
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

- ☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2020
OR
☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
Commission File Number: 001-36853

ZILLOW GROUP, INC.
(Exact name of registrant as specified in its charter)

Washington
(State or other jurisdiction of
incorporation or organization)

47-1645716
(I.R.S. Employer
Identification No.)

1301 Second Avenue, Floor 31,
Seattle, Washington 98101
(Address of principal executive offices) (Zip Code)
(206) 470-7000
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, par value \$0.0001 per share	ZG	The Nasdaq Global Select Market
Class C Capital Stock, par value \$0.0001 per share	Z	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 Section 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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

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 June 30, 2020, the last business day of the Registrant's most recently completed second fiscal quarter, the aggregate market value of the Registrant's Class A common stock and Class C capital stock held by non-affiliates based upon the closing price of such shares on The Nasdaq Global Select Market on such date was \$11,436,019,294.

As of February 5, 2021, 61,115,068 shares of Class A common stock, 6,217,447 shares of Class B common stock, and 173,327,109 shares of Class C capital stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The information required by Part III of this Report, to the extent not set forth herein, is incorporated in this Report by reference to the Registrant's definitive proxy statement relating to the 2021 annual meeting of shareholders. The definitive proxy statement will be filed with the Securities and Exchange Commission within 120 days after the end of the 2020 fiscal year.

ZILLOW GROUP, INC.
Annual Report on Form 10-K
for the Fiscal Year Ended December 31, 2020

TABLE OF CONTENTS

	<u>Page</u>
PART I	
Item 1. Business	3
Item 1A. Risk Factors	9
Item 1B. Unresolved Staff Comments	37
Item 2. Properties	37
Item 3. Legal Proceedings	37
Item 4. Mine Safety Disclosures	37
PART II	
Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	38
Item 6. Selected Financial Data	39
Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations	40
Item 7A. Quantitative and Qualitative Disclosures About Market Risk	63
Item 8. Financial Statements and Supplementary Data	65
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	114
Item 9A. Controls and Procedures	114
Item 9B. Other Information	116
PART III	
Item 10. Directors, Executive Officers and Corporate Governance	117
Item 11. Executive Compensation	117
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	117
Item 13. Certain Relationships and Related Transactions, and Director Independence	117
Item 14. Principal Accountant Fees and Services	117
PART IV	
Item 15. Exhibits, Financial Statement Schedules	118
Item 16. Form 10-K Summary	125
Signatures	126

As used in this Annual Report on Form 10-K, the terms “Zillow Group,” “the Company,” “we,” “us” and “our” refer to Zillow Group, Inc., unless the context indicates otherwise.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the sections entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” “Risk Factors” and “Business,” contains forward-looking statements based on our management’s beliefs and assumptions and on information currently available to our management. Forward-looking statements include all statements that are not historical facts and generally may be identified by terms such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “could,” “would,” “project,” “plan,” “expect” or the negative or plural of these words or similar expressions.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those risks, uncertainties and assumptions described in Part I, Item 1A (Risk Factors) of this report, including, but not limited to:

- the impact of the COVID-19 pandemic or other public health crises and any associated economic downturn on our future financial position, operations and financial performance;
- the magnitude, duration and severity of the COVID-19 pandemic and the availability and widespread distribution and use of effective vaccines;
- the impact of actions taken by governments, businesses and individuals in response to the COVID-19 pandemic, including changes in laws or regulations that limit our ability to operate;
- the current and future health and stability of the economy, financial conditions and residential housing market, including any extended slowdown in the real estate markets as a result of the COVID-19 pandemic;
- changes in laws or regulations applicable to our business, employees, products or services, including current and future laws, regulations and orders that limit our ability to operate in light of the COVID-19 pandemic;
- the satisfaction of conditions precedent to the closing of Zillow Group’s proposed acquisition of ShowingTime.com, Inc., including expiration or termination of the applicable waiting period under the Hart-Scott-Rodino Act;
- changes in general economic and financial conditions that reduce demand for our products and services, lower our profitability or reduce our access to credit;
- actual or anticipated fluctuations in our financial condition and results of operations;
- changes in projected operational and financial results;
- addition or loss of significant customers;
- actual or anticipated changes in our growth rate relative to that of our competitors;
- acquisitions, strategic partnerships, joint ventures, capital-raising activities or other corporate transactions or commitments by us or our competitors;
- actual or anticipated changes in technology, products, markets or services by us or our competitors;
- ability to obtain or maintain licenses and permits to support our current and future businesses;
- ability to comply with MLS rules and requirements to access and use listing data, and to maintain or establish relationships with listings and data providers;
- ability to operate our mortgage originations business, including the ability to obtain sufficient financing;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- the impact of natural disasters and other catastrophic events;
- the impact of pending or future litigation; and
- issuance of new or updated research or reports by securities analysts.

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 forward-looking events and circumstances 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.

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, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, except as required by law, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements, and we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this report to conform these statements to actual results or to changes in our expectations.

NOTE REGARDING INDUSTRY AND MARKET DATA

This Annual Report on Form 10-K contains market and industry data that are based on independent industry publications, trade or business organizations and other published statistical information from third parties. Such third party information generally states that the information contained therein has been obtained from sources believed to be reliable. While we are not aware of any misstatements regarding this third party information, we have not independently verified any of the data from third-party sources nor have we validated the underlying economic assumptions relied on therein.

PART I

Item 1. Business.

Overview

Our mission is to give people the power to unlock life's next chapter. Whether selling, buying, renting or financing residential real estate in the U.S., customers can turn to Zillow to transact with speed, certainty and ease. Millions of people visit our mobile applications and websites every month to begin their journey with us. Traffic to our services reached an annual high of 245 million unique users in July 2020, with more than 9.6 billion visits to our mobile applications and websites in 2020, primarily to Zillow, Trulia and StreetEasy.

At the core of Zillow is our inimitable, living database of more than 135 million U.S. homes and our differentiated content, most notably the Zestimate, our patented proprietary automated valuation model through which we provide real-time home value estimates. With the launch of the Zestimate in 2006, we introduced important transparency to real estate in order to empower consumers to make better decisions. Our improved Zestimate currently has a median absolute percent error of 1.8% for homes listed for sale and 7.4% for off-market homes. Our data and content has helped the Zillow brand become synonymous with real estate. Today, more people now search for "Zillow" than "real estate," according to a 2020 Google Trends report, and Zillow is the most visited brand in the industry according to a 2020 Comscore Media Metrix® report.

We are in the midst of a significant, multi-year business model expansion, building on the strong foundation of our established real estate marketplaces and advertising-based revenue model as we move into facilitating real estate transactions and offering related adjacent services. Through our mobile applications and websites, we are focused on helping customers transact and move directly through our growing portfolio of Zillow-branded and affiliated transaction-oriented services and/or through referrals to trusted Zillow Premier Agent and Premier Broker partners. Our expansion has been fueled by an increased desire and growing ability to move as people rethink their relationship with home and work while increasingly turning to technology to more safely navigate many aspects of their lives, including shopping for and buying their next home. As a leading digital real estate company, we are well positioned to serve our customers and partners – both now and in the future.

This strategic expansion has dramatically increased our Total Addressable Market ("TAM") from \$19 billion in real-estate related advertising according to a 2019 Borrell Associates report to \$2.2 trillion in annual U.S. real estate transactions, which represents the estimated transaction value of existing and new homes sold in 2020, according to the US Census Bureau and National Association of REALTORS®.

Our expansion into transaction-related services also allows us to build closer relationships with our customers to help them find and move into the places they call home throughout their lives, which is at the core of our mission.

We have organized our business into three segments, Homes, Internet, Media & Technology ("IMT") and Mortgages. These segments reflect the way we evaluate business performance and manage our operations. The Homes segment includes the financial results from our purchase and sale of homes directly through Zillow Offers and the financial results from the title and escrow services provided through Zillow Closing Services. The IMT segment includes the financial results for the Premier Agent, rentals and new construction marketplaces, dotloop, display and other advertising and business software solutions. The Mortgages segment includes financial results for mortgage originations through Zillow Home Loans, advertising sold to mortgage lenders and other mortgage professionals, as well as Mortech mortgage software solutions.

Customer Offerings

To deliver on our mission, our long-term vision is to provide a seamless, integrated transaction experience for movers through Zillow, our affiliated brands or our network of trusted partners. We do this through a range of services designed to help our customers in whatever stage(s) of home they may be in. This typically includes the need for multiple services simultaneously. According to the Zillow Group 2020 Consumer Housing Trends Report, nearly two-thirds of sellers are also buying at the same time, and among renters with plans to move within the next year, more than one-third plan to buy their next home.

Our services are primarily designed for the following:

For Sellers – We launched Zillow Offers in April 2018 to provide homeowners with the ability to receive cash offers to purchase their home, giving sellers peace of mind, control and convenience in one of the most stressful transactions of their lives. We have the potential to connect sellers who do not qualify for or accept an offer from Zillow with a trusted local Premier Agent partner. When we buy a home from a seller, our title and escrow business, Zillow Closing Services, performs their due diligence for a clean title and a seamless close of the home transaction. Then, our renovation teams perform light, make-ready repairs to swiftly list the home. As of December 31, 2020, Zillow Offers was available in 25 markets and accounted for \$1.7 billion of our revenue for the year, up from \$1.4 billion in revenue for the year ended December 31, 2019. This reflects less than 0.1% of the estimated annual U.S. real estate transaction value. For the year ended December 31, 2020, we purchased 4,162 homes from sellers.

For Buyers – When a buyer is ready to meet with a local real estate professional after searching for a home on our mobile applications and websites, we typically connect them with a Premier Agent partner. For customers who are focused on buying new construction homes, we connect them with our home builder partners. Home buyers are also able to purchase homes that are listed for resale through Zillow Offers. For the year ended December 31, 2020, home buyers purchased 5,337 homes through Zillow Offers. Beginning in 2019, home buyers have been able to facilitate a seamless transaction with the adjacent title and escrow services through Zillow Closing Services.

For Renters – Over 60% more residential real estate leases are executed each year (10.5 million, according to the 2019 American Community Survey conducted by the U.S. Census Bureau) than homes sold (6.5 million, according to 2020 data from the National Association of REALTORS®, U.S. Census Bureau and Department of Housing and Urban Development) in the U.S., and we connect prospective renters with our property management and landlord partners in the Zillow Rental Network, which provides renters access to the largest collection of rental properties in the U.S., according to a 2020 Comscore Media Metrix® report. We also provide renters with the ability to easily submit applications, sign leases and make rental payments through our platform.

For Borrowers – According to the March 2020 National Association of REALTORS® “2020 Home Buyers and Sellers Generational Trends Report”, approximately 86% of homes purchased in the U.S. are financed with mortgage debt. We provide our customers with multiple ways to pursue mortgage financing for their transaction. We provide customers with the option to finance directly with Zillow Home Loans or to connect with our mortgage partners through our mortgage marketplace for both purchase and refinance opportunities. Zillow Home Loans, which we rebranded in 2019 following the October 2018 acquisition of Mortgage Lenders of America, is currently available in 45 states and jurisdictions and originates mortgage loans and then sells the loans on the secondary market.

Competitive Advantages

We believe we have the following competitive advantages:

- *Large and trusted brand.* The Zillow Group portfolio attracted an annual high of 245 million unique users in July 2020 and more than 9.6 billion visits in 2020. Our master brand “Zillow” is searched more often than “real estate,” according to a 2020 Google Trends report, and has become the most trusted brand in the industry. Our large and engaged audience and brand trust keeps our customer acquisition costs low.
- *Inimitable living database of homes and superior data science and technology advantages.* Our living database of more than 135 million U.S. homes is the result of more than 15 years of substantial investment, sophisticated economic and statistical analysis and complex data aggregation of multiple sources of property, transaction and listing data, including user updates to more than 34 million property records. This data is the foundation of our proprietary Zestimate, Rent Zestimate, Zestimate Forecast and Zillow Home Value Index. In 2019, we released a new, more accurate Zestimate, incorporating key learnings from the two-year, global Zillow Prize competition. The improved Zestimate currently has a median absolute percent error of 1.8% for homes listed for sale and 7.4% for off-market homes. These data and models also provide the foundation for our pricing algorithms for Zillow Offers, although substantially more home-specific information is incorporated to further refine the valuation for this application.
- *Superior industry partnerships.* Zillow Group partners with thousands of the most productive names in real estate, maintaining strong partnerships with leading real estate agents, brokers, mortgage professionals, property managers, landlords, home builders as well as regional multiple listing services and more. As we move down funnel into transaction-related services, we work to partner with high-performing and service-focused industry partners who share our interests in providing the best-possible services to our shared customers.

- *Experienced, Proven Management Team.* We have a highly experienced management team who have successfully built Zillow and other brands into category leaders. In the past three years, we have added executive talent with deep experience in building transaction-focused real estate, mortgage and e-commerce businesses as well as sophisticated capital market financing. The skills and experiences of our management team provide strategic insights and abilities to deliver a seamless real estate transaction experience for our customers.
- *Strong Culture of Innovation and Inclusion.* Zillow Group has built an award-winning culture of collaboration and innovation that is committed to employee equity and creating an environment where employees feel valued, supported and that they belong. Zillow Group has been recognized for our commitment to these efforts, being named on the “Corporate Equality Index 2020” with a score of 100 and “Best Place to Work for LGBTQ Equality” by the Human Rights Campaign Foundation. Additionally, in 2020, Zillow Group was named one of the Best Workplaces in the technology industry for Millennials, for Parents, in the Bay Area and in New York by Great Place to Work®. Zillow Group was also named one of the Fortune 100 Best Companies to Work For® 2019 and was included on Bloomberg’s “2020 Gender Equality Index”.
- *Strong Financial Position.* Zillow has a strong balance sheet and a large and growing IMT business that generates substantial cash flow to help finance the expansion of our transaction-related businesses. We also have access to multiple sources of capital to fund our investments.

Total Addressable Market

We participate in large addressable markets of buying, selling, renting and financing residential real estate in the U.S. As we continue to expand into transaction-related services, our TAM has expanded from \$19 billion in U.S. real estate related advertising according to a 2019 Borrell Association report to \$2.2 trillion of annual home sales (according to the 2020 U.S. Census Bureau and National Association of REALTORS®) in the largest asset class in the country, in which we participate directly through buying and selling homes through Zillow Offers as well as through Zillow-referred transactions, facilitated by our Premier Agent partners. In addition, Zillow is offering essential adjacent services for Zillow Offers transactions, including mortgages through Zillow Home Loans and title and escrow closing services through Zillow Closing Services. U.S. mortgage origination revenue represents a \$156 billion annual opportunity (according to a 2020 Mortgage Bankers Association Report), while title and escrow represents another \$32 billion annual opportunity (according to IBISWorld in 2020).

With nearly half of all people looking to buy also considering renting (according to the Zillow Group 2020 Consumer Housing Trends Report), our complementary rentals marketplace also participates in a nearly \$50 billion annual property management services industry (according to IBISWorld in 2020) by assisting our partners with listings, advertising, and leasing services in a market of nearly 43 million rental units in the U.S. (according to the 2020 U.S. Census’ Current Population Survey).

We also may explore additional adjacent opportunities in the future, including but not limited to, home insurance (\$106 billion TAM according to IBISWorld 2020), home warranties (\$3 billion TAM according to IBISWorld in 2020), home renovation services (\$339 billion TAM according to a 2020 housing study conducted by Harvard University) and moving services (nearly \$14 billion TAM according to IBISWorld in 2020).

Seasonality

Portions of our business may be affected by seasonal fluctuations in the residential real estate market, advertising spending, and other factors. Traffic to our mobile applications and websites has historically peaked during the spring and summer months, consistent with peak residential real estate activity. For further discussion on seasonality, see our Quarterly Results of Operations in Part II, Item 7 of this Annual Report on Form 10-K.

Competition

Our business depends on our ability to successfully attract, retain and provide customers with products and services that make real estate transactions faster, easier and less stressful.

The residential real estate landscape is highly fragmented and competitive from the beginning of the search process through the closing of a transaction, typically with single point service providers, with new entrants joining at a rapid pace. According to the 2020 U.S. Census Bureau and National Association of REALTORS®, 6.5 million existing and new homes were sold in the U.S., with over 106 thousand real estate brokerages (according to the National Association of REALTORS®) and over 50 thousand mortgage lenders (according to the 2020 Nationwide Mortgage Licensing System Industry Report) providing their services across the 597 different Multiple Listing Services that span the country (according to the Real Estate Standards Organization in 2020). To date, Zillow Offers makes up less than 0.1% of the housing transactions in the U.S. and Zillow Home Loans makes up less than 0.1% of the mortgages originated in the U.S.

We compete for customers with companies that provide technology, products, and services for real estate focused customers. Factors that may influence customer decisions include the quality of the experience, value and utility of the services offered, the breadth, depth and accuracy of information available, and brand awareness and reputation. For example, our Zillow Offers business competes for customers based on price, convenience and level of service provided with companies and individuals whose primary service is buying and selling homes. For customers shopping for a mortgage, Zillow Home Loans competes with other mortgage originators based on a combination of interest rates, origination fees, product selection and the level of service we provide.

In addition, our business depends on our ability to attract and retain leading industry partners to advertise and provide services to our customer base. We compete for real estate partners based on the perceived transaction readiness of customers, return on investment, price and product offerings and the effectiveness and relevance of our products and services. Based on these and other factors, real estate partners could select other companies dedicated to providing real estate, rental, new construction and mortgage information and services to real estate professionals, local brokerage sites and major internet portals, general search engines, e-commerce and social media sites. We also compete for a share of our partners' overall marketing budgets with traditional media as well as word-of-mouth referrals and leads from yard signs and other marketing.

Intellectual Property

We regard our intellectual property as a key differentiator that is critical to our success and rely on a combination of intellectual property laws, trade-secret protection, and contractual agreements to protect our proprietary technology and data.

Our Zestimate, which we consider to be a significant competitive advantage with respect to customer engagement, leverages patented, proprietary, automated valuation models to provide real-time home value estimates. As of December 31, 2020, we have 48 patents of varying lengths issued and 76 patent applications pending in the U.S. and internationally. These patents cover a variety of proprietary techniques relevant to our products and services, including determining a current value for real estate property and the collection, storage and display of home attribute values and creating Zillow 3D home tours and floor plans.

In addition, awareness and loyalty to our brand enables us to effectively attract and retain our customers. To support our brand, we have registered, or applied for the registration of, trademarks, service marks and copyrights in the U.S. and several other jurisdictions, including “Zillow,” “Zestimate,” and the Z in a house logo. We are also the registered holder of a variety of domestic and international domain names. We have licensed in the past, and expect that we may license in the future, certain of our proprietary rights to third parties.

To further protect our proprietary rights, we enter into confidentiality and proprietary rights agreements with our employees, consultants, contractors and business partners. Our employees and contractors are also subject to invention assignment provisions. We control the use of our proprietary technology, data and intellectual property through provisions in both our general and product-specific terms of use and other restrictions on our mobile applications and websites.

Government Regulation

We operate in an increasingly complex legal and regulatory environment. Our business and the products and services that we offer are affected by a continually expanding and evolving range of local, state, federal, and international laws and regulations. For additional information on government regulation refer to Part I, Item 1A (Risk Factors) of this Annual Report on Form 10-K.

Human Capital Resources

At Zillow, we believe that our long-term success is dependent upon attracting, developing and retaining talented employees, and maintaining a culture that allows each employee to do their best work. We value integrity, accountability, collaboration, creativity, respect and transparency as central to our core values.

As of December 31, 2020, we had 5,504 full-time employees. Our internal data shows that 57.3% of our workforce self-identified as men and 42.7% self-identified as women, with women representing 34.9% of our leadership team (defined as director level and above). The ethnicity of our workforce was 61.7% White, 20.7% Asian, 7.1% Latinx, 5.2% Black and 5.3% for all other races. For leadership, the breakdown was 76.6% White, 14.7% Asian, 3.1% Black, 1.8% Latinx and 3.8% for all other races. The diversity of our workforce and leadership team continues to be an area of focus.

Zillow as a Distributed Workforce

Our focus on employees has been critically important in light of the unique challenges in 2020 brought on by the COVID-19 pandemic. We are redefining the employee experience and the future of flexible work. In April 2020, we announced that most of our employees would have the flexibility to work from home through the remainder of 2020. In July 2020, we extended that flexibility indefinitely by announcing a permanent move to a distributed workforce for most employees. As we have transitioned to a remote-first workforce, we are also using this opportunity to diversify our workforce, as we are no longer bound by the geographic limits of our physical workspaces.

We expect that our offices will continue to be a place for teams to come together to enable productivity and collaboration. We are working to reimagine our physical workspaces to provide more space for collaboration and engagement when our employees do come into an office.

We are also restructuring our remote work to more effectively use our time together and provide more opportunities to work asynchronously. By implementing core collaboration hours, we are resetting the expectation of availability and providing greater flexibility in how we work.

Equity and Belonging

We are committed to creating a workplace where diversity of gender, gender identity, age, race, ethnicity, sexual orientation, national origin, disability, military status and religion are represented, embraced and respected. Our dedicated Equity and Belonging team empowers Zillow employees to build a strong community, amplify underrepresented voices, and foster a company culture where everyone can learn, grow and thrive. We maintain equity and belonging programs that include unconscious bias training, nine employee-led affinity networks for community members and allies, and support diversity in our recruitment practices and inclusive job descriptions.

Pay Equity

To support gender and under-represented pay equity, we complete a comprehensive annual evaluation with the commitment to disclose results publicly on our corporate website. Based on our assessment of compensation in 2020, we have maintained pay parity between genders doing similar work. We are included in the 2020 Bloomberg Gender Equality Index, which measures equality across internal company statistics, employee policies and practices and external community support and engagement.

Career and Leadership Development

At Zillow, we believe each of our employees should have the tools and support they need to grow their careers through experiences, resources and connections. We have a dedicated Learning and Development team, which creates educational resources and conducts training on a wide range of topics including effective communication, collaboration, as well as a sophisticated leadership training program with focused learning tracks for both new managers and experienced leaders. As we look to empower and develop our distributed workforce, we have transitioned all of our training to be virtual and launched Zillow University, our new online training portal. Zillow employees have completed nearly 90,000 hours of content on Zillow University and LinkedIn learning in 2020.

In 2020, we launched our Leadership Blueprint, a new leadership development guide that outlines our leadership philosophy, our expectations for leaders, and the behaviors that are essential to create a consistent leadership experience at Zillow. The blueprint sets expectations of the leadership behaviors we value at Zillow and provides the foundation of our leadership development programs. Our five expectations are:

- Act Decisively and Strategically
- Create Clarity from Ambiguity
- Expect the Best from Self and Others
- Foster an Environment Where All Can Thrive, Today and Tomorrow
- Build Relationships Based on Trust, Transparency, and Shared Success

By creating clarity and providing tools to help managers determine where they can grow, we are working to instill strong, consistent leadership that will lead us into the workplace of the future.

Total Rewards

Zillow's competitive, market-based compensation program focuses on pay-for-performance, instilling ownership by utilizing a broad-based equity approach. In addition, our class-leading benefits are reflected in investments in physical, family, mental and financial wellness programs to meet the needs of our diverse base of employees. These benefits include remote workplace flexibility, competitive health care coverage, fully paid maternity and paternity leave, a sabbatical program, wellness reimbursements, tuition support and COVID-19 caregiver resources. In 2020, in response to the demands placed on many as a result of the COVID-19 pandemic, we expanded our caregiver leave program to also include up to 10 days of leave with no impact to pay and a temporary three-month reduced schedule with a reduced pay option.

Where You Can Find More Information

Our filings with the Securities and Exchange Commission, or SEC, including our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports, are available on the "Investors" section of our website at www.zillowgroup.com, free of charge, as soon as reasonably practicable after the electronic filing of these reports with the SEC. The information contained on our website is not a part of this Annual Report on Form 10-K or any other document we file with the SEC.

Investors and others should note that Zillow Group announces material financial information to its investors using its press releases, SEC filings and public conference calls and webcasts. Zillow Group intends to also use the following channels as a means of disclosing information about Zillow Group, its services and other matters and for complying with its disclosure obligations under Regulation FD:

- Zillow Group Investor Relations Webpage (<http://investors.zillowgroup.com>)
- Zillow Group Investor Relations Blog (<http://www.zillowgroup.com/ir-blog>)
- Zillow Group Twitter Account (<https://twitter.com/zillowgroup>)

The information Zillow Group posts through these channels may be deemed material. Accordingly, investors should monitor these channels, in addition to following Zillow Group's press releases, SEC filings and public conference calls and webcasts. This list may be updated from time to time. The information we post through these channels is not a part of this Annual Report on Form 10-K or any other document we file with the SEC, and the inclusion of our website addresses and Twitter account are as inactive textual references only.

Item 1A. Risk Factors.

Risk Factor Summary

Below is a summary of the principal factors that make an investment in Zillow Group speculative or risky. This summary does not address all of the risks that we face. Additional discussion of the risks summarized in this risk factor summary, and other risks that we face, can be found below, after this summary, and should be carefully considered, together with other information in this Annual Report on Form 10-K and our other filings with the Securities and Exchange Commission ("SEC") before making an investment decision regarding Zillow Group, including investment in our Class A common stock or Class C capital stock.

Risks Related to Our Business and Industry:

- The COVID-19 pandemic has impacted our business and may continue to impact our business depending on the magnitude, duration, and severity of the pandemic and actions taken by governments, businesses, and individuals in response to the pandemic and the availability and widespread distribution and use of effective vaccines.
- Our business may be impacted by the current and future health and stability of the economy and residential housing market, including any extended slowdown in the real estate markets as a result of COVID-19.
- Our business could be harmed if our real estate partners reduce or end their advertising spending with us or if we are unable to effectively manage advertising inventory or pricing.
- Zillow Offers is an unproven business model that relies on our ability to accurately value homes and manage inventory, depends on access to desirable inventory and our ability to expeditiously sell inventory, relies on third parties to renovate and repair homes before resale, and homes we buy may decline in value and result in inventory write downs.
- We may not be able to establish or maintain relationships with listing and data providers.
- If we do not comply with MLS rules and requirements, our use of listings data may be restricted.
- Our success depends on our ability to continue to innovate and compete successfully to attract customers and real estate partners.
- Zillow Home Loans may be unable to obtain or maintain sufficient financing to fund its origination of mortgages, may not meet customers' financing needs with its product offerings, may not be able to continue to grow its mortgage origination business, depends on United States government-sponsored entities and government agencies, operates in a highly regulated industry, and may be impacted by interest rate fluctuations.
- Natural disasters and catastrophic events may harm our business.
- If our data integrity suffers harm, our business may suffer and we may be held liable.
- Pending or future litigation may harm our business.
- Our success depends on attracting and retaining a highly skilled workforce.
- Acquisitions, investments, strategic partnerships, capital-raising activities, or other corporate transactions or commitments by us or our competitors could harm our business;
- Our fraud detection processes and information security systems may not be effective.
- We are subject to multiple risks related to accepting credit and debit card payments.

Risks Related to Our Intellectual Property

- If our security measures or technology systems are compromised or there is any significant disruption in service on our platforms or in our network, we may suffer significant losses and our business may be harmed.
- We rely on third-party services to support critical functions of our business.
- We may be involved in costly intellectual property disputes and may be unable to adequately protect our intellectual property.
- We may be unable to adequately protect or continue using our intellectual property or prevent others from copying, infringing upon, or developing similar intellectual property.
- Confidentiality agreements with employees may not prevent disclosure of our proprietary information.

Risks Related to Regulatory Compliance and Legal Matters

- If we fail to comply with laws and regulations or to obtain or maintain required licenses, our business and operations could be harmed.
- We may be involved in proceedings that may result in adverse outcomes.

Risks Related to Our Financial Position

- We have incurred significant operating losses in the past and may not be profitable over the long term.
- We may not be able to pay our substantial debt, settle conversions of our senior convertible notes, or repurchase our senior convertible notes upon a fundamental change.
- Credit and debt facilities for Zillow Offers and Zillow Home Loans may subject us to interest rate risk and include provisions that may restrict our operating activities and harm our liquidity.
- We may not be able to raise additional capital on acceptable terms, or at all.
- Real or perceived inaccuracies in assumptions, estimated and data used to calculate our business metrics may harm our business or reputation.
- We expect our results of operations to fluctuate quarterly and annually.
- We could be subject to additional income tax liabilities and our ability to use net operating loss carryforwards and other tax attributes may be limited.

Risks Related to Ownership of Our Common and Capital Stock Instruments

- Our Class A common stock and Class C capital stock prices may be volatile and their value may decline.
- The structure of our capital stock concentrates voting control with our founders.
- Future sales of our stock could cause our stock price to decline.
- Securities or industry analyst research and reports may affect our stock price and trading volume.
- Any additional equity securities or convertible debt we issue may dilute shareholders' investments.
- Currently outstanding and future use of capped call transactions may affect the value of our outstanding senior convertible notes and our Class C capital stock.
- Anti-takeover provisions could prevent the acquisition of us, limit shareholders' ability to affect management, and affect the price of our stock.

Our business is subject to numerous risks. You should carefully consider the following risk factors, as any of these risks could harm our business, results of operations, and future financial performance. Recovery pursuant to our insurance policies may not be available due to policy definitions of covered losses or other factors, and available insurance may be insufficient to compensate for damages, expenses, fines, penalties, and other losses we may incur as a result of these and other risks. In addition, risks and uncertainties not currently known to us or that we currently deem to be immaterial may materially and adversely affect our business, financial condition and operating results. If any of these risks occur, the trading price of our common and capital stock could decline, and you could lose all or part of your investment.

Risks Related to Our Business and Industry

COVID-19 Has Impacted Our Business and the Extent to Which it Will Continue to Impact Our Business, Financial Condition and Results of Operations Will Depend on Future Developments, Which Are Highly Uncertain and Cannot Be Predicted.

The COVID-19 pandemic, its broad impact and preventive measures taken to contain or mitigate the pandemic have had, and are likely to continue to have, significant negative effects on the United States and global economy, employment levels, employee productivity, residential real estate and financial markets. This, in turn, has and may increasingly have a negative impact on our real estate partners, suppliers, demand for our products and services, the ability of customers to effectuate real estate transactions, profitability, the value of collateral securing loans, our ability to resell loans on the secondary market, access to credit and our ability to operate our business.

In 2020, in response to these unprecedented circumstances, we temporarily paused home buying activities through Zillow Offers, provided certain product discounts, temporarily closed offices, paused hiring for non-critical roles, paused the majority of our marketing and advertising activities and reduced discretionary spending. Although we have, among other things, resumed home buying in all Zillow Offers markets and began to increase our hiring, marketing and advertising activities, we cannot predict the scope and duration of the pandemic, actions taken by governmental authorities in response to the pandemic, the impact to our business of changes to home buying, selling, renting, financing and shopping trends due to the pandemic, or whether and to what extent we will have to implement additional operational changes in light of COVID-19 in the future.

In addition, our ability to fund our liquidity requirements and operate our business depends on our cash flows from operations as well as our ability to access capital markets and borrow on our existing credit facilities. For example, the provision of certain product discounts and pause of home buying activities through Zillow Offers in 2020 has and may continue to disrupt our revenue and operating cash flow levels. Further, our access to and the availability of financing on acceptable terms may be adversely impacted by the pandemic. For more information on the impact the COVID-19 pandemic has had on our liquidity position and outlook, please see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources.”

As a result of these and other consequences, the pandemic has and may continue to adversely affect our business, results of operations and financial condition, possibly significantly. The extent to which COVID-19 will impact our operations will depend on future developments, which are highly uncertain and cannot be predicted at this time, and include the magnitude, duration and severity of COVID-19, the actions taken to contain or mitigate any outbreaks and any associated economic downturn or extended slowdown in the real estate markets and the availability and widespread distribution and use of effective vaccines.

Our Business and Operating Results May Be Significantly Impacted by the Health of the United States Residential Real Estate Industry and May Be Negatively Affected by Downturns in This Industry and General Economic Conditions.

The success of our business depends, directly and indirectly, on the health of the United States residential real estate market. The health of the United States residential real estate market is affected, in part, by general economic conditions beyond our control. A number of factors could have a negative effect on the industry and harm our business, including the following:

- downturns in the United States residential real estate market – both seasonal and cyclical – which may be due to one or more factors, whether included in this list or not;
- the continuing and future impact of the COVID-19 pandemic on the residential real estate market, including home buying, renting, selling, financing, and shopping trends and any actions taken by governmental authorities in response to the pandemic;
- changes in international, national, regional, or local economic, demographic, or real estate market conditions;
- slow economic growth or recessionary conditions;
- increased levels of unemployment and/or slowly growing or declining wages;
- declines in the value of residential real estate and/or the pace of home appreciation, or the lack thereof;
- illiquidity in residential real estate;
- overall conditions in the housing market, including macroeconomic shifts in demand, and increases in costs for homeowners such as property taxes, homeowners association fees and insurance costs;
- low levels of consumer confidence in the economy and/or the United States residential real estate industry;
- inflationary conditions;
- low home inventory levels or lack of affordably priced homes;
- increased mortgage rates or down payment requirements and/or restrictions on mortgage financing availability;
- federal, state, or local legislative or regulatory changes that would negatively impact rental properties or the residential real estate industry, such as the Tax Cuts and Jobs Act of 2017 (the “Tax Act”), which limited deductions of certain mortgage interest expenses and property taxes;
- volatility and general declines in the stock market; and/or
- natural disasters, such as hurricanes, earthquakes, wildfires, and other events that disrupt local, regional, or national real estate markets.

If Real Estate, Rental and Mortgage Professionals, Home Builders or Other Real Estate Partners Reduce or End Their Advertising Spending With Us or if We Are Unable to Effectively Manage Advertising Inventory or Pricing, Our Business Could Be Harmed.

Our business depends in part on revenue generated through sales of advertising products and services to real estate agents and brokerages, rental professionals, mortgage professionals, home builders, and other real estate partners in categories relevant to real estate. Our ability to attract and retain real estate partners, and ultimately to generate advertising revenue, depends on a number of factors, including how successfully we can:

- increase the number of customers who use our products and services to effectuate transactions and the frequency of their use, provide them with tools to promote engagement between real estate market participants, and enhance their user experience so we can retain them;
- offer an attractive return on investment to our real estate partners for their advertising spending with us;
- continue to develop our advertising products and services to increase adoption by and engagement with our real estate partners;
- keep pace with and anticipate changes in technology to provide industry-leading products and services to real estate partners and customers; and
- compete effectively for advertising dollars with other options.

Premier Agent revenue accounted for 31% of total revenue for the year ended December 31, 2020. This level of revenue concentration suggests that even modest decreases in individual spending across the real estate partner population, caused by actual or perceived decreases to return on investment, preference for a competitive service, or other factors, could have a significant negative impact on our ability to use proceeds from our Premier Agent business to invest in our other businesses, which we view as a key competitive advantage. Any such decreases in spending could also adversely affect our results of operations. We do not have long-term contracts with most of our real estate partners. Our real estate partners could choose to modify or discontinue their relationships with us with little or no advance notice. For example, our auction-based account interface for Premier Agent partners allows agent partners to independently control the duration of their advertising commitments and our Premier Agent Flex program only requires Premier Agents to pay when a lead converts to a closed transaction.

We may not succeed in retaining existing real estate partners' spending or capturing a greater share of such spending if we are unable to convince real estate partners of the effectiveness or superiority of our products as compared to alternatives. In addition, we continually evaluate and utilize various pricing and value delivery strategies in order to better align our revenue opportunities with the growth in usage of our mobile and web platforms. For example, in October 2018, we began testing our Flex pricing model for Premier Agent and Premier Broker advertising services in limited markets. We now offer this pricing model to select partners, and provide it alongside our legacy market-based pricing model. With the Flex model, Premier Agents and Premier Brokers are provided with impressions and connections and no upfront cost and they pay a performance advertising fee only when a real estate transaction is closed with one of those validated leads. To estimate variable consideration for Flex, we primarily use historical conversion data to develop our expectation of the number of leads that will result in closed transactions and the performance fee per transaction. Our estimation methodology may be inaccurate and some or all of the revenue we recognize when leads are transferred to Flex agents may be reversed. The Flex pricing model may not be successful and may result in a decrease in advertising spend from our real estate partners. Future changes to our pricing or lead delivery methodologies for advertising services or product offerings may cause real estate partners to reduce or end their advertising with us or negatively impact our ability to manage revenue opportunities. If real estate partners reduce or end their advertising spending with us, or if we are unable to effectively manage inventory and pricing, our advertising revenue and business, results of operations and financial condition could be harmed.

Zillow Offers is an Unproven Business Model and Could Fail to Achieve Expected Results and Cause Harm to Our Financial Results, Operations, and Reputation.

Through Zillow Offers, we purchase homes, make certain repairs and updates and sell homes back into the market. Zillow Offers has grown rapidly since we started offering the service in April 2018 and it may expose us to a variety of financial, legal, and reputational risks. The Zillow Offers business model and technology is still nascent compared to the business model of the incumbents in the United States residential real estate industry. Our Zillow Offers operating results are not predictable, our historical Zillow Offers results may not be indicative of our future Zillow Offers results, and we may not be able to achieve the profitability that we desire or expect. While many companies are exploring similar business models, none have established long-term track records that might assist us in predicting whether our Zillow Offers business model and strategy can be implemented and sustained over an extended period of time. It may be difficult to evaluate the potential future performance of Zillow Offers without the benefit of established long-term track records from companies implementing a similar business model. We may encounter unanticipated problems as we continue to refine our Zillow Offers business model, which may cause us to fail to achieve expected results and may adversely affect our financial results, operations, and reputation.

Our Zillow Offers Business Depends on Our Ability to Accurately Value Homes and Manage Inventory and a Failure to Do So May Have an Adverse Effect on Our Business and Financial Results.

The success of Zillow Offers depends in part on our ability to efficiently acquire, renovate and sell properties. We underwrite and price the homes we buy and sell through Zillow Offers using in-person evaluations and data science and proprietary algorithms based on a number of factors, including our knowledge of the real estate markets in which Zillow Offers operates. These assessments include the estimated time from purchase to sale, the cost of updating a home, market conditions and potential resale proceeds, closing costs and holding costs. These assessments may be inaccurate. Our pricing model may not account for submarket nuances – for example, the location of a home on a hill or in a building – which could have a significant impact on price. If valuations are too low and/or fees are too high, conversion rates and customer satisfaction may be adversely impacted, as our offers may not be competitive. In addition, we may not discover latent home construction defects or environmental hazards or other conditions requiring remediation or impacting the value of the home in a timely manner, or at all, which may require us to write down the inventory value of those homes or prevent us from reselling them for the price we anticipated or at all. We may be unable to acquire or sell inventory at attractive prices, in a timely manner, or at all. We may also be unable to finance and manage inventory effectively. As a result, our revenue, gross profit and results of operations may be affected, which could have an adverse effect on our business, results of operations, and financial condition.

If Our Zillow Offers Business is Unable to Obtain and Maintain Sufficient Financing to Support the Purchase of Homes, Our Financial Results May Suffer.

We primarily utilize credit facilities with a limited number of counterparties to provide capital for the growth and operation of our Zillow Offers business, including to finance the purchase of homes. If we fail to maintain adequate relationships with potential financial sources or we are unable to renew, refinance or extend our existing credit facilities on favorable terms or at all, we may be unable to maintain sufficient inventory, which would adversely affect our Zillow Offers business and our results of operations. In addition, undrawn amounts available under our credit facilities are generally not committed, meaning the applicable lender is not committed, but may in its discretion, advance loan funds in excess of the outstanding borrowings. Obtaining new or replacement funding arrangements may be at higher interest rates or other less favorable terms. Our financing sources are not required to extend the maturities of our financing arrangements and if a financing source is unable or unwilling to extend financing, and other financing sources are unable or unwilling to make or increase their financing commitments, then we will be required to repay the outstanding balance of the financing on the related maturity date. If realized, any of these financing risks could negatively impact our business, results of operations and financial condition.

Our Zillow Offers Business is Dependent Upon Access to Desirable Inventory. Obstacles to Acquiring Attractive Inventory Because of Supply, Competition, or Other Factors May Have an Adverse Effect on Our Business and Financial Results.

We primarily acquire homes directly from consumers and there can be no assurance of an adequate supply of such homes on terms that are attractive to us or meet the criteria required under our financing arrangements. There can be no assurance that the supply of desirable homes will be sufficient to meet our needs. A reduction in the availability of or access to inventory could have an adverse effect on our business, sales and results of operations. In addition, we evaluate thousands of potential homes daily using our proprietary pricing model and there can be no assurance that we will be able to acquire homes to meet our needs at the prices we expect. If we do not adjust our pricing to stay in line with broader market trends, fail to recognize those trends, are unwilling to acquire homes priced higher than we expect, or do not otherwise broaden our acquisition standards, it could adversely affect our ability to acquire inventory. We remain dependent on customers to sell us homes. We may acquire homes priced above our expectations or pay more than expected to renovate homes, which may adversely impact our profitability and results of operations.

Our ongoing ability to acquire homes is critical to our business model. A lack of available homes that meet our purchase criteria may affect our ability to scale. Reductions in our acquisitions of homes may have adverse effects on our ability to reach our desired inventory levels, our desired portfolio diversification, and our results of operations. In response to the COVID-19 pandemic and the consequent health risks and public health orders, we temporarily paused home buying through Zillow Offers to protect the safety and health of our employees, customers, and partners. Although we resumed home buying in all of our Zillow Offers markets by early August 2020 and added a 25th market in Jacksonville, Florida in September 2020, and have substantially returned to pre-COVID-19 inventory levels in the short term, our home inventory levels may be negatively impacted by other events or factors in the future.

Increases in transaction costs to acquire properties, including costs of evaluating homes and making offers, title insurance and escrow service costs, changes in transfer taxes, rising interest rates, and any other new or increased acquisition costs, would have an adverse impact on our home acquisitions and our business.

Our Zillow Offers Business is Dependent Upon Our Ability to Expeditiously Sell Inventory. Failure to Expeditiously Sell Our Inventory Could Have an Adverse Effect on Our Business and Financial Results. Holding Homes in Inventory Exposes Us to Risks, Such as Increased Holding Costs.

