until July 26, 2017, when we terminated it in connection with our IPO. Accordingly, no shares are available for future issuance under our 2004 Plan. Our 2004 Plan continues to govern outstanding equity awards granted thereunder. The term of each stock option under the plan is no more than 10 years, and each stock option generally vests over a four-year period.

2017 Equity Incentive Plan—Our 2017 Equity Incentive Plan ("2017 EIP") became effective on July 26, 2017 and provides for issuance of incentive and nonqualified common stock options and restricted stock units to employees, directors, officers, and consultants. The number of shares of common stock initially reserved for issuance under our 2017 EIP was 7,898,159. The number of shares reserved for issuance under our 2017 EIP will increase automatically on January 1 of each calendar year beginning on January 1, 2018, and continuing through January 1, 2028, by the number of shares equal to the lesser of 5% of the total outstanding shares of our common stock as of the immediately preceding December 31 or an amount determined by our board of directors. The term of each stock option and restricted stock unit under the plan will not exceed 10 years, and each award generally vests over a four-year period.

We have reserved shares of common stock for future issuance under our 2017 EIP as follows:

	December 31,	
	2019	2018
Stock options issued and outstanding	7,792,181	9,435,349
Restricted stock units outstanding	5,023,412	3,264,702
Shares available for future equity grants	7,100,499	5,068,013
Total shares reserved for future issuance	<u>19,916,092</u>	<u>17,768,064</u>

2017 Employee Stock Purchase Plan—Our ESPP was approved by the board of directors on July 27, 2017, and enables eligible employees to purchase shares of our common stock at a discount. Purchases will be accomplished through participation in discrete offering periods. We initially reserved 1,600,000 shares of common stock for issuance under our ESPP. The number of shares reserved for issuance under our ESPP will increase automatically on January 1 of each calendar year beginning after the first offering date and continuing through January 1, 2028, by the number of shares equal to the lesser of 1% of the total outstanding shares of our common stock as of the immediately preceding December 31 or an amount determined by our board of directors. On each purchase date, eligible employees will purchase our common stock at a price per share equal to 85% of the lesser of (i) the fair market value of our common stock on the first trading day of the offering period, and (ii) the fair market value of our common stock on the purchase date.

We have reserved shares of common stock for future issuance under our ESPP as follows:

	Year Ended December 31,	
	2019	2018
Shares available for issuance at beginning of period	2,890,973	2,414,688
Shares issued during the period	490,717	425,228
Total shares available for future issuance at end of period	2,400,256	1,989,460

The weighted-average grant date fair value and the assumptions used in calculating fair values of shares forecasted to be issued pursuant to our ESPP are as follows:

	For the Offering Period beginning July 1, 2019	For the Offering Period beginning January 1, 2019
Expected life	0.5 years	0.5 years
Volatility	39.60%	42.25%
Risk-free interest rate	2.10%	2.51%
Dividend yield	—%	—%
Weighted-average grant date fair value	\$4.59	\$3.80

Stock Options—The fair value of stock option awards was estimated at the grant date with the following weighted average assumptions:

	December 31,		
	2019	2018	2017
Expected life	6.5 years	—	7 years
Volatility	33.76%	—%	37.88%-40.97%
Risk-free interest rate	2.12%	—%	1.96%-2.26%
Dividend yield	—%	—%	—%
Weighted-average grant date fair value	\$3.22	—	\$4.86

The following table summarizes activity for stock options for the year ended December 31, 2019:

	Number Of Options	Weighted- Average Exercise Price	Weighted Average Remaining Contractual Life (years)	Aggregate Intrinsic Value
Outstanding as of January 1, 2019	9,435,349	\$ 6.48	6.06	\$ 74,669
Options granted	150,000	27.50	—	—
Options exercised	(1,666,162)	5.74		
Options forfeited	(116,398)	9.16		
Options canceled	(10,608)	8.75		
Outstanding as of December 31, 2019	7,792,181	\$ 7.00	5.28	\$ 111,122
Options exercisable as of December 31, 2019	7,043,042	\$ 6.35	5.05	\$ 104,141

The grant date fair value of stock options is recorded as stock-based compensation over the vesting period. As of December 31, 2019, there was \$3,573 of total unrecognized stock-based compensation related to stock options. These costs are expected to be recognized over a weighted-average period of 1.13 years. The total fair value of stock options vested during 2019, 2018, and 2017 was \$4,747, \$7,089, and \$10,571, respectively. The total intrinsic value of stock options exercised during 2019, 2018, and 2017 was \$20,811, \$49,276, and \$9,322, respectively.

On June 1, 2019, we granted stock options subject to performance conditions, with a target of 150,000 shares and a maximum 300,000 shares, to our Chief Executive Officer. The options have an exercise price of \$27.50 per share and have the same performance and vesting conditions as the restricted

stock units subject to performance conditions that we granted in 2019 (the "2019 PSUs"). We granted no stock options in 2018.

Restricted Stock Units—The following table summarizes activity for restricted stock units for the year ended December 31, 2019:

	Restricted Stock Units	Weighted Average Grant-Date Fair Value
Outstanding as of January 1, 2019	3,264,702	\$ 19.68
Granted	3,184,465	18.19
Vested	(966,037)	19.95
Forfeited or canceled	(459,718)	19.65
Outstanding as of December 31, 2019	<u>5,023,412</u>	<u>\$ 18.69</u>

The grant date fair value of restricted stock units is recorded as stock-based compensation over the vesting period. As of December 31, 2019, there was \$86,549 of total unrecognized stock-based compensation related to restricted stock units, which is expected to be recognized over a weighted-average period of 3.06 years.