Our purchases of homes through our Zillow Offers business are based in large part on our estimates of projected demand. If actual sales are materially less than our forecasts, we could experience an over-supply of inventory, which may cause downward pressure on our sales prices and profitability and increase our average days to sale. Our inventory of homes purchased has at times represented a significant portion of our total assets and holding those assets in the form of non-income producing homes inventory for an extended period of time subjects us to significant holding costs, including financing costs, maintenance and upkeep expenses, insurance expenses, property tax expenses, homeowners association fees, other expenses that accompany the ownership of residential real property, and increased risk of depreciation of value. If we have excess inventory or our average days to sale increases, the results of our operations may be adversely affected because we may be unable to liquidate such inventory at prices that allow us to meet profitability targets or to recover our costs.

Certain Factors May Reduce Customer Confidence in our Zillow Offers Business, Which May Adversely Impact Our Business, Financial Results, and Reputation.

The actual or perceived quality of the homes we sell may be poor due to factors both within and beyond our control, such as our decision to make certain upgrades but not others, the actual or perceived quality of the upgrades we make, and latent defects in properties. Properties may experience unsafe conditions while we own them or soon after we resell them, which may cause harm to person or property. We may be subject to new legal, regulatory, and other requirements and local ordinances, as well as disputes with customers, service providers, and others arising from our purchase, renovation, or resale of properties. Listings for the homes we sell may be inaccurate. These and other factors may reduce customer confidence in our services, which may negatively impact our business, financial results, and reputation.

Our Zillow Offers Business Relies on Third Parties to Renovate and Repair Homes Before Resale, and the Cost, Quality, or Availability of Third-Party Labor Could Adversely Affect Our Holding Period and Investment Return for Homes.

Our Zillow Offers business relies on local and national third-party general contractors, vendors and service providers to make upgrades to and perform maintenance on homes prior to resale, and we can provide no assurances regarding the quality of their work, that we will have uninterrupted or unlimited access to their services or that we will be able to effectively control the timing and costs of their projects. If we do not select and maintain appropriate third parties to provide these services, our reputation and financial results may suffer. Further, if the quality of a third-party provider's work does not meet our expectations, we may need to engage another third-party provider, which may extend the timeline or expand the budget for completing renovations or repairs.

A longer than expected period for completing renovations or repairs could negatively impact our ability to sell a home within our anticipated timeline. This prolonged timing exposes us to factors that adversely affect the home's resale value and may result in 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 could adversely affect our investment return on purchased homes. Furthermore, any undetected issues with a third-party provider's work may adversely affect our reputation and consumer confidence.

Declining Property Valuations Could Result in Recording Inventory Write-Downs and May Adversely Affect our Financial Condition and Operating Results.

Home prices can be volatile and the value of our inventory may fluctuate in response to seasonality, consumer demand, changes in economic conditions and other factors, and as a result we may be required to write down our inventory if net realizable value is lower than cost. We regularly review the value of our inventory to determine whether their value has decreased such that it is necessary or appropriate to record a write-down in the relevant accounting period. Such a loss would result in a decrease (increase) in our net income (loss) in the applicable accounting period and would be reflected as a decrease in the value of our inventory on the consolidated balance sheets. If we do not determine that it is appropriate to record a write-down, a property could still decline in value, resulting in reduced return from the property, which would adversely affect our Zillow Offers business and financial results.

We May Not Be Able to Maintain or Establish Relationships With Real Estate Brokerages, Real Estate Listing Aggregators, Multiple Listing Services, Property Management Companies, Home Builders and Other Third-Party Listing Providers, Which Could Limit the Information We Have to Power Our Products and Services.

Our ability to attract customers to our mobile applications, websites and other tools depends to some degree on providing timely access to comprehensive and accurate real estate listings and information. To provide these listings and this information, we maintain relationships with real estate brokerages, real estate listing aggregators, multiple listing services ("MLSs"), property management companies, home builders, other third-party listing providers and homeowners and their real estate agents to include listing data in our services. Many of our agreements with real estate listing providers are short-term agreements that may be terminated with limited notice or cause. Many of our competitors and other real estate websites have similar access to MLSs and listing data, and may be able to source real estate information faster or more efficiently than we can. Another industry participant or group could create a new listings data service, which could impact the relative quality or quantity of information of our listing providers. The loss of existing relationships with MLSs and other listing providers, whether due to termination of agreements or otherwise, changes to our rights to use or timely access listing data or an inability to continue to add new listing providers or changes to the way real estate information is shared, may negatively impact our listing data quality. This could markedly decrease the quantity and quality of the sale and rental data we provide, reduce consumer confidence in our products and services and cause customers to go elsewhere for real estate listings and information, which could severely harm our business, results of operations and financial condition.

If We Fail To Comply With the Rules and Compliance Requirements of MLSs, Our Access to and Use of Listings Data May Be Restricted or Terminated.

Our subsidiaries that are MLS members (the “MLS Members”) must comply with each MLS’s rules and compliance requirements to access and use its listings data. Each MLS that the MLS Members belong to has adopted its own rules, policies, and agreement terms governing, among other things, how MLS data may be used and how listings data must be displayed on our websites and mobile applications. The MLS Members are also subject to new compliance operations requirements and, as a result, must respond to complaints lodged by the MLS or other MLS participants on required timelines. The MLS rules and compliance requirements may not contemplate multi-jurisdictional licensed brokerage entities. MLS rules vary among markets and are in some cases inconsistent between MLSs, such that we are required to customize our websites, mobile applications, or services to accommodate differences between MLS rules. Handling complaints received by the MLS Members across markets may create heightened operational or financial risks with short response and resolution deadlines. Complying with the rules and compliance requirements of each MLS requires significant investment, including personnel, technology and development resources, and the exercise of considerable judgment. Rules and compliance requirements of MLSs may be changed across markets, including potential for targeted changes in response to our operations. If any of the MLS Members are deemed to be noncompliant with an MLS’s rules or to have provided improper responses to or resolution of complaints, they may face disciplinary sanctions by 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 mobile applications and websites, which could severely harm our business, results of operations and financial condition.

We May Not Be Able to Maintain or Establish Relationships With Data Providers, Which Could Limit the Information We Are Able to Provide to Our Customers and Impair Our Ability to Attract or Retain Customers.

We obtain certain real estate data, such as transaction history, property descriptions, tax-assessed value and property taxes paid, under licenses from third-party data providers. We use this data to enable the development, maintenance and improvement of our marketplace and information services, including Zestimates, Rent Zestimates and our living database of homes and to power the pricing algorithms that we use for our Zillow Offers business. We have invested significant time and resources to develop proprietary algorithms, valuation models, software and practices to use and improve on this specific data. We may be unable to renew our licenses with these data providers or enter into new data license agreements, or we may be able to do so only on terms that are less favorable to us, which could harm our ability to continue to develop, maintain and improve these information services and could harm our business, results of operations and financial condition.

If We Do Not Innovate or Provide High-Quality Products and Services That Deliver Efficient and Integrated Transaction Experiences to Our Customers and Real Estate Partners, Our Business Could Be Harmed.

Our success depends on our continued innovation to provide new, and improve upon existing, products and services that make real estate transactions faster, easier and less stressful for our customers and provide value to real estate, rental and mortgage professionals, home buyers and our other real estate partners. As a result, we must continually invest significant resources in research and development to improve the attractiveness and comprehensiveness of our products and services, enable smoother and more efficient real estate transactions, adapt to changes in technology and support new devices and operating systems. If we are unable to provide products and services that our customers want to use, on the devices they prefer, then those customers may become dissatisfied and use competitors’ mobile applications, websites, products and services. If our customers begin to access more real estate information and services through other media and we fail to innovate, our business may be negatively impacted. If we are unable to continue offering high-quality, innovative products and services, we may be unable to attract additional customers and real estate partners or retain our current customers and real estate partners, which could harm our business, results of operations and financial condition.

We Face Competition for Customers in the Real Estate Category, Which Could Impair Our Ability to Attract Users of Our Mobile Applications, Websites and Other Products and Services, Which Could Harm Our Business, Results of Operations and Financial Condition.

Our business model depends on our ability to continue to attract customers to our mobile applications, websites, real estate services and other services and enhance their engagement with our products and services in a cost-effective manner. In addition, our ability to be successful depends, in part, on attracting customers who have historically shopped for or bought, sold, rented, or financed their homes through more traditional channels. New entrants continue to join the real estate space at a rapid pace and the tools and services for buying, selling, renting, or financing homes are significantly less developed than in other industries, such as books, music, travel and other consumer products. Our existing and potential competitors include companies that operate, or could develop, national and local real estate, rental, new construction and mortgage businesses. Such competitors range from companies offering traditional offline advertising media, like newspapers, to new mobile- or web-only technology companies and from real estate investors, like institutional investors and iBuyers, to mortgage lenders and title and settlement service providers. These companies could devote greater financial, technical and other resources than we have available to real estate services, sales, advertising or research and development, have a more accelerated time frame for deployment or leverage their existing customer bases and proprietary technologies to provide products and services that customers might view as superior to our offerings. Any of our future or existing competitors may introduce different services or solutions that attract customers or provide services or solutions similar to our own but with better branding or marketing resources. If the use of online products and services for buying, selling, renting, or financing residential real estate does not continue to develop and grow or we are not able to continue to attract customers to our mobile applications, websites, real estate services and other services, our business, results of operations and financial condition could be harmed.

We May Not Be Able to Compete Successfully Against Our Existing or Future Competitors in Attracting Customers for Our Products and Services or Real Estate Partners, Which Could Harm Our Business, Results of Operations and Financial Condition.

We face intense competition in each of our lines of business. We compete with a variety of real estate transaction service providers to attract customers engaging in real estate transactions and we also compete with traditional and online or mobile media sources to attract real estate partners. Please see “Competition” under Part 1, Item 1 of this Annual Report on Form 10-K for a general discussion of the competitive conditions in each of our businesses.

Competitors for our real estate transaction services include real estate brokers, real estate investors, mortgage lenders, mortgage brokers, financial institutions, and title and settlement service providers. Many of these competitors may have considerable competitive advantages, including longer operating histories, more extensive financial resources, stronger brand equity, more industry experience and greater knowledge and expertise. As a result, these competitors may have an advantage in attracting customers, recruiting highly skilled personnel, and growing or maintaining their businesses. They may also provide real estate transaction customers with services and experiences superior to or more cost-effective than ours.

We compete against mobile applications and websites dedicated to providing real estate, rental, new construction and mortgage information and services to real estate professionals and customers, major internet portals, general search engines, e-commerce and social media sites as well as other technology and media companies. We also compete for a share of our real estate partners’ overall marketing budgets with traditional media such as television, magazines, newspapers and home/apartment guide publications, particularly with respect to advertising dollars spent at the local level by real estate professionals to advertise their qualifications and listings. Large companies with significant brand recognition have large numbers of direct sales personnel and substantial proprietary advertising inventory and mobile application and website traffic, which may provide a competitive advantage. To compete successfully for real estate transaction partners against future and existing competitors, we must continue to invest resources in developing our advertising platform and proving the effectiveness and relevance of our advertising products and services. Pressure from competitors seeking to acquire a greater share of our real estate partners’ overall marketing budget could adversely affect our pricing and margins, lower our revenue and increase our research and development and marketing expenses.

If we are unable to compete successfully against our existing or future competitors, we could lose or fail to gain market share and our business, results of operations or financial condition would be harmed.

We Compete in a Dynamic Industry, and We May Invest Significant Resources to Pursue Strategies and Develop New Products and Services That Do Not Prove Effective.

The industry for residential real estate transaction services, technology, information marketplaces and advertising is dynamic, and the expectations and behaviors of customers and professionals shift constantly and rapidly. We continue to learn a great deal about the behaviors and objectives of residential real estate market participants as the industry evolves and are investing significant resources to develop, test and launch products and services to address the needs of the market and improve the home buying, selling, financing, building and renting experience. Changes or additions to our products and services may not attract or engage our customers, and may reduce confidence in our products and services, negatively impact the quality of our brands, upset our partners or other industry participants, expose us to increased market or legal risks, subject us to new laws and regulations or otherwise harm our business. For example, Zillow Offers may not continue to engage home sellers and home buyers as we think it will. Further, if we do not realize the benefits we expect from the strategic relationships we enter into, including for example, the generation of additional advertising revenue opportunities, our business could be harmed. Customers may prefer other service providers because they offer different or superior services or those services are easier to use, faster or more cost effective than our services. We may not successfully anticipate or keep pace with industry changes, and we may invest considerable financial, personnel and other resources to pursue strategies that do not ultimately prove effective such that our results of operations and financial condition may be harmed.

If Zillow Home Loans is Unable to Obtain and Maintain Sufficient Financing to Fund Its Origination of Mortgages, Our Mortgages Business and the Mortgages Segment Financial Results May Suffer.

In October 2018, we acquired Zillow Home Loans, LLC (“Zillow Home Loans”), formerly Mortgage Lenders of America, L.L.C. (“MLOA”), a licensed mortgage lender. Zillow Home Loans funds substantially all of its lending operations using warehouse and repurchase facilities, intending to sell all loans and corresponding servicing rights to third-party financial institutions, government-sponsored entities or mortgage servicing rights purchasers after a holding period. A substantial portion of the amounts available under these warehouse and repurchase facilities are not committed, meaning the applicable lender is not obligated to, but may in its discretion, advance loan funds beyond the committed amounts up to the maximum borrowing capacity. Zillow Home Loans’ borrowings are then generally repaid with the proceeds it receives from mortgage sales. To maintain and grow its business, Zillow Home Loans depends, in part, on having sufficient borrowing capacity under its current facilities or obtaining additional borrowing capacity under new facilities. If Zillow Home Loans is not able to negotiate with its lenders to advance loan funds beyond the committed amounts under its warehouse and repurchase facilities or to otherwise obtain and maintain debt financing with sufficient capacity or flexibility on acceptable terms, and did not have sufficient cash on hand available, then Zillow Home Loans may be unable to maintain or increase the amount of mortgage loans that it originates, may be limited in the type or quantity of loans it can fund, borrowers may choose other mortgage lenders and its business may suffer. If Zillow Home Loans is unable to form or retain relationships with these third-party financial institutions to purchase its loans or to comply with any covenants in its agreements with these institutions, or is unable to do so on acceptable terms, it may be unable to sell its loans on favorable terms or at all. If Zillow Home Loans is unable to sell its loans or is required to repurchase the loans from third parties, it may be required to hold the loans for investment or sell them at a discount.

Zillow Home Loans Product Offerings May Not Meet Customers' Financing Needs, Which Could Cause Them to Use Other Lenders.

Zillow Home Loans currently offers a limited number of mortgage products to customers under conventional and government guaranteed loan programs. If these programs do not meet the financing needs of our customers, and we do not adapt to market changes and customer preferences, customers may opt to obtain financing from other lenders who offer different or more competitive rates or loan products. Similarly, if any of the government sponsored entities amend the terms of an existing loan program, cease offering the program, limit our ability to use the program in connection with our Zillow Offers business or revoke the authority of Zillow Home Loans to offer such programs, we may have to make changes to or discontinue the mortgage products that we offer, which may negatively affect our business.

Zillow Home Loans May Not Be Able to Continue to Grow its Mortgage Loan Origination Business, Which Could Negatively Affect Our Mortgages Segment, Financial Condition and Results of Operations.

The Zillow Home Loans mortgage loan origination business consists of providing purchase money loans to homebuyers and refinancing existing loans. The origination of purchase money mortgage loans by Zillow Home Loans is influenced by customers purchasing homes through Zillow Offers who elect to finance their home through Zillow Home Loans and traditional business clients in the home buying process such as realtors and builders. As a result, our ability to secure relationships with traditional business clients may influence our ability to grow our loan origination business. Our loan origination business also operates through third party mortgage professionals who do business with us on a best efforts basis, i.e., they are not contractually obligated to do business with us. Further, our competitors also have relationships with these brokers and actively compete with us in our efforts to expand our broker networks. Accordingly, we may not be successful in maintaining our existing relationships or expanding our broker networks. Our production and consumer direct lending operations are also subject to overall market factors that can impact our ability to grow our loan production volume. For example, increased competition from new and existing market participants, reductions in the overall level of refinancing activity or slow growth in the level of new home purchase activity can impact our ability to continue to grow our loan production volumes, and we may be forced to accept lower margins in our respective businesses in order to continue to compete and keep our volume of activity consistent with past or projected levels. If we are unable to continue to grow our loan origination business, this could adversely affect our business.

Zillow Home Loans Is Dependent on United States Government-Sponsored Entities and Government Agencies, and Any Actions by These Entities or Changes in These Entities or Their Operations Could Adversely Affect Our Mortgage Business, Liquidity, Financial Condition and Results of Operations.

The ability of Zillow Home Loans to generate revenue through loan sales depends, in part, on its participation in programs administered by government agencies such as the United States Department of Housing and Urban Development's Federal Housing Administration, the U.S. Department of Veterans Affairs, the United States Department of Agriculture, or government-sponsored entities ("GSEs") such as the Federal National Mortgage Association ("Fannie Mae") or the Federal Home Loan Mortgage Corporation ("Freddie Mac"). Presently, some of the loans Zillow Home Loans originates are sold on a direct basis to a GSE, while others are sold "whole loan" to individual investors on the secondary market. If any of these government agencies or GSEs limit Zillow Home Loans' ability to participate in any of these programs, or if the operation of any of these government agencies or GSEs or the programs they administer are eliminated or changed, our mortgages segment, liquidity, financial condition, and results of operations may be adversely affected.

A number of legislative proposals have been introduced in recent years that would wind down or phase out the GSEs, including a recent proposal to end the conservatorship and privatize Fannie Mae and Freddie Mac. It is not possible to predict the scope and nature of the actions that the United States government, including the current administration, will ultimately take with respect to the GSEs. Any changes in laws and regulations affecting the relationship between Fannie Mae and Freddie Mac and their regulators or the United States federal government, and any changes in leadership at any of these entities could adversely affect our mortgages segment and prospects. Any discontinuation of, or significant reduction in, the operation of Fannie Mae or Freddie Mac or any significant adverse change in their capital structure, financial condition, activity levels in the primary or secondary mortgage markets or underwriting criteria could materially and adversely affect our mortgages segment, liquidity, financial condition, and results of operations. A discontinuation or reduction in the operations of the GSEs could also affect "whole loan" sales on the secondary market, as there is a potential that this could cause a sharp decline in investor appetite.

Zillow Home Loans Operates in a Highly Regulated Industry, and Federal, State, and Local Laws and Regulations, Including Many That Are Continually Changing, Could Materially and Adversely Affect Our Business, Financial Condition and Results of Operations.

Zillow Home Loans is required to comply with a wide array of federal, state and local laws and regulations that regulate, among other things, the manner in which it conducts its loan origination business. These regulations directly impact the Zillow Home Loans business and require constant compliance, monitoring and internal and external audits.

Zillow Home Loans' failure to operate effectively and in compliance with these laws, regulations and rules could subject us to lawsuits or governmental actions and damage our reputation, which could materially and adversely affect our business, financial condition and results of operations. In addition, Zillow Home Loans' failure to comply with these laws, regulations and rules may result in increased costs of doing business, reduced payments by borrowers, modification of the original terms of loans, permanent forgiveness of debt, delays in the foreclosure process, increased servicing advances, litigation, reputational damage, enforcement actions, and repurchase and indemnification obligations.

Our Mortgages Segment is Impacted by Interest Rates. Changes in Prevailing Interest Rates May Have an Adverse Effect on the Financial Results for Our Mortgages Segment.

The financial performance of our Mortgages segment is directly affected by changes in prevailing interest rates. The financial performance of our Mortgages segment may be adversely affected or be subject to substantial volatility because of changes in prevailing interest rates, which may be impacted by a number of factors. For example, due to the COVID-19 pandemic and associated government and market responses and outcome of recent elections, there is an increased degree of uncertainty and unpredictability concerning current interest rates, future interest rates and potential negative interest rates, which may have an adverse effect on the results of operations for our Mortgages segment.

As interest rates fall, refinancing generally becomes a larger portion of the mortgage loan market. Likewise, as interest rates rise, refinancing generally becomes a smaller portion of the mortgage loan market and demand may also decrease for purchase mortgages as home ownership becomes more expensive. With sustained low interest rates in 2020, increased refinance activity drove improved revenue for our Mortgages segment. Accordingly, if interest rates rise and the market shifts to purchase mortgages, our business could be adversely affected if we are unable to increase our share of purchase mortgages. Alternatively, if interest rates remain low, consumer demand for refinancing residential mortgage loans could decrease after many homeowners have refinanced at low rates, and we may be unable to increase our share of purchase mortgages. In either case, our mortgage origination business and the financial results for our Mortgages segment could be harmed.

Zillow Home Loans uses derivatives and other instruments to reduce exposure to adverse changes in interest rates. Hedging interest rate risk is a complex process, requiring sophisticated models and constant monitoring. Zillow Home Loans' hedging activity may fail to provide adequate coverage for interest rate exposure due to market volatility, hedging instruments that do not directly correlate with the interest rate risk exposure being hedged or counterparty defaults on obligations. Certain of our hedges related to newly originated mortgages may be subject to margin calls, which, if made, could adversely impact our liquidity. There may be periods Zillow Home Loans elects not to hedge some or all of its interest rate risk.

Natural Disasters and Catastrophic Events May Disrupt Real Estate Markets, Damage or Destroy Our Properties, or Otherwise Harm Our Business.

The occurrence of a significant natural disaster or other catastrophic event such as a pandemic, health crisis, earthquake, hurricane, windstorm, fire, flood, power loss, telecommunications failure, cyber-attack, war, civil unrest, terrorist attack or other similar event, may damage or destroy our properties, including homes in our inventory, disrupt our operations, local and regional real estate markets or economies and negatively impact our business, results of operations and financial condition. In particular, the COVID-19 pandemic, including the reactions of governments, markets, and the general public to the COVID-19 pandemic, caused a number of adverse consequences for our business and results of operations.

Zillow buys and sells homes in 25 metropolitan areas through Zillow Offers as of December 31, 2020. In addition, through Zillow Home Loans, we originate loans in over 45 states and jurisdictions. The occurrence of a natural disaster or other catastrophic event in any of these localities could have a significant negative impact on those real estate markets and the success of our Zillow Offers and Zillow Home Loans businesses in the affected regions.

Although the majority of our workforce has shifted to a remote work environment, we maintain large employee populations in Seattle, Washington; New York, New York; Atlanta, Georgia; San Francisco, California; Irvine, California and Denver, Colorado, a significant portion of our Zillow Offers operations is located in Phoenix, Arizona, and a significant portion of Zillow Home Loans operations is located in Overland Park, Kansas; an earthquake or other natural disaster or catastrophic event in any of these cities could disrupt our engineering, sales, operations and/or mortgage origination teams and equipment critical to the operation of our business. Similarly, a significant natural disaster or other catastrophic event in any major United States city could negatively impact a large number of our real estate partners and customers and cause a decrease in our revenue or traffic.

Business continuity and disaster recovery planning is important, and if we are unable to develop adequate plans to ensure that our business functions continue to operate during and after a disaster or catastrophic event, and successfully execute on those plans in the event of a disaster, catastrophic event, or other emergency, our business and reputation may be harmed.

If Our Data Integrity Suffers Real or Perceived Harm, Customers and Real Estate Partners May Decrease Use or Cease Using Our Products and Services, and We May Be Subject to Legal Liability.

Because homes represent significant investments, and many customer decisions regarding homes are data-driven, our ability to attract and retain customers and real estate partners to our products and services is dependent upon our ability to publish, and reputation for publishing, accurate and complete residential real estate information through our mobile applications and websites. As discussed above, a significant amount of the data we publish on our mobile applications and websites are licensed from third parties, and we have limited ability to control the quality of the information we receive from them. We also publish a significant amount of customer-generated content, and our tools and processes designed to ensure the accuracy, quality and legality of such content may not always be effective. Data we generate independently are subject to error, unauthorized modification by way of third-party viruses and other factors. As the volume of data we publish increases, and potential threats to data quality become more complex, the risk of harm to our data integrity also increases. If our data integrity suffers real or perceived harm, we may be subject to legal liability, and customers and real estate partners may decrease their use or cease using our products and services, which would harm our results of operations and financial condition.

Our Dedication to Making Decisions Based Primarily on the Best Interests of Customers May Cause Us to Forgo Short-Term Gains.

Our guiding principle is to build our business by making decisions based primarily on the best interests of our customers, which we believe has been essential to our success in increasing our customer growth rate and engagement and has served the long-term interests of our company and our shareholders. In the past, we have forgone, and we will in the future forgo, certain expansion or short-term revenue opportunities that we do not believe are in the best interests of customers, even if such decisions negatively impact our short-term results of operations. In addition, our philosophy of putting customers first may negatively impact our relationships with our existing or prospective real estate partners. This could result in a loss of real estate partners, which could harm our revenue and results of operations. For example, we require our Premier Agent partners to maintain a minimum customer experience score and if they fail to do so after a probation period, we have cancelled advertising from those partners on our platforms. While forgoing this advertising revenue could harm our short-term financial results, we believe it is in the best interest of our customers to connect them with the real estate partners most likely to lead them to a positive experience. Our customer focus may also negatively impact our relationships with real estate brokerages, MLSs, and other industry participants on whom we rely for listings information. Zillow Offers and Zillow Home Loans, for example, may be perceived as impinging upon the business models of real estate agents, brokerages and lenders, which may cause them to terminate their listings agreements with us or, with respect to brokerages and lenders, cease advertising with us. Such risks could have a materially negative impact on our results of operations. Our principle of making decisions based primarily on the best interests of customers may not result in the long-term benefits that we expect, in which case our user traffic and engagement, business and results of operations could be harmed.

We Are Subject to Disputes Regarding the Accuracy or Display of Our Zestimates and Rent Zestimates.

We provide our customers with Zestimate and Rent Zestimate home and rental valuations. Zestimates are our estimated current market values of a home based on our proprietary automated valuation models that apply advanced algorithms to analyze our data; they are not appraisals. A Rent Zestimate is our estimated current monthly rental price of a home, using similar automated valuation models that we have designed to address the unique attributes of rental homes. We are, from time to time, involved in disputes with property owners and others who disagree with the accuracy or display of a Zestimate or Rent Zestimate, and such disputes may result in costly litigation in the future. Further, revisions to our automated valuation models, or the algorithms that underlie them, poor data quality, or other factors may cause certain Zestimates or Rent Zestimates to vary from expectations for those Zestimates or Rent Zestimates. Any such dispute or variation in Zestimates or Rent Zestimates could result in distraction from our business or potentially harm our reputation and financial condition.

We Rely on the Performance of Highly Skilled Personnel, and if We Are Unable to Attract, Retain and Motivate Well-Qualified Employees, Our Business Could Be Harmed.

We believe our success has depended, and continues to depend, on the efforts and talents of our management and our highly skilled team of employees, including our software engineers, operations personnel, loan officers, statisticians, marketing professionals and advertising sales staff. Our future success depends on our continuing ability to attract, develop, motivate and retain highly qualified and skilled employees. The loss of any of our senior management or key employees could materially adversely affect our ability to build on the efforts they have undertaken and to execute our business plan, and we may not be able to find adequate replacements. The market for highly skilled personnel is very competitive. We cannot ensure that we will be able to retain the services of any members of our senior management or other key employees. If we do not succeed in attracting well-qualified employees or retaining and motivating existing employees in a cost-effective manner, our business could be harmed.

We May Make Acquisitions and Investments, Which Could Result in Operating Difficulties, Dilution and Other Harmful Consequences.

We continue to evaluate a wide array of potential strategic opportunities, including acquisitions and investments. Any transactions that we enter into could be material to our financial condition and results of operation. The acquisitions may not result in the intended benefits to our business, and we may not successfully evaluate or utilize the acquired products, technology, or personnel, or accurately forecast the financial impact of an acquisition transaction. The process of integrating an acquired company, business or technology could create unforeseen operating difficulties and expenditures. The areas where we face risks include: diversion of management time and focus from operating our business to acquisition integration challenges; customer and industry acceptance of products and services offered by the acquired company; implementation or remediation of controls, procedures and policies at the acquired company; coordination of product, engineering and sales and marketing functions; retention of employees from the acquired company; liability for activities of the acquired company before the acquisition; litigation or other claims arising in connection with the acquired company; and impairment charges associated with goodwill and other acquired intangible assets.

For example, during March 2020, we recognized a non-cash impairment charge of \$71.5 million related to our Trulia trade names and trademarks intangible asset.

Our failure to address these risks or other problems encountered in connection with our past or future acquisitions and investments could cause us to fail to realize the anticipated benefits of such acquisitions or investments, incur unanticipated liabilities, and harm our business, results of operations and financial condition.

Our Fraud Detection Processes and Information Security Systems May Not Successfully Detect All Fraudulent Activity by Third Parties Aimed at Our Employees or Customers, Which Could Adversely Affect Our Reputation and Business Results.

Third-party actors have attempted in the past, and may attempt in the future, to conduct fraudulent activity by engaging with our customers by, for example, posting fake real estate listings on our sites and attempting to solicit personal information or money from customers, and by engaging with our employees by, for example, making fake requests for transfer of funds or sensitive information. We make a large number of wire transfers in connection with loan and real estate closings and process sensitive personal data in connection with these transactions. Though we have sophisticated fraud detection processes and have taken other measures to identify fraudulent activity on our mobile applications, websites and internal systems, we may not be able to detect and prevent all such activity. Similarly, the third parties we use to effectuate these transactions may fail to maintain adequate controls or systems to detect and prevent fraudulent activity. Persistent or pervasive fraudulent activity may cause customers and real estate partners to lose trust in us and decrease or terminate their usage of our products and services, or could result in financial loss, thereby harming our business and results of operations.

We Are Subject to Multiple Risks Related to the Credit Card and Debit Card Payments We Accept.

We accept payments through credit and debit card transactions. For credit and debit card payments, we pay interchange and other fees, which may increase over time. An increase in those fees may require us to increase the prices we charge and would increase our operating expenses, either of which could harm our business, financial condition and results of operations.

We depend on processing vendors to complete credit and debit card transactions, both for payments owed to Zillow Group directly and for payments to other third-parties, such as payments made by renters to landlords in our rental payments product. If we or our processing vendors fail to maintain adequate systems for the authorization and processing of credit card transactions, it could cause one or more of the major credit card companies to disallow our continued use of their payment products. If these systems fail to work properly and, as a result, we do not charge our customers' credit cards on a timely basis

or at all, our business, revenue, results of operations and financial condition could be harmed. In addition, if we add, eliminate or change any of our processing vendors, we may experience processing disruptions and increased operating expenses, either of which could harm our business, financial condition, or results of operations.

The payment methods that we offer also subject us to potential fraud and theft by criminals, who are becoming increasingly sophisticated, seeking to obtain unauthorized access to or exploit weaknesses that may exist in the payment systems. If we fail to comply with applicable rules or requirements for the payment methods we accept, or if payment-related data are compromised due to a breach of data, we may be liable for significant costs incurred by payment card issuing banks and other third parties or subject to fines and higher transaction fees, or our ability to accept or facilitate certain types of payments may be impaired. In addition, our customers could lose confidence in certain payment types, which may result in a shift to other payment types or potential changes to our payment systems that may result in higher costs. If we fail to adequately control fraudulent credit card transactions, we may face civil liability, diminished public perception of our security measures, and significantly higher credit card-related costs, each of which could harm our business, results of operations and financial condition.

We are also subject to payment card association operating rules, certification requirements and rules governing electronic funds transfers, which could change or be reinterpreted to make it more difficult for us to comply. We are required to comply with payment card industry security standards. Failing to comply with those standards may violate payment card association operating rules, federal and state laws and regulations, and the terms of our contracts with payment processors. Any failure to comply fully also may subject us to fines, penalties, damages and civil liability, and may result in the loss or impairment of our ability to accept credit and debit card payments. Further, there is no guarantee that such compliance will prevent illegal or improper use of our payment systems or the theft, loss, or misuse of data pertaining to credit and debit cards, card holders and transactions.

If we are unable to maintain our chargeback rate or refund rates at acceptable levels, our processing vendors may increase our transaction fees or terminate their relationships with us. Any increases in our credit and debit card fees could harm our results of operations, particularly if we elect not to raise our rates for our service to offset the increase. The termination of our ability to process payments on any major credit or debit card could significantly impair our ability to operate our business.

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 100% 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 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.

We attempt to ensure that our properties, including homes in our inventory, are adequately insured to cover casualty losses while we hold them. However, there are certain losses, including losses from floods, fires, earthquakes, wind, pollution, certain environmental hazards, security breaches, litigation, regulatory action, and others for which we may not be insured because it may not be deemed economically feasible or prudent to do so, among other reasons. Any losses resulting from lack of insurance coverage could cause our financial results to suffer.

Environmentally Hazardous Conditions May Adversely Affect Us.

Under various federal, state and local environmental laws, a current or previous owner or operator of real property may be liable for the cost of removing or remediating hazardous or toxic substances on such property. Such laws often impose liability whether or not the owner or operator knew of, or was responsible for, the presence of such hazardous or toxic substances. Even if more than one person may have been responsible for the contamination, each person covered by applicable environmental laws may be held responsible for all of the clean-up costs incurred. In addition, third parties may sue the owner or operator of a site for damages based on personal injury, natural resources or property damage or other costs, including investigation and clean-up costs, resulting from the environmental contamination. The presence of hazardous or toxic substances on one of our properties, including homes held in our inventory, or the failure to properly remediate a contaminated property, could give rise to a lien in favor of the government for costs it may incur to address the contamination or otherwise adversely affect our ability to sell the property. Environmental laws also may impose restrictions on the manner in which property may be used or businesses may be operated. A property owner who violates environmental laws may be subject to sanctions which may be enforced by governmental agencies or, in certain circumstances, private parties. In connection with the acquisition and ownership of our properties, we may be exposed to such costs. The cost of defending against environmental claims, of compliance with environmental regulatory requirements or of remediating any contaminated property could materially and adversely affect us.

Compliance with new or more stringent environmental laws or regulations or stricter interpretation of existing laws may require material expenditures by us. We may be subject to environmental laws or regulations relating to our properties, such as those concerning lead-based paint, mold, asbestos, radon, pesticides, proximity to power lines or other issues. We cannot assure you that future laws, ordinances or regulations will not impose any material environmental liability or that the current environmental condition of our properties will not be affected by existing conditions of the land, operations in the vicinity of the properties or the activities of unrelated third parties. In addition, we may be required to comply with various local, state and federal fire, health, life-safety and similar regulations. Failure to comply with applicable laws and regulations could result in fines and/or damages, suspension of personnel, civil liability or other sanctions.

Risks Related to Our Intellectual Property and Technology

If Our Security Measures or Technology Systems Are Compromised, We May Be Subject to Legal Claims and Suffer Significant Losses, and Customers May Curtail Use of Our Products and Services and Our Real Estate Partners May Reduce or Eliminate Their Advertising on Our Mobile Applications and Websites.

Our products and services involve the transmission, processing, and/or storage of users' information, some of which may be private or include personally identifiable information such as social security numbers, financial account information, and credit card information. For example, our dotloop real estate transaction management software stores sensitive personal and financial information, our Mortech mortgage product and pricing software for mortgage professionals processes social security numbers, our rental applications product allows customers to obtain credit and background checks containing sensitive personal and financial information, and both Zillow Home Loans and Zillow Closing Services, our mortgage origination business and real estate closings business respectively, receive, handle and transmit highly sensitive personal and financial information about their customers. Security breaches and administrative or technical failures could expose us to a risk of data loss or exposure, including customer, employee and real estate partner data as well as intellectual property and other confidential business information, which could result in potential significant liability and litigation. Like all mobile application and website providers, our mobile applications and websites are vulnerable to computer viruses, break-ins, phishing attacks, or other attacks, any of which could lead to loss of critical data, availability or the unauthorized disclosure or use of personal or other confidential information. Further, outside parties may attempt to fraudulently induce employees, officers, directors, customers or real estate partners to disclose sensitive information in order to gain access to our information or our customers' or real estate partners' information, and our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to user error, malfeasance or other disruptions. If we experience compromises to our security that result in the loss or unauthorized disclosure of confidential information, our customers and real estate partners may lose trust in us, customers may decrease the use of our mobile applications or websites or stop using our mobile applications, websites, or services in their entirety, real estate partners may decrease or stop advertising on our mobile applications or websites, and we may be subject to legal claims, government investigation and additional state and federal legal requirements. If we experience compromises to our security that result in the loss of availability of our data, our mobile applications, websites, or services may be unable to function at a level necessary to meet our customers' needs.

We engage a variety of vendors to process and store certain customer information, some of which may be private or include personally identifiable information. We also depend on vendors to host many of the systems and infrastructure used to provide our products and services. If our data storage vendors fail to maintain adequate information security systems and our systems or our customers' information is compromised, our business, results of operations and financial condition could be harmed. A security breach at our vendor could be perceived by customers or our real estate partners as a breach of our systems and could result in damage to our reputation and expose us to other losses.

Further, because the techniques used to obtain unauthorized access, disable or degrade service, or sabotage systems change frequently, often are not recognized until launched against a target, and may originate from less regulated and remote areas around the world, we may be unable to proactively address all these techniques or to implement adequate preventative measures. Any or all of these issues could negatively impact our ability to attract new customers and increase engagement by existing customers, cause existing customers to curtail or stop use of our products or services or close their accounts, cause existing real estate partners to cancel their contracts, cause us to incur significant costs to notify affected individuals and upgrade our technology, or subject us to third-party lawsuits, regulatory fines or other action or liability, thereby harming our business, results of operations and financial condition.

Any Significant Disruption in Service on Our Mobile Applications or Websites or in Our Network Could Damage Our Reputation and Brands, and Result in a Loss of Customers of Our Products and Services and of Our Real Estate Partners, Which Could Harm Our Business, Results of Operations and Financial Condition.

Our brand, reputation and ability to attract customers and real estate partners and deliver quality products and services depend on the reliable performance of our network infrastructure and content delivery processes. Our mobile applications and websites are exposed to attempts to overload our servers with denial-of-service attacks or similar disruptions from unauthorized use of our computer systems. We have experienced minor interruptions in these systems in the past, including server failures that temporarily slowed the performance of our mobile applications and websites, and we may experience interruptions in the future. Interruptions in these systems, whether due to system failures, computer viruses, software errors or physical or electronic break-ins, could affect the security or availability of our products and services on our mobile applications and websites and prevent or inhibit the ability of customers to access or effect transactions using our services. Since our customers may rely on our products and services, including our real estate transaction services and customer relationship management tools, for important aspects of their personal lives and businesses, problems with the reliability, availability or security of our systems could damage our customers' businesses, harm our reputation, delay or inhibit a customer from completing a real estate transaction, result in a loss of customers of our products and services and of real estate partners and result in additional costs, any of which could harm our business, results of operations and financial condition.

To deliver mobile and web Zillow Group brand content while ensuring scalability and redundancy, as well as internal support for our enterprise, we utilize both third-party web services for cloud computing and storage and shared data centers in Seattle, Washington, Ashburn, Virginia, and Santa Clara, California.

We do not own or control the operation of certain of these facilities. Our systems and operations are vulnerable to damage or interruption from fire, flood, power loss, telecommunications failure, terrorist attacks, acts of war, electronic and physical break-ins, computer viruses, earthquakes and similar events. The occurrence of any of the foregoing events could result in damage to our systems and hardware or could cause them to fail completely, and our insurance may not cover such events or may be insufficient to compensate us for losses that may occur.

A failure of our systems at one site could result in reduced functionality for our customers, and a total failure of our systems could cause our mobile applications or websites to be inaccessible or for us to be unable to carry out day-to-day operations. Problems faced by our third-party web-hosting providers with the telecommunications network providers with which they contract or with the systems by which they allocate capacity among their customers, including us, could adversely affect the experience of our customers. Our third-party web-hosting providers could decide to close their facilities without adequate notice. Any financial difficulties, such as bankruptcy reorganization, faced by our third-party web-hosting providers or any of the service providers with whom they contract may have negative effects on our business, the nature and extent of which are difficult to predict. If our third-party web-hosting providers are unable to keep up with our growing needs for capacity, our customers, real estate partners and business could be harmed. In addition, if distribution channels for our mobile applications experience disruptions, such disruptions could adversely affect the ability of users and potential users to access or update our mobile applications, which could harm our business.

We do not carry business interruption insurance sufficient to compensate us for the potentially significant losses, including the potential harm to the future growth of our business, which may result from interruptions in our service as a result of system failures. Any errors, defects, disruptions or other performance problems with our services could harm our reputation, business, results of operations and financial condition.

We Rely Upon Certain Third-Party Services to Support Critical Functions of Our Business and Any Disruption of or Interference with our Use of those Third -Party Services Could Adversely Impact Our Operations and Our Business.

A limited number of third-party services support essential functions of our business, including Amazon Web Services (“AWS”) and certain other cloud communications platform-as-a-service (“CPaaS”) and Software-as-a-Service technologies hosted by third parties (together with CPaaS, “SaaS Services”). AWS provides us with a distributed computing infrastructure platform for business operations, which is commonly referred to as a “cloud” computing service. Certain of our computer systems utilize data processing, storage capabilities and other services provided by AWS, and we currently run the vast majority of computing to power our mobile applications, websites, and other technology products and services on AWS. In addition, we use SaaS Services to support important functions of our business, including enterprise resource planning, accounting, including revenue recognition, real estate transaction services, customer communications, and customer relationship management. We store a significant amount of information about our customers, real estate partners, employees, and business on AWS and in the SaaS Services, and we rely on these third-party service providers to provide services on a timely and effective basis. Their failure to perform as expected or as required by contract could result in significant disruptions and costs to our operations. In light of our reliance on AWS and SaaS Services, coupled with the complexity of obtaining replacement services, any disruption of or interference with our use of these third-party services could adversely impact our operations and business.

We May Be Unable to Adequately Protect Our Intellectual Property, Which Could Harm the Value of Our Brands and Our Business.

We regard our intellectual property as critical to our success, and we rely on trademark, copyright and patent law, trade secret protection and contracts to protect our proprietary rights. If we are not successful in protecting our intellectual property, the value of our brands and our business, results of operations and financial condition could be harmed.

While we believe that our issued patents and pending patent applications help to protect our business, we cannot ensure that our operations do not, or will not, infringe valid, enforceable patents of third parties or that competitors will not devise new methods of competing with us that are not covered by our patents or patent applications. We cannot ensure that our patent applications will be approved, that any patents issued will adequately protect our intellectual property, that such patents will not be challenged by third parties or found to be invalid or unenforceable, or that our patents will be effective in preventing third parties from utilizing a “copycat” business model to offer the same products or services. The technology underlying our Zestimate home valuation, for example, which we consider to be a key competitive advantage with respect to customer engagement, is currently protected by patents, the loss of which could benefit comparable services provided by our competitors and result in decreased user traffic and engagement with our mobile applications and websites, thereby harming our results of operations and financial condition. In addition, losing one or more of these patents may increase the likelihood that a third party will claim the Zillow home valuation infringes such third party’s patent.

Effective trademark, service mark, copyright and trade secret protection may not be available in every country in which our products and services may be provided. The laws of certain countries do not protect proprietary rights to the same extent as the laws of the United States and, therefore, in certain jurisdictions, we may be unable to protect intellectual property and our proprietary technology adequately against unauthorized third-party copying or use, which could harm our competitive position. We have licensed in the past, and expect to license in the future, certain of our proprietary rights, such as trademarks or copyrighted material, to third parties. These licensees may take actions that might diminish the value of our proprietary rights or harm our reputation, even if we have agreements prohibiting such activity. Though certain of these third parties are obligated to indemnify us for breaches of our intellectual property rights, they may be unable to meet these obligations. In addition, we rely on intellectual property and technology developed or licensed by third parties, and we may not be able to obtain licenses and technologies from these third parties on reasonable terms or at all. Any of these events could harm our business, results of operations or financial condition.

In addition, we may actively pursue entities that infringe our intellectual property, including through legal action. Taking such action may be costly, and we cannot ensure that such actions will be successful. Any increase in the unauthorized use of our intellectual property could make it more expensive for us to do business and harm our results of operations or financial condition.

Intellectual Property Disputes Are Costly to Defend and Could Harm Our Business, Results of Operations, Financial Condition and Reputation.

From time to time, we face allegations that we have infringed the trademarks, copyrights, patents and other intellectual property rights of third parties. We are currently subject to intellectual property infringement claims, including actions brought by International Business Machines Corporation and VHT, Inc. These claims allege, among other things, that aspects of our technology infringe upon the plaintiffs' intellectual property. If we are not successful in defending ourselves against these claims, we may be required to pay damages and may be subject to injunctions, each of which could harm our business, results of operations, financial condition and reputation. As we grow our business and expand our operations, we expect that we will continue to be subject to intellectual property claims and allegations. Patent and other intellectual property disputes or litigation may be protracted and expensive, and the results are difficult to predict and may require us to stop offering certain products, services or features, purchase licenses that may be expensive to procure, or modify our products or services. In addition, patent or other intellectual property disputes or litigation may result in significant settlement costs. Any of these events could harm our business, results of operations, financial condition and reputation.

In addition, we use open source software in our services and will continue to use open source software in the future. From time to time, we may be subject to claims brought against companies that incorporate open source software into their products or services, claiming ownership of, or demanding release of, the source code, the open source software and/or derivative works that were developed using such software, or otherwise seeking to enforce the terms of the applicable open source license. These claims could also result in litigation, and we may be required to purchase a costly license or remove open source software, devote additional research and development resources to changing our products or services, make generally available the source code for our proprietary technology, or waive certain of our intellectual property rights, any of which would have a negative effect on our business and results of operations.

Even if these matters do not result in litigation or are resolved in our favor or without significant cash settlements, the time and resources necessary to resolve them could harm our business, results of operations, financial condition and reputation.

We May Be Unable to Continue to Use the Domain Names That We Use in Our Business, or Prevent Third Parties From Acquiring and Using Domain Names That Infringe on, Are Similar to, or Otherwise Decrease the Value of Our Brand or Our Trademarks or Service Marks.

We have registered domain names for our websites that we use in our business. If we lose the ability to use a domain name, we may incur significant expenses to market our products and services under a new domain name, which could harm our business. In addition, our competitors could attempt to capitalize on our brand recognition by using domain names similar to ours. Domain names similar to ours have been registered in the U.S. and elsewhere. We may be unable to prevent third parties from acquiring and using domain names that infringe on, are similar to, or otherwise decrease the value of our brand or our trademarks or service marks. Protecting and enforcing our rights in our domain names and determining the rights of others may require litigation, which could result in substantial costs and diversion of management's attention.

Confidentiality Agreements With Employees and Others May Not Adequately Prevent Disclosure of Trade Secrets and Other Proprietary Information.

In order to protect our technologies and strategic business and operations information, we rely in part on confidentiality agreements with our employees, independent contractors, vendors, licensees, and other third parties. These agreements may not be enough to fully mitigate the possibility of inadvertent disclosure of confidential information, including trade secrets, and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. The loss of trade secret protection could make it easier for third parties to compete with our products by copying functionality. Others may independently discover our trade secrets and proprietary information, and in such cases, we could not assert any trade secret rights against such parties. Further, if our employees, contractors or other third parties with whom we do business use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. Any changes in, or unfavorable interpretations of, intellectual property laws may compromise our ability to enforce our trade secret and intellectual property rights. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain protection of our trade secrets or other proprietary information could harm our business, results of operations, reputation and competitive position.

We May Not Be Able to Halt the Operations of Websites That Aggregate or Misappropriate Our Data.

From time to time, third parties have misappropriated our data through website scraping, robots or other means, and aggregated this data on their websites with data from other companies. In addition, copycat websites have misappropriated data on our network and attempted to imitate our brand or the functionality of our websites. When we have become aware of such websites, we have employed technological or legal measures in an attempt to halt their operations. We may not be able, however, to detect all such websites in a timely manner and, even if we could, technological and legal measures may be insufficient to halt their operations. In some cases, particularly in the case of websites operating outside of the United States, our available remedies may not be adequate to protect us against the impact of the operation of such websites. In addition, if such activity creates confusion among customers or real estate partners, our brands and business could be harmed. Regardless of whether we can successfully enforce our rights against the operators of these websites, any measures that we may take could require us to expend significant financial or other resources, which could harm our business, results of operations or financial condition.

Risks Related to Regulatory Compliance and Legal Matters

Failure to Comply with Federal, State and Local Laws, Rules and Regulations or to Obtain and Maintain Required Licenses or Authorizations, Could Materially and Adversely Affect our Business, Financial Condition and Results of Operations.

We provide products and services to customers and real estate partners in heavily regulated industries through a number of different channels across the United States and to some extent, in Canada. As a result, we are currently subject to a variety of, and may in the future become subject to additional or newly enacted, international, federal, state and local laws and regulations in various jurisdictions, which are subject to change at any time, including laws regarding the real estate, rental, mortgage and insurance industries, mobile and internet based businesses and other businesses that rely on advertising, as well as privacy, data security, and consumer protection laws, and employment laws. These laws are complex and can be costly to comply with, require significant management time and effort, and subject us to claims, government enforcement actions, civil and criminal liability or other remedies, including suspension of business operations. These laws may conflict with each other, and if we comply with the laws of one jurisdiction, we may find that we are violating laws of another jurisdiction. Our distributed workforce may subject us to employment laws, including employment taxes, in many states and localities in the United States and many provinces in Canada and may increase the costs and expenses we incur to comply with or seek compliance with these laws.

For example, certain of the advertising and transactional services that we provide to customers and real estate professionals in the residential real estate, rental, mortgage and new construction industries, are subject to laws and regulations relating to the collection, use, and disclosure of data collected from our users, including those promulgated and enforced by the United States Federal Trade Commission and certain states, such as the Telephone Consumer Protection Act (“TCPA”), the Telemarketing Sales Rule, the CAN-SPAM Act, the Fair Credit Reporting Act, the Canadian Anti-Spam Law, the Personal Information Protection and Electronic Documents Act and its provincial counterparts, and the California Consumer Privacy Act (“CCPA”). The CCPA, which took effect on January 1, 2020, imposes obligations and restrictions on companies regarding their collection, use, and sharing of personal information. Several other states, as well as the federal government, are actively considering privacy laws, which may impose substantial penalties for violations, impose significant costs for investigations and compliance, allow private class-action litigation and carry significant potential liability for our business.

Additionally, laws, regulations, and standards covering marketing and advertising activities conducted by telephone, email, mobile devices, and the internet, may be applicable to our business, such as the TCPA, the Telemarketing Sales Rule, the CAN-SPAM Act, and similar state consumer protection laws. We also assist with the processing of customer credit card transactions and consumer credit report requests, originate mortgage loans, buy and sell homes, perform real estate closings and provide other product offerings, which results in us receiving or facilitating transmission of personally identifiable information. This information is increasingly subject to legislation and regulation in the United States. These laws and regulations are generally intended to protect the privacy and security of personal information, including credit card information that is collected, processed and transmitted. We could be adversely affected if government regulations require us to significantly change our business practices with respect to this type of information or if the third-parties that we engage with to provide processing and screening services violate applicable laws and regulations. Further, restrictions implemented on the platforms through which our websites and applications are accessed, such as mobile operating systems, may impede the effectiveness of our marketing efforts and ability to measure the effectiveness of those efforts, reducing our ability to market our products and services and grow our customer base.

In addition, by providing a medium through which users can post content and communicate with one another, we may also be subject to laws governing intellectual property ownership, obscenity, libel, and privacy, among other issues. The real estate agents, mortgage professionals, banks, property managers, rental agents and certain of our other customers and advertisers are subject to various state and federal laws and regulations, including, but not limited to those relating to real estate, rentals and mortgages, which may impact their use of our mobile applications and websites. We cannot ensure that these entities will comply with applicable laws and regulations at all times. We endeavor to ensure that any content created by Zillow Group is consistent with such laws and regulations by obtaining assurances of compliance from our advertisers and consumers for their activities through, and the content they provide on, our mobile applications and websites.

In connection with the real estate transaction products and services that we provide, we maintain real estate brokerage, title and escrow, mortgage broker, and mortgage lender licenses in the markets in which we operate those regulated products and services. Certain of our mortgage marketing products are operated by our wholly owned subsidiary, Zillow Group Marketplace, Inc., a licensed mortgage broker, and we originate residential mortgages through Zillow Home Loans. Zillow Group Marketplace, Inc. and Zillow Home Loans are subject to stringent state and federal laws and regulations and to the scrutiny of state and federal government agencies as a licensed mortgage broker and licensed mortgage lender, respectively. Mortgage products are regulated at the state level by licensing authorities and administrative agencies, with additional oversight from the Consumer Financial Protection Bureau and other federal agencies. These laws generally regulate the manner in which lending and lending-related activities are marketed or made available, including advertising and other consumer disclosures, payments for services and record keeping requirements; these laws include but are not limited to the Real Estate Settlement Procedures Act, the Fair Credit Reporting Act, the Truth in Lending Act, the Equal Credit Opportunity Act, the Fair Housing Act and various state laws. The Consumer Financial Protection Bureau also has broad authority to enforce prohibitions on practices that it deems to be unfair, deceptive or abusive. State laws may restrict the amount and nature of interest and fees that may be charged by a lender or mortgage broker, or otherwise regulate the manner in which lenders or mortgage brokers operate or advertise.

We hold real estate brokerage licenses through multiple entities in multiple states and may apply for additional real estate brokerage licenses as our business grows. To maintain these licenses, we must comply with the requirements governing licensed real estate activities and brokerage-related businesses in the markets where we operate. We may be subject to additional local, state and federal laws and regulations governing residential real estate transactions, including those administered by the Department of Housing and Urban Development (“HUD”), and the states and municipalities in which we transact. Further, due to the geographic scope of our operations and the nature of the services we provide, certain of our other subsidiaries maintain title and escrow licenses in certain states in which we operate, including in connection with Zillow Closing Services.

A number of our personnel are required to maintain individual real estate agent or broker licenses, title and escrow agent licenses, mortgage broker, and mortgage lender licenses. In addition, for certain company licenses that we hold, we are required to designate individual licensed brokers of record, qualified individuals and control persons. We cannot assure you that we, or our licensed personnel, are and will remain at all times, in full compliance with real estate, title and escrow, and mortgage licensing and consumer protection laws and regulations and we may be subject to fines or penalties in the event of any non-compliance. If we, or our licensed personnel, apply for new licenses, we may become subject to additional licensing requirements, which we may not be in compliance with at all times. If in the future a state agency were to determine that we, or our licensed personnel, are required to obtain additional licenses in that state in order to operate our business, or if we or our licensed personnel lose or do not renew an existing license or are otherwise found to be in violation of a law or regulation, we or our licensed personnel may be subject to fines or legal penalties, lawsuits, enforcement actions, void contracts, or our business operations in that state may be suspended or prohibited. Compliance with these laws and regulations is complicated and costly and may inhibit our ability to innovate or grow.

Zillow Home Loans operates its FHA loan program under authority granted by HUD. In the event that HUD determines that Zillow Home Loans has failed or refused to comply with all relevant terms and conditions necessary to maintain its authority active and in good standing, then such authority could be suspended, revoked or materially altered, which would materially and adversely affect the ability of Zillow Home Loans to conduct its business.

If we are unable to comply with these laws or regulations in a cost-effective manner, we may modify impacted products and services, which could require a substantial investment and loss of revenue, or cease providing the impacted product or service altogether. If we are found to have violated laws or regulations, we may be subject to significant fines, penalties, and other losses.

We are From Time to Time Involved In, or May In the Future be Subject to, Claims, Suits, Government Investigations, and Other Proceedings That May Result In Adverse Outcomes.

We are from time to time involved in, or may in the future be subject to, claims, suits, government investigations, and proceedings arising from our business, including actions with respect to intellectual property, privacy, consumer protection, information security, mortgage lending, real estate, environmental, data protection or law enforcement matters, tax matters, labor and employment, and commercial claims, as well as actions involving content generated by our customers, shareholder derivative actions, purported class action lawsuits, and other matters, including those matters described in Part II, Item 8 in Note 19 under the subsection titled “Legal Proceedings” in our Notes to Consolidated Financial Statements in this Annual Report on Form 10-K. Such claims, suits, government investigations, and proceedings are inherently uncertain, and their results cannot be predicted with certainty. Regardless of the outcome, any such legal proceedings can have an adverse impact on us because of legal costs, diversion of management and other personnel, and other factors. In addition, it is possible that a resolution of one or more such proceedings could result in reputational harm, liability, penalties, or sanctions, as well as judgments, consent decrees, or orders preventing us from offering certain features, functionalities, products, or services, or requiring a change in our business practices, products or technologies, which could in the future materially and adversely affect our business, operating results and financial condition.

In some instances, third parties may have an obligation to indemnify us for liabilities related to litigation or governmental investigations, and they may be unable to, or fail to, fulfill such obligations. If such third parties failed to indemnify us, we would be financially responsible, which could adversely affect our financial condition and cash flow. For example, on October 31, 2018, we acquired MLOA by way of purchase of the then-outstanding equity of MLOA. Prior to the acquisition, on February 2, 2018, a former MLOA employee, Beau Charbonneau, filed a complaint against MLOA in United States District Court for the District of Kansas. The complaint alleges, among other things, that MLOA improperly classified its team leader roles as exempt from the overtime provisions of the Fair Labor Standards Act (“FLSA”) and that it failed to pay its loan officers for all hours worked in excess of 40 hours in any work week. The complaint also asserts wage-related claims under the Kansas Wage Payment Act and under Kansas common law. On December 6, 2018, the court issued an order conditionally certifying the case as a collective action under the Fair Labor Standards Act and authorized the plaintiff’s attorneys to send notice of the case to impacted team leaders and loan officers advising them of the case and their opportunity to join as a plaintiff. The case is currently comprised of 167 current and former loan officers and team leaders. On June 30, 2020, the court granted MLOA’s motion for partial summary judgment on the plaintiffs’ state law claims and denied a motion to certify those claims as moot, leaving in place only the FLSA claims. On September 14, 2020, the court granted Plaintiffs’ partial summary judgment motion on MLOA’s claims that its team leads were classified properly as exempt from the overtime provisions of the FLSA. On January 11, 2021, the court denied MLOA’s motion to decertify the FLSA collective action. The case currently is set for jury trial commencing on June 7, 2021. Zillow Group and its affiliates are indemnified for losses incurred in connection with this matter by certain of the prior stockholders of MLOA. Additionally, in accordance with the equity purchase agreement governing the acquisition of MLOA, any costs incurred related to this matter will be paid directly by those same certain prior stockholders of MLOA. Although we do not believe a loss to Zillow Group is probable, should the sellers of MLOA fail to indemnify us for losses related to this matter, our financial condition may be negatively impacted.

Risks Related to Our Financial Position***We Incurred Significant Operating Losses in the Past and We May Not Be Able to Generate Sufficient Revenue to Be Profitable Over the Long Term.***

We have incurred significant net operating losses in the past and, as of December 31, 2020, we had an accumulated deficit of \$1.1 billion. Although we have experienced significant growth in revenue, our revenue growth rate may decline in the future as the result of a variety of factors, including the maturation of our business. At the same time, we also expect our costs to increase in future periods as we continue to expend substantial financial resources to develop and expand our business, including with respect to:

- expansion of Zillow Offers;
- expansion of Zillow Home Loans;
- product development;
- sales and marketing;
- technology infrastructure;
- strategic opportunities, including commercial relationships and acquisitions; and
- general and administrative expenses, including legal and accounting expenses related to being a public company.

These investments may not result in increased revenue or growth in our business. If we fail to continue to grow our revenue and overall business and to manage our expenses, we may incur significant losses in the future and not be able to achieve or maintain profitability.

Servicing Our Debt Requires a Significant Amount of Cash, and We May Not Have Sufficient Cash Flow From Our Business to Pay Our Substantial Debt, Settle Conversions of Our Senior Convertible Notes, or Repurchase Our Convertible Senior Notes upon a Fundamental Change.

We utilize several forms of debt to provide capital for the continued growth and operation of our business, such as tranches of convertible senior notes, bi-lateral credit facilities for Zillow Offers, and warehouse and repurchase facilities for Zillow Home Loans. Our indebtedness includes the \$373.8 million aggregate principal amount under our Convertible Senior Notes due in 2023 (the “2023 Notes”), the \$673.0 million aggregate principal amount under our Convertible Senior Notes due in 2024 (the “2024 Notes”), the \$565.0 million aggregate principal amount under our Convertible Senior Notes due in 2025 (the “2025 Notes”), the \$500.0 million aggregate principal amount under our Convertible Senior Notes due in 2026 (the “2026 Notes”), and all amounts outstanding under our credit facilities for Zillow Offers (maximum borrowing capacity of \$1.5 billion as of December 31, 2020) and mortgage debt facilities (maximum borrowing capacity of \$375.0 million as of December 31, 2020). Our ability to make payments on the principal of, to pay interest on or to refinance our indebtedness depends on our future performance and, if applicable, the value of collateral, which is subject to economic, industry, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to extend or refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations, including our convertible senior notes, credit facilities, or otherwise.

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. Holders of our convertible senior notes may elect to convert their notes at various time and pursuant to specific circumstances, as provided in the corresponding indenture. When such an election is made, we may opt to settle any such conversion by delivering solely shares of our Class C capital stock, solely cash payments, or a combination of Class C capital stock and cash payments after consideration of various factors, including the price of our Class C capital stock, market factors, liquidity, and the needs of our business. Upon conversion of our convertible senior notes, unless we elect to deliver solely shares of our Class C capital stock to settle such conversion (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the notes being converted. We may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of the notes surrendered therefor or at the time the notes are being converted. Our failure to repurchase our convertible senior notes at a time when the repurchase is required by the indenture or to pay any cash payable on future conversions of the notes would constitute an event of default. If the repayment of any indebtedness were to be accelerated because of such event of default (whether under the notes or otherwise), we may not have sufficient funds to repay the indebtedness and repurchase the notes or make cash payments upon conversions thereof. An event of default under the indenture may lead to an acceleration of our convertible senior notes. Any such acceleration 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 our equity holders.

In addition, our significant indebtedness, combined with our other financial obligations and contractual commitments, could have other important consequences. For example, it could:

- make us more vulnerable to adverse changes in general United States and worldwide economic, industry and competitive conditions and adverse changes in government regulation;
- limit our flexibility in planning for, or reacting to, changes in our business and our industry;
- place us at a disadvantage compared to our competitors who have less debt; and
- limit our ability to borrow additional amounts for working capital and other general corporate purposes, including to fund possible acquisitions of, or investments in, complementary businesses, products, services and technologies.

Any of these factors could materially and adversely affect our business, financial condition and results of operations. In addition, if we incur additional indebtedness, the risks related to our business and our ability to service or repay our indebtedness would increase.

The Credit and Debt Facilities that Provide Capital for Zillow Offers and Zillow Home Loans Include Covenants and Other Provisions that May Restrict Our Operating Activities, Expose Us to the Possibility of Foreclosure on Our Ownership Interests, and Have a Material Effect on Our Liquidity. They Also Incorporate Variable Interest Rates that May Subject Us to Interest Rate Risk, Which Could Cause Our Debt Service Obligations to Increase Significantly.

Through certain of our subsidiaries, we have entered into debt agreements to provide capital for the growth and operation of our businesses, including bi-lateral credit facilities to support Zillow Offers and warehouse and repurchase facilities to support Zillow Home Loans. The terms of these debt agreements and related financing documents require Zillow Group and certain of its subsidiaries, as applicable, to comply with a number of customary financial and other covenants, such as maintaining certain levels of liquidity, tangible net worth, leverage ratios, adequate insurance coverage and market capitalization. These covenants may limit our operational flexibility and may restrict our ability to engage in transactions that we believe would otherwise be in the best interests of our shareholders. Additionally, undrawn amounts are not committed, meaning the applicable lender is not obligated to advance loan funds in excess of outstanding borrowings. Further, borrowing base requirements associated with these debt agreements may prevent us from drawing upon our total maximum capacity under these financing arrangements if sufficient eligible collateral, in accordance with these debt agreements, is not available. Refer to Note 14 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information on our Zillow Offers credit facilities and Zillow Home Loans warehouse and repurchase facilities. Upon the occurrence of any event of default under these debt agreements, the lenders will not be required to lend any additional amounts to us and could elect to declare all borrowings outstanding, together with accrued and unpaid interest and fees, to be immediately due and payable, even in the absence of a payment default. A default under one of our debt agreements could result in a cross-default under other debt agreements and our lenders could elect to declare outstanding amounts due and payable or terminate their commitments. If we fail to repay the amounts due under our credit facilities, the lenders of such debt may require the posting of additional collateral and/or proceed against the collateral granted to secure the credit facilities. The majority of the homes owned by our Zillow Offers business and loans originated by Zillow Home Loans are pledged as collateral to secure such indebtedness. As a result, a default under applicable debt covenants could have an adverse effect on our financial condition or results of operations.

Certain of our debt agreements are subject to margin calls based on the lender's opinion of the value of the collateral securing such financing. A margin call would require the borrower to repay a portion of the outstanding borrowings. A large, unanticipated margin call could have a material effect on our liquidity.

At December 31, 2020, \$670.2 million of our borrowings under our debt agreements was at variable rates of interest, thereby exposing us to interest rate risk. If interest rates increase, our debt service obligations on the variable rate indebtedness would increase even if the amount borrowed remained the same, and our net loss would increase. In addition, our variable rate indebtedness may use LIBOR as a benchmark for establishing the rate. LIBOR is the subject of recent national, international and other regulatory guidance and proposals for reform. These reforms and other pressures may cause LIBOR to disappear entirely or to perform differently than in the past. The consequences of these developments cannot be entirely predicted, but could include an increase in the cost of our variable rate indebtedness.

We May Need to Raise Additional Capital to Grow Our Business and We May Not Be Able to Raise Additional Capital on Terms Acceptable to Us, or At All.

Growing and operating our business, including through the development of new and enhanced products and services, may require significant cash outlays, liquidity reserves and capital expenditures. If cash on hand, cash generated from operations and cash equivalents and investment balances are not sufficient to meet our cash and liquidity needs, we may need to seek additional capital and we may not be able to raise the necessary cash on terms acceptable to us, or at all. For example, Zillow Offers requires significant cash to acquire, update and sell homes. As of December 31, 2020, three credit facilities are utilized to provide capital for Zillow Offers, and we may seek to enter into similar credit facilities or other debt arrangements to provide additional capital in the future. In addition, to provide capital for mortgage home loan originations for Zillow Home Loans, as of December 31, 2020, warehouse and repurchase facilities are currently utilized. Refer to Note 14 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information on our revolving credit facilities and warehouse and repurchase facilities. Financing arrangements we pursue or assume may require us to grant certain rights, take certain actions, or agree to certain restrictions, that could negatively impact our business. If additional capital is not available to us on terms acceptable to us or at all, we may need to modify our business plans, which would harm our ability to grow our operations.

We Rely on Assumptions, Estimates, and Business Data to Calculate our Key Performance Indicators and Other Business Metrics, and Real or Perceived Inaccuracies in These Metrics May Harm our Reputation and Negatively Affect our Business.

Certain of our performance metrics are calculated using third party applications or internal company data that have not been independently verified. While these numbers are based on what we believe to be reasonable calculations for the applicable period of measurement, there are inherent challenges in measuring such information. For example, our measurement of visits and unique users may be affected by applications that automatically contact our servers to access our mobile applications and websites with no user action involved, and this activity can cause our system to count the user associated with such a device as a unique user or as a visit on the day such contact occurs.

We regularly review and may adjust our processes for calculating our performance metrics to improve accuracy. Our measure of certain metrics may differ from estimates published by third parties or from similarly-titled metrics of our competitors due to differences in methodology. If real estate professionals, our real estate partners or investors do not perceive our visits or unique users to be an accurate representation of our user engagement, or if we discover material inaccuracies in our visits or unique users, our reputation may be harmed, and real estate professionals and advertisers may be less willing to allocate their resources to our products and services, which could negatively affect our business and operating results.

We Expect Our Results of Operations to Fluctuate on a Quarterly and Annual Basis.

Our revenue and results of operations could vary significantly from period to period and may fail to match expectations as a result of a variety of factors, some of which are outside our control. The other risk factors discussed in this “Risk Factors” section may contribute to the variability of our quarterly and annual results. In addition, our results may fluctuate as a result of seasonal variances of home sales, which historically peak in the spring and summer seasons, fluctuations in the quantity of, and the price at which we are able to sell, our remnant advertising, and the size and seasonal variability of our real estate partners’ marketing budgets. The seasonal variance and cyclical nature of home sales may contribute to the variability of our revenue and results of operations for our Homes and Mortgages segments, in particular, which seasonality may be masked as those segments are growing. As a result of the potential variations in our revenue and results of operations, period-to-period comparisons may not be meaningful and the results of any one period should not be relied on as an indication of future performance. In addition, our results of operations may not meet the expectations of investors or public market analysts who follow us, which may adversely affect our stock price.

We Could Be Subject to Additional Income Tax Liabilities and Our Ability to Use Our Net Operating Loss Carryforwards and Certain Other Tax Attributes May Be Limited.

We are subject to federal and state income taxes in the United States and in Canada. Tax laws, regulations, and administrative practices in various jurisdictions may be subject to significant change, with or without notice, due to economic, political, and other conditions, and significant judgment is required in evaluating and estimating these taxes. Our effective tax rates could be affected by numerous factors, such as entry into new businesses and geographies, changes to our existing business and operations, acquisitions and investments and how they are financed, changes in our stock price, changes in our deferred tax assets and liabilities and their valuation, and changes in the relevant tax, accounting, and other laws, regulations, administrative practices, principles, and interpretations. We are required to take positions regarding the interpretation of complex statutory and regulatory tax rules and on valuation matters that are subject to uncertainty, and the Internal Revenue Service or other tax authorities may challenge the positions we take.

We have incurred losses during our history. To the extent that we continue to generate taxable losses, unused losses will carry forward to offset future taxable income, if any, until such unused losses expire, if at all. As of December 31, 2020, we had federal net operating loss carryforwards of approximately \$1.7 billion, state net operating loss carryforwards of approximately \$53.2 million (tax effected), and net tax credit carryforwards of approximately \$88.8 million. Under the Tax Act, as modified by the Coronavirus Aid, Relief, and Economic Security Act (the “CARES Act”), United States federal net operating loss carryforwards generated in taxable periods beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such net operating loss carryforwards in taxable years beginning after December 31, 2020 is limited to 80% of taxable income. It is uncertain if and to what extent various states will conform to the Tax Act or the CARES Act.

Under Sections 382 and 383 of the Internal Revenue Code, if a corporation undergoes an ownership change, the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income or income tax liability may be limited. In connection with our August 2013 public offering of our Class A common stock, we experienced an ownership change that triggered Sections 382 and 383, which may limit our ability to utilize net operating loss and tax credit carryforwards. In connection with our February 2015 acquisition of Trulia, Inc., Trulia, Inc. experienced an ownership change that triggered Section 382 and 383, which may limit Zillow Group's ability to utilize Trulia, Inc.'s net operating loss and tax credit carryforwards.

Risks Related to Ownership of Our Common and Capital Stock and Debt Instruments

Our Class A Common Stock and Class C Capital Stock Prices May Be Volatile, and the Value of an Investment in Our Class A Common Stock and Class C Capital Stock May Decline.

An active, liquid and orderly market for our Class A common stock and Class C capital stock may not be sustained, which could depress the trading price of our Class A common stock and Class C capital stock. The trading price of our Class A common stock and Class C capital stock has at times experienced price volatility and may continue to be volatile. For example, since shares of our Class A common stock began trading in February 2015, the closing price of our Class A common stock has ranged from \$17.06 per share to \$146.69 per share (adjusted for the August 2015 stock split effected in the form of a dividend) through December 31, 2020. Since shares of our Class C capital stock began trading in August 2015, the closing price of our Class C capital stock has ranged from \$16.01 per share to \$141.23 per share through December 31, 2020. The market price of our Class A common stock and Class C capital stock could be subject to wide fluctuations in response to many of the risk factors discussed in this Annual Report on Form 10-K and others beyond our control, including:

- actual or anticipated fluctuations in our financial condition and results of operations;
- changes in projected operational and financial results;
- addition or loss of significant customers;
- actual or anticipated changes in our growth rate relative to that of our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital-raising activities or commitments;
- announcements of technological innovations or new offerings by us or our competitors;
- additions or departures of key personnel;
- changes in laws or regulations applicable to our services;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- the inclusion, exclusion, or deletion of our Class A common stock and Class C capital stock from any trading indices, such as the S&P 500 Index;
- issuance of new or updated research or reports by securities analysts;
- sales of our Class A common stock and Class C capital stock by us or our shareholders;
- issuances of our Class C capital stock upon conversion of our 2023 Notes, 2024 Notes, 2025 Notes or 2026 Notes;
- stock price and volume fluctuations attributable to inconsistent trading volume levels of our shares; and
- general economic and market conditions.

Furthermore, the stock markets in recent years have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of the equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of our Class A common stock and Class C capital stock. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We have in the past been and are currently the target of this type of litigation, and we may continue to be the target of this type of litigation in the future. Past, current, and future securities litigation against us could result in substantial costs and divert management's attention from other business concerns, which could harm our business, results of operations or financial condition.

The Structure of Our Capital Stock as Contained in Our Charter Documents Has the Effect of Concentrating Voting Control With Our Founders, and Limits Your Ability to Influence Corporate Matters.

Since Zillow Group's inception, our capital structure has included authorized Class A common stock and authorized Class B common stock. Our Class A common stock entitles its holder to one vote per share, and our Class B common stock entitles its holder to 10 votes per share. All shares of Class B common stock have been and are held or controlled by our founders, Richard Barton and Lloyd Frink. As of December 31, 2020, Mr. Barton's holdings and Mr. Frink's holdings represented approximately 30.7% and 20.0%, respectively, of the voting power of our outstanding capital stock.

For the foreseeable future, Mr. Barton and Mr. Frink will therefore have significant control over our management and affairs and will be able to control most matters requiring shareholder approval, including the election or removal (with or without cause) of directors and the approval of any significant corporate transaction, such as a merger or other sale of us or our assets. In addition, because our Class C capital stock carries no voting rights (except as required by applicable law or as expressly provided in our amended and restated articles of incorporation), the issuance of Class C capital stock (instead of Class A common stock) could prolong the duration of Mr. Barton's and Mr. Frink's relative ownership of our voting power. This concentrated control could delay, defer or prevent a change of control, merger, consolidation, takeover, or other business combination involving us that you, as a shareholder, may otherwise support. This concentrated control could also discourage a potential investor from acquiring our Class A common stock or Class C capital stock due to the limited voting power of such stock relative to the Class B common stock and might harm the market price of our Class A common stock and Class C capital stock.

Future Sales of Our Stock in the Public Market Could Cause Our Stock Price to Decline.

Our Class A common stock began trading on The Nasdaq Global Select Market on February 18, 2015, and our Class C capital stock began trading on The Nasdaq Global Select Market on August 17, 2015. We cannot predict the effect, if any, that market sales of shares or the availability of shares for sale will have on the prevailing trading price of our Class A common stock and Class C capital stock from time to time. There is currently no contractual restriction on our ability to issue additional shares, and all of our outstanding shares are generally freely tradable, except for shares held by our "affiliates" as defined in Rule 144 under the Securities Act, which may be sold in compliance with the volume restrictions of Rule 144. Sales of a substantial number of shares of our Class A common stock and Class C capital stock could cause our stock price to decline. In addition, we may in the future issue shares of Class C capital stock for financings, acquisitions or equity incentives. If we issue shares of Class C capital stock in the future, such issuances would have a dilutive effect on the economic interest of our Class A common stock.

If Securities or Industry Analysts Do Not Publish Research or Publish Inaccurate or Unfavorable Research About Our Business, Our Class A Common Stock and Class C Capital Stock Price and Trading Volume Could Decline.

The trading market for our Class A common stock and Class C capital stock depends in part on the research and reports that securities or industry analysts publish about our company. If few or no securities or industry analysts cover our company, the market price of our publicly-traded stock could be negatively impacted. If securities or industry analysts cover us and if one or more of such analysts downgrade our stock or publish inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of the analysts covering us fail to publish reports on us regularly, demand for our stock could decline, which could cause our stock price and trading volume to decline.

If We Issue Additional Equity Securities or Convertible Debt to Raise Capital or Elect to Settle Conversions of Our Convertible Senior Notes in Stock, It May Have a Dilutive Effect on Shareholders' Investment.

If we raise additional capital through further issuances of equity or convertible debt securities or elect to settle conversions of our convertible senior notes in shares of our Class C capital stock, our existing shareholders could suffer significant dilution in their percentage ownership of us. Moreover, any new equity securities we issue could have rights, preferences and privileges senior to those of holders of our common stock.

The Capped Call Transactions May Affect the Value of Our 2023 Notes, 2024 Notes, 2025 Notes, 2026 Notes and Our Class C Capital Stock.

In connection with the pricing of each of the 2023 Notes, 2024 Notes, 2025 Notes, and 2026 Notes, we entered into capped call transactions with certain financial institutions (the “option counterparties”). The capped call transactions are expected generally to reduce the potential dilution in connection with the conversion of the 2023 Notes, 2024 Notes, 2025 Notes, or 2026 Notes and/or offset any cash payments we are required to make in excess of the principal amount of converted notes, as the case may be. In connection with our Convertible Senior Notes due in 2021 (“2021 Notes”), the balance of which we redeemed in late 2020, we exercised our right to keep the associated capped call confirmations open through the expiration of the 2021 Notes, which caused short term dilution. We may pursue similar options with the capped call confirmations associated with each of the 2023 Notes, 2024 Notes, 2025 Notes, and 2026 Notes in the future.

The option counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivative transactions with respect to our Class C capital stock and/or purchasing or selling our Class C capital stock or other securities of ours in secondary market transactions prior to the maturity of each of the 2023 Notes, 2024 Note, 2025 Notes, and 2026 Notes (and are likely to do so during any observation period related to a conversion of 2023 Notes, 2024 Notes, 2025 Notes, or 2026 Notes or in connection with any repurchase of 2023 Notes, 2024 Notes, 2025 Notes, or 2026 Notes by us). This activity could cause or avoid an increase or a decrease in the market price of our Class C capital stock, the 2023 Notes, the 2024 Notes, 2025 Notes, or the 2026 Notes.

Anti-Takeover Provisions in Our Charter Documents and Under Washington Law Could Make an Acquisition of Us More Difficult, Limit Attempts by Shareholders to Replace or Remove Our Management and Affect the Market Price of Our Stock.

Provisions in our articles of incorporation and bylaws, as amended and restated, may have the effect of delaying or preventing a change of control or changes in our management. Our amended and restated articles of incorporation or amended and restated bylaws include provisions, some of which will become effective only after the date, which we refer to as the threshold date, on which the Class B common stock controlled by our founders represents less than 7% of the aggregate number of shares of our outstanding Class A common stock and Class B common stock, that:

- set forth the structure of our capital stock, which concentrates voting control of matters submitted to a vote of our shareholders with the holders of our Class B common stock, which is held or controlled by our founders;
- authorize our board of directors to issue, without further action by our shareholders, up to 30,000,000 shares of undesignated preferred stock, subject, prior to the threshold date, to the approval rights of the holders of our Class B common stock;
- establish that our board of directors will be divided into three classes, Class I, Class II and Class III, with each class serving three-year staggered terms;
- prohibit cumulative voting in the election of directors;
- provide that, after the threshold date, our directors may be removed only for cause;
- provide that, after the threshold date, vacancies on our board of directors may be filled only by the affirmative vote of a majority of directors then in office or by the sole remaining director;
- provide that only our board of directors may change the board’s size;
- specify that special meetings of our shareholders can be called only by the chair of our board of directors, our board of directors, our chief executive officer, our president or, prior to the threshold date, holders of at least 25% of all the votes entitled to be cast on any issue proposed to be considered at any such special meeting;
- establish an advance notice procedure for shareholder proposals to be brought before a meeting of shareholders, including proposed nominations of persons for election to our board of directors;
- require the approval of our board of directors or the holders of at least two-thirds of all the votes entitled to be cast by shareholders generally in the election of directors, voting together as a single group, to amend or repeal our bylaws; and
- require the approval of not less than two-thirds of all the votes entitled to be cast on a proposed amendment, voting together as a single group, to amend certain provisions of our articles of incorporation.

Prior to the threshold date, our directors can be removed with or without cause by holders of our Class A common stock and Class B common stock, voting together as a single group, and vacancies on the board of directors may be filled by such shareholders, voting together as a single group. Given the structure of our capital stock, our founders, Richard Barton and Lloyd Frink, who hold or control our Class B common stock, will have the ability for the foreseeable future to control these shareholder actions. See the risk factor above titled “The Structure of Our Capital Stock as Contained in Our Charter Documents Has the Effect of Concentrating Voting Control With our Founders, and Limits Your Ability to Influence Corporate Matters.”

The provisions described above, after the threshold date, may frustrate or prevent any attempts by our shareholders to replace or remove our current management by making it more difficult for shareholders to replace members of our board of directors, which board is responsible for appointing our management. In addition, because we are incorporated in the State of Washington, we are governed by the provisions of Chapter 23B.19 of the Washington Business Corporation Act, which prohibits certain business combinations between us and certain significant shareholders unless specified conditions are met. These provisions may also have the effect of delaying or preventing a change of control of our company, even if this change of control would benefit our shareholders.

Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

We have various operating leases for office space, which are summarized as of December 31, 2020 in the table below, by reportable segment. Zillow Group has three segments: Homes, Internet, Media & Technology (“IMT”), and Mortgages. We believe that our facilities are adequate for our current needs.

Location	Purpose	Primary Reportable Segment(s)	Approximate Square Feet	Principal Lease Expiration Dates
Seattle, Washington	Corporate headquarters for Zillow Group	All segments	386,275	2024
New York, New York	General office space	Homes and IMT	183,479	2030
San Francisco, California	General office space	All segments	105,897	2023
Irvine, California	General office space	All segments	80,312	2027
Denver, Colorado	General office space	All segments	73,781	2021
Overland Park, Kansas	General office space	Mortgages	70,373	2024
Atlanta, Georgia	General office space	Homes and IMT	51,822	2025

In addition, we lease office space in several other locations in the United States and Canada. See Note 2, Note 13 and Note 19 of Part II, Item 8 of this Annual Report on Form 10-K for more information about our lease commitments.

Item 3. Legal Proceedings.

For information regarding legal proceedings in which we are involved, see Note 19 under the subsection titled “Legal Proceedings” in our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

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

Market Information and Holders

Our Class A common stock has traded on The Nasdaq Global Select Market under the symbol “ZG” since August 17, 2015 and under the symbol “Z” from July 20, 2011 through August 14, 2015.

Our Class B common stock is not listed and there is no established public trading market.

Our Class C capital stock has traded on The Nasdaq Global Select Market under the symbol “Z” since August 17, 2015. Prior to that time, there was no public market for our Class C capital stock.

Holders of Record

As of February 5, 2021, there were 220, three, and 127 holders of record of our Class A common stock, our Class B common stock, and our Class C capital stock, respectively.

Dividends

We have never declared or paid a cash dividend on our common or capital stock and we intend to retain all available funds and any future earnings to fund the development and growth of our business. We therefore do not anticipate paying any cash dividends on our common or capital stock in the foreseeable future. Any future determinations to pay dividends on our common or capital stock would depend on our results of operations, our financial condition and liquidity requirements, restrictions that may be imposed by applicable law or our contracts and any other factors that our board of directors may consider relevant.

Recent Sales of Unregistered Securities and Use of Proceeds from Registered Securities

Recent Sales of Unregistered Securities

There were no unregistered sales of equity securities during the year ended December 31, 2020.

Purchases of Equity Securities by the Issuer

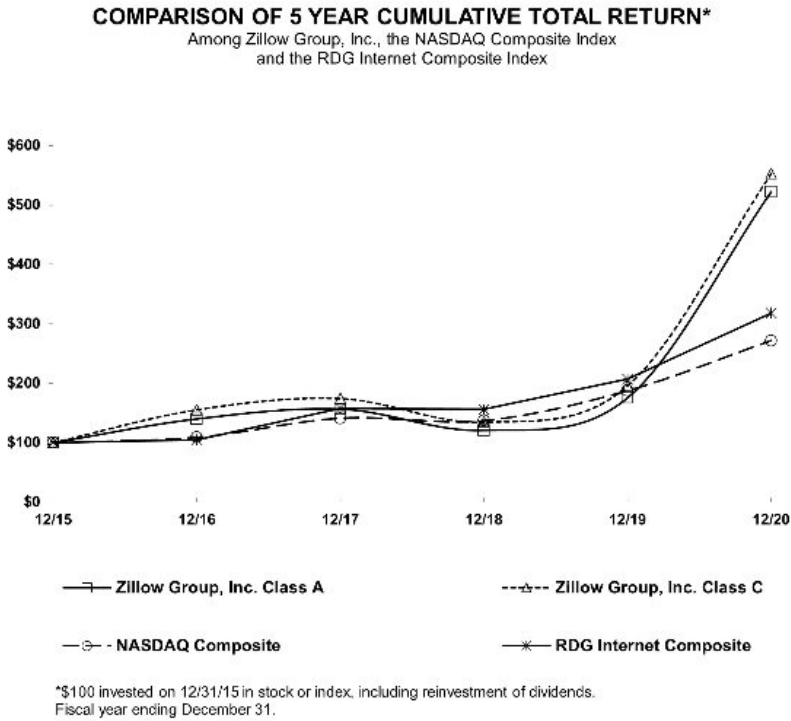
None.