As of December 31, 2019, there were outstanding 314,999 restricted stock units subject to performance conditions ("PSUs") at 100% of the target level. Depending on our achievement of the performance conditions, the actual number of shares of common stock issuable upon vesting of PSUs will range from 0% to 200% of the target amount. For each PSU recipient, the award will vest, subject to the recipient continuing to provide service to us, upon our board of directors, or its compensation committee, certifying that we have achieved the PSU's related performance conditions. Stock-based compensation expense for PSUs will be recognized when it is probable that the performance conditions will be achieved. For the year ended December 31, 2019, we recognized a net \$284 of stock-based compensation expense for PSUs, which includes (i) an adjustment of (\$610) related to PSUs granted in 2018 as the probability of achieving the performance conditions was determined to be not probable and (ii) a charge of \$894 related to the 2019 PSUs.

Compensation Cost—The following table details, for each period indicated, (i) our stock-based compensation net of forfeitures, and the amount capitalized in internally developed software and (ii) includes changes to the probability of achieving outstanding performance-based equity awards, each as included in our consolidated statements of operations:

	Year Ended December 31,		
	2019	2018	2017
Cost of revenue	\$ 6,087	\$ 5,567	\$ 2,902
Technology and development	12,362	7,576	3,325
Marketing	1,418	662	487
General and administrative	7,947	6,633	4,387
Total stock-based compensation	<u>\$ 27,814</u>	<u>\$ 20,438</u>	<u>\$ 11,101</u>

We capitalize stock-based compensation related to work performed on internally developed software. There was \$1,280, \$522, and \$268 of stock-based compensation that was capitalized in the years ended December 31, 2019, 2018, and 2017, respectively. All capitalized stock-based compensation is related to employees in technology and development.

Note 12: Net Loss per Share Attributable to Common Stock

Net loss per share attributable to common stock is computed by dividing the net loss attributable to common stock by the weighted-average number of common shares outstanding. We have outstanding stock options, restricted stock units, options to purchase shares under our ESPP, and convertible senior

notes, which are considered in the calculation of diluted net income per share whenever doing so would be dilutive.

As of December 31, 2019, we have one class of participating security, common stock, as all outstanding redeemable convertible preferred stock was converted to common stock on the date of our IPO, or August 2, 2017. Prior to August 2, 2017, we calculated basic and diluted net loss per share attributable to common stock in conformity with the two-class method required for companies with participating securities. Under the two-class method, net loss attributable to common stock was not allocated to the redeemable convertible preferred stock as the holders of redeemable convertible preferred stock did not have a contractual obligation to share in losses.

The following table sets forth the calculation of basic and diluted net loss per share attributable to common stock during the periods presented:

	Year Ended December 31,		
	2019	2018	2017
Numerator:			
Net loss	\$ (80,805)	\$ (41,978)	\$ (15,002)
Accretion of preferred stock	—	—	(175,915)
Net loss attributable to common stock—basic and diluted	<u>\$ (80,805)</u>	<u>\$ (41,978)</u>	<u>\$ (190,917)</u>
Denominator:			
Weighted average shares —basic and diluted	91,583,533	85,669,039	42,722,114
Net loss per share attributable to common stock—basic and diluted	<u>\$ (0.88)</u>	<u>\$ (0.49)</u>	<u>\$ (4.47)</u>

The following outstanding shares of common stock equivalents were excluded from the computation of the diluted net loss per share attributable to common stock for the periods presented because their effect would have been anti-dilutive. For the year ended December 31, 2017, shares of the redeemable convertible preferred stock were anti-dilutive. However, because the preferred stock converted into common stock on a one-for-one basis on August 2, 2017 upon the completion of our IPO, we included the preferred stock in the weighted average shares outstanding for the year ended December 31, 2017.

	Year Ended December 31,		
	2019	2018	2017
Stock options outstanding	7,792,181	9,435,349	13,180,950
Restricted stock units outstanding	5,023,412	3,264,702	981,276
Employee stock purchase plan	—	—	—
Total	<u>12,815,593</u>	<u>12,700,051</u>	<u>14,162,226</u>

We are required to consider the impact of our convertible senior notes on our diluted net income per share based on the treasury stock method as we have the ability, and intent, to settle any conversions of the notes solely in cash. The treasury stock method requires that the dilutive effect of common stock issuable upon conversion of the notes be computed in the periods in which we report net income. For the year ended December 31, 2019, there was no dilutive effect from the notes.

Note 13: Income Taxes

Our deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The following table represents the significant components of our deferred tax assets and liabilities for the periods presented:

	December 31,	
	2019	2018
Deferred tax assets		
Net operating loss carryforwards	\$ 49,211	\$ 31,311
Credit carryforwards	8,638	6,655
Stock-based compensation	5,142	4,073
Compensation accruals	2,297	1,873
Lease liability	18,404	—
Accruals and reserves	795	3,223
Gross deferred tax assets	84,487	47,135
Valuation allowance	(62,274)	(38,010)
Total deferred tax assets, net of valuation allowance	22,213	9,125
Deferred tax liabilities		
Intangible assets	(605)	(734)
Prepaid expenses	(1,688)	(1,503)
Convertible senior notes	(5,359)	(6,888)
Right-of-use assets	(13,579)	—
Fixed assets	(982)	—
Total deferred tax liabilities	(22,213)	(9,125)
Net deferred tax assets and liabilities	\$ —	\$ —

The valuation allowance increased by \$24,264 during the year ended December 31, 2019, increased by \$8,192 during the year ended December 31, 2018, and decreased by \$8,489 during the year ended December 31, 2017.

The following table represents our net operating loss ("NOL") carryforwards as of December 31, 2019 and 2018:

	December 31,	
	2019	2018
Federal	\$ 195,133	\$ 125,850
Various states	10,421	6,180
Foreign	1,212	—

Federal NOL carryforwards are available to offset federal taxable income and begin to expire in 2025, with NOL carryforwards of \$109,484 generated after 2017 available to offset future U.S. federal taxable income over an indefinite period. State NOL carryforwards are available to offset future taxable income and begin to expire in 2019. NOL carryforward periods for the various states jurisdictions generally range from 5 to 20 years. Foreign NOL carryforward periods for foreign federal and provincial jurisdictions are generally 20 years. Additionally, net research and development credit carryforwards of \$8,638 and \$6,655 are available as of December 31, 2019 and 2018, respectively, to reduce future tax liabilities. The research and development credit carryforwards begin to expire in 2026.

Current tax laws impose substantial restrictions on the utilization of research and development credits and NOL carryforwards in the event of an ownership change, as defined by Internal Revenue Code Sections 382 and 383. Such an event may significantly limit our ability to utilize its net NOLs and research and development tax credit carryforwards. During 2017, we completed a Section 382 study. The study determined that we underwent an ownership change in 2006. Due to the Section 382 limitation determined on the date of the change in control in 2006, the NOL and research and development credit carryforwards have been reduced by \$1,506 and \$32, respectively.

The components of loss before benefit for income taxes for the years ended December 31, 2019, 2018, and 2017 were \$(80,805), \$(41,978), and \$(15,002), respectively.

The following table is a reconciliation of the U.S. federal income tax at statutory rate to our effective income tax rate:

	December 31,		
	2019	2018	2017
U.S. federal income tax at statutory rate	21.00 %	21.00 %	34.00 %
State taxes (net of federal benefit)	4.71	5.67	2.40
Stock-based compensation	1.20	7.51	(14.74)
Permanent differences	(0.97)	(0.57)	(0.29)
Federal research and development credit	2.45	4.26	7.08
Change in valuation allowance	(29.73)	(37.33)	(27.79)
Other	1.34	(0.54)	(0.66)
Change in valuation allowance for Tax Act impact	—	—	84.37
Change in deferred balance before valuation allowance for Tax Reform impact	—	—	(84.37)
Effective income tax rate	— %	— %	— %

We did not record any tax benefits for the years ended December 31, 2019, 2018, and 2017. The difference between the U.S. federal income tax at statutory rate of 21% for the years ended December 31, 2019 and 2018, 34% for the year ended December 31, 2017, and our effective tax rate in all periods is primarily due to a full valuation allowance related to our U.S. deferred tax assets and the change in corporate tax rate effective for tax years beginning after December 31, 2017.

We account for uncertainty in income taxes in accordance with ASC 740. We evaluate our tax positions in a two-step process, whereby we first determine whether it is more likely than not that a tax position will be sustained upon examination by the tax authority, including resolutions of any related appeals or litigation processes, based on technical merit. If a tax position meets the more-likely-than-not recognition threshold it is then measured to determine the amount of benefit to recognize in the financial statements. The tax position is measured as the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement.

The following table summarizes the activity related to unrecognized tax benefits:

	December 31,	
	2019	2018
Unrecognized benefit—beginning of year	\$ 1,663	\$ 1,057
Gross decreases—prior year tax positions	(127)	—
Gross increases—current year tax positions	623	606
Unrecognized benefit—end of year	\$ 2,159	\$ 1,663

All of the unrecognized tax benefits as of December 31, 2019 and 2018 are accounted for as a reduction in our deferred tax assets. Due to our valuation allowance, none of the \$2,159 and \$1,663 of unrecognized tax benefits would affect our effective tax rate, if recognized. We do not believe it is reasonably possible that our unrecognized tax benefits will significantly change in the next twelve months.

We recognize interest and penalties related to unrecognized tax benefits as income tax expense. There was no interest or penalties accrued related to unrecognized tax benefits for each year ended December 31, 2019 and 2018 and no liability for accrued interest or penalties related to unrecognized tax benefits as of December 31, 2019.

Our material income tax jurisdiction is the United States (federal). As a result of NOL carryforwards, we are subject to audit for all tax years for federal purposes. All tax years remain subject to examination in various other jurisdictions that are not material to our consolidated financial statements.

Note 14: Debt

Warehouse Credit Facilities—To provide capital for the mortgage loans that it originates, Redfin Mortgage utilizes warehouse credit facilities that are classified as current liabilities in our consolidated balance sheets. Borrowings under each warehouse credit facility are secured by the related mortgage loan and rights and income related to the loans. The following table summarizes borrowings under these facilities as of the periods presented:

Lender	Borrowing Capacity as of December 31, 2019	Borrowings as of December 31, 2019	Borrowings as of December 31, 2018
Western Alliance Bank	\$ 24,500	\$ 8,489	\$ 1,141
Texas Capital Bank, N.A.	24,500	10,210	3,592
Flagstar Bank, FSB	15,000	2,603	N/A
Total	\$ 64,000	\$ 21,302	\$ 4,733

Borrowings under the facility with Western Alliance Bank ("Western Alliance") mature on June 15, 2020 and generally bear interest at a rate equal to the greater of (i) one-month LIBOR plus 2.00% or (ii) 3.50%. The weighted average interest rate on outstanding borrowings as of December 31, 2019 and 2018 was 3.79% and 5.26%, respectively. The agreement governing the facility requires Redfin Mortgage to maintain certain financial covenants. Additionally, Redfin Corporation has agreed to make capital contributions in an amount necessary for Redfin Mortgage to satisfy its adjusted tangible net worth financial covenant under the agreement. Redfin Mortgage is in default of this facility because it failed to satisfy a financial covenant as of December 31, 2019, but Western Alliance has not enforced its remedy under the agreement of requiring Redfin Mortgage to repurchase all outstanding loans held by the lender.