Performance Graph

The following graph compares our cumulative total shareholder return on Zillow Group’s common and capital stock with the Nasdaq Composite Index and the RDG Internet Composite Index.

This graph covers the period from December 31, 2015 through December 31, 2020 for our Class A common stock and Class C capital stock. This graph assumes that the value of the investment in Zillow Group’s Class A common stock, Class C capital stock and each index (including reinvestment of dividends) was \$100 on December 31, 2015.

The information contained in the graph is based on historical data and is not intended to forecast possible future performance.



Item 6. Selected Financial Data.

Part II, Item 6 is no longer required as the Company has adopted certain provisions within the amendments to Regulation S-K that eliminate Item 301.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion of our financial condition and results of operations should be read in conjunction with our audited consolidated financial statements and the related notes included elsewhere in this Annual Report on Form 10-K. The following discussion focuses on 2020 and 2019 financial condition and results of operations and year-to-year comparisons between 2020 and 2019. Similar discussion of our 2018 financial condition and results and year-to-year comparisons between 2019 and 2018 can be found in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part II, Item 7 of the Company’s Annual Report on Form 10-K for the year ended December 31, 2019.

In addition to historical financial information, the following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results may differ materially from those described in or implied by any forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Annual Report on Form 10-K, particularly in the section titled “Risk Factors”.

Overview of our Business

Zillow Group, Inc. is reimagining real estate to make it easier to unlock life’s next chapter. As the most visited real estate website in the U.S., Zillow and its affiliates offer customers an on-demand experience for selling, buying, renting or financing with transparency and nearly seamless end-to-end service. Zillow Offers buys and sells homes directly in dozens of markets across the country, allowing sellers control over their timeline. Zillow Home Loans, our affiliate lender, provides our customers with an easy option to get pre-approved and secure financing for their next home purchase. In September 2020, Zillow launched Zillow Homes, Inc., a licensed brokerage entity, to streamline Zillow Offers transactions.

Other consumer brands include Trulia, StreetEasy, HotPads and Out East. In addition, Zillow Group provides a comprehensive suite of marketing software and technology solutions which include Mortech, dotloop, Bridge Interactive and New Home Feed.

Reportable Segments and Revenue Overview

Zillow Group has three reportable segments: the Homes segment, the Internet, Media & Technology (“IMT”) segment and the Mortgages segment. The Homes segment includes the financial results from Zillow Group’s purchase and sale of homes directly through the Zillow Offers service and the financial results from the title and escrow services provided through Zillow Closing Services. The IMT segment includes the financial results for the Premier Agent, rentals and new construction marketplaces, as well as dotloop, display and other advertising and business software solutions. The Mortgages segment includes financial results for mortgage originations through Zillow Home Loans, advertising sold to mortgage lenders and other mortgage professionals as well as our Mortech mortgage software solutions.

The Homes segment primarily generates revenue through our Zillow Offers service from the resale of homes. Other Homes revenue relates to revenue associated with title and escrow services provided through Zillow Closing Services which launched in the second half of 2019.

Premier Agent revenue is generated by the sale of advertising services, as well as marketing and technology products and services, to help real estate agents and brokers grow and manage their businesses. We offer these products and services through our Premier Agent and Premier Broker programs. Premier Agent and Premier Broker advertising products, which include the delivery of impressions and validated consumer connections, or leads, are primarily offered on a share of voice basis. Impressions and leads are distributed to Premier Agents and Premier Brokers in proportion to their share of voice, or an agent advertiser’s share of total advertising purchased in a particular zip code. Impressions are delivered when an advertisement of a Premier Agent or Premier Broker appears on pages viewed by users of our mobile applications and websites and connections are delivered when consumer contact information is provided to Premier Agents and Premier Brokers. Connections and impressions are each provided as part of our advertising services for Premier Agent and Premier Brokers; we do not charge a separate fee for these consumer leads.

In October 2018, we began testing a new Flex pricing model for Premier Agent and Premier Broker advertising services in limited markets. We now offer this pricing model to select partners, and provide it alongside our legacy market-based pricing model. With the Flex model, Premier Agents and Premier Brokers are provided with validated leads at no upfront cost and pay a performance advertising fee only when a real estate transaction is closed with one of the leads.

Other IMT revenue includes revenue generated by rentals, new construction and display advertising, as well as revenue from the sale of various other advertising and business technology solutions for real estate professionals, including dotloop. Rentals revenue includes advertising sold to property managers, landlords and other rental professionals on a cost per lead, cost per click, cost per lease, cost per listing or cost per impression basis. Rentals revenue also includes revenue generated from our rental applications product, through which potential renters can submit applications to multiple properties for a flat service fee. New construction revenue primarily includes advertising services sold to home builders on a cost per residential community or cost per impression basis. Display revenue consists of graphical mobile and web advertising sold on a cost per impression or cost per click basis to advertisers promoting their brands on our mobile applications and websites.

In our Mortgages segment, we generate revenue through mortgage originations and the related sale of mortgages on the secondary market through Zillow Home Loans, and from advertising sold to mortgage lenders and other mortgage professionals on a cost per lead basis, including our Custom Quote and Connect services. We also generate revenue from Mortech, which provides subscription-based mortgage software solutions, including a product and pricing engine and lead management platform. For additional information regarding our revenue recognition policies see Note 2 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

Financial Highlights

For the years ended December 31, 2020 and 2019, we generated revenue of \$3.3 billion and \$2.7 billion, respectively, representing year-over-year growth of 22%. The increase in total revenue was primarily attributable to the following:

- Zillow Offers revenue grew to \$1.7 billion for the year ended December 31, 2020 due to the sale of 5,337 homes at an average selling price of \$320.5 thousand per home. For the year ended December 31, 2019, Zillow Offers revenue was \$1.4 billion due to the sale of 4,313 homes at an average selling price of \$316.5 thousand per home. Although Zillow Offers revenue increased for the year ended December 31, 2020 as compared to the year ended December 31, 2019, revenue for the year ended December 31, 2020 was negatively impacted by the COVID-19 pandemic due to the pause in home buying activities in our Zillow Offers business in the first half of 2020, which resulted in lower inventory available for resale in the second half of the year. As of December 31, 2020, Zillow Offers was operating in 25 metropolitan areas.
- Premier Agent revenue increased by \$123.1 million to \$1.0 billion for the year ended December 31, 2020 compared to \$923.9 million for the year ended December 31, 2019.
- Other IMT revenue increased by \$50.3 million to \$403.3 million for the year ended December 31, 2020 compared to \$353.0 million for the year ended December 31, 2019, primarily due to a 35% increase in rentals revenue.
- Mortgages segment revenue increased by \$73.5 million to \$174.2 million for the year ended December 31, 2020 compared to \$100.7 million for the year ended December 31, 2019, primarily due to an increase in revenue generated by Zillow Home Loans.
- Visits for the years ended December 31, 2020 and 2019 were 9,627.2 million and 8,065.5 million, respectively, representing year-over-year growth of 19%. The increase in visits increased the number of events we monetized across our revenue categories.
- Average monthly unique users of our mobile applications and websites for the three months ended December 31, 2020 and 2019 were 200.7 million and 172.6 million, respectively, representing year-over-year growth of 16%.

COVID-19 Impact

In December 2019, COVID-19 was reported and subsequently spread worldwide. On March 11, 2020, the World Health Organization declared COVID-19 a pandemic. The COVID-19 pandemic and resulting global and economic disruptions have affected our business, as well as those of our customers and real estate partners. In response to the COVID-19 pandemic, we have taken certain measures intended to serve the needs of our customers and real estate partners, while also protecting our business and the safety of our employees, our customers and the communities in which we operate.

We have taken meaningful actions to support our customers and partners throughout the pandemic, including implementing a variety of relief initiatives to help them navigate their financial challenges. Effective March 23, 2020, we began offering Premier Agent advertisers who participate in our market-based pricing program a 50% discount on their subsequent monthly bill. This discount also applied to any new bookings through April 22, 2020. Additionally, we provided additional targeted market-based discounts and temporary discounts on certain of our other IMT and Mortgage marketplace products throughout the second quarter, and in limited cases during the third quarter. We experienced year-over-year growth in IMT segment revenue for the year ended December 31, 2020, including Premier Agent revenue and Other IMT segment revenue, driven primarily by faster-than-expected residential real estate industry recovery during the second half of 2020 leading to increased consumer engagement across our mobile applications and websites as visits increased 19% to 9,627.2 million for the year ended December 31, 2020. In addition, we experienced year-over-year growth in Mortgages segment revenue for the year ended December 31, 2020, primarily as a result of low interest rates and a strong refinance market.

On March 23, 2020, we announced that Zillow Offers would temporarily pause home buying in all markets in response to local public health orders and to help protect the safety and health of our employees, customers and partners. Where able, we continued to make updates to, list and sell homes in inventory. By early August 2020, we had resumed home buying in all paused Zillow Offers markets with enhanced health and safety protocols and increased usage of virtual technology. For example, buyers can use virtual tools on the Zillow mobile application or website to view a home if they do not want to visit in person, and all Zillow-owned homes have 3D home tours and floor plans, including room dimensions, on the listing. Revenue generated by the Homes segment for the year ended December 31, 2020 was negatively impacted by our pause in home buying activities for Zillow Offers, which led to lower than anticipated inventory levels and less homes available for resale during the second half of 2020.

To preserve our liquidity in response to the COVID-19 pandemic, we temporarily paused hiring for non-critical roles, paused the majority of our advertising spending and reduced other discretionary spending. During the second half of 2020, we began to increase our hiring and marketing and advertising activities and expect to continue to increase these activities in 2021. In May of 2020, we strengthened our financial position through our issuance of \$565.0 million aggregate principal amount of convertible senior notes due in 2025 ("2025 Notes") for net proceeds of \$553.3 million, of which we used \$194.7 million to repurchase certain of our convertible senior notes due in 2021 ("2021 Notes"), and we issued 8,800,000 shares of Class C capital stock for net proceeds of \$411.5 million. Our liquidity has been positively impacted by certain provisions included in the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") that was signed into law on March 27, 2020. The CARES Act provides tax provisions and other stimulus measures to affected companies. Under the CARES Act, we expect to defer certain employer payroll tax payments until 2021 and 2022. We deferred a total of \$23.8 million of such payments as of December 31, 2020. The impact of the CARES Act was otherwise immaterial to our results of operations for the year ended December 31, 2020.

We have also taken action to promote the health and safety of our employees during the COVID-19 pandemic, and we quickly transitioned the majority of our employees to work remotely in March 2020. We subsequently announced that most employees will have flexibility to work from home indefinitely. We started re-opening our offices to employees on an as-needed basis in September 2020. We expect office re-openings to be a gradual process and believe our offices will continue to provide our distributed workforce with a place to work, learn and collaborate in the future.

As reflected in the discussion below, the impact of the pandemic and actions taken in response to it had varying effects on our key metrics during the year ended December 31, 2020 and results of operations for the year ended December 31, 2020. The effect of the COVID-19 pandemic will not be fully reflected in our results of operations and overall financial performance until future periods as the extent of the impact of COVID-19 on our business continues to be uncertain and difficult to predict. While we have seen recovery in our business and the business of our customers and real estate partners from the initial economic effects of the pandemic, we expect the impact of the COVID-19 pandemic to continue to affect our financial results in 2021. The extent to which COVID-19 continues to impact our results and financial position will depend on future developments, which are uncertain and difficult to predict, including new information that may emerge concerning the severity of the COVID-19 pandemic, actions taken to contain it or address its impact and the availability and widespread distribution and use of effective vaccines.

Key Metrics

Management has identified visits, unique users and the number of homes sold through Zillow Offers as relevant to investors' and others' assessment of our financial condition and results of operations. Although there was an increase in visits for the year ended December 31, 2020 as compared to the year ended December 31, 2019 and unique users for the three months ended December 31, 2020 as compared to the three months ended December 31, 2019, both metrics were adversely impacted by the COVID-19 pandemic in the first half of 2020. While visits and unique users stabilized during the second half of 2020, COVID-19 may continue to adversely impact the number of visits and unique users to our mobile applications and websites in the future.

Visits

The number of visits is an important metric because it is an indicator of consumers' level of engagement with our mobile applications, websites and other services. We believe highly engaged consumers are more likely to participate in our Zillow Offers program, use Zillow Homes Loans or be transaction-ready real estate market participants and therefore are more sought-after by our Premier Agent and Premier Broker real estate partners.

We define a visit as a group of interactions by users with the Zillow, Trulia and StreetEasy mobile applications and websites. A single visit can contain multiple page views and actions, and a single user can open multiple visits across domains, web browsers, desktop or mobile devices. Visits can occur on the same day, or over several days, weeks or months.

Zillow and StreetEasy measure visits with Google Analytics, and Trulia measures visits with Adobe Analytics. Visits to Trulia end after thirty minutes of user inactivity. Visits to Zillow and StreetEasy end either: (i) after thirty minutes of user inactivity or at midnight; or (ii) through a campaign change. A visit ends through a campaign change if a visitor arrives via one campaign or source (for example, via a search engine or referring link on a third-party website), leaves the mobile application or website, and then returns via another campaign or source.

The following table presents the number of visits to our mobile applications and websites for the periods presented (in millions):

	Year Ended December 31,		2019 to 2020 % Change
	2020	2019	
Visits	9,627.2	8,065.5	19 %

Unique Users

Measuring unique users is important to us because much of our revenue depends in part on our ability to connect home buyers and sellers, renters and individuals with or looking for a mortgage to real estate, rental and mortgage professionals, products and services. Growth in consumer traffic to our mobile applications and websites increases the number of impressions, clicks, connections, leads and other events we can monetize to generate revenue. For example, our Homes segment revenue depends in part on users accessing our mobile applications and websites to engage in the sale and purchase of homes with Zillow Offers, and Premier Agent revenue and display revenue depend on advertisements being served to users of our mobile applications and websites.

We count a unique user the first time an individual accesses one of our mobile applications using a mobile device during a calendar month and the first time an individual accesses one of our websites using a web browser during a calendar month. If an individual accesses our mobile applications using different mobile devices within a given month, the first instance of access by each such mobile device is counted as a separate unique user. If an individual accesses more than one of our mobile applications within a given month, the first access to each mobile application is counted as a separate unique user. If an individual accesses our websites using different web browsers within a given month, the first access by each such web browser is counted as a separate unique user. If an individual accesses more than one of our websites in a single month, the first access to each website is counted as a separate unique user since unique users are tracked separately for each domain. Zillow, StreetEasy and HotPads measure unique users with Google Analytics, and Trulia measures unique users with Adobe Analytics.

Due to third-party technological limitations, user software settings, or user behavior, Google Analytics may assign a unique cookie to different instances of access by the same individual to our mobile applications and websites. In such instances, Google Analytics would count different instances of access by the same individual as separate unique users. Accordingly, reliance on the number of unique users counted by Google Analytics may overstate the actual number of unique users who access our mobile applications and websites during the period.

The following table presents our average monthly unique users for the periods presented (in millions):

	Three Months Ended December 31,		2019 to 2020 % Change	
	2020	2019		
Average Monthly Unique Users	200.7	172.6	16	%

Homes Sold

The number of homes sold through Zillow Offers is an important metric as it is an indicator of customers' adoption of the Zillow Offers service as well as our ability to generate revenue through the service. Growth in the number of homes sold through Zillow Offers suggests increased adoption of the service by home buyers and generally results in growth in Homes segment revenue.

The following table presents the number of homes sold through Zillow Offers for the periods presented:

	Year Ended December 31,		2019 to 2020 % Change	
	2020	2019		
Number of Homes Sold	5,337	4,313	24	%

Results of Operations

Given the uncertainty surrounding COVID-19, including the associated economic disruption and unknown overall impact on customer demand and the unknown duration and severity of the pandemic, including availability and widespread distribution and use of effective vaccines, it is difficult to forecast the full impact on our business. As a result, financial performance for prior and current periods may not be indicative of future performance.

Revenue

	Year Ended December 31,				% of Total Revenue	
			2019 to 2020		Year Ended December 31,	
	2020	2019	\$ Change	% Change	2020	2019
	(in thousands)					
Revenue:						
Homes segment:						
Zillow Offers	\$ 1,710,535	\$ 1,365,250	\$ 345,285	25 %	51 %	50 %
Other	4,840	—	4,840	N/A	—	0
Total Homes segment revenue	1,715,375	1,365,250	350,125	26	51	50
IMT segment:						
Premier Agent	1,046,954	923,876	123,078	13	31	34
Other	403,278	353,020	50,258	14	12	13
Total IMT segment revenue	1,450,232	1,276,896	173,336	14	43	47
Mortgages segment	174,210	100,691	73,519	73	5	4
Total revenue	\$ 3,339,817	\$ 2,742,837	\$ 596,980	22 %	100 %	100 %

Total revenue increased \$597.0 million, or 22%, to \$3.3 billion:

- Homes segment revenue increased 26% to \$1.7 billion, primarily due to an increase in Zillow Offers revenue of \$345.3 million, or 25%. Zillow Offers revenue increased to \$1.7 billion due to the sale of 5,337 homes at an average selling price of \$320.5 thousand per home as compared to the sale of 4,313 homes at an average selling price of \$316.5 thousand per home for the year ended December 31, 2019. Although Zillow Offers revenue increased for the year ended December 31, 2020 as compared to the year ended December 31, 2019, revenue was negatively impacted by the COVID-19 pandemic due to the pause in home buying activities by our Zillow Offers business beginning in March of 2020, as discussed above. While we resumed home buying in all Zillow Offers markets in early August 2020, the pause in home buying activities in our Zillow Offers business in the first half of 2020 resulted in lower inventory available for resale during the second half of 2020. We expect Zillow Offers revenue to increase in future periods as we expect to continue to increase our home buying and home selling activities across all markets. However, given the unknown duration and severity of the COVID-19 pandemic and related economic disruption, we do not know whether we will have to make further adjustments to our operations or how quickly the business will re-accelerate now that we have resumed home buying activities.
- IMT segment revenue increased 14% to \$1.5 billion, primarily due to an increase of \$123.1 million, or 13%, in Premier Agent revenue. Premier Agent revenue was positively impacted by an increase in visits, which increased 19% to 9,627.2 million for the year ended December 31, 2020 from 8,065.5 million for the year ended December 31, 2019. Premier Agent revenue per visit decreased by 5% to \$0.109 for the year ended December 31, 2020 from \$0.115 for the year ended December 31, 2019. We calculate Premier Agent revenue per visit by dividing the revenue generated by our Premier Agent and Premier Broker programs by the number of visits in the period. Temporary discounts offered to our Premier Agent partners in response to the COVID-19 pandemic partially offset the growth in Premier Agent revenue, resulting in lower revenue per visit when compared to the prior year. Other IMT revenue increased \$50.3 million, or 14%, primarily due to a 35% increase in revenue generated by our rentals marketplace attributable to increased advertising revenue and increased adoption of our rentals application product, partially offset by the impact of COVID-19 related discounts offered during the first half of 2020. IMT segment revenue was also negatively impacted by a 38% decrease in display revenue, as display advertisers decreased discretionary marketing spend during the COVID-19 pandemic.
- Mortgages segment revenue increased 73% to \$174.2 million. The increase in mortgages revenue is primarily due to an increase in revenue generated by Zillow Home Loans due to higher sales volume reflective of market demand as low interest rates have supported strong refinance activity and expanded industry margins on selling mortgages into the secondary market.

Income (Loss) Before Income Taxes

	Year Ended December 31,		2019 to 2020		% of Revenue	
					Year Ended December 31,	
	2020	2019	\$ Change	% Change	2020	2019
	(in thousands)					
Income (loss) before income taxes:						
Homes segment	\$ (320,254)	\$ (312,120)	\$ (8,134)	(3)%	(19)%	(23)%
IMT segment	262,984	80,060	182,924	228	18	6
Mortgages segment	4,514	(44,962)	49,476	110	3	(45)
Corporate items (1)	(116,882)	(32,597)	(84,285)	(259)	N/A	N/A
Total loss before income taxes	<u>\$ (169,638)</u>	<u>\$ (309,619)</u>	<u>\$ 139,981</u>	<u>45 %</u>	<u>(5)%</u>	<u>(11)%</u>

(1) Certain corporate items are not directly attributable to any of our segments, including the gain on the extinguishment of the 2021 Notes, interest income earned on our short-term investments included in other income and interest costs on our convertible senior notes included in interest expense.

Loss before income taxes decreased \$140.0 million, or 45%, to \$169.6 million, driven by:

- An increase in IMT segment income before income taxes of \$182.9 million, or 228%, primarily due to an increase in IMT segment revenue of \$173.3 million, as discussed above, and a \$62.6 million decrease in marketing and advertising expenses, partially offset by \$73.9 million in impairment costs, as discussed further below.

- A decrease in Mortgages segment loss before income taxes of \$49.5 million to income before income taxes of \$4.5 million, primarily due to an increase in Mortgages segment revenue of \$73.5 million, partially offset by an increase in Mortgages segment costs and expenses of \$23.7 million. Increased Mortgages segment revenue was primarily a result of higher sales volume within our Zillow Home Loans business. The increased total costs and expenses were primarily the result of increased headcount-related costs to support the growth in our Zillow Home Loans business.
- An increase in Homes segment loss before income taxes of \$8.1 million, or 3%, resulting from an increase in Homes segment costs and expenses of \$371.4 million, partially offset by an increase of \$350.1 million in Homes segment revenue and a decrease of \$13.2 million in interest expense. The increase in these items was driven by the sale of 1,024 additional homes and an increased investment in headcount during the year ended December 31, 2020 compared to the year ended December 31, 2019 as we continued to expand our Zillow Offers business.
- An increase in loss before income taxes for corporate items of \$84.3 million, primarily driven by a \$65.4 million increase in interest expense associated with the September 2019 issuance of the convertible senior notes due in 2026, the September 2019 and October 2019 issuances of the convertible senior notes due in 2024, and the May 2020 issuance of the 2025 Notes and a \$20.4 million decrease in other income driven by lower interest rates and a rebalancing of our investment portfolio to lower risk investments with generally lower yields in light of the COVID-19 pandemic.

Adjusted EBITDA

	Year Ended December 31,		2019 to 2020		% of Revenue Year Ended December 31,	
	2020	2019	\$ Change	% Change	2020	2019
	(in thousands)					
Net loss:	\$ (162,115)	\$ (305,361)	\$ 143,246	47 %	(5)%	(11)%
Adjusted EBITDA:						
Homes segment	\$ (241,969)	\$ (241,326)	\$ (643)	— %	(14)%	(18)%
IMT segment	556,137	303,863	252,274	83	38	24
Mortgages segment	28,825	(23,653)	52,478	222	17	(23)
Total Adjusted EBITDA	\$ 342,993	\$ 38,884	\$ 304,109	782 %	10 %	1 %

To provide investors with additional information regarding our financial results, we have disclosed Adjusted EBITDA in total and for each segment, each a non-GAAP financial measure, within this Annual Report on Form 10-K. We have provided a reconciliation below of Adjusted EBITDA in total to net loss and Adjusted EBITDA by segment to income (loss) before income taxes for each segment, the most directly comparable GAAP financial measures.

We have included Adjusted EBITDA in total and for each segment in this Annual Report on Form 10-K as they are key metrics used by our management and board of directors to measure operating performance and trends and to prepare and approve our annual budget. In particular, the exclusion of certain expenses in calculating Adjusted EBITDA facilitates operating performance comparisons on a period-to-period basis.

Our use of Adjusted EBITDA in total and for each segment has limitations as an analytical tool, and you should not consider these measures in isolation or as a substitute for analysis of our results as reported under GAAP. Some of these limitations are:

- Adjusted EBITDA does not reflect our cash expenditures or future requirements for capital expenditures or contractual commitments;
- Adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs;
- Adjusted EBITDA does not consider the potentially dilutive impact of share-based compensation;
- Although depreciation and amortization are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future, and Adjusted EBITDA does not reflect cash capital expenditure requirements for such replacements or for new capital expenditure requirements;
- Adjusted EBITDA does not reflect impairment costs;
- Adjusted EBITDA does not reflect the gain on the extinguishment of the 2021 Notes;

- Adjusted EBITDA does not reflect interest expense or other income;
- Adjusted EBITDA does not reflect income taxes; and
- Other companies, including companies in our own industry, may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

Because of these limitations, you should consider Adjusted EBITDA in total and for each segment alongside other financial performance measures, including various cash flow metrics, net loss, income (loss) before income taxes for each segment and our other GAAP results.

The following tables present a reconciliation of Adjusted EBITDA to the most directly comparable GAAP financial measure, which is net loss on a consolidated basis and income (loss) before income taxes for each segment, for each of the periods presented (in thousands):

	Year Ended December 31, 2020				
	Homes	IMT	Mortgages	Corporate Items (2)	Consolidated
Reconciliation of Adjusted EBITDA to Net Loss and Income (Loss) Before Income Taxes:					
Net loss (1)	N/A	N/A	N/A	N/A	\$ (162,115)
Income tax benefit	N/A	N/A	N/A	N/A	(7,523)
Income (loss) before income taxes	\$ (320,254)	\$ 262,984	\$ 4,514	\$ (116,882)	\$ (169,638)
Other income	—	(5,300)	(2,369)	(17,860)	(25,529)
Depreciation and amortization expense	13,315	89,862	6,854	—	110,031
Share-based compensation expense	48,166	134,691	14,693	—	197,550
Gain on extinguishment of 2021 Notes	—	—	—	(1,448)	(1,448)
Impairment costs	—	73,900	2,900	—	76,800
Interest expense	16,804	—	2,233	136,190	155,227
Adjusted EBITDA	\$ (241,969)	\$ 556,137	\$ 28,825	\$ —	\$ 342,993

	Year Ended December 31, 2019				
	Homes	IMT	Mortgages	Corporate Items (2)	Consolidated
Reconciliation of Adjusted EBITDA to Net Loss and Income (Loss) Before Income Taxes:					
Net loss (1)	N/A	N/A	N/A	N/A	\$ (305,361)
Income tax benefit	N/A	N/A	N/A	N/A	(4,258)
Income (loss) before income taxes	\$ (312,120)	\$ 80,060	\$ (44,962)	\$ (32,597)	\$ (309,619)
Other income	—	—	(1,409)	(38,249)	(39,658)
Depreciation and amortization expense	8,414	73,369	5,684	—	87,467
Share-based compensation expense	32,390	150,434	16,078	—	198,902
Interest expense	29,990	—	956	70,846	101,792
Adjusted EBITDA	\$ (241,326)	\$ 303,863	\$ (23,653)	\$ —	\$ 38,884

(1) We use income (loss) before income taxes as our profitability measure in making operating decisions and assessing the performance of our segments, therefore, net loss and income tax benefit are calculated and presented only on a consolidated basis within our financial statements.

(2) Certain corporate items are not directly attributable to any of our segments, including the gain on the extinguishment of the 2021 Notes, interest income earned on our short-term investments included in other income and interest costs on our convertible senior notes included in interest expense.

(1) Amortization of website development costs and intangible assets included in technology and development was \$75.3 million and \$61.9 million for the years ended December 31, 2020 and 2019, respectively.

Cost of Revenue

Our cost of revenue consists of expenses related to operating our mobile applications and websites, including associated headcount expenses, such as salaries, benefits, bonuses and share-based compensation expense, as well as revenue-sharing costs related to our commercial business relationships, depreciation expense and costs associated with hosting our mobile applications and websites. For our Homes segment, our cost of revenue also consists of the consideration paid to acquire and make certain repairs and updates to each home, including associated overhead costs, as well as inventory valuation adjustments. For our IMT and Mortgages segments, cost of revenue also includes credit card fees and ad serving costs paid to third parties. For our Mortgages segment, our cost of revenue also consists of direct costs to originate loans, including underwriting and processing costs.

Cost of revenue increased \$324.4 million, or 23%, due primarily to increases of \$305.7 million in our Homes segment, \$13.1 million in our Mortgages segment and \$5.6 million in our IMT segment. The increase in Homes segment cost of revenue was primarily driven by a \$298.0 million increase in home acquisition and renovation costs due to the increase in homes sold during the period from 4,313 homes sold during the year ended December 31, 2019 to 5,337 homes sold during the year ended December 31, 2020. We expect cost of revenue for the Homes segment to increase in absolute dollars in future periods as we re-accelerate home buying and selling and expand into new markets. We expect cost of revenue within our Mortgages segment to increase in absolute dollars in future periods as we continue to incur expenses associated with growth in revenue and expansion of Zillow Home Loans.

Sales and Marketing

Sales and marketing expenses consist of advertising costs and other sales expenses related to promotional and marketing activities, headcount expenses, including salaries, commissions, benefits, bonuses and share-based compensation expense for sales, sales support, customer support, including the customer connections team, marketing and public relations employees and depreciation expense. For our Homes segment, sales and marketing expenses also consist of selling costs, such as real estate agent commissions, escrow and title fees, and staging costs, as well as holding costs incurred during the period that homes are listed for sale, including utilities, taxes and maintenance. During the year ended December 31, 2020, Homes segment sales and marketing expenses also include certain expenses attributable to our efforts to pause home buying in response to the COVID-19 pandemic. For our Mortgages segment, sales and marketing expenses include headcount expenses for loan officers and specialists supporting Zillow Home Loans.

Sales and marketing expenses decreased \$41.3 million, or 6%, due primarily to a decrease of \$66.5 million in our IMT segment, partially offset by increases of \$19.2 million and \$6.0 million in our Homes segment and Mortgages segment, respectively.

The decrease in sales and marketing expenses in the IMT segment was primarily attributable to decreases of \$62.6 million in marketing and advertising expenses, \$11.3 million in trade show and event-related costs and \$11.0 million in travel expenses as we paused non-essential discretionary spending in the first half of 2020 in response to the COVID-19 pandemic. The decrease in sales and marketing expenses in the IMT segment was partially offset by a \$13.2 million increase in headcount-related expenses, including share-based compensation expense, as we continue to grow our teams, and a \$5.3 million increase in depreciation expense. We began to increase our marketing and advertising costs during the second half of 2020, and we expect IMT sales and marketing expenses to increase in absolute dollars in future periods as we continue to increase our marketing and advertising activities.

The increase in Homes segment sales and marketing expenses was primarily attributable to increases of \$21.8 million in headcount-related expenses, including share-based compensation expense, as we have grown our teams to support the expected continued growth in our Homes segment, \$13.4 million in selling expenses attributable to the resale of homes and \$5.5 million attributable to our efforts to pause home buying in response to the COVID-19 pandemic. These increases were partially offset by a decrease in holding costs of \$11.3 million due to relatively low homes inventory throughout the second half of 2020 as we continue to re-accelerate the Zillow Offers business after our temporary pause in home buying activities during the first half of 2020, a decrease in marketing and advertising expenses of \$6.7 million, and a decrease in travel expenses of \$2.5 million as we reduced non-essential discretionary spending in response to the COVID-19 pandemic. Sales and marketing expenses for the Homes segment include \$11.3 million and \$22.6 million in holding costs for the years ended December 31, 2020 and 2019, respectively. We expect sales and marketing expenses within the Homes segment to increase in absolute dollars in future periods as we re-accelerate our Zillow Offers business.

The increase in sales and marketing expenses in the Mortgages segment was primarily attributable to a \$9.3 million increase in headcount expenses associated with growth and expansion of our Zillow Home Loans business. This increase was partially offset by a decrease in marketing and advertising expenses of \$2.5 million as we paused the majority of our advertising spending during the first half of 2020 in response to the COVID-19 pandemic. We expect sales and marketing expenses in the Mortgages segment to increase in absolute dollars in future periods due to increased marketing and headcount-related spend associated with growth in revenue and expansion of Zillow Home Loans.

Technology and Development

Technology and development expenses consist of headcount expenses, including salaries, benefits, bonuses and share-based compensation expense for individuals engaged in the design, development and testing of our products, mobile applications and websites and the tools and applications that support our products. Technology and development expenses also include amortization costs related to capitalized website and development activities, amortization of software, amortization of certain intangibles and other data agreement costs related to the purchase of data used to populate our mobile applications and websites, amortization of intangible assets recorded in connection with acquisitions, including trade names and trademarks, developed technology and customer relationships, amongst others, equipment and maintenance costs and depreciation expense.

Technology and development expenses increased \$40.7 million, or 9%, due to increases of \$40.9 million in our Homes segment and \$1.3 million in our IMT segment, partially offset by a \$1.5 million decrease in our Mortgages segment.

The increase in technology and development expenses within the Homes segment was primarily attributable to an increase of \$34.5 million in headcount-related expenses, including share-based compensation expense, as we have grown our teams to support the continued expected growth in the Homes segment, and a \$5.5 million increase in depreciation and amortization expense.

The increase in technology and development expenses within the IMT segment was primarily attributable to an increase of \$11.1 million in depreciation and amortization expense, partially offset by a decrease of \$8.5 million in data acquisition costs.

We expect technology and development expenses to increase in absolute dollars in future periods for each of our segments due to increased headcount related spend as we continue to invest in the development of technology to facilitate a more seamless real estate transaction experience.

General and Administrative

General and administrative expenses consist of headcount expenses, including salaries, benefits, bonuses and share-based compensation expense for executive, finance, accounting, legal, human resources, recruiting, corporate information technology costs and other administrative support. General and administrative expenses also include legal settlement costs and estimated legal liabilities, legal, accounting and other third-party professional service fees, rent expense, depreciation expense and bad debt expense.

General and administrative expenses decreased \$9.1 million, or 2%, due to an \$18.5 million decrease in our IMT segment, partially offset by increases of \$5.7 million in our Homes segment and \$3.8 million in our Mortgages segment.

The decrease in IMT segment general and administrative expenses was primarily due to a \$21.0 million decrease in headcount-related expenses driven primarily by the recognition of \$23.3 million of share-based compensation expense in the IMT segment in 2019 in connection with the modification of certain outstanding equity awards related to the departure of Spencer Rascoff in February 2019, who served as Zillow Group's Chief Executive Officer beginning in 2010. For additional information regarding the equity modification, see Note 17 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K. Additionally, there was a \$3.1 million decrease in travel expenses as we paused non-essential travel for workers in response to the COVID-19 pandemic. The decreases in IMT segment general and administrative expenses were partially offset by increases in estimated legal liabilities of approximately \$2.5 million and a \$1.6 million increase in business taxes.

The increase in Homes segment general and administrative expenses was primarily due to a \$5.9 million increase in headcount-related expenses, including share-based compensation expense, as we have grown our teams to support the Homes segment. In addition, there was a \$1.9 million increase in building lease-related expenses including rent, utilities and insurance. The increases in Homes segment general and administrative expenses were partially offset by a \$2.1 million decrease in travel expenses as we paused non-essential travel for workers in response to the COVID-19 pandemic.

We expect general and administrative expenses to increase in absolute dollars in future periods for all our segments due to increased headcount expenses required to support the growth of our businesses.

Impairment Costs

Impairment costs recorded for the year ended December 31, 2020 consist of a \$71.5 million non-cash impairment related to the Trulia trade names and trademarks intangible asset, of which \$68.6 million was recorded to the IMT segment and \$2.9 million was recorded to the Mortgages segment. Additionally, impairment costs include a \$5.3 million non-cash impairment related to our October 2016 equity investment, the entirety of which was recorded to the IMT segment. For additional information about these impairments, see Note 9 and Note 11 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

Other Income

Other income consists primarily of interest income earned on our cash, cash equivalents and short-term investments. Other income decreased \$14.1 million, or 36%, due to a decrease of \$20.4 million in corporate other income not directly attributable to our segments driven primarily by lower interest rates decreasing money market fund yields and a rebalancing of our investment portfolio to lower risk investments with generally lower yields in light of the COVID-19 pandemic. This decrease was partially offset by an increase of \$5.3 million in other income in our IMT segment related to the \$5.3 million gain recognized on the sale of our October 2016 equity investment. For additional information on the gain on sale, see Note 9 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

Interest Expense

Our corporate interest expense consists of interest on the convertible senior notes due in 2021, 2023, 2024, 2025 and 2026 and interest on Trulia's convertible senior notes due in 2020 that we guaranteed in connection with our February 2015 acquisition of Trulia. Our corporate interest expense also includes the amortization of the debt discount and deferred issuance costs for the convertible senior notes due in 2021, 2023, 2024, 2025 and 2026. Refer to Note 14 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for stated interest rates and interest payment dates for each of our convertible senior notes.

For our Homes segment, interest expense includes interest on borrowings, funding fees and other fees, including the amortization of deferred issuance costs, on the credit facilities related to our Zillow Offers business. Borrowings on these credit facilities bear interest at the one-month London Interbank Offered Rate (“LIBOR”) plus an applicable margin, and in certain cases are subject to a LIBOR floor, as defined in the credit agreements.

For our Mortgages segment, interest expense includes interest on the warehouse line of credit and interest on the master repurchase agreements related to our Zillow Home Loans business. Borrowings on the warehouse line of credit and master repurchase agreements bear interest at the one-month LIBOR plus an applicable margin, and in certain cases are subject to a LIBOR floor, as defined in the agreements.

Interest expense increased \$53.4 million, or 52%, due to a \$65.3 million increase in corporate interest expense not attributable to any of our segments, partially offset by a \$13.2 million decrease related to our Homes segment. The increase in corporate interest expense not attributable to any of our segments was primarily due to the September 2019 issuance of the convertible senior notes due in 2026, the September 2019 and October 2019 issuances of the convertible senior notes due in 2024, and the May 2020 issuance of the 2025 Notes. We expect corporate interest expense to decrease in absolute dollars in future periods due primarily to the settlement of \$265.3 million in aggregate principal amount of our 2021 Notes in the fourth quarter of 2020. The decrease in interest expense in our Homes segment was attributable to the reduced number of homes financed on our credit facilities as described above.

We expect total interest expense to increase in future periods due to increases in inventory in our Homes segment associated with the growth in inventory as we re-accelerate our Zillow Offers business after the pause in the first half of 2020 and increases in mortgage loans held for sale as we expand our Zillow Home Loans business.

Income Taxes

We are subject to federal and state income taxes in the U.S. and federal and provincial income taxes in Canada. As of December 31, 2020 and December 31, 2019, we have provided a valuation allowance against our net deferred tax assets that we believe, based on the weight of available evidence, are not more likely than not to be realized. Therefore, no material current tax liability or expense has been recorded in the consolidated financial statements. We have accumulated federal tax losses of approximately \$1.7 billion as of December 31, 2020, which are available to reduce future taxable income. We have accumulated state tax losses of approximately \$53.2 million (tax effected) as of December 31, 2020.

We recorded an income tax benefit of \$7.5 million for the year ended December 31, 2020. The income tax benefit for the year ended December 31, 2020 was primarily a result of an \$9.7 million income tax benefit related to the \$71.5 million non-cash impairment we recorded during the year ended December 31, 2020 related to the Trulia trade names and trademarks intangible asset. For additional information about the non-cash impairment, see Note 11 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K. This income tax benefit was partially offset by an immaterial amount of current state income tax expense recorded for the year ended December 31, 2020.

We recorded an income tax benefit of \$4.3 million for the year ended December 31, 2019. The majority of the income tax benefit is a result of federal and state interest expense limitation carryforwards that are indefinite-lived deferred tax assets that can offset our indefinite-lived deferred tax liabilities. Net operating losses generated after December 31, 2017 can also be offset against the indefinite-lived deferred tax liabilities. Both of these items contributed to a release of the valuation allowance and the recognition of an income tax benefit.

Quarterly Results of Operations

The following tables set forth our unaudited quarterly statements of operations data for each of the periods presented below. In the opinion of management, the data has been prepared on the same basis as the audited consolidated financial statements included in this Annual Report on Form 10-K, and reflects all necessary adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the data. The results of historical periods are not necessarily indicative of the results of operations of any future period, particularly given the uncertainty surrounding COVID-19, including the unknown duration and severity of the pandemic, related economic disruption and the unknown overall impact on customer demand. You should read the data together with our consolidated financial statements and the related notes included elsewhere in this Annual Report on Form 10-K. Amounts are in thousands, except per share data, unaudited.