Borrowings under the facility with Texas Capital Bank, N.A. ("Texas Capital") mature on May 6, 2020 and generally bear interest at a rate equal to the greater of (i) the rate of interest accruing on the outstanding principal balance of the loan minus 0.5% or (ii) 3.5%. The weighted average interest rate on outstanding borrowings as of December 31, 2019 and 2018 was 3.51% and 4.11%, respectively. The agreement governing the facility requires Redfin Mortgage to maintain certain financial covenants. Additionally, Redfin Corporation has guaranteed Redfin Mortgage's obligations under the agreement. Redfin Mortgage is in default of this facility because it failed to satisfy a financial covenant as of December 31, 2019, but Texas Capital has not enforced its remedies under the agreement, which principally include the rights to (i) cease purchasing participation interests in loans from Redfin Mortgage and (ii) sell all interests of Texas Capital or Redfin Mortgage in any loan subject to the agreement.

Borrowings under the facility with Flagstar Bank, FSB ("Flagstar") generally bear interest at a rate equal to the greater of (i) one-month LIBOR plus 2.00% or (ii) 3.00%. The weighted average interest rate on outstanding borrowings as of December 31, 2019 was 3.69%. The Flagstar facility does not have a stated maturity date, but Flagstar may terminate the facility upon 30 days prior notice. Redfin Mortgage would be required to pay all amounts owed to Flagstar upon the facility's termination.

Secured Revolving Credit Facility—To provide capital for the homes that it purchases, RedfinNow has, through a special purpose entity called RedfinNow Borrower, entered into a secured revolving credit facility with Goldman Sachs. Borrowings under the facility are secured by RedfinNow Borrower's assets, including the financed homes, as well as the equity interests in RedfinNow Borrower. The following table summarizes borrowings under this facility as of the period presented:

Lender	Borrowing Capacity as of December 31, 2019	Borrowings as of December 31, 2019
Goldman Sachs Bank USA	\$ 100,000	\$ 4,444

The facility matures on January 26, 2021, but we may extend the maturity date for an additional six months to repay outstanding borrowings. Goldman Sachs may, at its sole option, finance a portion of RedfinNow Borrower's acquisition costs of qualified homes that have been purchased. The portion financed

is based, in part, on how long the qualifying home has been owned by a Redfin entity. Borrowings under the facility generally bear interest at a rate of one-month LIBOR (subject to a floor of 0.50%) plus 2.65%. The weighted average interest rate on outstanding borrowings as of December 31, 2019 was 4.45%.

RedfinNow Borrower must repay all borrowings and accrued interest upon the termination of the facility, and it has the option to repay the borrowings, and the related interest, with respect to a specific financed home upon the sale of such home. In certain situations involving a financed home remaining unsold after a certain time period or becoming ineligible for financing under the facility, RedfinNow Borrower may be obligated to repay all or a portion of the borrowings, and related interest, with respect to such home prior to the sale of such home. In instances involving "bad acts," Redfin Corporation has guaranteed repayment of amounts owed under the facility, in some situations, and indemnification of certain expenses incurred, in other situations.

As of December 31, 2019, RedfinNow Borrower had \$16,200 of total assets, of which \$7,456 related to inventory and \$5,663 in cash and cash equivalents.

For the year ended December 31, 2019, we amortized \$256 of the debt issuance costs and recognized \$17 of interest expense.

Convertible Senior Notes—On July 23, 2018, we issued \$143,750 aggregate principal amount of convertible senior notes. The notes are senior, unsecured obligations of Redfin Corporation and bear interest at a fixed rate of 1.75% per year, payable semi-annually in arrears on January 15 and July 15. The effective interest rate of the liability portion of the debt is 7.25%. The notes mature on July 15, 2023, unless earlier repurchased, redeemed or converted. As of December 31, 2019, no conversion events have occurred. We will settle conversions of the notes by paying or delivering, as the case may be, cash, shares of our common stock, or a combination of cash and shares of our common stock, at our election. We have the ability, and intend, to settle any conversions solely in cash.

The convertible senior notes consisted of the following:

	Year Ended December 31,	
	2019	2018
Principal	\$ 143,750	\$ 143,750
Less: debt discount, net of amortization	(21,231)	(26,636)
Less: debt issuance costs, net of amortization	(2,803)	(3,528)
Net carrying amount of the convertible senior notes	\$ 119,716	\$ 113,586

The total estimated fair value of the notes as of December 31, 2019 and 2018 was approximately \$142,672 and \$117,875, respectively, based on the closing trading price of the notes on last trading day for the period. The fair value has been classified as Level 2 within the fair value hierarchy given the limited trading activity of the notes.

The following table sets forth total interest expense recognized related to the convertible senior notes for the periods presented:

	Year Ended December 31,	
	2019	2018
Amortization of debt discount	\$ 5,405	\$ 2,280
Amortization of debt issuance costs	724	304
Total amortization of debt issuance costs and accretion of equity portion	6,129	2,584
Contractual interest expense	2,516	1,097
Total interest expense related to the convertible senior notes	\$ 8,645	\$ 3,681

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 of our principal executive and principal financial officers, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934), as of the end of the period covered by this Annual Report. Based on such evaluation, our principal executive and principal financial officers have concluded that as of such date, our disclosure controls and procedures were effective at the reasonable assurance level described below.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) under the Securities Exchange Act of 1934. Our management, with the participation of our principal executive and principal financial officers, evaluated the effectiveness of our internal control over financial reporting using the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control—Integrated Framework (2013)*. Based on this assessment, management concluded that Redfin Corporation maintained effective internal control over financial reporting as of the end of the period covered by this Annual Report. Deloitte & Touche LLP, our independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting, and this attestation report appears in Item 8.

Changes in Internal Control Over Financing Reporting

In connection with the evaluation required by Rule 13a-15(d) under the Securities Exchange Act of 1934, there were no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2019 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. 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, within our company have been detected. 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 the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item is incorporated by reference to our proxy statement to be filed in connection with our 2020 Annual Meeting of Stockholders by April 29, 2020.

Item 11. Executive Compensation

The information required by this Item is incorporated by reference to our proxy statement to be filed in connection with our 2020 Annual Meeting of Stockholders by April 29, 2020.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this Item is incorporated by reference to our proxy statement to be filed in connection with our 2020 Annual Meeting of Stockholders by April 29, 2020.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this Item is incorporated by reference to our proxy statement to be filed in connection with our 2020 Annual Meeting of Stockholders by April 29, 2020.

Item 14. Principal Accounting Fees and Services

The information required by this Item is incorporated by reference to our proxy statement to be filed in connection with our 2020 Annual Meeting of Stockholders by April 29, 2020.

PART IV

Item 15. Exhibits, Financial Statement Schedules

The financial statements and financial statement schedules required to be filed as part of this Annual Report are included under Item 8.

The exhibits required to be filed as part of this Annual Report are listed below. Exhibits 10.1 through 10.14 constitute management contracts or compensatory plans or arrangements. Notwithstanding any language to the contrary, Exhibits 32.1, 32.2, 101, and 104 shall not be deemed to be filed as part of this Annual Report for purposes of Section 18 of the Securities Exchange Act of 1934.

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Filing	Exhibit	Filing Date	
3.1	Restated Certificate of Incorporation	10-Q	3.1	Sept. 8, 2017	
3.2	Restated Bylaws	10-Q	3.2	Sept. 8, 2017	
4.1	Form of Common Stock Certificate	S-1/A	4.1	July 26, 2017	
4.2	Description of Common Stock				X
4.3	Indenture, dated as of July 23, 2018, between Redfin Corporation and Wells Fargo Bank, National Association	8-K	4.1	July 23, 2018	
4.4	Form of Senior Convertible Note	8-K	4.1	July 23, 2018	
10.1	Amended and Restated 2004 Equity Incentive Plan and forms of award agreements thereunder	S-1	10.2	June 30, 2017	
10.2	2017 Equity Incentive Plan and forms of award agreements thereunder	10-K	10.3	Feb. 22, 2018	
10.3	Form of Restricted Stock Unit Award Notice and Restricted Stock Unit Award Agreement under the 2017 Equity Incentive Plan (February 2019)	10-Q	10.1	May 8, 2019	
10.4	Form of Notice of Performance-Based Restricted Stock Unit Award and Performance-Based Restricted Stock Unit Award Agreement under the 2017 Equity Incentive Plan (June 2018)	8-K	10.1	June 6, 2018	
10.5	Form of Performance-Based Stock Option Notice and Award Agreement (June 2019)	8-K	10.1	June 6, 2019	
10.6	Form of Restricted Stock Unit Notice and Award Agreement for Non-Employee Directors (May 2019)	10-Q	10.2	Aug. 1, 2019	
10.7	Form of Indemnification Agreement	S-1/A	10.1	July 17, 2017	
10.8	Form of Change in Control Severance Agreement	S-1/A	10.12	July 17, 2017	
10.9	Amended and Restated Offer Letter by and between Redfin Corporation and Glenn Kelman, dated June 27, 2017	S-1	10.4	June 30, 2017	
10.10	Amended and Restated Offer Letter by and between Redfin Corporation and Bridget Frey, dated June 27, 2017	S-1	10.5	June 30, 2017	
10.11	Amended and Restated Offer Letter by and between Redfin Corporation and Scott Nagel, dated June 27, 2017	S-1	10.6	June 30, 2017	
10.12	Amended and Restated Offer Letter by and between Redfin Corporation and Chris Nielsen, dated June 27, 2017	10-K	10.6	Feb. 22, 2018	
10.13	Offer Letter by and between Redfin Corporation and Christian Taubman, dated October 13, 2019				X
10.14	Amended and Restated Offer Letter by and between Redfin Corporation and Adam Wiener, dated June 27, 2017	10-K	10.10	Feb. 14, 2019	
10.15†	Loan and Security Agreement, among Goldman Sachs Bank USA, as administrative agent, Goldman Sachs Bank USA and the persons from time to time party hereto as lenders, and RedfinNow Borrower LLC, as borrower, dated as of July 26, 2019	10-Q	10.1	Nov. 6, 2019	
10.16	Amendment No. 1 to Loan and Security Agreement, made as of September 17, 2019, by and among RedfinNow Borrower LLC, RedfinNow Pledgor LLC, Redfin Corporation, the Lenders party hereto, and Goldman Sachs Bank USA, as Administrative Agent	10-Q	10.2	Nov. 6, 2019	
21.1	List of Subsidiaries				X
23.1	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm				X
24.1	Power of Attorney				X
31.1	Certification of Principal Executive Officer, pursuant to Rule 13a-14(a)				X
31.2	Certification of Principal Financial Officer, pursuant to Rule 13a-14(a)				X
32.1	Certification of Chief Executive Officer, pursuant to 18 U.S.C. Section 1350				X
32.2	Certification of Chief Financial Officer, pursuant to 18 U.S.C. Section 1350				X
101	Interactive Data Files				X
104	Cover page interactive data file, submitted using inline XBRL (contained in Exhibit 101)				X