	Three Months Ended							
	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019
Statement of Operations Data:								
Revenue:								
Homes	\$ 304,145	\$ 187,105	\$ 454,252	\$ 769,873	\$ 603,228	\$ 384,626	\$ 248,924	\$ 128,472
IMT	423,838	415,389	280,339	330,666	319,665	335,290	323,669	298,272
Mortgages	60,969	54,198	33,761	25,282	21,054	25,292	26,985	27,360
Total revenue	788,952	656,692	768,352	1,125,821	943,947	745,208	599,578	454,104
Cost of revenue (exclusive of amortization) (1)(2):								
Homes	277,249	179,804	431,788	732,199	581,398	370,796	240,732	122,419
IMT	27,938	28,448	23,387	24,318	23,894	24,318	26,059	24,251
Mortgages	12,241	7,972	5,896	5,155	4,325	4,721	4,430	4,678
Total cost of revenue	317,428	216,224	461,071	761,672	609,617	399,835	271,221	151,348
Sales and marketing (1)	161,744	150,826	155,598	204,648	183,761	181,347	187,433	161,587
Technology and development (2)	126,997	127,300	128,857	134,918	125,273	123,974	120,330	107,770
General and administrative (1)	93,431	85,895	85,511	92,285	99,070	88,493	82,839	95,774
Impairment costs	—	—	—	76,800	—	—	—	—
Integration costs	—	—	—	—	—	5	293	352
Total costs and expenses	699,600	580,245	831,037	1,270,323	1,017,721	793,654	662,116	516,831
Income (loss) from operations	89,352	76,447	(62,685)	(144,502)	(73,774)	(48,446)	(62,538)	(62,727)
Gain (loss) on extinguishment of 2021 Notes	(4,943)	—	6,391	—	—	—	—	—
Other income	2,803	3,018	10,115	9,593	12,033	8,999	9,458	9,168
Interest expense	(40,575)	(39,470)	(37,590)	(37,592)	(39,927)	(26,502)	(18,897)	(16,466)
Income (loss) before income taxes	46,637	39,995	(83,769)	(172,501)	(101,668)	(65,949)	(71,977)	(70,025)
Income tax benefit (expense)	(601)	(425)	(679)	9,228	458	1,300	—	2,500
Net income (loss)	\$ 46,036	\$ 39,570	\$ (84,448)	\$ (163,273)	\$ (101,210)	\$ (64,649)	\$ (71,977)	\$ (67,525)
Net income (loss) per share:								
Basic	\$ 0.20	\$ 0.17	\$ (0.38)	\$ (0.78)	\$ (0.49)	\$ (0.31)	\$ (0.35)	\$ (0.33)
Diluted	\$ 0.18	\$ 0.16	\$ (0.38)	\$ (0.78)	\$ (0.49)	\$ (0.31)	\$ (0.35)	\$ (0.33)
Weighted-average shares outstanding:								
Basic	235,341	229,719	219,467	210,674	208,204	207,002	205,754	204,514
Diluted	251,499	242,632	219,467	210,674	208,204	207,002	205,754	204,514

	Three Months Ended							
	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019
(1) Includes share-based compensation as follows:								
Cost of revenue	\$ 1,832	\$ 1,617	\$ 1,119	\$ 1,173	\$ 1,099	\$ 1,062	\$ 936	\$ 881
Sales and marketing	8,370	8,631	9,116	6,993	6,087	6,588	6,801	5,650
Technology and development	21,444	19,793	21,666	18,917	17,980	18,034	18,399	15,508
General and administrative	20,799	18,918	20,450	16,712	21,852	16,444	17,496	44,085
Total	\$ 52,445	\$ 48,959	\$ 52,351	\$ 43,795	\$ 47,018	\$ 42,128	\$ 43,632	\$ 66,124
(2) Amortization of website development costs and intangible assets included in technology and development								
	\$ 19,977	\$ 19,245	\$ 18,857	\$ 17,184	\$ 17,046	\$ 15,835	\$ 14,656	\$ 14,400

The following tables present our revenue by type and as a percentage of total revenue for the periods presented (in thousands, unaudited):

	Three Months Ended							
	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019
Revenue:								
Homes segment:								
Zillow Offers	\$ 301,703	\$ 185,904	\$ 453,816	\$ 769,112	\$ 603,228	\$ 384,626	\$ 248,924	\$ 128,472
Other	2,442	1,201	436	761	—	—	—	—
Total Homes segment revenue	304,145	187,105	454,252	769,873	603,228	384,626	248,924	128,472
IMT segment:								
Premier Agent	314,213	298,673	191,962	242,106	233,482	240,698	231,961	217,735
Other	109,625	116,716	88,377	88,560	86,183	94,592	91,708	80,537
Total IMT segment revenue	423,838	415,389	280,339	330,666	319,665	335,290	323,669	298,272
Mortgages segment	60,969	54,198	33,761	25,282	21,054	25,292	26,985	27,360
Total revenue	\$ 788,952	\$ 656,692	\$ 768,352	\$ 1,125,821	\$ 943,947	\$ 745,208	\$ 599,578	\$ 454,104

	Three Months Ended							
	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020	December 31, 2019	September 30, 2019	June 30, 2019	March 31, 2019
Percentage of Revenue:								
Homes segment:								
Zillow Offers	38 %	28 %	59 %	68 %	64 %	52 %	42 %	28 %
Other	—	—	—	—	0	0	0	0
Total Homes segment revenue	39	28	59	68	64	52	42	28
IMT segment:								
Premier Agent	40	45	25	22	25	32	39	48
Other	14	18	12	8	9	13	15	18
Total IMT segment revenue	54	63	36	29	34	45	54	66
Mortgages segment	8	8	4	2	2	3	5	6
Total revenue	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %

Total revenue increased sequentially in all quarters presented with the exception of the three months ended June 30, 2020 and three months ended September 30, 2020. The decreases in revenue for these periods were primarily due to measures taken in response to the COVID-19 pandemic. For additional information regarding the impact of the COVID-19 pandemic, see the subsection titled “COVID-19 Impact” under “Overview of our Business” above in this Item 7. For all other quarters, revenue increased, primarily due to our Zillow Offers business that launched in April 2018. Additionally, the increase in consumer adoption of our mobile applications and websites in the years ended December 31, 2020 and 2019 was reflected in the growth in visits and unique users, which increased the likelihood of a lead, click, impression, connection or other event that we could monetize across our business segments.

Homes Segment

Homes revenue increased sequentially in all quarters presented with the exception of the three months ended September 30, 2020 and the three months ended June 30, 2020. The decreases in revenue for these periods were primarily driven by the pause in home buying activities in our Zillow Offers business in the first half of 2020 in response to the COVID-19 pandemic, which resulted in lower inventory available for resale during the second half of 2020. For all other quarters, Homes revenue increased, which was primarily attributable to an increase in the number of homes sold in each period as customer adoption of Zillow Offers increased in geographic areas in which it is currently operating and as Zillow Offers expanded into new geographic markets. For the three months ended December 31, 2020, we began to see a sequential increase in revenue as we continue to increase our inventory levels following the home buying pause earlier in the year.

IMT Segment

Premier Agent Revenue. Premier Agent revenue increased sequentially in all quarters presented with the exception of the three months ended June 30, 2020 and the three months ended December 31, 2019. The decrease in revenue for the three months ended June 30, 2020 was primarily due to the temporary discounts offered to our Premier Agent partners in response to the COVID-19 pandemic. We believe the decrease in revenue for the three months ended December 31, 2019 was primarily due to seasonality related to the normal cycles of the residential real estate market. For all other quarters, Premier Agent revenue increased due primarily to increases in the number of visits and unique users to our mobile applications and websites for the respective periods.

Other Revenue. Other revenue increased sequentially in all quarters presented with the exception of the three months ended December 31, 2020, the three months ended June 30, 2020 and the three months ended December 31, 2019. The decrease in revenue for the three months ended June 30, 2020 was primarily driven by the COVID-19 pandemic, as many display advertisers decreased discretionary marketing spend. We also offered temporary discounts on certain of our other IMT products in response to the COVID-19 pandemic to help mitigate the impact of the virus on our customers, which adversely impacted other IMT revenue in the second quarter of 2020. The decreases in revenue for the three months ended December 31, 2019 and the three months ended December 31, 2020 were driven by a decrease in display advertising sales and aligns to the seasonality of the residential real estate market. For all other quarters, other revenue increased due primarily to increased rental advertising revenue resulting from the increased adoption of our rentals pay per listing, applications processing and pay per lease products.

Mortgages Segment

Mortgages revenue increased sequentially in all quarters during 2020, primarily driven by revenue generated by Zillow Home Loans, due to higher sales volume reflective of market demand as low interest rates have resulted in strong refinance activity and expanded industry margins on selling mortgages into the secondary market. The sequential decrease or flat trend in mortgages revenue for all quarters during 2019 was due to a combination of factors, including our focus on investing in systems and operations to seamlessly integrate the Zillow Home Loans platform into our offerings to enhance the customer experience and strategically transitioning our loan offerings from higher margin Federal Housing Administration and Veterans Affairs government loans to more conventional loan products eligible for sale to Fannie Mae and Freddie Mac in order to ultimately serve a larger total addressable market.

Seasonality

Portions of our business may be affected by seasonal fluctuations in the residential real estate market, advertising spending and other factors. With respect to our Homes segment, the rate of revenue growth as we expand into new geographic markets may mask seasonality in revenue; we may, for example, be able to more quickly sell homes during the spring and summer high seasons. Similarly, the Zillow Home Loans growth rate, driven in part by historically low interest rates and operational investment, may mask seasonality in revenue within the Mortgages segment, as we believe that seasonality would result in higher purchase origination volumes in the spring and summer high seasons. Our Connect and Custom Quote mortgage marketing products display similar seasonal fluctuations. Should the revenue growth rate related to our IMT segment slow, seasonal variances may become pronounced, causing our operating results to fluctuate. For example, excluding the impact of COVID-19 related discounts in 2020, Premier Agent and Other revenue have generally peaked in the three months ended June 30th or September 30th, in line with peak residential real estate activity in the spring and summer seasons over the last two years. However, we believe that customers' increased desire and ability to move in response to the COVID-19 pandemic may mask seasonal impacts. In addition, the average numbers of visits and unique users have historically peaked during the three months ended June 30th or September 30th, consistent with peak residential real estate activity in the spring and summer months. Because the number of visits and unique users impacts impression inventory, leads and connections to real estate professionals, clicks and other events we monetize, we believe this trend in the average number of visits and unique users has resulted in seasonal fluctuations in revenue in corresponding periods.

Liquidity and Capital Resources

As of December 31, 2020 and 2019, we had cash and cash equivalents, investments and restricted cash of \$4.0 billion and \$2.5 billion, respectively. Cash and cash equivalents balances consist of operating cash on deposit with financial institutions, money market funds and municipal securities. Investments consist of fixed income securities, which include treasury bills, U.S. government agency securities, municipal securities and certificates of deposit. Restricted cash consists of amounts funded to the reserve and collection accounts related to our credit facilities, amounts held in escrow related to funding home purchases in our mortgage origination business and amounts held in escrow related to our Zillow Closing Services business. Amounts on deposit with third-party financial institutions exceed the Federal Deposit Insurance Corporation and the Securities Investor Protection Corporation insurance limits, as applicable. As of December 31, 2020, Zillow Group and its subsidiaries were in compliance with all debt covenants specified in the facilities described below.

To preserve our liquidity in response to the COVID-19 pandemic, we temporarily paused hiring for non-critical roles, paused the majority of our advertising spending and reduced other discretionary spending. During the second half of 2020, we began to increase our hiring and marketing and advertising activities and expect to continue to increase these activities in 2021. Additionally, we temporarily paused home buying through Zillow Offers in March of 2020; we resumed home buying activities in all markets by early August 2020 and as of December 31, 2020 Zillow Offers is available in 25 markets. In May of 2020, we strengthened our financial position through our issuance of \$565.0 million aggregate principal amount of the 2025 Notes for net proceeds of \$553.3 million, with which we repurchased \$194.7 million aggregate principal amount of our 2021 Notes, and we issued 8,800,000 shares of Class C capital stock at a public offering price of \$48.00 per share for net proceeds of \$411.5 million. On November 4, 2020, we submitted our notice to the trustee to exercise our right to redeem the remaining \$265.3 million in aggregate principal amount of the 2021 Notes on the Redemption Date. Holders of the 2021 Notes had the option to convert their 2021 Notes in whole or in part into shares of Class C capital stock prior to the Redemption Date at a conversion rate of 19.0985 shares of Class C capital stock per \$1,000 principal amount of the 2021 Notes, equal to a conversion price of \$52.3601 per share. Holders of the 2021 Notes elected to convert \$265.2 million of aggregate principal amount prior to the Redemption Date. We satisfied these conversions through the issuance of approximately 5.1 million shares of Class C capital stock in December 2020. The remaining \$0.1 million of aggregate principal amount was redeemed on December 18, 2020 for an immaterial cash amount.

Our liquidity has been positively impacted by certain provisions included in the CARES Act which provides tax provisions and other stimulus measures to affected companies. Under the CARES Act, we expect to defer certain employer payroll tax payments until 2021 and 2022. We deferred a total of \$23.8 million of such payments as of December 31, 2020. As previously noted, the COVID-19 pandemic and related economic disruptions have resulted in significant uncertainty and the extent of the impact of COVID-19 on our business continues to be difficult to predict. The COVID-19 pandemic has and will continue to disrupt our revenue and operating cash flow levels and may disrupt future access to capital through debt or equity markets.

In February 2021, we announced our entry into a definitive agreement to acquire ShowingTime.com, Inc., a real estate showing software provider, for \$500.0 million in cash, payable upon the closing of this proposed acquisition.

We continue to invest in the development and expansion of our operations. Ongoing investments include but are not limited to improvements in infrastructure, networking equipment and software, release improvements to our software code as well as investments in sales and marketing. To finance these investments and ongoing operations, and in the event that we require additional funding to support strategic business opportunities, we have issued convertible senior notes. The following table summarizes our convertible senior notes as of the periods presented (in thousands, except interest rates):

Maturity Date	Aggregate Principal Amount	Stated Interest Rate	December 31, 2020		December 31, 2019	
			Carrying Value	Fair Value	Carrying Value	Fair Value
September 1, 2026	\$ 500,000	1.375 %	\$ 347,566	\$ 1,508,675	\$ 327,187	\$ 597,380
May 15, 2025	565,000	2.75 %	414,888	1,168,855	—	—
September 1, 2024	673,000	0.75 %	524,273	2,023,280	490,538	819,378
July 1, 2023	373,750	1.50 %	326,796	633,039	310,175	356,464
December 1, 2021	—	2.00 %	—	—	415,502	514,312
December 15, 2020	—	2.75 %	—	—	9,637	16,842
Total	\$ 2,111,750		\$ 1,613,523	\$ 5,333,849	\$ 1,553,039	\$ 2,304,376

Refer to Note 14 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information on Zillow Group's convertible senior notes, including conversion rates, conversion and redemption dates and the related capped call transactions.

Homes

The expansion of Zillow Group's purchase of homes through the Zillow Offers program and sale of homes has continued to have a significant impact on our liquidity and capital resources as a cash and inventory intensive business. We primarily use debt financing through credit facilities to fund a portion of the purchase price of homes and certain related costs. As previously noted, due to the pause in Zillow Offers home buying activities in response to the COVID-19 pandemic, we temporarily experienced a decrease in the amounts drawn on our credit facilities as we reduced the number of homes financed. We expect home financing to accelerate in future periods as we have restarted home buying in all Zillow Offers markets. The following table summarizes our credit facilities as of the periods presented (in thousands, except interest rates):

Lender	Final Maturity Date	Maximum Borrowing Capacity	Outstanding Borrowings at December 31, 2020	Outstanding Borrowings at December 31, 2019	Weighted Average Interest Rate
Goldman Sachs Bank USA	April 20, 2022	\$ 500,000	\$ 145,825	\$ 39,244	3.15 %
Citibank, N.A.	November 30, 2021	500,000	87,103	296,369	3.59 %
Credit Suisse AG, Cayman Islands	July 31, 2021	500,000	128,238	355,911	3.97 %
Total		\$ 1,500,000	\$ 361,166	\$ 691,524	

Refer to Note 14 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information on Zillow Group's credit facilities.

IMT

Our principal sources of liquidity for the IMT segment are cash flows from operations within the segment.

Mortgages

Zillow Home Loans continues to impact our liquidity and capital resources as a cash intensive business that funds mortgage loans originated for resale in the secondary market. We primarily use debt financing to fund mortgage loan originations. The following table summarizes our warehouse line of credit and master repurchase agreements as of the periods presented (in thousands, except interest rates):

Lender	Maturity Date	Maximum Borrowing Capacity	Outstanding Borrowings at December 31, 2020	Outstanding Borrowings at December 31, 2019	Weighted Average Interest Rate
Credit Suisse AG, Cayman Islands	November 10, 2021	\$ 200,000	\$ 149,913	\$ —	2.50 %
Citibank, N.A.	October 26, 2021	100,000	90,227	394	1.90 %
Comerica Bank	June 26, 2021	75,000	68,903	30,033	3.01 %
Total		<u>\$ 375,000</u>	<u>\$ 309,043</u>	<u>\$ 30,427</u>	

Refer to Note 14 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information on Zillow Group's warehouse line of credit and master repurchase agreements.

We believe that cash from operations and cash and cash equivalents and investment balances will be sufficient to meet our ongoing operating activities, working capital, capital expenditures and other capital requirements for at least the next 12 months.

The following table presents selected cash flow data for the periods presented (in thousands):

	Year Ended December 31,	
	2020	2019
Cash Flow Data:		
Net cash provided by (used in) operating activities	\$ 424,197	\$ (612,174)
Net cash used in investing activities	(1,038,489)	(456,054)
Net cash provided by financing activities	1,162,318	1,635,694

Cash Flows Provided By (Used In) Operating Activities

Our operating cash flows result primarily from cash received from real estate professionals, rental professionals, mortgage professionals and brand advertisers, as well as cash received from customers for sales of homes through Zillow Offers and sales of mortgages originated by Zillow Home Loans. Our primary uses of cash from operating activities include payments for homes purchased through Zillow Offers, marketing and advertising activities, mortgages funded through Zillow Home Loans and employee compensation and benefits. Additionally, uses of cash from operating activities include costs associated with operating our mobile applications and websites and other general corporate expenditures.

For the year ended December 31, 2020, net cash provided by operating activities was \$424.2 million. This was primarily driven by a net loss of \$162.1 million, adjusted by share-based compensation expense of \$197.6 million, depreciation and amortization expense of \$110.0 million, amortization of the discount and issuance costs on the convertible notes maturing in 2021, 2023, 2024, 2025, and 2026 of \$102.4 million, non-cash impairment costs of \$76.8 million, amortization of contract cost assets of \$36.5 million, amortization of right of use assets of \$24.3 million, credit loss expense of \$2.7 million and accretion of bond discount of \$2.1 million. This was offset by a \$7.5 million change in deferred income taxes and a gain on extinguishment of the 2021 Notes of \$1.4 million. Changes in operating assets and liabilities increased cash provided by operating activities by \$42.9 million. The changes in operating assets and liabilities are primarily related to a \$345.3 million decrease in inventory due to the sale of homes and a decrease in home purchases through Zillow Offers during the year ended December 31, 2020 associated with our temporary pause in Zillow Offers home buying activity to preserve liquidity in response to COVID-19, a \$15.3 million increase in accrued expenses and other liabilities driven by the timing of payments, a \$13.0 million increase in accounts payable, a \$10.2 million increase in other long-term liabilities, a \$9.9 million increase in accrued compensation and benefits and a \$9.2 million increase in deferred revenue. These changes were partially offset by a \$294.3 million increase in mortgage loans held for sale, a \$42.0 million increase in contract cost assets due primarily to the capitalization of sales commissions, a \$16.0 million increase in prepaid expenses and other current assets due primarily to timing of payments and growth in our contract assets, a \$5.6 million increase in accounts receivable due to an increase in revenue from products and services billed in arrears and a \$2.1 million decrease in lease liabilities due to scheduled lease payments.

For the year ended December 31, 2019, net cash used in operating activities was \$612.2 million. This was primarily driven by a net loss of \$305.4 million, adjusted by share-based compensation expense of \$198.9 million, depreciation and amortization expense of \$87.5 million, amortization of the discount and issuance costs on the 2021 Notes, 2023 Notes, 2024 Notes and 2026 Notes of \$52.1 million, amortization of contract cost assets of \$35.3 million, amortization of right of use assets of \$23.1 million, a loss on disposal of property and equipment of \$7.2 million, accretion of bond discount of \$6.3 million and a \$4.3 million change in deferred income taxes. Changes in operating assets and liabilities increased cash used in operating activities by \$703.1 million. The changes in operating assets and liabilities are primarily due to a \$673.8 million increase in inventory due to the purchase of homes through Zillow Offers, a \$34.7 million increase in contract cost assets due primarily to the capitalization of sales commissions and an \$18.9 million decrease in lease liabilities due to scheduled lease payments, partially offset by a \$19.6 million increase in accrued expenses and other current liabilities driven primarily by the timing of payments, a \$6.4 million increase in accrued compensation and benefits and a \$5.7 million increase in deferred revenue driven primarily by a corresponding increase in sales volumes.

Cash Flows Used In Investing Activities

Our primary investing activities include the purchase and sale or maturity of investments, the purchase of property and equipment and intangible assets and cash paid in connection with acquisitions.

For the year ended December 31, 2020, net cash used in investing activities was \$1.0 billion. This was the result of \$940.0 million of net purchases of investments in connection with investment of a portion of the net proceeds from our May 2020 issuance of the 2025 Notes and offering of our Class C capital stock, and \$108.5 million of purchases for property and equipment and intangible assets, partially offset by \$10.0 million in proceeds from the sale of an equity investment.

For the year ended December 31, 2019, net cash used in investing activities was \$456.1 million. This was primarily the result of \$369.4 million of net purchases of investments in connection with investment of a portion of the net proceeds from our issuance of the convertible senior notes due in 2024 and 2026 and \$86.6 million of purchases for property and equipment and intangible assets.

Cash Flows Provided By Financing Activities

Net cash provided by financing activities has primarily resulted from net proceeds from the issuance of convertible notes, net proceeds from equity offerings, the exercise of employee option awards and equity awards withheld for tax liabilities, proceeds from and repayments of borrowings on our credit facilities related to Zillow Offers and proceeds from borrowings on the warehouse lines of credit and master repurchase agreements related to Zillow Home Loans.

For the year ended December 31, 2020, cash provided by financing activities was \$1.2 billion, which was primarily related to net proceeds from the issuance of the 2025 Notes of \$553.3 million, net proceeds from the public offering of our Class C capital stock of \$411.5 million, \$444.0 million of proceeds from the exercise of option awards and \$278.6 million of net borrowings on our warehouse line of credit and master repurchase agreements related to Zillow Home Loans. These cash inflows were partially offset by \$330.4 million of net repayments of borrowings on our credit facilities related to Zillow Offers and \$194.8 million of cash paid for the extinguishment of our 2021 Notes.

For the year ended December 31, 2019, cash provided by financing activities was \$1.6 billion, which primarily resulted from the net proceeds from the issuance of the convertible senior notes due in 2024 and 2026 of \$1.2 billion, partially offset by \$159.7 million paid in premiums for the related capped call confirmations. Cash provided by financing activities also included \$574.8 million of net proceeds from borrowings on our credit facilities related to Zillow Offers and \$65.5 million of proceeds from the exercise of option awards, partially offset by \$2.6 million of net repayments on our warehouse lines of credit related to Zillow Home Loans.

Off-Balance Sheet Arrangements

We did not have any off-balance sheet arrangements other than outstanding surety bonds issued for our benefit of approximately \$10.1 million and \$10.2 million as of December 31, 2020 and 2019, respectively. We do not believe that the surety bonds will have a material effect on our liquidity, capital resources, market risk support or credit risk support. For additional information regarding the surety bonds, see Note 19 to our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K under the subsection titled “Surety Bonds”.

Contractual Obligations and Other Commitments

The following table provides a summary of our contractual obligations as of December 31, 2020 (in thousands):

	Payments Due By Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
Convertible senior notes (1)	\$ 2,111,750	\$ —	\$ 373,750	\$ 1,238,000	\$ 500,000
Interest on convertible senior notes (2)	139,454	33,063	63,329	38,479	4,583
Homes segment credit facilities (3)	361,166	361,166	—	—	—
Mortgages segment credit facilities (4)	309,043	309,043	—	—	—
Purchase obligations (5)	151,838	61,962	89,422	454	—
Homes under contract (6)	287,351	287,351	—	—	—
Operating lease obligations (7)	304,691	43,277	81,885	65,000	114,529
Total contractual obligations	\$ 3,665,293	\$ 1,095,862	\$ 608,386	\$ 1,341,933	\$ 619,112

(1) Includes the aggregate principal amount of the convertible senior notes. Refer to Note 14 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for maturity dates, stated interest rates and additional information on our convertible senior notes.

(2) Includes the coupon interest on the convertible senior notes. Refer to Note 14 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for maturity dates, stated interest rates and additional information on our convertible senior notes.

(3) Includes principal amounts due for amounts borrowed under the credit facilities used to provide capital for our Zillow Offers business. Amounts exclude an immaterial amount of estimated interest payments.

(4) Includes principal amounts due for amounts borrowed under the warehouse line of credit and master repurchase agreements to finance mortgages originated through Zillow Home Loans. Amounts exclude an immaterial amount of estimated interest payments.

(5) We have non-cancellable purchase obligations for content related to our mobile applications and websites and certain cloud computing costs. For additional information regarding our purchase obligations, see Note 19 to our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

(6) We have obligations to purchase homes under contract through our Zillow Offers business.

(7) For additional information regarding our operating leases, see Note 13 to our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

As of December 31, 2020 and 2019, we had outstanding letters of credit of approximately \$16.9 million, which secure our lease obligations in connection with certain of the operating leases of our office spaces.

In the course of business, we are required to provide financial commitments in the form of surety bonds to third parties as a guarantee of our performance on and our compliance with certain obligations. If we were to fail to perform or comply with these obligations, any draws upon surety bonds issued on our behalf would then trigger our payment obligation to the surety bond issuer. We have outstanding surety bonds issued for our benefit of approximately \$10.1 million and \$10.2 million as of December 31, 2020 and 2019, respectively.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with GAAP. The preparation of these consolidated financial statements requires us to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses and related disclosures. We evaluate our estimates, judgments and assumptions on an ongoing basis. Our estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates, and the COVID-19 pandemic has introduced significant additional uncertainty with respect to estimates, judgments and assumptions, which may materially impact our estimates.

We believe that the estimates, judgments and assumptions associated with accounting for certain revenue offerings, the net realizable value of inventory, amortization period and recoverability of contract cost assets, website and software development costs, recoverability of intangible assets with definite lives and other long-lived assets, and share-based compensation have the greatest potential impact on our consolidated financial statements. Therefore, we consider these to be our critical accounting policies and estimates.

Accounting for Certain Revenue

Accrued Revenue. We accrue revenue for certain of our products, primarily our Premier Agent Flex and rentals pay per lease offerings. With Premier Agent Flex, Premier Agents and Premier Brokers are provided validated leads at no upfront cost and pay a performance advertising fee only when a real estate transaction is closed with one of the leads. With this pricing model, the transaction price represents variable consideration, as the amount to which we expect to be entitled varies based on the number of validated leads that convert into real estate transactions and the value of those transactions. The transaction price for leases generated through our rentals pay per lease product also represents variable consideration. We estimate the amount of variable consideration based on the expected number of qualified leases to be secured and the expected price per closed lease.

Although we do not believe that a significant reversal in the amount of cumulative revenue recognized will occur once the uncertainty related to the number of real estate transactions to be closed and qualified leases to be secured is resolved, judgment is required to determine the quantity and value of transactions and leases that are expected to be realized in a future period based on the number of leads delivered during the current period. Our estimated revenue is based on a number of assumptions, which include estimating the conversion rate of a lead to a real estate transaction or qualified lease, estimating the velocity of conversions and estimating the fee amounts likely to be received. Estimates are primarily developed based on historical data, however, we continue to evaluate our estimation models.

Mortgage Origination Revenue. Mortgage origination revenue generated by Zillow Home Loans reflects origination fees on purchase or refinanced mortgages and the corresponding sale, or expected future sale, of a loan. When an interest rate lock commitment is made to a customer, we record the expected gain on sale of the mortgage, plus the estimated earnings from the expected sale of the associated servicing rights, adjusted for a pull-through percentage (which represents the probability that an interest rate lock commitment will ultimately result in a closed loan), as revenue. Judgment is required to determine the appropriate pull-through rate, which is estimated based on expected changes in market conditions, loan stage and historical borrower behavior. Revenue from loan origination fees is recognized at the time the related purchase or refinance transactions are completed, usually upon the close of escrow and when we fund the purchase or refinance mortgage loans.

Inventory

Inventory is comprised of homes acquired through our Zillow Offers program and is stated at the lower of cost or net realizable value. Each quarter we review the value of homes held in inventory for indicators that net realizable value is lower than cost. The calculation of net realizable value is based on several estimates which may ultimately vary materially from actual results, including our estimate of the price at which we expect sell each home in inventory and the associated expected costs to sell those homes. Given the significant assumptions required and the possibility that actual conditions will differ, we consider the valuation of inventory a critical accounting estimate. In response to the COVID-19 pandemic and the uncertainty surrounding its impact on the real estate industry, we have adjusted certain of our home asset management and resale strategies. Judgment is required to estimate the impact of these strategies on the value of our inventory as the ultimate impact of these strategies and COVID-19's impact on the real estate industry is uncertain.

When evidence exists that the net realizable value of inventory is lower than its cost, the difference is recognized in cost of revenue. We estimate that a 1% decrease in the lower of cost or net realizable value of our inventory balances as of December 31, 2020 and 2019 would increase our inventory valuation adjustment by \$4.9 million and \$8.4 million, respectively.

Contract Cost Assets

We capitalize certain incremental costs of obtaining contracts with customers which we expect to recover. These costs relate to commissions paid to sales personnel, primarily for our Premier Agent and Premier Broker programs. Contract cost assets are amortized to expense on a straight-line basis over a period that is consistent with the transfer to the customer of the products or services to which the asset relates, generally the estimated life of the customer relationship. Our determination of the estimated life of the customer relationship involves significant judgment. In determining the estimated life of our customer relationships, we consider quantitative and qualitative data, including, but not limited to, historical customer data, recent changes or expected changes in product or service offerings, and changes in how we monetize our products and services. The amortization period for capitalized contract costs related to our Premier Agent and Premier Broker programs ranges from two to three years.

We monitor our contract cost assets for impairment and recognize an impairment loss in the statement of operations to the extent the carrying amount of the asset recognized exceeds the amount of consideration we expect to receive in the future and that we have received but have not recognized in revenue less the costs that relate directly to providing those goods or services that have not yet been recognized as expenses.

Website and Software Development Costs

The costs incurred in the preliminary stages of website and software development are expensed as incurred. Once an application has reached the development stage, internal and external costs, if direct and incremental and deemed by management to be significant, 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 website or software that result in added functionality, in which case the costs are capitalized and amortized on a straight-line basis over the estimated useful lives.

Capitalized development activities placed in service are amortized over the expected useful lives of those releases, currently estimated at one to five years. The estimated useful lives of website and software development activities are reviewed frequently and adjusted as appropriate to reflect upcoming development activities that may include significant upgrades and/or enhancements to the existing functionality.

We exercise judgment in determining the point at which various projects may be capitalized, in assessing the ongoing value of the capitalized costs and in determining the estimated useful lives over which the costs are amortized. To the extent that we change the manner in which we develop and test new features and functionalities related to our mobile applications and websites, assess the ongoing value of capitalized assets, or determine the estimated useful lives over which the costs are amortized, the amount of website and software development costs we capitalize and amortize could change in future periods.

Recoverability of Intangible Assets with Definite Lives and Other Long-Lived Assets

We evaluate intangible assets and other long-lived assets for impairment whenever events or circumstances indicate that they may not be recoverable. Recoverability is measured by comparing the carrying amount of an asset group to future undiscounted net cash flows expected to be generated. We group assets for purposes of such review at the lowest level for which identifiable cash flows of the asset group are largely independent of the cash flows of the other groups of assets and liabilities.

Unforeseen events, changes in circumstances and market conditions and material differences in estimates of future cash flows could adversely affect the fair value of our assets and could result in an impairment charge. Fair value can be estimated utilizing a number of techniques including quoted market prices, prices for comparable assets, or other valuation processes involving estimates of cash flows, multiples of earnings or revenues, and we may make various assumptions and estimates when performing our impairment assessments, particularly as it relates to cash flow projections. Cash flow estimates are by their nature subjective and include assumptions regarding factors such as recent and forecasted operating performance, revenue trends and operating margins. These estimates could also be adversely impacted by changes in federal, state, or local regulations, economic downturns or developments, pandemics such as COVID-19, or other market conditions affecting our industry.

Share-Based Compensation

We measure compensation expense for all share-based awards at fair value on the date of grant and recognize compensation expense over the service period for awards expected to vest. We use the Black-Scholes-Merton option-pricing model to determine the fair value for option awards and recognize compensation expense on a straight-line basis over the option awards' vesting period.

Determining the fair value of option awards at the grant date requires judgment. If any of the assumptions used in the Black-Scholes-Merton model changes significantly, share-based compensation expense for future option awards may differ materially compared with the awards granted previously. In valuing our option awards, we make assumptions about risk-free interest rates, dividend yields, volatility, and weighted-average expected lives.

Risk-free interest rate. Risk-free interest rates are derived from U.S. Treasury securities as of the option award's grant date.

Expected dividend yields. Expected dividend yields are based on our historical dividend payments, which have been zero to date.

Volatility. The expected volatility for our Class A common stock and Class C capital stock is estimated using our historical volatility.

Expected term. The weighted-average expected life of the option awards is estimated based on our historical exercise data.

We will continue to use judgment in evaluating the expected volatility and expected terms utilized for our share-based compensation expense calculations on a prospective basis. Actual results, and future changes in estimates, may differ substantially from management's current estimates. As we continue to accumulate additional data related to our Class C capital stock, we may have refinements to the estimates of our expected volatility and expected terms, which could materially impact our future share-based compensation expense. In future periods, we expect our share-based compensation expense to increase as a result of our existing, unrecognized share-based compensation that will be recognized as the awards vest, and as we grant additional share-based awards to attract and retain employees.

Recently Adopted Accounting Standards and Recently Issued Accounting Standards Not Yet Adopted

For information about our recently adopted accounting standards and recently issued accounting standards not yet adopted, see Note 2 of the accompanying Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to market risks in the ordinary course of our business. These risks primarily consist of fluctuations in interest rates.

Interest Rate Risk

Under our current investment policy, we invest our excess cash in money market funds, municipal securities, treasury bills, United States government agency securities, and certificates of deposit. Our current investment policy seeks first to preserve principal, second to provide liquidity for our operating and capital needs and third to maximize yield without putting our principal at risk.

Our investments are exposed to market risk due to the fluctuation of prevailing interest rates that may reduce the yield on our investments or their fair value. As our investment portfolio is short-term in nature, we do not believe an immediate 10% increase in interest rates would have a material effect on the fair market value of our portfolio.

Our convertible senior notes bear interest at fixed rates. Thus, we have no related direct financial statement risk associated with changes in interest rates. However, the fair values of the convertible senior notes change primarily when the market price of our stock fluctuates or interest rates change. The following table summarizes our outstanding convertible senior notes as of December 31, 2020 (in thousands, except interest rates):

Maturity Date	Aggregate Principal Amount		Stated Interest Rate
September 1, 2026	\$	500,000	1.375 %
May 15, 2025		565,000	2.75 %
September 1, 2024		673,000	0.75 %
July 1, 2023		373,750	1.50 %
	\$	2,111,750	

We are subject to market risk by way of changes in interest rates on borrowings under our credit facilities that provide capital for Zillow Offers. As of December 31, 2020 and December 31, 2019, we had outstanding \$361.2 million and \$691.5 million, respectively, of borrowings on these credit facilities which bear interest at a floating rate based on the one-month LIBOR plus an applicable margin, and in certain cases a LIBOR floor. Accordingly, fluctuations in market interest rates may increase or decrease our interest expense. Assuming no change in the outstanding borrowings on our credit facilities, we estimate that a one percentage point increase in LIBOR would increase our annual interest expense by approximately \$3.6 million and \$6.9 million as of December 31, 2020 and December 31, 2019, respectively.

We are also subject to market risk by way of changes in interest rates on borrowings under our warehouse line of credit and master repurchase agreements that provide capital for Zillow Home Loans. As of December 31, 2020 and December 31, 2019, we had outstanding \$309.0 million and \$30.4 million, respectively, of borrowings on our warehouse line of credit and master repurchase agreements which bear interest at a floating rate based on LIBOR plus an applicable margin, and in certain cases include a LIBOR floor. We manage the interest rate risk associated with our mortgage loan origination services through the use of forward sales of mortgage-backed securities. Assuming no change in the outstanding borrowings on the warehouse line of credit and master repurchase agreements, we estimate that a one percentage point increase in LIBOR would increase our annual interest expense associated with the warehouse line of credit and master repurchase agreements by \$3.1 million as of December 31, 2020 and by an insignificant amount as of December 31, 2019.

As described above, we utilize debt facilities that bear interest at a floating rate based on LIBOR, which is expected to be phased out as a reference rate in future periods. We do not expect the eventual transition away from LIBOR to have a material impact on our financial position, results of operations or cash flows.

Inflation Risk

We do not believe that inflation has had a material effect on our business, results of operations or financial condition. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, results of operations and financial condition.

Foreign Currency Exchange Risk

We do not believe that foreign currency exchange risk has had a material effect on our business, results of operations or financial condition. As we do not maintain a significant balance of foreign currency, we do not believe an immediate 10% increase or decrease in foreign currency exchange rates relative to the United States dollar would have a material effect on our business, results of operations or financial condition.

Item 8. Financial Statements and Supplementary Data.

Index to Consolidated Financial Statements

	<u>Page</u>
Report of Deloitte & Touche LLP, Independent Registered Public Accounting Firm	66
Consolidated Balance Sheets	69
Consolidated Statements of Operations	70
Consolidated Statements of Comprehensive Loss	71
Consolidated Statements of Shareholders' Equity	72
Consolidated Statements of Cash Flows	72
Notes to Consolidated Financial Statements	73

The supplementary financial information required by this Item 8 is included in Item 7 under the caption “Quarterly Results of Operations” in this Annual Report on Form 10-K.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Zillow Group, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Zillow Group, Inc. (the “Company”) as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive loss, shareholders’ equity, and cash flows for each of the three years in the period ended December 31, 2020, 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, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, 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, 2020, 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, 2021 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

The critical audit matters communicated below 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. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Intangible Assets – Trulia trade names and trademarks intangible assets — Refer to Note 11 in the Notes to Consolidated Financial Statements

Critical Audit Matter Description

In March 2020, management identified certain qualitative factors directly related to the COVID-19 pandemic which indicated a potential risk of impairment related to the Trulia trade names and trademarks indefinite-lived intangible asset. As a result, management engaged an outside valuation firm to assist in the valuation of this intangible asset. The resulting valuation, which was reviewed and approved by management, resulted in the recognition of an impairment charge of \$71.5 million, which reduced the carrying value of the asset from \$108.0 million to \$36.5 million.

Given the significant judgments required by management in determining certain assumptions used in the valuation of the Trulia trade names and trademarks intangible assets, specifically the forecasted revenue and royalty rate, we considered the audit of such conclusions to be a critical audit matter.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's estimates, forecasts, and valuation of the intangible asset, as well as the associated impairment charge, involved the following procedures, among others:

- We tested the design and operating effectiveness of the Company's internal controls over the impairment analysis, including controls related to management's review of financial forecasts used in the analysis, and of the valuation methodology and assumptions used in the valuation model.
- We evaluated the reasonableness of management's business and accounting assumptions used in the fair value measurement by:
 - Testing the underlying data supporting management's forecasted revenue, including expected user traffic to the Trulia mobile applications and website;
 - Assessing management's ability to accurately forecast future revenue attributable to the intangible asset by comparing actual results to management's historical forecasts; and
 - Considering the impact of events and transactions that have occurred after the impairment date but before the completion of the audit on the conclusions reached.
- With the assistance of our fair value specialists, we audited the valuation methodology and the assumed royalty rate used to determine the fair value of the intangible asset by:
 - Evaluating the appropriateness of the valuation model and techniques used in determining the fair value; and
 - Assessing whether the royalty rate used in the valuation was consistent with those that would be used by market participants through the testing of source information, checking the mathematical accuracy of the calculation, and developing a range of independent estimates and comparing to the royalty rate selected by management, where applicable.

Revenue – Highly Automated Revenue Systems in the Internet, Media and Technology Segment — Refer to Note 2 and Note 22 in the Notes to Consolidated Financial Statements

Critical Audit Matter Description

The Company's Internet, Media & Technology (IMT) segment, which includes the Premier Agent, Rentals, and new construction marketplaces, as well as dotloop, display, and revenue from the sale of various other marketing and business products and services to real estate professionals, derives substantially all of its revenue from the sale of advertising services and a suite of marketing software and technology solutions to businesses and professionals primarily associated with the residential real estate, rental and residential construction industries. The total revenue for the IMT segment for the year ended December 31, 2020 was \$1.5 billion. The Company operates multiple mobile applications and websites to deliver each of its products to end users, and the revenue for each product consists of a significant volume of transactions utilizing multiple systems.

The process to calculate, aggregate, and record revenue across the IMT segment product offerings is highly automated, relies on multiple internally developed tools and systems, and involves interfacing significant volumes of data across the systems. Given the complexity of the information technology (IT) environment, and the required involvement of professionals with expertise in IT to identify, test, and evaluate the revenue data flows, systems, and automated controls, we considered the audit of the Company's revenue generating transactions within the IMT segment to be a critical audit matter.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the Company's revenue transactions within the IMT segment included the following, among others:

- With the assistance of our IT specialists, we:
 - Identified the relevant systems used to calculate and record revenue transactions;
 - Tested the general IT controls over each of these systems, including testing of user access controls, change management controls, and IT operations controls; and
 - Performed testing of system interface controls and automated controls within the relevant revenue streams.
- We tested business process controls to reconcile the various systems to the Company's general ledgers.

- For certain revenue streams within the IMT segment we performed one, or a combination, of the following procedures:
 - Detail testing of transactions by agreeing the amounts recognized to source documents and testing the mathematical accuracy of the recorded revenue; or
 - Substantive analytical procedures whereby we developed an independent expectation of revenue and compared such expectation to the amounts recorded by the Company.

/s/ DELOITTE & TOUCHE LLP

Seattle, Washington

February 12, 2021

We have served as the Company's auditor since 2016.

ZILLOW GROUP, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except share data)

	December 31,	
	2020	2019
Assets		
Current assets:		
Cash and cash equivalents	\$ 1,703,130	\$ 1,141,263
Short-term investments	2,218,108	1,280,989
Accounts receivable, net of allowance for doubtful accounts of \$3,427 and \$4,522 at December 31, 2020 and 2019, respectively	69,940	67,005
Mortgage loans held for sale	330,758	36,507
Inventory	491,293	836,627
Prepaid expenses and other current assets	75,846	58,117
Restricted cash	75,805	89,646
Total current assets	4,964,880	3,510,154
Contract cost assets	50,719	45,209
Property and equipment, net	196,152	170,489
Right of use assets	187,960	212,153
Goodwill	1,984,907	1,984,907
Intangible assets, net	94,767	190,567
Other assets	7,175	18,494
Total assets	<u>\$ 7,486,560</u>	<u>\$ 6,131,973</u>
Liabilities and shareholders' equity		
Current liabilities:		
Accounts payable	\$ 18,974	\$ 8,343
Accrued expenses and other current liabilities	94,487	85,442
Accrued compensation and benefits	47,666	37,805
Borrowings under credit facilities	670,209	721,951
Deferred revenue	48,995	39,747
Lease liabilities, current portion	28,310	17,592
Convertible senior notes, current portion	—	9,637
Total current liabilities	908,641	920,517
Lease liabilities, net of current portion	207,723	220,445
Convertible senior notes, net of current portion	1,613,523	1,543,402
Deferred tax liabilities and other long-term liabilities	14,857	12,188
Total liabilities	2,744,744	2,696,552
Commitments and contingencies (Note 19)		
Shareholders' equity:		
Preferred stock, \$0.0001 par value; 30,000,000 shares authorized; no shares issued and outstanding	—	—
Class A common stock, \$0.0001 par value; 1,245,000,000 shares authorized; 61,101,303 and 58,739,989 shares issued and outstanding as of December 31, 2020 and 2019, respectively	6	6
Class B common stock, \$0.0001 par value; 15,000,000 shares authorized; 6,217,447 shares issued and outstanding	1	1
Class C capital stock, \$0.0001 par value; 600,000,000 shares authorized; 173,207,170 and 144,109,419 shares issued and outstanding as of December 31, 2020 and 2019, respectively	17	14
Additional paid-in capital	5,880,883	4,412,200
Accumulated other comprehensive income	164	340
Accumulated deficit	(1,139,255)	(977,140)
Total shareholders' equity	<u>4,741,816</u>	<u>3,435,421</u>
Total liabilities and shareholders' equity	<u>\$ 7,486,560</u>	<u>\$ 6,131,973</u>

See accompanying notes to consolidated financial statements.

ZILLOW GROUP, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Year Ended December 31,		
	2020	2019	2018
Revenue:			
Homes	\$ 1,715,375	\$ 1,365,250	\$ 52,365
IMT	1,450,232	1,276,896	1,201,143
Mortgages	174,210	100,691	80,046
Total revenue	3,339,817	2,742,837	1,333,554
Cost of revenue (exclusive of amortization) (1):			
Homes	1,621,040	1,315,345	49,392
IMT	104,091	98,522	96,693
Mortgages	31,264	18,154	7,505
Total cost of revenue	1,756,395	1,432,021	153,590
Sales and marketing	672,816	714,128	552,621
Technology and development	518,072	477,347	410,818
General and administrative	357,122	366,176	262,153
Impairment costs	76,800	—	79,000
Acquisition-related costs	—	—	2,332
Integration costs	—	650	2,015
Total costs and expenses	3,381,205	2,990,322	1,462,529
Loss from operations	(41,388)	(247,485)	(128,975)
Gain on extinguishment of 2021 Notes	1,448	—	—
Other income	25,529	39,658	19,270
Interest expense	(155,227)	(101,792)	(41,255)
Loss before income taxes	(169,638)	(309,619)	(150,960)
Income tax benefit	7,523	4,258	31,102
Net loss	\$ (162,115)	\$ (305,361)	\$ (119,858)
Net loss per share — basic and diluted	\$ (0.72)	\$ (1.48)	\$ (0.61)
Weighted-average shares outstanding — basic and diluted	223,848	206,380	197,944
(1) Amortization of website development costs and intangible assets included in technology and development	\$ 75,263	\$ 61,937	\$ 79,309

See accompanying notes to consolidated financial statements.

ZILLOW GROUP, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(in thousands)

	Year Ended December 31,		
	2020	2019	2018
Net loss	\$ (162,115)	\$ (305,361)	\$ (119,858)
Other comprehensive income (loss):			
Unrealized gains (losses) on investments	(731)	1,434	144
Reclassification adjustment for net investment (gains) losses included in net loss	372	(57)	—
Net unrealized gains (losses) on investments	(359)	1,377	144
Currency translation adjustments	183	(132)	51
Total other comprehensive income (loss)	(176)	1,245	195
Comprehensive loss	\$ (162,291)	\$ (304,116)	\$ (119,663)

See accompanying notes to consolidated financial statements.

ZILLOW GROUP, INC.
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(in thousands, except share data)

	Class A Common Stock, Class B Common Stock and Class C Capital Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
	Shares	Amount				
Balance at December 31, 2017	190,115,148	\$ 20	\$ 3,254,146	\$ (592,243)	\$ (1,100)	\$ 2,660,823
Cumulative-effect adjustment from adoption of guidance on revenue from contracts with customers	—	—	—	40,322	—	40,322
Issuance of common and capital stock upon exercise of stock options	5,472,728	—	120,074	—	—	120,074
Vesting of restricted stock units	1,740,134	—	—	—	—	—
Restricted stock units withheld for tax liability	(1,489)	—	(70)	—	—	(70)
Share-based compensation expense	—	—	157,674	—	—	157,674
Partial conversion of convertible senior notes due in 2020	20,727	—	500	—	—	500
Issuance of Class C capital stock in connection with equity offering, net of issuance costs of \$13,425	6,557,017	1	360,345	—	—	360,346
Premiums paid for capped call confirmations	—	—	(29,414)	—	—	(29,414)
Equity component of issuance of 2023 Notes, net of issuance costs of \$2,047	—	—	76,587	—	—	76,587
Net loss	—	—	—	(119,858)	—	(119,858)
Other comprehensive income	—	—	—	—	195	195
Balance at December 31, 2018	203,904,265	21	3,939,842	(671,779)	(905)	3,267,179
Issuance of common and capital stock upon exercise of stock options	2,918,053	—	65,465	—	—	65,465
Vesting of restricted stock units	2,244,631	—	—	—	—	—
Restricted stock units withheld for tax liability	(94)	—	(3)	—	—	(3)
Share-based compensation expense	—	—	210,849	—	—	210,849
Premiums paid for capped call confirmations	—	—	(159,677)	—	—	(159,677)
Equity component of issuance of 2024 Notes and 2026 Notes, net of issuance costs of \$4,430	—	—	355,724	—	—	355,724
Net loss	—	—	—	(305,361)	—	(305,361)
Other comprehensive income	—	—	—	—	1,245	1,245
Balance at December 31, 2019	209,066,855	21	4,412,200	(977,140)	340	3,435,421
Issuance of common and capital stock upon exercise of stock options	13,744,571	1	444,028	—	—	444,029
Vesting of restricted stock units	3,013,365	—	—	—	—	—
Restricted stock units withheld for tax liability	(55)	—	(4)	—	—	(4)
Share-based compensation expense	—	—	214,107	—	—	214,107
Issuance of Class C capital stock in connection with equity offering, net of issuance costs of \$10,877	8,800,000	1	411,522	—	—	411,523
Equity component of issuance of 2025 Notes, net of issuance costs of \$3,279	—	—	154,813	—	—	154,813
Partial repurchase of 2021 Notes	753,936	—	(21,784)	—	—	(21,784)
Partial unwind of capped call transactions for 2021 Notes	(317,865)	—	—	—	—	—
Conversion of 2021 Notes	5,065,644	1	256,356	—	—	256,357
Conversion of convertible senior notes due in 2020	399,469	—	9,645	—	—	9,645
Net loss	—	—	—	(162,115)	—	(162,115)
Other comprehensive loss	—	—	—	—	(176)	(176)
Balance at December 31, 2020	240,525,920	24	5,880,883	(1,139,255)	164	4,741,816

See accompanying notes to the consolidated financial statements.

ZILLOW GROUP, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,		
	2020	2019	2018
Operating activities			
Net loss	\$ (162,115)	\$ (305,361)	\$ (119,858)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	110,031	87,467	99,391
Share-based compensation expense	197,550	198,902	149,084
Amortization of right of use assets	24,338	23,142	—
Amortization of contract cost assets	36,494	35,323	36,013
Amortization of discount and issuance costs on 2021 Notes, 2023 Notes, 2024 Notes, 2025 Notes, and 2026 Notes	102,401	52,097	26,672
Gain on extinguishment of 2021 Notes	(1,448)	—	—
Impairment costs	76,800	—	79,000
Deferred income taxes	(7,523)	(4,258)	(31,102)
Loss (gain) on disposal of property and equipment and other assets	(402)	7,231	3,617
Credit loss expense	2,650	2,772	869
Net loss (gain) on investment securities	372	(57)	—
Deferred rent	—	—	(2,045)
Amortization (accretion) of bond premium (discount)	2,141	(6,344)	(4,313)
Changes in operating assets and liabilities:			
Accounts receivable	(5,585)	(3,694)	(12,556)
Mortgage loans held for sale	(294,251)	(1,098)	(1,161)
Inventory	345,277	(673,798)	(162,829)
Prepaid expenses and other assets	(15,957)	(978)	(34,068)
Contract cost assets	(42,004)	(34,713)	(41,510)
Lease liabilities	(2,149)	(18,940)	—
Accounts payable	12,972	(496)	1,311
Accrued expenses and other current liabilities	15,321	19,573	1,920

Accrued compensation and benefits	9,861	6,417	11,291
Deferred revenue	9,248	5,667	2,162
Other long-term liabilities	10,175	(1,028)	1,962
Net cash provided by (used in) operating activities	424,197	(612,174)	3,850
Investing activities			
Proceeds from maturities of investments	2,230,705	1,126,058	399,228
Proceeds from sales of investments	116,394	—	13,567
Purchases of investments	(3,287,071)	(1,495,477)	(901,761)
Purchases of property and equipment	(84,940)	(67,044)	(66,054)
Purchases of intangible assets	(23,577)	(19,591)	(12,481)
Proceeds from sale of equity investment	10,000	—	—
Cash paid for acquisitions, net	—	—	(55,138)
Net cash used in investing activities	(1,038,489)	(456,054)	(622,639)
Financing activities			
Proceeds from issuance of convertible notes, net of issuance costs	553,282	1,157,675	364,020
Premiums paid for capped call confirmations	—	(159,677)	(29,414)
Proceeds from issuance of Class C capital stock, net of issuance costs	411,522	—	360,345
Extinguishment of 2021 Notes	(194,768)	—	—
Proceeds from borrowings on credit facilities	348,684	688,489	116,700
Repayments of borrowings on credit facilities	(679,042)	(113,665)	—
Net borrowings (repayments) on warehouse lines of credit and repurchase agreements	278,616	(2,590)	482
Proceeds from exercise of stock options	444,028	65,465	120,074
Value of equity awards withheld for tax liability	(4)	(3)	(70)
Contingent merger consideration	—	—	(2,000)
Net cash provided by financing activities	1,162,318	1,635,694	930,137
Net increase in cash, cash equivalents and restricted cash during period	548,026	567,466	311,348
Cash, cash equivalents and restricted cash at beginning of period	1,230,909	663,443	352,095
Cash, cash equivalents and restricted cash at end of period	\$ 1,778,935	\$ 1,230,909	\$ 663,443
Supplemental disclosures of cash flow information			
Cash paid for interest	\$ 50,755	\$ 42,156	\$ 15,473
Noncash transactions:			
Capitalized share-based compensation	\$ 16,557	\$ 11,947	\$ 8,590
Write-off of fully depreciated property and equipment	\$ 115,086	\$ 36,159	\$ 22,364
Write-off of fully amortized intangible assets	\$ 62,622	\$ 9,999	\$ 12,999
Property and equipment purchased on account	\$ 335	\$ 8,775	\$ 3,844

See accompanying notes to consolidated financial statements.

ZILLOW GROUP, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Organization and Description of Business

Zillow Group, Inc. is reimagining real estate to make it easier to unlock life's next chapter. As the most visited real estate website in the United States, Zillow and its affiliates offer customers an on-demand experience for selling, buying, renting or financing with transparency and nearly seamless end-to-end service. Zillow Offers buys and sells homes directly in dozens of markets across the country, allowing sellers control over their timeline. Zillow Home Loans, our affiliate lender, provides our customers with an easy option to get pre-approved and secure financing for their next home purchase. In September 2020, Zillow launched Zillow Homes, Inc., a licensed brokerage entity, to streamline Zillow Offers transactions.

Other consumer brands include Trulia, StreetEasy, HotPads and Out East. In addition, Zillow Group provides a comprehensive suite of marketing software and technology solutions which include Mortech, dotloop, Bridge Interactive and New Home Feed. Zillow, Inc. was incorporated as a Washington corporation in December 2004, and we launched the initial version of our website, Zillow.com, in February 2006. Zillow Group, Inc. was incorporated as a Washington corporation in July 2014 in connection with our acquisition of Trulia, Inc. ("Trulia"). Upon the closing of the Trulia acquisition in February 2015, each of Zillow, Inc. and Trulia became wholly owned subsidiaries of Zillow Group.

Certain Significant Risks and Uncertainties

We operate in a dynamic industry and, accordingly, can be affected by a variety of factors. For example, we believe that changes in any of the following areas could have a significant negative effect on us in terms of our future financial position, results of operations or cash flows: public health crises, like the COVID-19 pandemic and the availability and widespread distribution and use of effective vaccines; rates of revenue growth; our ability to successfully integrate and realize the benefits of our past or future strategic acquisitions or investments; the satisfaction of conditions precedent to the closing of our proposed acquisition of ShowingTime.com, Inc., including expiration or termination of the applicable waiting period under the Hart-Scott-Rodino Act; our ability to manage advertising inventory or pricing; engagement and usage of our products; our investment of resources to pursue strategies that may not prove effective; competition in our market; the stability of the residential real estate market and the impact of interest rate changes; changes in technology, products, markets or services by us or our competitors; addition or loss of significant customers; our ability to maintain or establish relationships with listings and data providers; our ability to obtain or maintain licenses and permits to support our current and future businesses; actual or anticipated changes to our products and services; changes in government regulation affecting our business; outcomes of legal proceedings; natural disasters and catastrophic events; scaling and adaptation of existing technology and network infrastructure; management of our growth; our ability to attract and retain qualified employees and key personnel; protection of customers' information and other privacy concerns; protection of our brand and intellectual property; and intellectual property infringement and other claims, among other things.

Note 2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements include Zillow Group, Inc. and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation. These consolidated financial statements have been prepared in conformity with United States generally accepted accounting principles ("GAAP").

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make certain estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and the related disclosures at the date of the financial statements, as well as the reported amounts of revenue and expenses during the periods presented. On an ongoing basis, we evaluate our estimates, including those related to the accounting for certain revenue offerings, the net realizable value of inventory, amortization period and recoverability of contract cost assets, website and software development costs, recoverability of long-lived assets and intangible assets, share-based compensation, income taxes, business combinations and the recoverability of goodwill, among others. To the extent there are material differences between these estimates, judgments or assumptions and actual results, our financial statements will be affected. The COVID-19 pandemic has introduced significant additional uncertainty with respect to estimates, judgments and assumptions, which may materially impact the estimates previously listed, among others.

Concentrations of Credit Risk

Financial instruments, which potentially subject us to concentrations of credit risk, consist primarily of cash and cash equivalents, investments, accounts receivable and mortgage loans held for sale. We place cash and cash equivalents and investments with major financial institutions, which management assesses to be of high credit quality, in order to limit exposure of our investments.

Credit risk with respect to accounts receivable is dispersed due to the large number of customers. There were no customers that comprised 10% or more of our total accounts receivable as of December 31, 2020 and 2019. Further, our credit risk on accounts receivable is mitigated by the relatively short payment terms that we offer. Collateral is not required for accounts receivable. We maintain an allowance for doubtful accounts such that receivables are stated at net realizable value.

Similarly, our credit risk on mortgage loans held for sale is dispersed due to a large number of customers and is mitigated by the fact that we typically sell mortgages on the secondary market within a relatively short period of time after the loan is originated.

Cash and Cash Equivalents

Cash includes demand deposits with banks or financial institutions. Cash equivalents include short-term, highly liquid investments that are both readily convertible to known amounts of cash, and so near their maturity that they present minimal risk of changes in value because of changes in interest rates. Our cash equivalents include only investments with original maturities of three months or less. We regularly maintain cash in excess of federally insured limits at financial institutions.

Short-term Investments

Our investments consist of fixed income securities, which include United States government agency securities, corporate notes and bonds, commercial paper, treasury bills, municipal securities and certificates of deposit, and are classified as available-for-sale securities. The investments are available to support current operations and are classified as short-term investments measured at fair value. Our investment policy only allows for purchases of investment-grade securities and provides guidelines on concentrations to ensure minimum risk of loss. We evaluate whether unrealized losses on available-for-sale debt securities are the result of credit worthiness of the securities held or other non-credit related factors. If an unrealized loss is the result of credit quality factors, we recognize an allowance reflective of our current estimate of credit losses expected to be incurred over the life of the financial instrument on a specific identification basis upon initial recognition and at each reporting period. If a reduction in value is a result of other factors, we continue to classify the losses as a reduction of comprehensive income. We did not identify any unrealized loss positions in our available-for-sale securities that were the result of credit losses as of December 31, 2020 or 2019. It is not more likely than not that we will be required to sell these investments before recovery.

Restricted Cash

Restricted cash consists of cash received from the resale of homes through Zillow Offers which may be used to repay amounts borrowed on our credit facilities (see Note 14), amounts held in escrow related to funding home purchases in our mortgage origination business and amounts held in escrow related to our Zillow Closing Services business.

Mortgage Loans Held for Sale

Mortgage loans held for sale include residential mortgages originated for sale in the secondary market in connection with Zillow Home Loans. We have elected the fair value option for all mortgage loans held for sale as election of this option allows for a better offset of the changes in fair values of the loans and the derivative instruments used to economically hedge them without having to apply complex hedge accounting provisions. Mortgage loans held for sale are initially recorded at fair value based on either sale commitments or current market quotes and are adjusted for subsequent changes in fair value until the loans are sold. Net origination costs and fees associated with mortgage loans are recognized as incurred. We sell substantially all of the mortgages we originate and the related servicing rights to third-party purchasers. Interest income is earned from the date a mortgage loan is originated until the loan is sold and is classified within other income in the consolidated statements of operations.

Substantially all of the mortgage loans originated are sold within a short period of time in the secondary mortgage market on a servicing released, nonrecourse basis, which limits exposure to nonperformance by loan buyer counterparties although we remain liable for certain limited representations and warranties related to loan sales, such as non-compliance with defined loan origination or documentation standards, including misstatement in the loan documents, early payoff or default on early payments. Mortgage investors could seek to have us buy back loans or compensate them for losses incurred on mortgages we have sold based on claims that we breached our limited representations and warranties. We record a reserve for probable losses in connection with the sale of mortgage loans.

Loan Commitments and Related Derivatives

We are party to interest rate lock commitments (“IRLCs”), which are extended to borrowers who have applied for loan funding and meet defined credit and underwriting criteria in connection with our Zillow Home Loans mortgage origination business. IRLCs are accounted for as derivative instruments recorded at fair value with gains and losses recognized in revenue in the consolidated statements of operations. We manage our interest rate risk related to IRLCs and mortgage loans held for sale through the use of derivative instruments, generally forward contracts on mortgage-backed securities (“MBSs”), which are commitments to either purchase or sell a specified financial instrument at a specified future date for a specified price, and mandatory loan commitments, which are an obligation by an investor to buy loans at a specified price within a specified time period. We do not enter into or hold derivatives for trading or speculative purposes and our derivatives are not designated as hedging instruments. Changes in the fair value of our derivative financial instruments are recognized in revenue in our consolidated statements of operations, and the fair values are reflected in other assets or other liabilities, as applicable. Refer to Note 3 to our consolidated financial statements for additional information regarding IRLCs and related derivatives.

There are no credit-risk-related contingent features within our derivative agreements, and counterparty risk is considered minimal. Gains and losses on IRLCs are substantially offset by corresponding gains or losses on forward contracts on MBSs and mandatory loan commitments. We are generally not exposed to variability in cash flows of derivative instruments for more than approximately 90 days.

Inventory

Inventory is comprised of homes acquired through Zillow Offers and is stated at the lower of cost or net realizable value. Homes are removed from inventory on a specific identification basis when they are resold. Stated cost includes consideration paid to acquire and update each home including associated allocated overhead costs and holding costs incurred during the renovation period. Work-in-progress inventory includes homes undergoing updates and finished goods inventory includes homes ready for resale. Unallocated overhead costs are expensed as incurred and included in cost of revenue. For our Homes segment, selling costs, such as real estate agent commissions, escrow and title fees and staging costs, as well as holding costs incurred during the period that homes are listed for sale, including utilities, taxes and maintenance are expensed as incurred and classified within sales and marketing expenses in the consolidated statements of operations.

Each quarter we review the value of homes held in inventory for indicators that net realizable value is lower than cost. When evidence exists that the net realizable value of inventory is lower than its cost, the difference is recognized in cost of revenue and the value of the corresponding asset is reduced.

Contract Balances

Accounts receivable represent our unconditional right to consideration. Accounts receivable are generally due within 30 days and are recorded net of the allowance for doubtful accounts. We have an allowance for doubtful accounts for our accounts receivable balances, which represents our estimate of expected credit losses over the contractual life of the accounts receivable. Beginning January 1, 2020, when evaluating the adequacy of our allowance for doubtful accounts each reporting period, we analyze the accounts receivable balances with similar risk characteristics on a collective basis, considering factors such as the aging of receivable balances, payment terms, geographic location, historical loss experience, current information and future expectations. Changes to the allowance for doubtful accounts are adjusted through credit loss expense, which is included in general and administrative expenses in the consolidated statements of operations.

Contract assets represent amounts for which we have recognized revenue for contracts that have not yet been invoiced to our customers. Contract assets are primarily related to our Premier Agent Flex and rentals pay per lease offerings, whereby we estimate variable consideration based on the expected number of real estate transactions to be closed for Premier Agent Flex and qualified leases to be secured for rentals pay per lease and recognize revenue when we satisfy our performance obligations under the corresponding contracts. We do not believe that a significant reversal in the amount of cumulative revenue recognized will occur once the uncertainty related to the number of real estate transactions to be closed and qualified leases to be secured is resolved. Contract assets are recorded within prepaids and other current assets in our consolidated balance sheets.

Contract liabilities consist of deferred revenue, which relates to payments received in advance of performance under a revenue contract. Deferred revenue is primarily related to prepaid advertising fees received or billed in advance of satisfying our performance obligations and prepaid but unrecognized subscription revenue. Deferred revenue is recognized when or as we satisfy our obligations under contracts with customers.

Contract Cost Assets

We capitalize certain incremental costs of obtaining contracts with customers which we expect to recover. These costs relate to commissions paid to sales personnel, primarily for our Premier Agent and Premier Broker programs. As a practical expedient, we recognize the incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset that we otherwise would have recognized is one year or less. Capitalized commission costs are recorded as contract cost assets in our consolidated balance sheets. Contract cost assets are amortized to expense on a straight-line basis over a period that is consistent with the transfer to the customer of the products or services to which the asset relates, generally the estimated life of the customer relationship. Amortization expense related to contract cost assets is included in sales and marketing expenses in our consolidated statements of operations. In determining the estimated life of our customer relationships, we consider quantitative and qualitative data, including, but not limited to, historical customer data, recent changes or expected changes in product or service offerings and changes in how we monetize our products and services. The amortization period for capitalized contract costs related to our Premier Agent and Premier Broker programs ranges from two to three years.

We monitor our contract cost assets for impairment and recognize an impairment loss in the consolidated statements of operations to the extent the carrying amount of the asset recognized exceeds the amount of consideration that we expect to receive in the future and that we have received but have not recognized in revenue less the costs that relate directly to providing those goods or services that have not yet been recognized as expenses. Write-offs of contract cost assets were not material for the years ended December 31, 2020 and 2019. Refer to Note 7 of our consolidated financial statements for more information regarding contract cost assets.

Property and Equipment

Property and equipment is recorded at cost and depreciated using the straight-line method over the estimated useful lives of the related assets. The useful lives are as follows:

Computer equipment	2 to 3 years
Office equipment, furniture and fixtures	5 to 7 years
Leasehold improvements	Shorter of expected useful life or lease term

Maintenance and repair costs are charged to expense as incurred. Major improvements, which extend the useful life of the related asset, are capitalized. Upon disposal of a fixed asset, we record a gain or loss based on the difference between the proceeds received and the net book value of the disposed asset. In the fourth quarter of 2020, we began removing fully depreciated property and equipment from the cost and accumulated depreciation amounts disclosed.

Website and Software Development Costs

The costs incurred in the preliminary stages of website and software development are expensed as incurred. Once an application has reached the development stage, internal and external costs, if direct and incremental and deemed by management to be significant, 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 website or software that result in added functionality, in which case the costs are capitalized and amortized on a straight-line basis over the estimated useful lives. Amortization expense related to capitalized website and software development costs is included in technology and development expense.

Capitalized development activities placed in service are amortized over the expected useful lives of those releases, currently estimated at one to five years. The estimated useful lives of website and software development activities are reviewed frequently and adjusted as appropriate to reflect upcoming development activities that may include significant upgrades and/or enhancements to the existing functionality. In the fourth quarter of 2020, we began removing fully amortized website and software development costs from the cost and accumulated amortization amounts disclosed.

Construction-in-progress primarily consists of website development costs that are capitalizable, but for which the associated applications had not been placed in service.

Leases

Our lease portfolio is primarily composed of operating leases for our office space. We determine whether a contract is or contains a lease at inception of the contract. Our operating leases are included in right of use assets and lease liabilities on our consolidated balance sheets. We do not have any material financing leases.

We have lease agreements that include both lease components (e.g., fixed rent) and non-lease components (e.g., common area maintenance). For such leases, we account for the lease and non-lease components as a single component. For leases with an initial term of 12 months or less, we recognize the associated lease payments in the consolidated statements of operations on a straight-line basis over the lease term.

Right of use assets represent our right to use an underlying asset during the lease term and lease liabilities represent our obligation to make lease payments. Right of use assets and lease liabilities are recognized at the lease commencement date based on the present value of the total lease payments not yet paid, including lease incentives not yet received, with the right of use assets further adjusted for any prepaid or accrued lease payments, lease incentives received and/or initial direct costs incurred. Certain lease arrangements also include variable payments for costs such as common-area maintenance, utilities, taxes or other operating costs, which are based on a percentage of actual expenses incurred or a fluctuating rate which is unknown at the inception of the contract. These variable lease payments are excluded from the measurement of the right of use assets and lease liabilities.

Our leases have remaining lease terms ranging from less than one year to ten years, some of which include options to extend the lease term for up to an additional ten years. For example, our largest leases, which include our corporate headquarters in Seattle, Washington and office space in New York, New York and San Francisco, California, include options to renew the existing leases for either one or two periods of five years. When determining if a renewal option is reasonably certain of being exercised at lease commencement, we consider several factors, including but not limited to, contract-based, asset-based and entity-based factors. We reassess the term of existing leases if there is a significant event or change in circumstances within our control that affects whether we are reasonably certain to exercise an option to extend a lease. Examples of such events or changes include construction of significant leasehold improvements or other modifications or customizations to the underlying asset, relevant business decisions or subleases. In most cases, we have concluded that renewal options are not reasonably certain of being exercised, therefore, the renewals are not included in the right of use asset and lease liability.

During the year ended December 31, 2019, it became reasonably certain that in a future period we would exercise the first of two five year renewal options related to the office space lease for our corporate headquarters in Seattle, Washington, due to the construction of significant leasehold improvements. Therefore, the payments associated with the renewal are included in the measurement of the lease liability and right of use asset.

As our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available at the lease commencement date in determining the present value of the lease payments. We apply a portfolio approach for determining the incremental borrowing rate based on the applicable lease terms and the current economic environment, and we utilize the assistance of third-party specialists to assist us in determining our yield curve.

We recognize lease expense for operating leases on a straight-line basis over the lease term. Variable lease payments are generally recognized when incurred. These expenses are included in general and administrative expenses in the consolidated statements of operations.

From time to time, we may enter into sublease agreements with third parties. Our subleases generally do not relieve us of our primary obligations under the corresponding head lease. As a result, we account for the head lease based on the original assessment at lease inception. We determine if the sublease arrangement is either a sales-type, direct financing, or operating lease at inception of the sublease. If the total remaining lease cost on the head lease for the term of the sublease is greater than the anticipated sublease income, the right of use asset is assessed for impairment. Our subleases are generally operating leases and we recognize sublease income on a straight-line basis over the sublease term.

Recoverability of Goodwill and Indefinite-Lived Intangible Assets

Goodwill represents the excess of the cost of an acquired business over the fair value of the assets acquired at the date of acquisition, and is not amortized. We assess the impairment of goodwill on an annual basis, in our fourth quarter, or whenever events or changes in circumstances indicate that goodwill may be impaired. In our evaluation of goodwill, we typically first perform a qualitative assessment to determine whether the carrying value of each reporting unit is greater than its fair value. If it is more likely than not that the carrying value of a reporting unit is greater than its fair value, we perform a quantitative assessment and an impairment charge is recorded in our statements of operations for the excess of carrying value of the reporting unit over its fair value.

During the years ended December 31, 2020, 2019 and 2018, we did not record any impairments related to goodwill. Refer to Note 10 for additional information related to goodwill.

Prior to April 2020, our Trulia trade names and trademarks intangible asset had not been amortized, and we assessed the asset for impairment on an annual basis, in our fourth quarter, or whenever events or changes in circumstances indicated that the asset may be impaired. On an interim basis, we considered if there were any events and circumstances that could affect the significant inputs used to determine the fair value of the intangible asset, including, but not limited to, costs that could have a negative effect on future expected earnings and cash flows, changes in certain key performance metrics, and changes in management, key personnel, strategy or customers. In our evaluation of our trade names and trademarks intangible asset, we typically performed a qualitative assessment to determine whether the fair value of the intangible asset was more likely than not impaired. If so, we performed a quantitative assessment and an impairment charge was recorded in our statements of operations for the excess of the carrying value of the intangible asset over its fair value.

During the year ended December 31, 2020, we recognized a non-cash impairment charge of \$71.5 million related to our Trulia trade names and trademarks intangible asset. During the year ended December 31, 2019, we did not record any non-cash impairments, and during the year ended December 31, 2018, we recorded a non-cash impairment for \$69.0 million related to the Trulia trade names and trademarks intangible asset. In connection with this impairment analysis, we evaluated our expected future reduced marketing and advertising spend related to the Trulia trade names and trademarks intangible asset and concluded that this asset no longer has an indefinite life. In April 2020, we began amortizing the remaining \$36.5 million carrying value on an accelerated basis commensurate with the projected cash flows expected to be generated by the intangible asset over a useful life of 10 years. For additional information about the non-cash impairments, see Note 11 to our consolidated financial statements.

Intangible Assets

We purchase and license data content from multiple data providers. This data content consists of United States county data about home details (e.g., the number of bedrooms, bathrooms, square footage) and other information relating to the purchase price of homes, both current and historical, as well as imagery, mapping and parcel data that is displayed on our mobile applications and websites. Our home details data not only provides information about a home and its related transactions which is displayed on our mobile applications and websites, but is also used in our proprietary valuation algorithms to produce Zestimates, Rent Zestimates and Zillow Home Value Indexes. License agreement terms vary by vendor. In some instances, we retain perpetual rights to this information after the contract ends; in other instances, the information and data are licensed only during the fixed term of the agreement. Additionally, certain data license agreements provide for uneven payment amounts throughout the contract term.

We capitalize payments made to third parties for data licenses that we expect to recover through generation of revenue and margins. For data license contracts that include uneven payment amounts, we capitalize the payments as they are made as an intangible asset and the total contract value is typically amortized on a straight-line basis over the term of the contract, which is equivalent to the estimated useful life of the asset. We evaluate data content contracts for potential capitalization at the inception of the arrangement as well as each time periodic payments to third parties are made.

The amortization period for the capitalized purchased content is based on our best estimate of the useful life of the asset, which is approximately five years. The determination of the useful life includes consideration of a variety of factors including, but not limited to, our assessment of the expected use of the asset and contractual provisions that may limit the useful life, as well as an assessment of when the data is expected to become obsolete based on our estimates of the diminishing value of the data over time. We evaluate the useful life of the capitalized purchased data content each reporting period to determine whether events and circumstances warrant a revision to the remaining useful life. If we determine the estimate of the asset's useful life requires modification, the carrying amount of the asset is amortized prospectively over the revised useful life. The capitalized purchased data content is amortized on a straight-line basis as the pattern of delivery of the economic benefits of the data cannot reliably be determined because we do not have the ability to reliably predict future traffic to our mobile applications and websites.

Under certain other data agreements, the underlying data is obtained on a subscription basis with consistent monthly or quarterly recurring payment terms over the contractual period. Upon the expiration of such arrangements, we no longer have the right to access the related data, and therefore, the costs incurred under such contracts are not capitalized and are expensed as payments are made.

We also capitalize costs related to the license of certain internal-use software from third parties, including certain licenses of software in cloud computing arrangements. Additionally, we capitalize costs incurred during the application development stage related to the development of internal-use software and enterprise cloud computing services. We expense costs as incurred related to the planning and post-implementation phases of development. Capitalized internal-use software costs are amortized on a straight-line basis over the estimated useful life of the asset, which is currently one to five years.

Intangibles-in-progress consist of purchased content and software that are capitalizable but have not been placed in service.

We also have intangible assets for developed technology, customer relationships, trade names and trademarks and lender licenses which we recorded in connection with acquisitions. Purchased intangible assets with a determinable economic life are carried at cost, less accumulated amortization. These intangible assets are amortized over the estimated useful life of the asset on a straight-line basis.

Beginning in the fourth quarter of 2020, for each of the intangible assets described above we have removed fully amortized assets from the cost and accumulated amortization amounts disclosed.

Recoverability of Intangible Assets with Definite Lives and Other Long-Lived Assets

We evaluate intangible assets and other long-lived assets for impairment whenever events or circumstances indicate that they may not be recoverable. Recoverability is measured by comparing the carrying amount of an asset group to future undiscounted net cash flows expected to be generated. We group assets for purposes of such review at the lowest level for which identifiable cash flows of the asset group are largely independent of the cash flows of the other groups of assets and liabilities. If this comparison indicates impairment, the amount of impairment to be recognized is calculated as the difference between the carrying value and the fair value of the asset group.

Business Combinations

We recognize identifiable assets acquired and liabilities assumed at their acquisition date fair values. Goodwill as of the acquisition date is measured as the excess of consideration transferred over the net of the acquisition date fair values of the assets acquired and the liabilities assumed. While we use our best estimates and assumptions for the purchase price allocation process to value assets acquired and liabilities assumed at the acquisition date, our estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill to the extent that we identify adjustments to the preliminary purchase price allocation. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to our consolidated statements of operations. We recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined.

Revenue Recognition

We recognize revenue when or as we satisfy our performance obligations by transferring control of the promised products or services to our customers in an amount that reflects the consideration to which we expect to be entitled in exchange for those products or services.

As a practical expedient, we do not adjust the promised amount of consideration for the effects of a significant financing component as the period between our transfer of a promised product or service to a customer and when the customer pays for that product or service is one year or less.

We do not disclose the transaction price related to remaining performance obligations for (i) contracts with an original expected duration of one year or less and (ii) contracts for which we recognize revenue at the amount to which we have the right to invoice for performance completed to date. The remaining duration over which we satisfy our performance obligations is generally less than one year.

In our Homes segment, we generate revenue from the resale of homes and through our title and escrow services. Our two revenue categories within our Homes segment are Zillow Offers and Other.

In our IMT segment, we generate revenue from the sale of advertising services and our suite of marketing software and technology solutions to residential real estate businesses, professionals and consumers. These professionals include real estate, rental and new construction brand advertisers and other real estate professionals. The two revenue categories within our IMT segment are Premier Agent and Other.

In our Mortgages segment, we generate revenue from mortgage originations and the related sale of mortgages on the secondary market through Zillow Home Loans, the sale of advertising services to mortgage lenders and other mortgage professionals as well as Mortech mortgage software solutions.

Homes Segment

Zillow Offers Revenue. Zillow Offers revenue is derived from the resale of homes. We recognize revenue at the time of the closing of the home sale when title to and possession of the property are transferred to the buyer. The amount of revenue recognized for each home sale is equal to the full sales price of the home net of resale concessions and credits to the buyer and does not reflect real estate agent commissions, closing or other costs associated with the transaction.

Other Revenue. Other Homes revenue is primarily generated through Zillow Closing Services, which offers title and escrow services to home buyers and sellers, including title search procedures for title insurance policies, escrow and other closing services. Title insurance, which is recorded net of amounts remitted to third-party underwriters, and title and escrow closing fees, are recognized as revenue upon closing of the underlying real estate transaction.

IMT Segment

Premier Agent Revenue. Premier Agent revenue is derived from our Premier Agent and Premier Broker programs. Our Premier Agent and Premier Broker programs offer a suite of marketing and business technology products and services to help real estate agents and brokers achieve their advertising goals while growing and managing their businesses and brands. All Premier Agents and Premier Brokers receive access to a dashboard portal on our mobile application and website that provides individualized program performance analytics, our customer relationship management, or CRM, tool that captures detailed information about each contact made with a Premier Agent or Premier Broker through our mobile and web platforms and our account management tools. The marketing and business technology products and services promised to Premier Agents and Premier Brokers are delivered over time, as the customer simultaneously receives and consumes the benefit of the performance obligations.

Premier Agent and Premier Broker advertising products, which include the delivery of impressions and validated consumer connections, or leads, are primarily offered on a share of voice basis. Payment is received prior to the delivery of impressions and connections. Impressions are delivered when an advertisement appears on pages viewed by users of our mobile applications and websites and connections are delivered when consumer contact information is provided to Premier Agents and Premier Brokers. We do not promise any minimum or maximum number of impressions or connections to customers, but instead control when and how many impressions and connections to deliver based on a customer's share of voice. We determine the number of impressions and connections to deliver to Premier Agents and Premier Brokers in each zip code using a market-based pricing method in consideration of the total amount spent by Premier Agents and Premier Brokers to purchase impressions and connections in the zip code during the month. This results in the delivery of impressions and connections over time in proportion to each Premier Agent's and Premier Broker's share of voice. A Premier Agent's or Premier Broker's share of voice in a zip code is determined by their proportional monthly prepaid spend in that zip code as a percentage of the total monthly prepaid spend of all Premier Agents and Premier Brokers in that zip code, and includes both the share of impressions delivered as advertisements appearing on pages viewed by users of our mobile applications and websites, as well as the proportion of consumer connections a Premier Agent or Premier Broker receives. The number of impressions and connections delivered for a given spend level is dynamic - as demand for advertising in a zip code increases or decreases, the number of impressions and connections delivered to a Premier Agent or Premier Broker in that zip code decreases or increases accordingly.

We primarily recognize revenue related to the Premier Agent and Premier Broker products and services based on the monthly prepaid spend recognized on a straight-line basis during the monthly billing period over which the products and services are provided. This methodology best depicts how we satisfy our performance obligations to customers, as we continuously transfer control of the performance obligations to the customer over time. Given a Premier Agent or Premier Broker typically prepaids their monthly spend and the monthly spend is refunded on a pro-rata basis upon cancellation of the contract by a customer, we have determined that Premier Agent and Premier Broker contracts are effectively daily contracts, and each performance obligation is satisfied over time as each day lapses. We have not allocated the transaction price to each performance obligation within our Premier Agent and Premier Broker arrangements, as the amounts recognized would be the same irrespective of any allocation.

In October 2018, we began testing a new pricing model, Flex, for Premier Agent and Premier Broker advertising services in limited markets. We now offer this pricing model to select partners and provide it alongside our legacy market-based pricing model. With the Flex model, Premier Agents and Premier Brokers are provided with validated leads at no upfront cost and pay a performance advertising fee only when a real estate transaction is closed with one of the leads. With this pricing model, the transaction price represents variable consideration, as the amount to which we expect to be entitled varies based on the number of validated leads that convert into real estate transactions and the value of those transactions. Beginning in the third quarter of 2020, we believe we have sufficient historical data available and therefore estimate variable consideration and record revenue as performance obligations, or validated leads, are transferred. We do not believe that a significant reversal in the amount of cumulative revenue recognized will occur once the uncertainty related to the number of transactions closed is subsequently resolved. We record a corresponding contract asset for the estimate of variable consideration for Flex when the right to the consideration is conditional. When the right to consideration becomes unconditional, we reclassify amounts to accounts receivable. Contract assets are included within prepaid expenses and other current assets within our consolidated balance sheets. Refer to Note 6 of our financial statements for further details regarding our contract assets. Prior to the third quarter of 2020, we recognized revenue for validated leads when we received payment for a real estate transaction closed with a Flex lead.

Other Revenue. Other IMT revenue primarily includes revenue generated by rentals, new construction and display, as well as revenue from the sale of various other marketing and business products and services to real estate professionals. Rentals revenue includes the sale of advertising and a suite of tools to rental professionals, landlords and other market participants. Rentals revenue primarily includes revenue generated by advertising sold to property managers, landlords and other rental professionals on a cost per lead, cost per click, cost per lease, cost per listing or cost per impression basis. We recognize revenue as leads, clicks and impressions are provided to rental professionals, or as rental listings are published on our mobile applications and websites, which is the amount for which we have the right to invoice. The number of leases generated through our rentals pay per lease product during the period is accounted for as variable consideration, and we estimate the amount of variable consideration based on the expected number of qualified leases secured during the period. We do not believe that a significant reversal in the amount of cumulative revenue recognized will occur once the uncertainty related to the number of leases secured is subsequently resolved.

Rentals revenue also includes revenue generated from our rental applications product through which potential renters can submit applications to multiple rental properties over a 30-day period for a flat service fee. We recognize revenue for the rental applications product on a straight-line basis during the contractual period over which the customer has the right to access and submit the rental application.

Our new construction marketing solutions allow home builders to showcase their available inventory to home shoppers. New construction revenue primarily includes revenue generated by advertising sold to builders on a cost per residential community basis whereby we recognize revenue on a straight-line basis during the contractual period over which the communities are advertised on our mobile applications and websites. New construction revenue also includes revenue generated on a cost per impression basis whereby we recognize revenue as impressions are delivered to users interacting with our mobile applications and websites, which is the amount for which we have the right to invoice. Consideration for new construction products is billed in arrears. Display revenue primarily consists of graphical mobile and web advertising sold on a cost per thousand impressions or cost per click basis to advertisers promoting their brands on our mobile applications and websites. We recognize display revenue as clicks occur or as impressions are delivered to users interacting with our mobile applications or websites, which is the amount for which we have the right to invoice.

Mortgages Segment

Mortgages Revenue. Mortgages revenue includes revenue generated by Zillow Home Loans, our affiliated mortgage lender, marketing products sold to mortgage professionals on a cost per lead basis, including our Custom Quote and Connect services, and revenue generated by Mortech.