† Portions of this exhibit have been omitted because the information is both not material and would likely cause competitive harm to us if publicly disclosed.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Redfin Corporation
(Registrant)

February 12, 2020
(Date)

By /s/ Glenn Kelman
Glenn Kelman
President and Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints Glenn Kelman and Chris Nielsen, and each of them, as his or her true and lawful attorneys-in-fact and agents with full power of substitution, for him or her 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 U.S. 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 to 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 his or her or their substitute or substitutes, may lawfully do or cause to be done or by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Glenn Kelman</u> Glenn Kelman	President, Chief Executive Officer and Director (Principal Executive Officer)	<u>February 12, 2020</u>
<u>/s/ Chris Nielsen</u> Chris Nielsen	Chief Financial Officer (Principal Financial and Accounting Officer)	<u>February 12, 2020</u>
<u>/s/ Robert Mylod, Jr.</u> Robert Mylod, Jr.	Chairman of the Board of Directors	<u>February 12, 2020</u>
<u>/s/ Robert Bass</u> Robert Bass	Director	<u>February 12, 2020</u>
<u>/s/ Julie Bornstein</u> Julie Bornstein	Director	<u>February 12, 2020</u>
<u>/s/ Austin Ligon</u> Austin Ligon	Director	<u>February 12, 2020</u>
<u>/s/ David Lissy</u> David Lissy	Director	<u>February 12, 2020</u>
<u>/s/ James Slavet</u> James Slavet	Director	<u>February 12, 2020</u>
<u>/s/ Selina Tobaccowala</u> Selina Tobaccowala	Director	<u>February 12, 2020</u>

Below is a description of Redfin Corporation's common stock, \$0.001 par value per share. Our board of directors is authorized, subject to Delaware law and without further stockholder approval, to issue preferred stock in one or more series. To the extent we issue preferred stock, the rights of our common stock may be materially limited or qualified by the rights of our preferred stock, as described below.

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.

The vote required to elect directors is a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors.

In addition to any vote required by law, the vote required to amend our restated certificate of incorporation or our restated bylaws is the affirmative vote of the holders of at least two-thirds of the then-outstanding shares of our common stock entitled to vote generally in the election of directors. However, if two-thirds of our total number of authorized directors has approved such amendment, then only the affirmative vote of the holders of at least a majority of the then-outstanding shares of our common stock entitled to vote generally in the election of directors shall be required to effect such amendment. To the extent we have shares of preferred stock outstanding and such preferred stock is entitled to vote generally in the election of directors, then the vote required to amend our restated certificate of incorporation or our restated bylaws will be based on the applicable threshold (i.e., majority or two-thirds) of the voting power of the then-outstanding shares of our capital stock, voting together as a single class. Furthermore, amendment of our restated certificate of incorporation or our restated bylaws may require the affirmative vote of holders of our preferred stock, voting as a separate class or classes.

Unless otherwise provided by applicable law or regulation, the vote required for every matter other than those described above is the affirmative vote of the holders of a majority of the then-outstanding shares of our common stock entitled to vote on such matter that are (1) present in person or represented by proxy at the meeting and (2) voted for or against the matter. To the extent we have shares of preferred stock outstanding and such preferred stock is entitled to vote on the matter, then the holders of our preferred stock may have the right to vote together with our common stock or as separate class or classes. In either case, the vote required is the affirmative vote of the holders of a majority of the voting power of the shares that are (1) present in person or represented by proxy at the meeting and (2) voted for or against the matter.

Board Classification and Cumulative Voting

We have a classified board of directors that is divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. We do not permit cumulative voting for the election of directors.

Liquidation Rights

Upon our 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.

Anti-Takeover Provisions

The following provisions in our restated certificate of incorporation and/or our restated bylaws could have the effect of delaying, deferring, or preventing a change in control of our company:

- Board of Directors. The provisions below increase the difficulty for a potential acquiror to gain control of a majority of our board of directors.
 - Our board of directors is classified into three classes of directors, such that only one-third of our directors will stand for election at each annual meeting of stockholders.
 - Stockholders may remove directors only for cause and only by the affirmative vote of the holders of at least two-thirds of the then-outstanding shares of our outstanding common stock.
 - Subject to limited exceptions, only our board of directors may fill vacant directorships, including newly created seats.
 - Only our board of directors may set the number of directors constituting our board of directors.
- Stockholder Action. The provisions below increase the difficulty for a stockholder to obtain stockholder approval for a potential change in control of our company.
 - Our stockholders must take action at a duly called annual or special meeting of stockholders and cannot take action by written consent.
 - Only our Chairperson of the Board, Chief Executive Officer, President, or board of directors may call a special meeting of stockholders. Only the business set forth in our notice of a special meeting shall be conducted at such special meeting.
 - A stockholder must comply with the advance notice and procedural provisions set forth in our restated bylaws to bring business before an annual meeting of stockholders or to nominate a candidate for election as director at an annual or special meeting of stockholders.
- Preferred Stock. Our board of directors has the authority, subject to Delaware law and without further stockholder approval, to issue up to 10,000,000 shares of preferred stock with rights and preferences, including voting rights, designated from time to time by our board of directors. This authority enables our board of directors to introduce a class of capital stock with voting rights that increase the difficulty for a potential acquiror to gain control of a majority of our board of directors or to obtain stockholder approval for a potential change in control of our company.
- Amending Anti-Takeover Provisions. Unless approved by our board of directors, any amendment of the above provisions requires the affirmative vote of the holders of at least two-thirds of the voting power of all of the then-outstanding shares of our capital stock entitled to vote generally in the election of directors, voting together as a single class.