Mortgage origination revenue recorded within our Mortgages segment reflects origination fees on purchase or refinanced mortgages and the corresponding sale, or expected future sale, of a loan. When an interest rate lock commitment is made to a customer, we record the expected gain on sale of the mortgage, plus the estimated earnings from the expected sale of the associated servicing rights, adjusted for a pull-through percentage (which is defined as the likelihood that an interest rate lock commitment will be originated), as revenue. Revenue from loan origination fees is recognized at the time the related purchase or refinance transactions are completed, usually upon the close of escrow and when we fund the purchase or refinance mortgage loans. Once funded, mortgage loans held for sale are recorded at fair value based on either sale commitments or current market quotes and are adjusted for subsequent changes in fair value until the loan is sold. Origination costs associated with originating mortgage loans are recognized as incurred. We sell substantially all of the mortgages we originate and the related servicing rights to third-party purchasers.

Mortgage loans are sold with limited recourse provisions, which can result in repurchases of loans previously sold to investors or payments to reimburse investors for loan losses. Based on historical experience, discussions with our mortgage purchasers, analysis of the volume of mortgages we originated and current housing and credit market conditions, we estimate and record a loss reserve for mortgage loans held in our portfolio and mortgage loans held for sale, as well as known and projected mortgage loan repurchase requests. These have historically not been significant to our financial statements.

Zillow Group operates Custom Quote and Connect through its wholly owned subsidiary, Zillow Group Marketplace, Inc., a licensed mortgage broker. For our Connect and Custom Quote cost per lead marketing products, participating qualified mortgage professionals typically make a prepayment to gain access to consumers interested in connecting with mortgage professionals. Mortgage professionals who exhaust their initial prepayment prepay additional funds to continue to participate in the marketplace. In Zillow Group's Connect platform, consumers answer a series of questions to find a local lender, and mortgage professionals receive consumer contact information, or leads, when the consumer chooses to share their information with a lender. Consumers who request rates for mortgage loans in Custom Quotes are presented with customized quotes from participating mortgage professionals. For our cost per lead mortgages products, we recognize revenue when a user contacts a mortgage professional through our mortgages platform, which is the amount for which we have the right to invoice.

Mortgages revenue also includes revenue generated by Mortech, which provides subscription-based mortgage software solutions, including a product and pricing engine and lead management platform, for which we recognize revenue on a straight-line basis during the contractual period over which the services are provided.

There were no customers that generated 10% or more of our total revenue in the years ended December 31, 2020, 2019 or 2018.

Cost of Revenue. Our cost of revenue consists of expenses related to operating our mobile applications and websites, including associated headcount expenses, such as salaries, benefits, bonuses and share-based compensation expense, as well as revenue-sharing costs related to our commercial business relationships, depreciation expense and costs associated with hosting our mobile applications and websites. For our Homes segment, our cost of revenue also consists of the consideration paid to acquire and make certain repairs and updates to each home, including associated overhead costs, as well as inventory valuation adjustments. For our IMT and Mortgages segments, cost of revenue also includes credit card fees and ad serving costs paid to third parties. For our Mortgages segment, our cost of revenue also consists of direct costs to originate loans, including underwriting and processing costs.

Sales and Marketing. Sales and marketing expenses consist of advertising costs and other sales expenses related to promotional and marketing activities, headcount expenses, including salaries, commissions, benefits, bonuses and share-based compensation expense for sales, sales support, customer support, including the customer connections team, marketing and public relations employees and depreciation expense. For our Homes segment, sales and marketing expenses also consist of selling costs, such as real estate agent commissions, escrow and title fees, and staging costs, as well as holding costs incurred during the period that homes are listed for sale, including utilities, taxes and maintenance. Sales and marketing expenses for the Homes segment include \$11.3 million and \$22.6 million in holding costs for the years ended December 31, 2020 and 2019, respectively. During the year ended December 31, 2020, Homes segment sales and marketing expenses also include certain expenses attributable to our efforts to pause home buying in response to the COVID-19 pandemic. For our Mortgages segment, sales and marketing expenses include headcount expenses for loan officers and specialists supporting Zillow Home Loans.

Advertising costs are expensed as incurred. For the years ended December 31, 2020, 2019 and 2018, expenses attributable to advertising totaled \$113.0 million, \$185.2 million, and \$193.5 million, respectively.

Technology and Development. Technology and development expenses consist of headcount expenses, including salaries, benefits, bonuses and share-based compensation expense for individuals engaged in the design, development and testing of our products, mobile applications and websites and the tools and applications that support our products. Technology and development expenses also include amortization costs related to capitalized website and development activities, amortization of software, amortization of certain intangibles and other data agreement costs related to the purchase of data used to populate our mobile applications and websites, amortization of intangible assets recorded in connection with acquisitions, including trade names and trademarks, developed technology and customer relationships, amongst others, equipment and maintenance costs and depreciation expense.

Research and development costs are expensed as incurred and are recorded in technology and development expenses. For the years ended December 31, 2020, 2019 and 2018, expenses attributable to research and development for our business totaled \$383.1 million, \$343.7 million, and \$298.1 million, respectively.

Share-Based Compensation. We measure compensation expense for all share-based awards at fair value on the date of grant and recognize compensation expense over the service period on a straight-line basis for awards expected to vest.

We use the Black-Scholes-Merton option-pricing model to determine the fair value for option awards. In valuing our option awards, we make assumptions about risk-free interest rates, dividend yields, volatility and weighted-average expected lives. We account for forfeitures as they occur. Risk-free interest rates are derived from United States Treasury securities as of the option award grant date. Expected dividend yield is based on our historical cash dividend payments, which have been zero to date. The expected volatility for our Class A common stock and Class C capital stock is estimated using our historical volatility. The weighted-average expected life of the option awards is estimated based on our historical exercise data.

For issuances of restricted stock units and restricted units, we determine the fair value of the award based on the market value of our Class A common stock or Class C capital stock, as applicable, at the date of grant.

Income Taxes

We use the asset and liability approach for accounting and reporting income taxes, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial statement and tax bases of assets and liabilities at the applicable enacted tax rates. A valuation allowance against deferred tax assets would be established if, based on the weight of available evidence, it is more likely than not (a likelihood of more than 50%) that some or all of the deferred tax assets are not expected to be realized.

We establish reserves for tax-related uncertainties based on estimates of whether, and the extent to which, additional taxes will be due. We adjust these reserves in light of changing facts and circumstances, such as the closing of a tax audit, new tax legislation or the change of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the provision for income taxes in the period in which such determination is made. Interest and penalties related to unrecognized tax benefits are recorded as income tax expense.

Recently Adopted Accounting Standards

In August 2018, the Financial Accounting Standards Board (“FASB”) issued guidance related to a customer’s accounting for implementation costs incurred in hosting arrangements. The guidance conforms the requirements for capitalizing implementation costs incurred in cloud computing arrangements that are service contracts with the accounting guidance that provides for the capitalization of costs incurred to develop or obtain internal-use software. Under the guidance, implementation costs that are capitalized should be characterized in financial statements in the same manner as other service costs and assets related to service costs and amortized over the term of the hosting arrangement. This guidance is effective for interim and annual reporting periods beginning after December 15, 2019, and early adoption is permitted. Entities are permitted to apply either a retrospective or prospective transition approach to adopt this guidance. We adopted this guidance on January 1, 2020 using the prospective transition approach under which we apply the guidance to all eligible costs incurred subsequent to adoption. Under the guidance, we capitalize eligible implementation costs associated with cloud computing arrangements that are service contracts within prepaid expenses and other current assets or other long-term assets in our consolidated balance sheets, depending on the length of the underlying cloud computing contract. We amortize these costs on a straight-line basis over the term of the hosting arrangement. The adoption of this guidance did not have a material impact on our financial position, results of operations or cash flows.

In August 2018, the FASB issued guidance related to disclosure requirements for fair value measurements. This guidance removes, modifies and adds disclosures related to certain assets and liabilities measured at fair value. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements and the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim and annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. This guidance is effective for interim and annual periods beginning after December 15, 2019, and early adoption is permitted. We adopted this guidance on January 1, 2020. We have not historically recorded material amounts of Level 3 assets and liabilities or material transfers of assets or liabilities between levels within the fair value hierarchy and therefore, the adoption of this guidance did not have a material impact on our disclosures. Refer to Note 3 of our financial statements for further information regarding the assets and liabilities we measure at fair value.

In June 2016, and subsequently amended in April 2019, May 2019 and November 2019, the FASB issued guidance on the measurement of credit losses on financial assets. This guidance requires an entity to measure and recognize expected credit losses for certain financial instruments and financial assets, including trade receivables. This guidance requires an entity to recognize an allowance that reflects the entity’s current estimate of credit losses expected to be incurred over the life of the financial instrument on initial recognition and at each reporting period, whereas current guidance employs an incurred loss methodology. This guidance is effective for interim and annual periods beginning after December 15, 2019, and early adoption is permitted for interim and annual reporting periods beginning after December 15, 2018. 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 adopted. We adopted this guidance on January 1, 2020 with no material impact to our financial position, results of operation or cash flows.

Recently Issued Accounting Standards Not Yet Adopted

In August 2020, the FASB issued guidance which simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts in an entity’s own equity. Among other changes, the guidance removes the liability and equity separation models for convertible instruments. Instead, entities will account for convertible debt instruments wholly as debt unless convertible instruments contain features that require bifurcation as a derivative or that result in substantial premiums accounted for as paid-in capital. The guidance also requires the application of the if-converted method to calculate the impact of convertible instruments on diluted earnings per share. The guidance is effective for fiscal years beginning after December 15, 2021, with early adoption permitted for fiscal years beginning after December 15, 2020, and can be adopted on either a retrospective or modified retrospective basis. We expect to adopt this guidance on January 1, 2022. Although we continue to evaluate the method of adoption and impact of this guidance on our financial position, results of operations and cash flows, upon adoption we expect this guidance to result in a reclassification of conversion feature balances from additional paid-in capital to debt and to decrease reported interest expense for our convertible senior notes.

In March 2020, the FASB issued guidance which provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions that reference the London Inter-Bank Offered Rate (“LIBOR”) or another reference rate expected to be discontinued because of reference rate reform. This guidance is optional for a limited period of time to ease the potential burden in accounting for, or recognizing the effects of, reference rate reform on financial reporting. This guidance is effective from March 12, 2020 through December 31, 2022. Entities may elect to adopt the amendments for contract modifications as of any date from the beginning of an interim period that includes or is subsequent to March 12, 2020, or prospectively from a date within an interim period that includes or is subsequent to March 12, 2020, up to the date that the financial statements are available to be issued. We expect to apply some of the expedients and exceptions provided in this guidance to our credit facilities, warehouse line of credit and master repurchase agreements, all of which reference LIBOR in the applicable interest rate. As the goal of the reference rate reform transition is for it to be economically neutral to entities, we do not believe the adoption of this guidance will have a material impact on our financial position, results of operations or cash flows.

In December 2019, the FASB issued guidance which is intended to simplify the accounting for income taxes. It removes certain exceptions to the general principles and clarifies and amends existing guidance to improve consistent application. This guidance is effective for interim and annual periods beginning after December 15, 2020, and early adoption is permitted. We adopted this guidance on January 1, 2021. The method of adoption for this guidance varies based on the amendment, however the relevant amendments have been applied on a prospective basis. We do not expect the adoption of this guidance to have a material impact on our financial position, results of operations or cash flows.

Note 3. Fair Value Measurements

Accounting standards define fair value as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market in an orderly transaction between market participants on the measurement date. The standards also establish a fair value hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. There are three levels of inputs that may be used to measure fair value:

- Level 1 — Quoted prices in active markets for identical assets or liabilities.
- Level 2 — Assets and liabilities valued based on observable market data for similar instruments, such as quoted prices for similar assets or liabilities.
- Level 3 — Unobservable inputs that are supported by little or no market activity; instruments valued based on the best available data, some of which is internally developed, and considers risk premiums that a market participant would require.

We applied the following methods and assumptions in estimating our fair value measurements:

Cash equivalents — The fair value measurement of money market funds is based on quoted market prices in active markets. The fair value measurement of corporate notes and bonds, commercial paper, United States government agency securities, municipal securities, treasury bills and certificates of deposit is based on observable market-based inputs or inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Short-term investments — The fair value measurement of our short-term investments is based on observable market-based inputs or inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Restricted cash — The carrying value of restricted cash approximates fair value due to the short period of time amounts borrowed on the credit facilities are outstanding and amounts are held in escrow.

Mortgage loans held for sale — The fair value of mortgage loans held for sale is generally calculated by reference to quoted prices in secondary markets for commitments to sell mortgage loans with similar characteristics.

Interest rate lock commitments — The fair value of IRLCs is calculated by reference to quoted prices in secondary markets for commitments to sell mortgage loans with similar characteristics. Expired commitments are excluded from the fair value measurement. We generally only issue IRLCs for products that meet specific purchaser guidelines. Since not all IRLCs will become closed loans, we adjust our fair value measurements for the estimated amount of IRLCs that will not close. This adjustment is effected through the pull-through rate, which represents the probability that an interest rate lock commitment will ultimately result in a closed loan. For IRLCs that are cancelled or expire, any recorded gain or loss is reversed at the end of the commitment period.

The pull-through rate is based on estimated changes in market conditions, loan stage and historical borrower behavior. Pull-through rates are directly related to the fair value of IRLCs as an increase in the pull-through rate, in isolation, would result in an increase in the fair value measurement. Conversely, a decrease in the pull-through rate, in isolation, would result in a decrease in the fair value measurement. Changes in the fair value of IRLCs are included within Mortgages revenue in our consolidated statements of operations.

The following table presents the range and weighted average pull-through rates used in determining the fair value of IRLCs as of the dates presented:

	December 31, 2020	December 31, 2019
Range	47% - 100%	56% - 100%
Weighted average	75%	78%

Forward contracts — The fair value of mandatory loan sales commitments and derivative instruments such as forward sales of MBSs that are utilized as economic hedging instruments are calculated by reference to quoted prices for similar assets.

The following tables present the balances of assets and liabilities measured at fair value on a recurring basis, by level within the fair value hierarchy, as of the dates presented (in thousands):

	December 31, 2020			
	Total	Level 1	Level 2	Level 3
Cash equivalents:				
Money market funds	\$ 1,486,384	\$ 1,486,384	\$ —	\$ —
Municipal securities	3,228	—	3,228	—
Short-term investments:				
Treasury bills	1,163,813	—	1,163,813	—
United States government agency securities	1,037,577	—	1,037,577	—
Municipal securities	16,220	—	16,220	—
Certificates of deposit	498	—	498	—
Mortgage origination-related:				
Mortgage loans held for sale	330,758	—	330,758	—
IRLCs	12,342	—	—	12,342
Forward contracts - other current liabilities	(2,608)	—	(2,608)	—
Total	<u>\$ 4,048,212</u>	<u>\$ 1,486,384</u>	<u>\$ 2,549,486</u>	<u>\$ 12,342</u>

	December 31, 2019		
	Total	Level 1	Level 2
Cash equivalents:			
Money market funds	\$ 872,431	\$ 872,431	\$ —
United States government agency securities	35,009	—	35,009
Commercial paper	31,113	—	31,113
Treasury bills	6,441	—	6,441
Corporate notes and bonds	1,065	—	1,065
Certificates of deposit	249	—	249
Short-term investments:			
United States government agency securities	862,154	—	862,154
Corporate notes and bonds	159,431	—	159,431
Commercial paper	150,267	—	150,267
Treasury bills	80,003	—	80,003
Municipal securities	27,889	—	27,889
Certificates of deposit	1,245	—	1,245
Mortgage origination-related:			
Mortgage loans held for sale	36,507	—	36,507
IRLCs	937	—	937
Forward contracts - other current assets	7	—	7
Forward contracts - other current liabilities	(60)	—	(60)
Total	<u>\$ 2,264,688</u>	<u>\$ 872,431</u>	<u>\$ 1,392,257</u>

The following table presents the changes in our IRLCs during the year ended December 31, 2020 (in thousands):

	Year Ended December 31, 2020 (1)
Balance, beginning of the period	\$ 937
Issuances	63,662
Transfers	(60,648)
Fair value changes recognized in earnings	8,391
Balance, end of period	<u>\$ 12,342</u>

(1) The beginning balance represents transfers of IRLCs from Level 2 to Level 3 within the fair value hierarchy as of January 1, 2020.

At December 31, 2020, the notional amounts of the hedging instruments related to our mortgage loans held for sale were \$378.1 million and \$652.1 million for our IRLCs and forward contracts, respectively. At December 31, 2019, the notional amounts of the hedging instruments related to our mortgage loans held for sale were \$34.3 million and \$64.7 million for our IRLCs and forward contracts, respectively. We do not have the right to offset our forward contract derivative positions.

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

Note 4. Cash and Cash Equivalents, Short-term Investments and Restricted Cash

The following tables present the amortized cost, gross unrealized gains and losses and estimated fair market value of our cash and cash equivalents, short-term investments and restricted cash as of the dates presented (in thousands):

December 31, 2020				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Market Value
Cash	\$ 213,518	\$ —	\$ —	\$ 213,518
Cash equivalents:				
Money market funds	1,486,384	—	—	1,486,384
Municipal securities	3,229	—	(1)	3,228
Short-term investments:				
Treasury bills	1,163,748	65	—	1,163,813
United States government agency securities	1,037,572	57	(52)	1,037,577
Municipal securities	16,226	—	(6)	16,220
Certificates of deposit	498	—	—	498
Restricted cash	75,805	—	—	75,805
Total	\$ 3,996,980	\$ 122	\$ (59)	\$ 3,997,043

December 31, 2019				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Market Value
Cash	\$ 194,955	\$ —	\$ —	\$ 194,955
Cash equivalents:				
Money market funds	872,431	—	—	872,431
United States government agency securities	35,011	—	(2)	35,009
Commercial paper	31,113	—	—	31,113
Treasury bills	6,441	—	—	6,441
Corporate notes and bonds	1,065	—	—	1,065
Certificates of deposit	249	—	—	249
Short-term investments:				
United States government agency securities	861,862	365	(73)	862,154
Corporate notes and bonds	159,382	91	(42)	159,431
Commercial paper	150,267	—	—	150,267
Treasury bills	79,989	14	—	80,003
Municipal securities	27,836	56	(3)	27,889
Certificates of deposit	1,245	—	—	1,245
Restricted cash	89,646	—	—	89,646
Total	\$ 2,511,492	\$ 526	\$ (120)	\$ 2,511,898

All short-term investments as of December 31, 2020 have a contractual maturity date of one year or less.

Note 5. Inventory

The following table presents the components of inventory, net of applicable lower of cost or net realizable value adjustments, as of the dates presented (in thousands):

	December 31,	
	2020	2019
Finished goods	\$ 339,372	\$ 684,456
Work-in-process	151,921	152,171
Inventory	<u>\$ 491,293</u>	<u>\$ 836,627</u>

Note 6. Contract Balances

Contract assets were \$20.8 million as of December 31, 2020. We had an immaterial amount recorded as of December 31, 2019.

The following table presents the changes in the allowance for doubtful accounts for the periods presented (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Allowance for doubtful accounts:			
Balance, beginning of period	\$ 4,522	\$ 4,838	\$ 5,341
Additions charged to expense	2,650	2,772	869
Less: write-offs, net of recoveries and other adjustments	(3,745)	(3,088)	(1,372)
Balance, end of period	<u>\$ 3,427</u>	<u>\$ 4,522</u>	<u>\$ 4,838</u>

For the years ended December 31, 2020 and 2019, we recognized revenue of \$37.1 million and \$32.7 million, respectively, that was included in the deferred revenue balance at the beginning of the related period.

Note 7. Contract Cost Assets

As of December 31, 2020 and 2019, we had \$50.7 million and \$45.2 million, respectively, of contract cost assets. We recorded amortization expense related to contract cost assets of \$36.5 million and \$35.3 million during the years ended December 31, 2020 and 2019, respectively.

Note 8. Property and Equipment, net

The following table presents the detail of property and equipment as of the dates presented (in thousands):

	December 31,	
	2020	2019
Leasehold improvements	\$ 110,280	\$ 81,981
Website development costs	95,466	149,648
Construction-in-progress	44,151	45,337
Office equipment, furniture and fixtures	39,607	36,582
Computer equipment	20,433	31,942
Property and equipment	309,937	345,490
Less: accumulated amortization and depreciation	(113,785)	(175,001)
Property and equipment, net	<u>\$ 196,152</u>	<u>\$ 170,489</u>

We recorded depreciation expense related to property and equipment (other than website development costs) of \$34.1 million, \$24.9 million and \$19.5 million, respectively, during the years ended December 31, 2020, 2019 and 2018.

We capitalized \$54.8 million, \$42.3 million and \$34.1 million, respectively, in website development costs during the years ended December 31, 2020, 2019 and 2018. Amortization expense for website development costs included in technology and development expenses was \$24.8 million, \$17.0 million and \$28.6 million, respectively, for the years ended December 31, 2020, 2019 and 2018.

Note 9. Acquisitions and Equity Investments

Acquisition of Mortgage Lenders of America

On October 31, 2018, Zillow Group's wholly owned subsidiary, ZGM Holdco, Inc., acquired the outstanding equity of Mortgage Lenders of America, L.L.C. ("MLOA"), a national mortgage lender headquartered in Overland Park, Kansas for approximately \$66.7 million in cash.

Our acquisition of MLOA was accounted for as a business combination, and assets acquired and liabilities assumed were recorded at their estimated fair values as of October 31, 2018. Goodwill, which represents the expected synergies from combining the acquired assets and the operations of the acquirer, as well as intangible assets that do not qualify for separate recognition, is measured as of the acquisition date as the excess of consideration transferred, which is also measured at fair value, and the net of the fair values of the assets acquired and the liabilities assumed as of the acquisition date. The goodwill recognized in conjunction with this business combination was initially allocated to our IMT segment. However, beginning January 1, 2019, we have three operating and reportable segments, which have been identified based on the way in which our chief operating decision-maker manages our business, makes operating decisions and evaluates operating performance. In conjunction with this segment change, we reallocated goodwill to each segment based on the relative fair value of the segments impacted by the change. Refer to Note 10 for the allocation of goodwill to each of our reportable segments.

The total consideration paid upon acquisition was allocated to the assets acquired and liabilities assumed, including identifiable intangible assets, based on their respective fair values at the acquisition date. Based upon the fair values determined by us, in which we considered or relied in part upon a valuation report of a third-party expert, the total purchase price was allocated as follows (in thousands):

Cash and cash equivalents	\$	10,796
Restricted cash		753
Mortgage loans available for sale		34,248
Property, plant and equipment		1,315
Intangible assets		2,600
Goodwill		53,831
Other acquired assets		3,079
Accounts payable		(1,953)
Accrued expenses		(2,591)
Warehouse lines of credit		(32,536)
Other assumed liabilities		(2,855)
Total purchase price	\$	<u>66,687</u>

Acquisition-related costs incurred, which primarily included legal, accounting, regulatory and other external costs directly related to the acquisition, are included within acquisition-related costs within our consolidated statements of operations and were expensed as incurred and were not material.

The results of operations related to the acquisition of MLOA have been included in our consolidated financial statements since the date of acquisition. On an unaudited pro forma basis, revenue would have been approximately 3.0% higher for the year ended December 31, 2018 if the acquisition would have been consummated as of January 1, 2017. Unaudited pro forma earnings information has not been presented as the effects were not material to our consolidated financial statements.

Equity Investments

In October 2016, we purchased a 10% equity interest in a privately held variable interest entity within the real estate industry for \$10.0 million. In March 2020, we recognized a non-cash impairment charge of \$5.3 million related to this investment. The impairment charge is included in impairment costs within our IMT segment in our consolidated statements of operations for the year ended December 31, 2020. In connection with our assessment of the investment for impairment indicators as a result of COVID-19's initial significant adverse impact on the real estate industry, we identified factors that led us to conclude that the investment was impaired and the fair value of the investment was less than the carrying value. The most significant of such factors related to the future expected cash flows of the investee. Accordingly, we performed an analysis to determine the fair value of the investment and concluded that our best estimate of its fair value was \$4.7 million. This is considered a Level 3 measurement under the fair value hierarchy. In June 2020, we sold our 10% equity interest for \$10.0 million in cash. We recorded a gain on the sale of the investment of \$5.3 million during the year ended December 31, 2020, which is classified in other income within our IMT segment in our consolidated statements of operations.

In June 2017, we purchased an equity interest in a privately held corporation for approximately \$10.0 million. During the year ended December 31, 2018, we recognized a non-cash impairment charge of \$10.0 million related to this investment. The impairment charge is included in impairment costs within our IMT segment in our consolidated statements of operations. During the third quarter of 2018, in connection with our quarterly qualitative assessment of this investment for impairment indicators, we identified factors that led us to conclude that the investment was impaired and the fair value of the investment was less than the carrying value. The most significant of such factors was related to the business prospects of the investee. Accordingly, we performed an analysis to determine the fair value of the investment and concluded that our best estimate of its fair value was \$0.0 million. This was considered a Level 3 measurement under the fair value hierarchy. We sold our equity interest in this corporation in February 2020, for an immaterial amount.

Note 10. Goodwill

We have three operating and reportable segments, which have been identified based on the way in which our chief operating decision-maker manages our business, makes operating decisions and evaluates operating performance. The following table presents goodwill by reportable segment as of December 31, 2020 and 2019 (in thousands):

Homes	\$	—
IMT		1,786,416
Mortgages		198,491
Total	\$	1,984,907

Note 11. Intangible Assets, net

The following tables present the detail of intangible assets subject to amortization as of the dates presented (in thousands):

	December 31, 2020		
	Cost	Accumulated Amortization	Net
Trade names and trademarks	\$ 36,500	\$ (3,822)	\$ 32,678
Software	28,515	(11,483)	17,032
Developed technology	86,064	(70,270)	15,794
Customer relationships	87,600	(73,301)	14,299
Intangibles-in-progress	11,863	—	11,863
Purchased content	47,930	(44,829)	3,101
Total	\$ 298,472	\$ (203,705)	\$ 94,767

	December 31, 2019		
	Cost	Accumulated Amortization	Net
Customer relationships	\$ 102,600	\$ (73,770)	\$ 28,830
Developed technology	107,200	(81,383)	25,817
Software	35,527	(20,843)	14,684
Purchased content	47,298	(40,636)	6,662
Intangibles-in-progress	6,391	—	6,391
Lender licenses	400	(217)	183
Total	<u>\$ 299,416</u>	<u>\$ (216,849)</u>	<u>\$ 82,567</u>

Amortization expense recorded for intangible assets for the years ended December 31, 2020, 2019 and 2018 was \$50.5 million, \$44.9 million and \$50.8 million, respectively. These amounts are included in technology and development expenses.

Estimated future amortization expense for intangible assets, including amortization related to future commitments (see Note 19), as of December 31, 2020 is as follows (in thousands):

2021	\$ 45,924
2022	15,140
2023	6,359
2024	4,235
2025	4,080
Thereafter	15,014
Total future amortization expense	<u>\$ 90,752</u>

During the year ended December 31, 2020, we recognized a non-cash impairment charge of \$71.5 million related to our Trulia trade names and trademarks intangible asset, which historically had not been subject to amortization. The impairment charge is included in impairment costs within our IMT and Mortgages segments for the year ended December 31, 2020 for \$68.6 million and \$2.9 million, respectively. In March 2020, we identified factors directly related to the COVID-19 pandemic that led us to conclude it was more likely than not that the \$108.0 million carrying value of the asset exceeded its fair value. The most significant of such factors was a shortfall in projected revenue related to the Trulia brand compared to previous projections used to determine the carrying value of the intangible asset, primarily driven by a reduction in expected future marketing and advertising spend for Trulia. Accordingly, with the assistance of a third-party valuation specialist, we performed a quantitative analysis to determine the fair value of the intangible asset and concluded that our best estimate of its fair value was \$36.5 million. The valuation was prepared using an income approach based on the relief-from-royalty method and relied on inputs with unobservable market prices including projected revenue, royalty rate, discount rate, and estimated tax rate, and therefore is considered a Level 3 measurement under the fair value hierarchy. In connection with this impairment analysis, we evaluated our expected future reduced marketing and advertising spend related to the Trulia trade names and trademarks intangible asset and concluded that this asset no longer has an indefinite life. In April 2020, we began amortizing the remaining \$36.5 million carrying value on an accelerated basis commensurate with the projected cash flows expected to be generated by the intangible asset over a useful life of 10 years. The carrying value of the Trulia trade names and trademarks intangible asset was \$32.7 million and \$108.0 million as of December 31, 2020 and 2019, respectively.

During the year ended December 31, 2018, we recognized a non-cash impairment charge of \$69.0 million related to our Trulia trade names and trademarks intangible asset. The impairment charge is included in Impairment costs within our IMT and Mortgages segments for \$65.0 million and \$4.0 million, respectively. In connection with our annual budgeting process that was substantially completed during the three months ended December 31, 2018, we identified factors that led us to conclude it was more likely than not that the \$177.0 million carrying value of the asset exceeded its fair value. The most significant of such factors was a shortfall in projected revenue related to the Trulia brand compared to projections at the time of our most recent previous evaluation. Accordingly, with the assistance of a third-party valuation specialist, we performed a quantitative analysis to determine the fair value of the intangible asset and concluded that our best estimate of its fair value was \$108.0 million. The valuation was prepared using an income approach based on the relief-from-royalty method and relied on inputs with unobservable market prices including the assumed revenue growth rates, royalty rate, discount rate, and estimated tax rate, and therefore is considered a Level 3 measurement under the fair value hierarchy.

Note 12. Accrued Expenses and Other Current Liabilities

The following table presents the detail of accrued expenses and other current liabilities as of the dates presented (in thousands):

	December 31,	
	2020	2019
Accrued marketing and advertising	\$ 16,239	\$ 18,343
Accrued escrow payable	9,788	326
Accrued estimated legal liabilities and legal fees	6,316	3,882
Taxes payable	6,131	6,287
Merger consideration payable to former stockholders of certain acquired entities	6,117	6,117
Accrued interest expense	5,916	4,501
Other accrued expenses and other current liabilities	43,980	45,986
Total accrued expenses and other current liabilities	<u>\$ 94,487</u>	<u>\$ 85,442</u>

Note 13. Leases

The components of our operating lease expense were as follows for the periods presented (in thousands):

	Year Ended December 31,	
	2020	2019
Operating lease cost	\$ 40,292	\$ 35,837
Variable lease cost	10,323	11,231
Total lease cost	<u>\$ 50,615</u>	<u>\$ 47,068</u>

Sublease income and total lease cost associated with short-term leases were immaterial for the years ended December 31, 2020 and 2019. Operating lease expense for the year ended December 31, 2018 was \$23.7 million.

Other information related to operating leases was as follows for the periods presented (in thousands, except for years and percentages):

	Year Ended December 31,	
	2020	2019
Cash paid for amounts included in the measurement of operating lease liabilities, net of lease incentives of \$18,626 and \$0 for the years ended December 31, 2020 and 2019, respectively	\$ 17,676	\$ 31,816
Right of use assets obtained in exchange for new operating lease obligations	\$ 145	\$ 128,354
Weighted average remaining lease term for operating leases	8.00 years	8.50 years
Weighted average discount rate for operating leases	6.5 %	6.5 %

The following table presents the scheduled maturities of our operating lease liabilities by fiscal year as of December 31, 2020 (in thousands):

2021	\$ 43,277
2022	40,842
2023	41,043
2024	36,092
2025	28,908
Thereafter	114,529
Total lease payments	<u>304,691</u>
Less: Imputed interest	(68,658)
Present value of lease liabilities	<u>\$ 236,033</u>

Note 14. Debt

The following table presents the carrying values of Zillow Group's debt as of the dates presented (in thousands):

	December 31,	
	2020	2019
Homes Segment		
Credit facilities:		
Goldman Sachs Bank USA	\$ 145,825	\$ 39,244
Citibank, N.A.	87,103	296,369
Credit Suisse AG, Cayman Islands	128,238	355,911
Total Homes Segment debt	361,166	691,524
Mortgages Segment		
Repurchase agreements:		
Credit Suisse AG, Cayman Islands	149,913	—
Citibank, N.A.	90,227	394
Warehouse line of credit:		
Comerica Bank	68,903	30,033
Total Mortgages Segment debt	309,043	30,427
Convertible Senior Notes		
1.375% convertible senior notes due 2026	347,566	327,187
2.75% convertible senior notes due 2025	414,888	—
0.75% convertible senior notes due 2024	524,273	490,538
1.50% convertible senior notes due 2023	326,796	310,175
2.00% convertible senior notes due 2021	—	415,502
2.75% convertible senior notes due 2020	—	9,637
Total convertible senior notes	1,613,523	1,553,039
Total debt	\$ 2,283,732	\$ 2,274,990

Homes Segment

To provide capital for Zillow Offers, we utilize credit facilities that are classified as current liabilities in our consolidated balance sheets. We classify these credit facilities as current liabilities as amounts drawn to purchase homes are typically due as homes are sold, which we expect to be within one year. The following table summarizes certain details related to our credit facilities (in thousands, except interest rates):

Lender	Final Maturity Date	Maximum Borrowing Capacity	Weighted Average Interest Rate
Goldman Sachs Bank USA	April 20, 2022	\$ 500,000	3.15 %
Citibank, N.A.	November 30, 2021	500,000	3.59 %
Credit Suisse AG, Cayman Islands	July 31, 2021	500,000	3.97 %
Total		\$ 1,500,000	

Undrawn amounts available under the credit facilities included in the table above are not committed, meaning the applicable lender is not committed to, but may in its discretion, advance loan funds in excess of the outstanding borrowings. The final maturity dates are inclusive of extensions which are subject to agreement by the respective lender.

Zillow Group formed certain special purpose entities (each, an “SPE”) to purchase and sell residential properties through Zillow Offers. Each SPE is a wholly owned subsidiary of Zillow Group and a separate legal entity, and neither the assets nor credit of any such SPE are available to satisfy the debts and other obligations of any affiliate or other entity. The credit facilities are secured by the assets and equity of one or more SPEs. These SPEs are variable interest entities and Zillow Group is the primary beneficiary as it has the power to control the activities that most significantly impact the SPEs’ economic performance and the obligation to absorb losses of the SPEs or the right to receive benefits from the SPEs that could potentially be significant to the SPEs. The SPEs are consolidated within Zillow Group’s consolidated financial statements. The collective inventory and credit facility borrowings of the SPEs were \$491.3 million and \$361.2 million, respectively, as of December 31, 2020, and \$836.6 million and \$691.5 million, respectively, as of December 31, 2019.

Outstanding amounts drawn under each credit facility are required to be repaid on the facility maturity date or earlier if accelerated due to an event of default. Further, each SPE is required to repay any resulting shortfall if the value of the eligible properties owned by such SPE falls below a certain percentage of the principal amount outstanding under the applicable credit facility. Continued inclusion of properties in each credit facility is subject to various eligibility criteria. For example, aging criteria limit the inclusion in the borrowing base of properties owned longer than a specified number of days, and properties owned for longer than one year are generally ineligible.

The stated interest rate on our credit facilities is one-month LIBOR plus an applicable margin, and in certain cases include a LIBOR floor, as defined in the respective credit agreements. Our credit facilities include customary representations and warranties, provisions regarding events of default and covenants. The terms of these credit facilities and related financing documents require Zillow Group and certain of its subsidiaries, as applicable, to comply with a number of customary financial and other covenants, such as maintaining certain levels of liquidity, tangible net worth and leverage ratios. As of December 31, 2020, Zillow Group was in compliance with all financial covenants and no event of default had occurred. Except for certain limited circumstances, the credit facilities are non-recourse to Zillow Group. Our credit facilities require that we establish, maintain and in certain circumstances that Zillow Group fund specified reserve accounts. These reserve accounts include, but are not limited to, interest reserves, insurance reserves, tax reserves, renovation cost reserves and reserves for specially permitted liens. Amounts funded to these reserve accounts and the collection accounts have been classified within our consolidated balance sheets as restricted cash.

Mortgages Segment

To provide capital for Zillow Home Loans, we utilize master repurchase agreements and a warehouse line of credit which are classified as current liabilities in our consolidated balance sheets. The repurchase agreements and warehouse line of credit provide short-term financing between the issuance of a mortgage loan and when Zillow Home Loans sells the loan to an investor. The following table summarizes certain details related to our repurchase agreements and warehouse line of credit (in thousands, except interest rates):

Lender	Maturity Date	Maximum Borrowing Capacity	Weighted Average Interest Rate
Credit Suisse AG, Cayman Islands	November 10, 2021	\$ 200,000	2.50 %
Citibank, N.A.	October 26, 2021	100,000	1.90 %
Comerica Bank	June 26, 2021	75,000	3.01 %
	Total	<u>\$ 375,000</u>	

Master Repurchase Agreements

On November 11, 2020, Zillow Home Loans entered into a master repurchase agreement with Credit Suisse AG, Cayman Islands (“Credit Suisse”). The master repurchase agreement provides an uncommitted total maximum borrowing capacity of \$200.0 million until November 10, 2021. On October 27, 2020, Zillow Home Loans amended its master repurchase agreement with Citibank, N.A. previously maturing on October 27, 2020, such that it now matures on October 26, 2021 and provides for an increased maximum borrowing capacity of \$100.0 million, \$25.0 million of which is committed.

In accordance with the master repurchase agreements, Credit Suisse and Citibank, N.A. (together the “Lenders”) agree to pay Zillow Home Loans a negotiated purchase price for eligible loans and Zillow Home Loans simultaneously agrees to repurchase such loans from the Lenders under a specified timeframe at an agreed upon price that includes interest. The master repurchase agreements contain margin call provisions that provide the Lenders with certain rights in the event of a decline in the market value of the assets purchased under the master repurchase agreements. As of December 31, 2020 and 2019, \$240.1 million and \$0.4 million, respectively, in mortgage loans held for sale were pledged as collateral under the facilities.

Warehouse Line of Credit

On September 25, 2020, Zillow Home Loans amended its Comerica Bank warehouse line of credit to provide for a temporary maximum borrowing capacity increase of \$25.0 million, such that the total maximum borrowing capacity of the facility is increased to \$75.0 million until February 16, 2021. The warehouse line of credit was previously amended on June 27, 2020 to extend the original agreement for one additional year, such that the warehouse line of credit matures on June 26, 2021. The warehouse line of credit with Comerica Bank is committed.

Borrowings on the repurchase agreements and warehouse line of credit bear interest at the one-month LIBOR plus an applicable margin, and in certain cases include a LIBOR floor, as defined in the governing agreements, and are secured by residential mortgage loans held for sale. The repurchase agreements and warehouse line of credit include customary representations and warranties, covenants and provisions regarding events of default. As of December 31, 2020, Zillow Home Loans was in compliance with all financial covenants and no event of default had occurred. The repurchase agreements and warehouse line of credit and are recourse to Zillow Home Loans, and have no recourse to Zillow Group or any of its other subsidiaries.

Convertible Senior Notes

The following tables summarize certain details related to our outstanding convertible senior notes as of the dates presented or for the periods ended (in thousands, except interest rates):

Maturity Date	Aggregate Principal Amount	Stated Interest Rate	Effective Interest Rate	First Interest Payment Date	Semi-Annual Interest Payment Dates	December 31, 2020		December 31, 2019	
						Unamortized Debt Discount and Debt Issuance Costs	Fair Value	Unamortized Debt Discount and Debt Issuance Costs	Fair Value
September 1, 2026	\$ 500,000	1.375 %	8.10 %	March 1, 2020	March 1; September 1	\$ 152,434	\$ 1,508,675	\$ 172,813	\$ 597,380
May 15, 2025	565,000	2.75 %	10.32 %	November 15, 2020	May 15; November 15	150,112	1,168,855	—	—
September 1, 2024	673,000	0.75 %	7.68 %	March 1, 2020	March 1; September 1	148,727	2,023,280	182,462	819,378
July 1, 2023	373,750	1.50 %	6.99 %	January 1, 2019	January 1; July 1	46,954	633,039	63,575	356,464
December 1, 2021	—	2.00 %	7.43 %	June 1, 2017	June 1; December 1	—	—	44,498	514,312
December 15, 2020	—	2.75 %	N/A	N/A	June 15; December 15	—	—	—	16,842
Total	\$ 2,111,750					\$ 498,227	\$ 5,333,849	\$ 463,348	\$ 2,304,376

Maturity Date	Year Ended December 31, 2020				Year Ended December 31, 2019				Year Ended December 31, 2018			
	Contractual Coupon Interest	Amortization of Debt Discount	Amortization of Debt Issuance Costs	Interest Expense	Contractual Coupon Interest	Amortization of Debt Discount	Amortization of Debt Issuance Costs	Interest Expense	Contractual Coupon Interest	Amortization of Debt Discount	Amortization of Debt Issuance Costs	Interest Expense
September 1, 2026	\$ 6,876	\$ 19,893	\$ 486	\$ 27,255	\$ 2,139	\$ 5,869	\$ 144	\$ 8,152	\$ —	\$ —	\$ —	\$ —
May 15, 2025	9,689	15,585	832	26,106	—	—	—	—	—	—	—	—
September 1, 2024	5,034	32,618	1,117	38,769	1,539	9,482	325	11,346	—	—	—	—
July 1, 2023	5,606	15,142	1,479	22,227	5,606	14,047	1,374	21,027	2,788	6,655	650	10,093
December 1, 2021	6,350	13,820	1,429	21,599	9,200	18,899	1,957	30,056	9,200	17,571	1,817	28,588
December 15, 2020	234	—	—	234	265	—	—	265	265	—	—	265
Total	\$ 33,789	\$ 97,058	\$ 5,343	\$ 136,190	\$ 18,749	\$ 48,297	\$ 3,800	\$ 70,846	\$ 12,253	\$ 24,226	\$ 2,467	\$ 38,946

The convertible notes are senior unsecured obligations and are classified as long-term debt in our consolidated balance sheets based on their contractual maturity dates. Interest on the convertible notes is paid semi-annually in arrears. The estimated fair value of the convertible senior notes was determined through consideration of quoted market prices. The fair value is classified as Level 3 due to the limited trading activity for each of the convertible senior notes.

Convertible Senior Notes due in 2025

On May 15, 2020, we issued \$500.0 million aggregate principal amount of 2.75% Convertible Senior Notes due 2025 (the “Initial 2025 Notes”) and on May 19, 2020 we issued \$65.0 million aggregate principal amount of 2.75% Convertible Senior Notes due 2025 (the “Additional Notes” and, together with the Initial 2025 Notes, the “2025 Notes”). The Additional Notes were sold pursuant to the underwriters’ option to purchase additional 2025 Notes granted in connection with the offering of the Initial 2025 Notes. The net proceeds from the issuance of the 2025 Notes were approximately \$553.3 million, after deducting underwriting discounts and commissions and offering expenses paid by Zillow Group.