Redfin Corporation Employment Offer Letter

September 10, 2019

Christian Taubman

[***]

[***]

[***]

p. [***]

Dear Christian:

Congratulations! We're writing to extend you an offer to work at Redfin!

Redfin Corporation ("Redfin") is pleased to offer you a fulltime position with our organization as the Chief Product Officer at our Redfin office located at 1099 Stewart St #600, Seattle, WA 98101.

We look forward to your first day of work on Monday, October 14. This date is subject to change depending on our ability to complete your background check, and schedule your training. We will notify you if there is a change to your start date.

Your title, assignment, compensation, and the nature of your responsibilities may change from time to time at Redfin's discretion. You will also be expected to comply with Redfin's rules, policies and procedures, which may be modified from time to time. The terms of this offer are detailed below.

Compensation: Your gross salary annualized over one year will be **\$300,000**, subject to appropriate tax withholdings and deductions, and payable in accordance with Redfin's normal payroll cycle. You are classified as an exempt employee and your salary is intended to compensate you for all hours worked. Increases are based on your and Redfin's performance and are not guaranteed. This is a full-time position.

Executive Bonus: Executive Bonus: Subject to the terms and conditions of Redfin's Bonus Compensation Policy, you may be eligible to earn a bonus up to **\$100,000**, based on Redfin's performance against its goals; any bonus you earn will be payable on an annual basis in the first quarter following the close of the year. Your potential bonus will be pro-rated for the first year you work, based on your actual start date and the number of days you worked in the year. Redfin's Bonus Compensation Policy is subject to change as further described therein.

Starting Bonus: Starting Bonus: Redfin will pay you **\$400,000** as a signing bonus, subject to standard withholding and payroll taxes, paid in two installments. The first installment of **\$200,000** will be paid on the first payroll following your start date. If for any reason your employment is terminated prior to the one-year anniversary of your start date, you will be responsible for reimbursing Redfin for the first installment of **\$200,000** in full.

The second installment of **\$200,000** will be paid on pay date following the one-year anniversary of your start date. If for any reason your employment is terminated after the one-year anniversary of your start date and prior to the three-year anniversary of your start date, you will be responsible for reimbursing Redfin for the second installment of **\$200,000** in full.

Restricted Stock Units (RSUs): Subject to approval of Redfin's Board of Directors, you will be granted an amount of Restricted Stock Units that have an aggregate market value of **\$900,000** on the approval date based on the average closing price of Redfin's common stock for the thirty trading days immediately prior to the approval date. 25% of the RSUs will vest on the one-year anniversary of the RSUs' vesting commencement date, subject to your continued employment through such anniversary. The remaining RSUs will vest in 12 equal amounts on a quarterly basis over the three years following such anniversary, subject to your continued employment through each vesting date. Redfin RSUs have four vesting commencement dates per year (one fixed date per quarter).

The vesting commencement date for your RSUs will be the first vesting commencement date on or following your start date. Your RSUs will be subject to Redfin's 2017 Equity Incentive Plan, including vesting requirements. No right to any Redfin common stock is earned or accrued until such time that vesting occurs.

Performance-Based Restricted Stock Units (PSUs): Subject to approval of Redfin's Board of Directors, you will be granted that number of Performance-Based Restricted Stock Units (PSUs) that have a target aggregate fair market value of **\$425,000** on the date of grant based on the average closing price of Redfin's common stock on the Nasdaq Global Select Market for the thirty trading days immediately prior to such grant date. PSUs will vest, at an amount ranging from 25% to 200% of the target amount, only to the extent that the Board certifies that Redfin has achieved the aggregate gross profit metrics for the three-year period from 2019 to 2021, as established by the Board. To the extent Redfin doesn't achieve the minimum aggregate gross profit thresholds, no PSUs will vest. Your PSU grant will be subject to the terms and conditions of Redfin's 2017 Equity Incentive Plan and the Performance-Based Restricted Stock Unit Award Agreement, including vesting requirements. No right to any Redfin common stock is earned or accrued until such time that vesting occurs.

401 K: Redfin offers auto-enrollment into our 401(k) plan administered by Transamerica for regular full-time and part-time employees. You may opt out of the plan or make your own elections within the first two months after your start date. If you take no action, you will be auto enrolled into the Plan on the first of the month following two months of service. The initial auto-enrollment is 3% of gross pay (including bonuses and all other pay) per pay period on a pre-tax basis and will increase by 1% at the beginning of each year, up to a maximum of 6%. Your contributions will be automatically invested into the Vanguard® Target Retirement Target Date Fund designated for your age and anticipated retirement date. Once enrolled, you may change your contribution amounts, investment choices, and default increases at any time. The plan offers a range of investment options and we encourage you to select the funds you feel are best for you. Assistance with fund selection and contribution options is available through our Plan's consultants, ClearPoint Financial, at 888.557.6471 or coaching@clearpoint401k.com. If you wish to opt out of 401(k) auto-enrollment, you must do so within the first two months of employment. You may complete this opt out, or enroll and make your own investment choices, online through www.ta-retirement.com. Part-time seasonal or temporary employees are not auto enrolled and are eligible to participate after 1000 worked hours. To enroll and make your own investment choices visit www.ta-retirement.com. This is an intentionally brief summary of enrollment in the 401(k) Plan. Additional information will be provided prior to eligibility.

At-Will Employment: The employment relationship between you and Redfin will be at-will. This means that the employment relationship is for no specific term and may be terminated by either you or Redfin at any time for any or no reason, with or without advance notice. This letter and the Employee Assignment, Arbitration and Confidentiality Agreement ("Proprietary Information Agreement") supersede any previous arrangements, both oral and written, expressed or implied, regarding the nature of your employment with Redfin. The at-will employment relationship cannot be changed or modified orally, and may only be modified by a formal written employment contract signed by you and the CEO of Redfin, expressly modifying the at-will employment relationship.

Benefits & Other Redfin Policies: During your employment, you may be eligible for employee benefits consistent with Redfin's practices and in accordance with the terms of applicable benefit plans as they currently exist and subject to any future modifications in Redfin's discretion. If you accept employment with Redfin you agree to follow Redfin's rules and policies. Please understand that Redfin reserves the right to modify, supplement, and discontinue all policies, rules, benefit plans and programs at any time and in its sole discretion.

Work Status, Background Check & Proprietary Information Agreement: This offer is contingent upon:

- Verification of your right to work in the United States, as demonstrated by your completion of Form I-9 upon hire and your submission of acceptable documentation (as noted on Form I-9) within 72 hours of commencing work. Redfin is not obligated to sponsor and/or successfully obtain citizenship for any employee under a temporary visa or applying for residency in the United States.
- Satisfactory completion of a background investigation.
- The protection of confidential and proprietary information relating to Redfin's business and operations is and will continue to be of central importance to Redfin. For this reason, your agreement to the terms and conditions set forth in the enclosed Proprietary Information Agreement, which includes provisions relating to non-solicitation and non-competition, is a condition of employment with Redfin.

This offer of employment is contingent upon all the terms above and is valid until 5:00 p.m., September 13, 2019.

Non-Resident/Non-Citizen Status: Redfin is not obligated to sponsor and/or successfully obtain citizenship for any employee operating under a temporary visa or applying for residency in the United States. For the purposes of federal immigration law, you

will be required to provide to the Company documentary evidence of your identity and eligibility for employment in the United States.

If the understandings stated in this letter are agreeable to you, please sign below, keep one copy and return the original to me. Please also sign and return one copy of the Proprietary Information Agreement, included with this correspondence.

If you need additional time to consider this letter and the attached Proprietary Information Agreement, please ask. We are very pleased to welcome you to Redfin.

We believe that you will thrive here at Redfin, and look forward to building a great business together.

Sincerely,

Redfin Corporation

Accepted:

/s/ Christian Taubman 10/13/2019
Christian Taubman Date

Subsidiaries of Redfin Corporation

Name of Subsidiary	Doing Business As (If Different than Legal Name)	Jurisdiction
Forward Settlement Solutions, Inc.	Title Forward	Delaware
Forward Settlement Solutions of Texas, LLC	Title Forward	Texas
RDFN Ventures, Inc.	RedfinNow	Delaware
Redfin Home Services LLC		Delaware
Redfin Insurance Services LLC		Delaware
Redfin Mortgage, LLC		Delaware
Redfin Subsidiary Holding Corporation		Delaware
Redfin Unlimited Liability Company		British Columbia, Canada
RedfinNow Borrower LLC		Delaware
RedfinNow Pledgor LLC		Delaware
Walk Score Management, LLC		Washington

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-219561, 333-223163, and 333-229679 on Form S-8 of our reports dated February 12, 2020, relating to the financial statements of Redfin Corporation and the effectiveness of Redfin Corporation's internal control over financial reporting, appearing in this Annual Report on Form 10-K of Redfin Corporation for the year ended December 31, 2019.

/s/ Deloitte & Touche LLP

Seattle, Washington

February 12, 2020

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

PURSUANT TO RULE 13a-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934

I, Glenn Kelman, certify that:

1. I have reviewed this Annual Report on Form 10-K of Redfin Corporation;

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 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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 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 12, 2020

/s/ Glenn Kelman

Glenn Kelman

Chief Executive Officer

(Principal Executive Officer)

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

PURSUANT TO RULE 13a-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934

I, Chris Nielsen, certify that:

1. I have reviewed this Annual Report on Form 10-K of Redfin Corporation;

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 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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 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 12, 2020

/s/ Chris Nielsen

Chris Nielsen

Chief Financial Officer

(Principal Financial Officer)

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

PURSUANT TO 18 U.S.C. SECTION 1350

I, Glenn Kelman, Chief Executive Officer of Redfin Corporation (the "Company"), certify pursuant to 18 U.S.C. Section 1350 that, to my knowledge, the Annual Report on Form 10-K of the Company for the year ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 12, 2020

/s/ Glenn Kelman

Glenn Kelman

Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER

PURSUANT TO 18 U.S.C. SECTION 1350

I, Chris Nielsen, Chief Financial Officer of Redfin Corporation (the "Company"), certify pursuant to 18 U.S.C. Section 1350 that, to my knowledge, the Annual Report on Form 10-K of the Company for the year ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 12, 2020

/s/ Chris Nielsen

Chris Nielsen

Chief Financial Officer