Convertible Senior Notes due in 2024 and 2026

On September 9, 2019, we issued \$600.0 million aggregate principal amount of Convertible Senior Notes due 2024 (the “Initial 2024 Notes”) and \$500.0 million aggregate principal amount of Convertible Senior Notes due 2026 (the “2026 Notes”) in a private offering to qualified institutional buyers. The net proceeds from the issuance of the Initial 2024 Notes were approximately \$592.2 million and the net proceeds from the issuance of the 2026 Notes were approximately \$493.5 million, in each case after deducting fees and expenses paid by Zillow Group. We used approximately \$75.2 million of the net proceeds from the issuance of the Initial 2024 Notes and approximately \$75.4 million of the net proceeds from the issuance of the 2026 Notes to pay the cost of the capped call transactions entered into in connection with the issuances, described below.

On October 9, 2019, we issued \$73.0 million aggregate principal amount of 0.75% Convertible Senior Notes due 2024 (the “Additional Notes” and, together with the Initial 2024 Notes, the “2024 Notes”). The Additional Notes were sold pursuant to the initial purchasers’ partial exercise of their option to purchase such notes, granted in connection with the offering of the Initial 2024 Notes. The Additional Notes have the same terms, and were issued under the same indenture, as the Initial 2024 Notes. The net proceeds from the offering of the Additional Notes were approximately \$72.0 million, after deducting fees and expenses paid by Zillow Group. We used approximately \$9.1 million of the net proceeds from the issuance of the Additional Notes to pay the cost of the capped call transactions entered into in connection with the issuance of the Additional Notes, described below.

Convertible Senior Notes due in 2023

On July 3, 2018, we issued \$373.8 million aggregate principal amount of Convertible Senior Notes due 2023 (the “2023 Notes”), which includes \$48.8 million principal amount of 2023 Notes sold pursuant to the underwriters’ option to purchase additional 2023 Notes. The net proceeds from the issuance of the 2023 Notes were approximately \$364.0 million, after deducting fees and expenses paid by Zillow Group. We used approximately \$29.4 million of the net proceeds from the issuance of the 2023 Notes to pay the cost of capped call transactions entered into in connection with the issuances, described below.

Convertible Senior Notes due in 2021

On December 12, 2016, we issued \$460.0 million aggregate principal amount of 2.00% Convertible Senior Notes due 2021 (the “2021 Notes”), which includes the exercise of the \$60.0 million over-allotment option, to the initial purchaser of the 2021 Notes in a private offering to qualified institutional buyers. The net proceeds from the issuance of the 2021 Notes were approximately \$447.8 million, after deducting fees and expenses paid by Zillow Group. In addition, we used approximately \$36.6 million of the net proceeds from the issuance of the 2021 Notes to pay the cost of the capped call transactions with the initial purchaser of the 2021 Notes and two additional financial institutions, described below.

In May 2020, we used a portion of the net proceeds from the issuance of the 2025 Notes to repurchase \$194.7 million aggregate principal of the 2021 Notes in privately negotiated transactions. The 2021 Notes were repurchased for \$194.7 million in cash and 753,936 shares of Class C capital stock for an aggregate purchase price of \$230.9 million. The repurchase of the 2021 Notes was accounted for as a debt extinguishment. We allocated \$172.9 million of the repurchase price to the liability component based on the fair value of the liability component immediately prior to settlement. The fair value of the liability component was calculated using a discounted cash flow analysis with a market interest rate of a similar liability that does not have an associated convertible feature. The remaining consideration of \$58.0 million was allocated to the equity component. As a result, we recognized a \$179.3 million reduction to long-term debt representing the carrying value of the liability component as of the date of the partial repurchase of the 2021 Notes, a \$58.0 million reduction to additional paid-in capital representing the equity component of the partially repurchased 2021 Notes and a \$6.4 million gain on partial extinguishment of 2021 Notes representing the excess of the carrying value of the liability component over the fair value of the liability component of the repurchased 2021 Notes during the year ended December 31, 2020.

In connection with the repurchase of a portion of the 2021 Notes, we partially terminated the capped call transactions entered into in connection with the issuance of the 2021 Notes for an amount corresponding to the aggregate principal amount of the 2021 Notes that were repurchased. As a result of the partial settlement of the capped call transactions, we received 317,865 shares of our Class C capital stock equal to a value of approximately \$14.8 million based on the trading price of our Class C capital stock at the time of the unwind. Under applicable Washington State law, the acquisition of a corporation's own shares is not disclosed separately as treasury stock in the financial statements and such shares are treated as authorized but unissued shares. We record acquisitions of our shares of capital stock as a reduction to capital stock at the par value of the shares reacquired, then to additional paid-in capital until it is depleted to a nominal amount, with any further excess recorded to retained earnings. We recorded an offsetting increase to additional paid-in capital for the partial unwind of the capped call transactions.

On November 4, 2020, we submitted notice to the trustee to exercise our right to redeem the remaining \$265.3 million in aggregate principal amount of the 2021 Notes on December 18, 2020 (the "Redemption Date"). Holders of the 2021 Notes had the option to convert their 2021 Notes in whole or in part into shares of Class C capital stock prior to the Redemption Date at a conversion rate of 19.0985 shares of Class C capital stock per \$1,000 principal amount of the 2021 Notes, equal to a conversion price of \$52.3601 per share. Holders of the 2021 Notes elected to convert \$265.2 million of aggregate principal amount prior to the Redemption Date. We satisfied these conversions through the issuance of approximately 5.1 million shares of Class C capital stock in December 2020. The remaining \$0.1 million of aggregate principal amount was redeemed on December 18, 2020 for \$0.1 million in cash, plus accrued and unpaid interest. Settlement of the 2021 Notes was accounted for as a debt extinguishment. The fair value of the consideration transferred to the holders at settlement was \$551.6 million. We allocated \$256.3 million of the settled notes to the liability component based on the fair value of the liability component immediately prior to settlement. The fair value of the liability component was calculated using a discounted cash flow analysis with a market interest rate of a similar liability that does not have an associated convertible feature. The remaining consideration of \$295.3 million was allocated to the equity component. As a result, we recognized a \$251.4 million reduction to long-term debt representing the carrying value of the liability component of the settled 2021 Notes, a \$295.3 million reduction to additional paid-in capital representing the equity component of the settled 2021 Notes and a \$4.9 million loss on extinguishment representing the excess of the fair value of the liability component over the carrying value of the liability component of the settled 2021 Notes during the year ended December 31, 2020. The 2021 Notes would have otherwise matured on December 1, 2021.

The Company has used or intends to use the remainder of the net proceeds of the 2026 Notes, 2025 Notes, 2024 Notes and 2023 Notes (together, the "Notes") for general corporate purposes, which may include working capital, sales and marketing activities, general and administrative matters and capital expenditures.

The Notes are convertible into cash, shares of Class C capital stock or a combination thereof, at our election, and may be settled as described below. The Notes will mature on their respective Maturity Date, unless earlier repurchased, redeemed or converted in accordance with their terms.

The following table summarizes the conversion and redemption options with respect to the Notes:

Maturity Date	Early Conversion Date	Conversion Rate	Conversion Price	Optional Redemption Date
September 1, 2026	March 1, 2026	22.9830	\$ 43.51	September 5, 2023
May 15, 2025	November 15, 2024	14.8810	67.20	May 22, 2023
September 1, 2024	March 1, 2024	22.9830	43.51	September 5, 2022
July 1, 2023	April 1, 2023	12.7592	78.37	July 6, 2021

Prior to the close of business on the business day immediately preceding the applicable Early Conversion Date, the Notes will be convertible at the option of the holders only under certain conditions. On or after the applicable Early Conversion Date, until the close of business on the second scheduled trading day immediately preceding the applicable Maturity Date, holders may convert the Notes at their option at the applicable Conversion Rate then in effect, irrespective of these conditions. The Company will settle conversions of the Notes by paying or delivering, as the case may be, cash, shares of its Class C capital stock, or a combination of cash and shares of its Class C capital stock, at its election. The applicable Conversion Rate for each series of Notes will initially be the conversion rate of shares of Class C capital stock per \$1,000 principal amount of the Notes (equivalent to an initial Conversion Price per share of Class C capital stock). The applicable Conversion Rate and the corresponding initial Conversion Price will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. The Company may redeem for cash all or part of the respective series of Notes, at its option, on or after the applicable Optional Redemption Date, under certain circumstances, at a redemption price equal to 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date (as defined in the indentures governing the Notes). We may not redeem a series of Notes prior to the applicable Optional Redemption Date. We may redeem for cash all or any portion of a series of Notes, at our option, in whole or in part on or after the applicable Optional Redemption Date if the last reported sale price per share of our Class C capital stock has been at least 130% of the Conversion Price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period. The conversion option does not meet the criteria for separate accounting as a derivative as it is indexed to our own stock.

For more than 20 trading days during the 30 consecutive trading days ended December 31, 2020, the last reported sale price of our Class C capital stock exceeded 130% of the conversion price of the 2026 Notes, 2025 Notes, 2024 Notes and 2023 Notes. Accordingly, the Notes are convertible at the option of the holders from January 1 through March 31, 2021. The 2026 Notes and 2024 Notes were first convertible during the three months ended September 30, 2020.

If the Company undergoes a fundamental change (as defined in the indentures governing the Notes), holders may require the Company to repurchase for cash all or part of a series of Notes, as applicable, at a repurchase price equal to 100% of the principal amount of the notes to be purchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date (as defined in the indentures governing the Notes). In addition, if certain fundamental changes occur, the Company may be required, in certain circumstances, to increase the conversion rate for any of the Notes converted in connection with such fundamental changes by a specified number of shares of its Class C capital stock. Certain events are also considered “Events of Default,” which may result in the acceleration of the maturity of the Notes, as described in the indentures governing the Notes. There are no financial covenants associated with the Notes.

In accounting for the issuance of the Notes, the Company separated the Notes into liability and equity components. The carrying amount of the liability component for each of the Notes was calculated by measuring the fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component, representing the conversion option, was determined by deducting the fair value of the liability component from the par value of the Notes. The difference between the principal amounts of the Notes and their liability components represents their respective debt discounts, which are recorded as a direct deduction from the related debt liability in the consolidated balance sheets and amortized to interest expense using the effective interest method over the term of the Notes. The equity components of the Notes, net of issuance costs, are included in additional paid-in capital in the consolidated balance sheets and are not remeasured as long as they continue to meet the conditions for equity classification.

The equity components of the 2026 Notes, 2025 Notes, 2024 Notes and 2023 Notes of \$172.3 million, \$154.8 million, \$183.5 million and \$76.6 million, respectively, are net of issuance costs of \$2.3 million, \$3.3 million, \$2.4 million and \$2.0 million, respectively, and are included in additional paid-in capital in the consolidated balance sheet and are not remeasured as long as they continue to meet the conditions for equity classification.

The following table summarizes certain details related to the capped call confirmations with respect to the Notes:

Maturity Date	Initial Cap Price	Cap Price Premium
September 1, 2026	\$ 80.5750	150 %
September 1, 2024	72.5175	125 %
July 1, 2023	105.45	85 %
December 1, 2021	69.19	85 %

The capped call confirmations are expected generally to reduce the potential dilution of our Class C capital stock in connection with any conversion of the Notes and/or offset the cash payments the Company is required to make in excess of the principal amount of such notes in the event that the market price of the Class C capital stock is greater than the strike price of the capped call confirmations (which initially corresponds to the initial Conversion Price of such notes and is subject to certain adjustments under the terms of the capped call confirmations), with such reduction and/or offset subject to a cap based on the cap price of the capped call confirmations. The capped call confirmations with respect to the Notes have an Initial Cap Price per share, which represents a premium (“Cap Price Premium”) over the relevant historical closing price of the Company’s Class C capital stock on the Nasdaq Global Select Market, and is subject to certain adjustments under the terms of the capped call confirmations. The capped call confirmations will cover, subject to anti-dilution adjustments substantially similar to those applicable to the Notes, the number of shares of Class C capital stock that will underlie such notes. The capped call confirmations do not meet the criteria for separate accounting as a derivative as they are indexed to our own stock. The capped call premiums paid have been included as a net reduction to additional paid-in capital within shareholders’ equity.

Note 15. Income Taxes

We are subject to federal and state income taxes in the United States and federal and provincial income taxes in Canada.

We recorded an income tax benefit of \$7.5 million for the year ended December 31, 2020. The income tax benefit was primarily a result of a \$9.7 million income tax benefit related to the \$71.5 million non-cash impairment we recorded during the year ended December 31, 2020 related to the Trulia trade names and trademarks intangible asset. For additional information about the non-cash impairment, see Note 11 to our consolidated financial statements. This income tax benefit was partially offset by an immaterial amount of current state and foreign income tax expense recorded for the year ended December 31, 2020.

We recorded an income tax benefit of \$4.3 million for the year ended December 31, 2019. The majority of the income tax benefit is a result of federal and state interest expense limitation carryforwards that are indefinite-lived deferred tax assets that can be offset against our indefinite-lived deferred tax liabilities. In addition, net operating losses generated after December 31, 2017 also can be offset against the indefinite-lived deferred tax liabilities. These items contributed to a release of the valuation allowance and the recognition of an income tax benefit for the year ended December 31, 2019.

We recorded an income tax benefit of \$31.1 million for the year ended December 31, 2018. Approximately \$15.4 million of the income tax benefit resulted from the \$69.0 million non-cash impairment we recorded during the year ended December 31, 2018 related to the Trulia trade names and trademarks intangible asset. For additional information about the non-cash impairment, see Note 11 to our consolidated financial statements. The remaining portion of our income tax benefit was primarily the result of net operating losses generated after December 31, 2017 with an indefinite carryforward period due to the Tax Act. Thus, net operating losses for the year ended December 31, 2018 could be offset against our indefinite-lived deferred tax liabilities, which resulted in the release of our valuation allowance and the recognition of an income tax benefit for the year ended December 31, 2018.

During the year ended December 31, 2018, we completed our accounting for the income tax effects of deduction limitations on compensation under the Tax Act. The Internal Revenue Service provided further guidance regarding the written binding contracts requirement under the Tax Act, and we determined that certain of our executives’ compensation previously eligible to be deducted for tax purposes under Section 162(m) of the Internal Revenue Code were considered grandfathered. Therefore, we continued to deduct this compensation during the year ended December 31, 2018. Based on the clarification of these rules, we recorded a \$5.9 million income tax benefit for the year ended December 31, 2018.

The following table summarizes the components of our income tax benefit for the periods presented (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Current income tax expense:			
State	\$ 588	\$ 304	\$ —
Foreign	257	99	161
Total current income tax expense	845	403	161
Deferred income tax benefit:			
Federal	(7,388)	(1,631)	(28,502)
State	(1,095)	(2,856)	(2,441)
Foreign	115	(174)	(320)
Total deferred income tax benefit	(8,368)	(4,661)	(31,263)
Total income tax benefit	<u>\$ (7,523)</u>	<u>\$ (4,258)</u>	<u>\$ (31,102)</u>

The following table presents a reconciliation of the federal statutory rate and our effective tax rate for the periods presented:

	Year Ended December 31,		
	2020	2019	2018
Tax expense at federal statutory rate	(21.0)%	(21.0)%	(21.0)%
State income taxes, net of federal tax benefit	(11.2)	(3.0)	(5.9)
Share-based compensation	(52.5)	(0.9)	(16.5)
Section 162(m) of Internal Revenue Code	2.3	1.1	1.0
Research and development credits	(10.6)	(7.2)	(8.4)
Meals and entertainment	0.5	1.1	1.8
Return to provision adjustments	(0.8)	0.5	(4.2)
Enactment of Tax Act	—	—	(1.9)
Other	(0.2)	(0.6)	0.4
Valuation allowance	89.1	28.6	34.0
Effective tax rate	<u>(4.4)%</u>	<u>(1.4)%</u>	<u>(20.7)%</u>

Deferred federal, state and foreign income taxes reflect the net tax impact of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and such amounts for tax purposes. The following table presents the significant components of our deferred tax assets and liabilities as of the dates presented (in thousands):

	December 31,	
	2020	2019
Deferred tax assets:		
Federal and state net operating loss carryforwards	\$ 400,509	\$ 273,171
Research and development credits	88,823	70,970
Lease liability	57,606	58,899
Share-based compensation	43,065	75,704
Interest expense limitation	30,921	11,120
Inventory	15,115	17,819
Accruals and reserves	3,988	3,891
Depreciation and amortization	1,035	2,032
Other deferred tax assets	4,736	45,641
Total deferred tax assets	645,798	559,247
Deferred tax liabilities:		
Debt discount on convertible senior notes	(80,280)	(108,114)
Right of use assets	(45,857)	(52,486)
Website and software development costs	(32,021)	(20,681)
Intangible assets	(12,968)	(38,032)
Goodwill	(3,267)	(1,951)
Total deferred tax liabilities	(174,393)	(221,264)
Net deferred tax assets before valuation allowance	471,405	337,983
Less: valuation allowance	(471,901)	(346,877)
Net deferred tax liabilities	\$ (496)	\$ (8,894)

Realization of deferred tax assets is dependent upon the generation of future taxable income, if any, the timing and amount of which are uncertain. We have provided a full valuation allowance against the net deferred tax assets as of December 31, 2020 and 2019 because, based on the weight of available evidence, it is more likely than not (a likelihood of more than 50%) that some or all of the deferred tax assets will not be realized. The valuation allowance increased by \$125.0 million and \$39.3 million, respectively, during the years ended December 31, 2020 and 2019.

We have accumulated federal tax losses of approximately \$1.7 billion and \$1.1 billion, respectively, as of December 31, 2020 and 2019, which are available to reduce future taxable income. We have accumulated state tax losses of approximately \$53.2 million and \$34.3 million (tax effected), respectively, as of December 31, 2020 and 2019. Additionally, we have net research and development credit carryforwards of \$88.8 million and \$71.0 million, respectively, as of December 31, 2020 and 2019, which are available to reduce future tax liabilities. The tax loss and research and development credit carryforwards begin to expire in 2025. Under Sections 382 and 383 of the Internal Revenue Code, if a corporation undergoes an ownership change, the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income or income tax liability may be limited. In connection with our August 2013 public offering of our Class A common stock, we experienced an ownership change that triggered Sections 382 and 383, which may limit our ability to utilize net operating loss and tax credit carryforwards. In connection with our February 2015 acquisition of Trulia, Trulia experienced an ownership change that triggered Section 382 and 383, which may limit Zillow Group's ability to utilize Trulia's net operating loss and tax credit carryforwards.

Our material income tax jurisdiction is the United States (federal). With limited exceptions for state taxing authorities, which are not material to the financial statements, all tax years for which the Company has filed a tax return remain subject to examination due to the existence of net operating loss carryforwards.

Changes for unrecognized tax benefits for the periods presented are as follows (in thousands):

Balance at January 1, 2018	\$	21,613
Gross increases—current period tax positions		6,421
Gross increases—prior period tax positions		591
Balance at December 31, 2018	\$	28,625
Gross increases—current period tax positions		9,021
Gross increases—prior period tax positions		1,786
Balance at December 31, 2019	\$	39,432
Gross increases—current period tax positions		9,334
Gross increases—prior period tax positions		328
Balance at December 31, 2020	\$	49,094

At December 31, 2020, the total amount of unrecognized tax benefits of \$49.1 million is recorded as a reduction to our deferred tax asset when available. We do not anticipate that the amount of existing unrecognized tax benefits will significantly increase or decrease within the next 12 months. Accrued interest and penalties related to unrecognized tax benefits are recorded as income tax expense and are zero.

Note 16. Shareholders' Equity

Preferred Stock

Our board of directors has the authority to fix and determine and to amend the number of shares of any series of preferred stock that is wholly unissued or to be established and to fix and determine and to amend the designation, preferences, voting powers and limitations and the relative, participating, optional or other rights, of any series of shares of preferred stock that is wholly unissued or to be established, subject in each case to certain approval rights of holders of our outstanding Class B common stock. There was no preferred stock issued and outstanding as of December 31, 2020 or December 31, 2019.

Common and Capital Stock

Our Class A common stock has no preferences or privileges and is not redeemable. Holders of Class A common stock are entitled to one vote for each share.

Our Class B common stock has no preferences or privileges and is not redeemable. At any time after the date of issuance, each share of Class B common stock, at the option of the holder, may be converted into one share of Class A common stock, or automatically converted into Class A common stock upon the affirmative vote by or written consent of holders of a majority of the shares of the Class B common stock. During the years ended December 31, 2020, 2019 and 2018, no shares of Class B common stock were converted into Class A common stock at the option of the holders. Holders of Class B common stock are entitled to 10 votes for each share.

Our Class C capital stock has no preferences or privileges, is not redeemable and, except in limited circumstances, is non-voting.

On May 15, 2020, Zillow Group issued and sold 8,000,000 shares of Class C capital stock, and on May 19, 2020, issued and sold an additional 800,000 shares of Class C capital stock pursuant to the exercise of the underwriters' option to purchase additional shares. The 8,800,000 shares of Class C capital stock were issued and sold at a public offering price of \$48.00 per share. We received net proceeds of \$411.5 million after deducting underwriting discounts and commissions and offering expenses paid by us.

On July 3, 2018, we issued and sold 6,557,017 shares (of which 855,263 shares were related to the exercise of the underwriters' option to purchase additional shares) of our Class C capital stock at a public offering price of \$57.00 per share. We received net proceeds of \$360.3 million after deducting underwriting discounts and commissions and offering expenses paid by us.

The following shares of common and capital stock have been reserved for future issuance as of the dates presented:

	December 31,	
	2020	2019
Option awards outstanding	20,051,051	29,634,296
Restricted stock units outstanding	7,316,557	7,052,767
Class A common stock and Class C capital stock available for grant under 2011 and 2020 incentive plans	16,175,125	1,466,856
Class C capital stock available for grant under the 2019 Equity Inducement Plan	6,817,102	7,898,167
Shares issuable upon conversion of outstanding Class B common stock	6,217,447	6,217,447
Total	56,577,282	52,269,533

Note 17. Share-Based Awards

In connection with our February 2015 acquisition of Trulia, we assumed the obligations of Zillow and Trulia outstanding under pre-existing stock plans. We intend that future equity grants will be made under Zillow Group incentive plans, as described below.

Zillow Group, Inc. 2020 Incentive Plan

On June 9, 2020, the Zillow Group, Inc. 2020 Incentive Plan (the “2020 Plan”) became effective, which replaces the Zillow Group, Inc. Amended and Restated 2011 Incentive Plan (the “2011 Plan”), which became effective July 19, 2011. Subject to adjustment from time to time as provided in the 2020 Plan, a total of 12,400,000 shares of Class C capital stock are authorized for issuance under the 2020 Plan. In addition, shares previously available for new grants under the 2011 Plan as of June 9, 2020 and shares subject to outstanding awards under the 2011 Plan as of June 9, 2020 that on or after that date cease to be subject to such awards (other than by reason of exercise or settlement of the awards in vested or nonforfeitable shares) are also available for issuance under the 2020 Plan. The number of shares authorized under the 2020 Plan will be increased on the first day of each calendar year, beginning January 1, 2021 and ending on and including January 1, 2030, by an amount equal to the lesser of (a) 5% of our outstanding Class A common stock, Class B common stock and Class C capital stock on a fully diluted basis as of the end of the immediately preceding calendar year and (b) a number of shares determined by our board of directors. Shares issued under the 2020 plan may be issued from authorized and unissued shares of Class C capital stock. The 2020 Plan is administered by the compensation committee of the board of directors. Under the terms of the 2020 Plan, the compensation committee may grant equity awards, including incentive stock options, nonqualified stock options, restricted stock, restricted stock units, restricted units, stock appreciation rights, performance shares or performance units to employees, officers, directors, consultants, agents, advisors and independent contractors of Zillow Group and its subsidiaries. The board of directors has also authorized certain senior executive officers to grant equity awards under the 2020 Plan, within limits prescribed by our board of directors. The 2020 Plan provides that in the event of a stock dividend, stock split or similar event, the maximum number and kind of securities available for issuance under the plan will be proportionally adjusted.

Options under the 2020 Plan are granted with an exercise price per share not less than 100% of the fair market value of our Class C capital stock on the grant date, with the exception of substituted option awards granted in connection with acquisitions, and are exercisable at such times and under such conditions as determined by the compensation committee. Any portion of an option that is not vested and exercisable on the date of a participant’s termination of service expires on such date. Employees generally forfeit their rights to exercise vested options three months following their termination of employment or 12 months following termination by reason of death, disability or retirement. Options granted under the 2020 Plan expire no later than ten years from the grant date and typically vest either 25% after 12 months and quarterly thereafter over the next three years or quarterly over a period of four years.

Restricted stock units granted under the 2020 Plan typically vest either 25% after 12 months and quarterly thereafter over the next three years or quarterly over a period of four years. Generally, any portion of a restricted stock unit that is not vested on the date of a participant’s termination of service expires on such date.

Zillow Group, Inc. Amended and Restated 2011 Incentive Plan

Options and restricted stock units that remain outstanding under the 2011 Plan have vesting and exercisability terms consistent with those described above for awards granted under the 2020 Plan.

Zillow Group, Inc. 2019 Equity Inducement Plan

On August 8, 2019, the 2019 Equity Inducement Plan (“Inducement Plan”) became effective. Subject to adjustment from time to time as provided in the Inducement Plan, 10,000,000 shares of Class C capital stock are available for issuance under the Inducement Plan. Shares issued under the Inducement Plan shall be drawn from authorized and unissued shares of Class C capital stock. The purpose of the Inducement Plan is to attract, retain and motivate certain new employees of the Company and its subsidiaries by providing them the opportunity to acquire a proprietary interest in the Company and to align their interests and efforts to the long-term interests of the Company’s shareholders. Each award under the Inducement Plan is intended to qualify as an employment inducement award pursuant to Listing Rule 5635(c) of the corporate governance rules of the NASDAQ Stock Market. The Inducement Plan is administered by the compensation committee of the board of directors. Under the terms of the Inducement Plan, the compensation committee may grant equity awards, including incentive stock options, nonqualified stock options, restricted stock or restricted stock units or restricted units to new employees of the Company and its subsidiaries. The Inducement Plan provides that in the event of a stock dividend, stock split or similar event, the maximum number and kind of securities available for issuance under the plan will be proportionally adjusted.

Options under the Inducement Plan are granted with an exercise price per share not less than 100% of the fair market value of our stock on the date of grant, with the exception of substituted option awards granted in connection with acquisitions, and are exercisable at such times and under such conditions as determined by the compensation committee. Any portion of an option that is not vested and exercisable on the date of a participant’s termination of service expires on such date. Employees generally forfeit their rights to exercise vested options 3 months following their termination of employment or 12 months following termination by reason of death, disability or retirement. Options granted under the Inducement Plan expire ten years from the grant date and vest 25% after 12 months and quarterly thereafter over the next three years.

Restricted stock units granted under the Inducement Plan vest 25% after 12 months and quarterly thereafter over the next three years. Any portion of a restricted stock unit that is not vested on the date of a participant’s termination of service expires on such date.

Option Awards

The following table summarizes option award activity for the year ended December 31, 2020:

	Number of Shares Subject to Existing Options	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding at January 1, 2020	29,634,296	\$ 35.95	6.28	\$ 331,107
Granted	5,247,971	53.47		
Exercised	(13,744,571)	32.31		
Forfeited or cancelled	(1,086,645)	42.51		
Outstanding at December 31, 2020	20,051,051	42.68	7.22	1,751,105
Vested and exercisable at December 31, 2020	9,742,851	38.37	5.91	894,291

The fair value of options granted is estimated at the date of grant using the Black-Scholes-Merton option-pricing model, assuming no dividends and with the following assumptions for the periods presented:

	Year Ended December 31,		
	2020	2019	2018
Expected volatility	45% – 52%	45% – 47%	42% – 45%
Expected dividend yield	—	—	—
Risk-free interest rate	0.22% – 0.93%	1.60% – 2.53%	2.52% – 2.84%
Weighted-average expected life	4.50 – 5.50 years	4.75 – 5.25 years	4.50 – 5.00 years
Weighted-average fair value of options granted	\$22.50	\$16.52	\$19.11

As of December 31, 2020, there was a total of \$185.2 million in unrecognized compensation cost related to unvested stock options, which is expected to be recognized over a weighted-average period of 2.5 years.

The total intrinsic value of options exercised during the years ended December 31, 2020, 2019 and 2018 was \$564.3 million, \$51.1 million and \$161.4 million, respectively. The fair value of options vested for the years ended December 31, 2020, 2019 and 2018 was \$85.2 million, \$100.1 million and \$87.7 million, respectively.

Restricted Stock Units

The following table summarizes activity for restricted stock units for the year ended December 31, 2020:

	Restricted Stock Units	Weighted- Average Grant- Date Fair Value
Unvested outstanding at January 1, 2020	7,052,767	\$ 40.01
Granted	4,180,245	55.83
Vested	(3,013,365)	41.40
Forfeited	(903,090)	42.70
Unvested outstanding at December 31, 2020	<u>7,316,557</u>	<u>48.14</u>

The total fair value of vested restricted stock units was \$124.8 million, \$89.9 million and \$62.0 million, respectively, for the years ended December 31, 2020, 2019 and 2018.

The fair value of the outstanding restricted stock units is based on the market value of our Class A common stock or Class C capital stock, as applicable, on the date of grant and will be recorded as share-based compensation expense over the vesting period. As of December 31, 2020, there was \$326.7 million of total unrecognized compensation cost related to restricted stock units, which is expected to be recognized over a weighted-average period of 2.7 years.

Share-Based Compensation Expense

The following table presents the effects of share-based compensation expense in our consolidated statements of operations during the periods presented (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Cost of revenue	\$ 5,741	\$ 3,978	\$ 4,127
Sales and marketing	33,110	25,126	22,942
Technology and development	81,820	69,921	56,673
General and administrative	76,879	99,877	65,342
Total	<u>\$ 197,550</u>	<u>\$ 198,902</u>	<u>\$ 149,084</u>

On February 21, 2019, Zillow Group announced the appointment of Richard N. Barton as Zillow Group’s Chief Executive Officer, effective February 21, 2019. Mr. Barton succeeded Spencer Rascoff, who had served as Zillow Group’s Chief Executive Officer since 2010. In connection with Mr. Rascoff’s resignation as Chief Executive Officer, Zillow Group entered into an Executive Departure Agreement and Release (the “Agreement”) with Mr. Rascoff. Pursuant to the Agreement, Mr. Rascoff remained a full-time employee of Zillow Group until March 22, 2019 (the “Departure Date”) to provide transition services until such date. Pursuant to the Agreement, Mr. Rascoff received, among other things, accelerated vesting of outstanding stock options held by Mr. Rascoff as of the Departure Date by an additional eighteen months from the Departure Date. Options not vested as of the Departure Date, taking into account the foregoing vesting acceleration, were terminated. Each of Mr. Rascoff’s vested stock options outstanding as of the Departure Date remained exercisable until, except for any later date contemplated by the following proviso, the earlier of (x) the third anniversary of the Departure Date and (y) the latest day upon which the option would have expired by its original terms under any circumstances (the “Option Expiration Outside Date”); provided, however, that the options would remain exercisable for so long as Mr. Rascoff continued to serve on Zillow Group’s board of directors (but not later than any applicable Option Expiration Outside Date), and if Mr. Rascoff ceased to serve on Zillow Group’s board of directors on or after the third anniversary of the Departure Date, each option would remain exercisable until the earlier of (i) ninety days from the final date of Mr. Rascoff’s service on Zillow Group’s board of directors and (ii) the applicable Option Expiration Outside Date. Mr. Rascoff resigned from the board of directors, effective as of April 7, 2020. The change in the exercise period of the options as well as the vesting acceleration pursuant to the Agreement were accounted for as equity modifications, and we recorded \$26.4 million of share-based compensation expense associated with the modifications in the year ended December 31, 2019. We measured the modification charge by calculating the incremental fair value of the modified award compared to the fair value of the original award immediately prior to the modification. The value of the modified awards as of the modification date was estimated using the Black-Scholes-Merton option-pricing model, assuming no dividends, expected volatility of 46%-47%, a risk-free interest rate of 2.47%-2.49% and a weighted-average expected life of 3.84-5.25 years.

Note 18. Net Loss Per Share

Basic net loss per share is computed by dividing net loss by the weighted-average number of shares (including Class A common stock, Class B common stock and Class C capital stock) outstanding during the period. In the calculation of basic net loss per share, undistributed earnings are allocated assuming all earnings during the period were distributed.

Diluted net loss per share is computed by dividing net loss by the weighted-average number of shares (including Class A common stock, Class B common stock and Class C capital stock) outstanding during the period and potentially dilutive Class A common stock and Class C capital stock equivalents, except in cases where the effect of the Class A common stock or Class C capital stock equivalent would be antidilutive. Potential Class A common stock and Class C capital stock equivalents consist of Class A common stock and Class C capital stock issuable upon exercise of stock options and Class A common stock and Class C capital stock underlying unvested restricted stock units using the treasury stock method. Potential Class A common stock equivalents also include Class A common stock issuable upon conversion of the convertibles notes due in 2020 using the if-converted method through the date of their last conversion in December 2020.

Prior to the second half of 2020, we intended to settle the principal amount of the outstanding convertible notes maturing in 2021, 2023, 2024, 2025 and 2026 in cash and therefore used the treasury stock method to calculate any potential dilutive effect of the conversion spread on diluted net income per share, if applicable. Effective July 1, 2020, we can no longer assume cash settlement of the principal amount of these outstanding convertible notes, therefore share settlement is now presumed. Thus, beginning on July 1, 2020, on a prospective basis we have applied the if-converted method for calculating any potential dilutive effect of the conversion of the outstanding convertible notes on diluted net loss per share, if applicable. The following table presents the maximum number of shares and conversion price per share of Class C capital stock for each of the Notes based on the aggregate principal amount outstanding as of December 31, 2020 (in thousands, except per share amounts):

Maturity Date	Shares	Conversion Price per Share
September 1, 2026	11,492	\$ 43.51
May 15, 2025	8,408	67.20
September 1, 2024	15,468	43.51
July 1, 2023	4,769	78.37

For the periods presented, the following Class A common stock and Class C capital stock equivalents were excluded from the calculations of diluted net loss per share because their effect would have been antidilutive (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Weighted-average Class A common stock and Class C capital stock option awards outstanding	25,913	19,183	22,736
Weighted-average Class A common stock and Class C capital stock restricted stock units outstanding	8,198	6,765	4,949
Class A common stock issuable upon conversion of the convertible notes due in 2020	338	404	400
Class C capital stock issuable upon conversion of the convertible notes maturing in 2021, 2023, 2024, 2025 and 2026	24,182	439	—
Total Class A common stock and Class C capital stock equivalents	58,631	26,791	28,085

In the event of liquidation, dissolution, distribution of assets or winding-up of the Company, the holders of all classes of common and capital stock have equal rights to receive all the assets of the Company after the rights of the holders of preferred stock have been satisfied. We have not presented net loss per share under the two-class method for our Class A common stock, Class B common stock and Class C capital stock because it would be the same for each class due to equal dividend and liquidation rights for each class.

Note 19. Commitments and Contingencies

Lease Commitments

We have entered into various non-cancelable operating lease agreements for certain of our office space and equipment with original lease periods expiring between 2021 and 2030. For additional information regarding our lease agreements, see Note 13.

Purchase Commitments

Purchase commitments primarily include various non-cancelable agreements to purchase content related to our mobile applications and websites and certain cloud computing services as well as homes we are under contract to purchase through Zillow Offers but that have not closed as of December 31, 2020. The amounts due for non-cancelable purchase commitments excluding homes under contract as of December 31, 2020 are as follows (in thousands):

	Purchase Obligations
2021	\$ 61,962
2022	48,418
2023	41,004
2024	394
2025	60
Total future purchase commitments	\$ 151,838

As of December 31, 2020, the value of homes under contract that have not closed was \$287.4 million.

Letters of Credit

As of December 31, 2020 and 2019, we have outstanding letters of credit of approximately \$16.9 million, which secure our lease obligations in connection with certain of our office space operating leases.

Surety Bonds

In the course of business, we are required to provide financial commitments in the form of surety bonds to third parties as a guarantee of our performance on and our compliance with certain obligations. If we were to fail to perform or comply with these obligations, any draws upon surety bonds issued on our behalf would then trigger our payment obligation to the surety bond issuer. We have outstanding surety bonds issued for our benefit of approximately \$10.1 million and \$10.2 million, respectively, as of December 31, 2020 and 2019.

Legal Proceedings

We are involved in a number of legal proceedings concerning matters arising in connection with the conduct of our business activities, some of which are at preliminary stages and some of which seek an indeterminate amount of damages. We regularly evaluate the status of legal proceedings in which we are involved to assess whether a loss is probable or there is a reasonable possibility that a loss or additional loss may have been incurred to determine if accruals are appropriate. We further evaluate each legal proceeding to assess whether an estimate of possible loss or range of loss can be made if accruals are not appropriate. For certain cases described below, management is unable to provide a meaningful estimate of the possible loss or range of possible loss because, among other reasons, (i) the proceedings are in preliminary stages; (ii) specific damages have not been sought; (iii) damages sought are, in our view, unsupported and/or exaggerated; (iv) there is uncertainty as to the outcome of pending appeals or motions; (v) there are significant factual issues to be resolved; and/or (vi) there are novel legal issues or unsettled legal theories presented. For these cases, however, management does not believe, based on currently available information, that the outcomes of these proceedings will have a material effect on our financial position, results of operations or cash flow. For the matters discussed below, we have not recorded any material accruals as of December 31, 2020 or 2019.

In July 2015, VHT, Inc. (“VHT”) filed a complaint against us in the United States District Court for the Western District of Washington alleging copyright infringement of VHT’s images on the Zillow Digs site. In January 2016, VHT filed an amended complaint alleging copyright infringement of VHT’s images on the Zillow Digs site as well as the Zillow listing site. In December 2016, the court granted a motion for partial summary judgment that dismissed VHT’s claims with respect to the Zillow listing site. On February 9, 2017, a jury trial returned a verdict finding that the Company had infringed VHT’s copyrights in images displayed or saved to the Digs site. The jury awarded VHT \$79,875 in actual damages and approximately \$8.2 million in statutory damages. On June 20, 2017, the District Court granted certain of our post-trial motions, finding that VHT failed to present sufficient evidence to prove direct copyright infringement for a portion of the images, reducing the total damages to approximately \$4.1 million. On March 15, 2019, after we filed an appeal with the Ninth Circuit Court of Appeals seeking review of the final judgment and certain prior rulings entered by the District Court, the Ninth Circuit Court of Appeals issued an opinion that, among other things, (i) affirmed the District Court’s grant of summary judgment in favor of Zillow on direct infringement of images on Zillow’s listing site, (ii) affirmed the district court’s grant in favor of Zillow of judgment notwithstanding the verdict on certain images that were displayed on the Zillow Digs site, (iii) remanded consideration of the issue whether VHT’s images on the Zillow Digs site were part of a compilation or individual photos, and (iv) vacated the jury’s finding of willful infringement. On October 7, 2019, the United States Supreme Court denied VHT’s petition for writ of certiorari seeking review of certain rulings by the Ninth Circuit Court of Appeals. On December 6, 2019, the Company filed a motion for summary judgment with the District Court seeking a ruling that VHT’s images are a compilation, or in the alternative, seeking a dismissal of the case based on a recent United States Supreme Court ruling. On May 8, 2020, the District Court denied the Company’s motion for summary judgment and granted VHT’s motion for summary judgment on the issue of whether the remaining photos were a compilation. We do not believe there is a reasonable possibility that a material loss will be incurred related to this lawsuit.

In August and September 2017, two purported class action lawsuits were filed against us and certain of our executive officers, alleging, among other things, violations of federal securities laws on behalf of a class of those who purchased our common stock between February 12, 2016 and August 8, 2017. One of those purported class actions, captioned *Vargosko v. Zillow Group, Inc. et al*, was brought in the United States District Court for the Central District of California. The other purported class action lawsuit, captioned *Shotwell v. Zillow Group, Inc. et al*, was brought in the United States District Court for the Western District of Washington. The complaints allege, among other things, that during the period between February 12, 2016 and August 8, 2017, we issued materially false and misleading statements regarding our business practices. The complaints seek to recover, among other things, alleged damages sustained by the purported class members as a result of the alleged misconduct. In November 2017, an amended complaint was filed against us and certain of our executive officers in the *Shotwell v. Zillow Group* purported class action lawsuit, extending the beginning of the class period to November 17, 2014. In January 2018, the *Vargosko v. Zillow Group* purported class action lawsuit was transferred to the United States District Court for the Western District of Washington and consolidated with the *Shotwell v. Zillow Group* purported class action lawsuit. In February 2018, the plaintiffs filed a consolidated amended complaint, and in April 2018, we filed our motion to dismiss the consolidated amended complaint. In October 2018, our motion to dismiss was granted without prejudice, and in November 2018, the plaintiffs filed a second consolidated amended complaint, which we moved to dismiss in December 2018. On April 19, 2019, our motion to dismiss the second consolidated amended complaint was denied, and we filed our answer to the second amended complaint on May 3, 2019. On October 11, 2019, plaintiffs filed a motion for class certification which was granted by the District Court on October 28, 2020. On November 11, 2020, we filed a petition with the Ninth Circuit Court of Appeals for review of that decision. We have denied the allegations of wrongdoing and intend to vigorously defend the claims in this lawsuit. We do not believe that there is a reasonable possibility that a material loss will be incurred related to this lawsuit.

In October and November 2017 and January and February 2018, four shareholder derivative lawsuits were filed in the United States District Court for the Western District of Washington and the Superior Court of the State of Washington, King County, against certain of our executive officers and directors seeking unspecified damages on behalf of the Company and certain other relief, such as reform to corporate governance practices. The plaintiffs in the derivative suits (in which the Company is a nominal defendant) allege, among other things, that the defendants breached their fiduciary duties in connection with oversight of the Company's public statements and legal compliance, and as a result of the breach of such fiduciary duties, the Company was damaged, and defendants were unjustly enriched. Certain of the plaintiffs also allege, among other things, violations of Section 14(a) of the Securities Exchange Act of 1934 and waste of corporate assets. On February 5, 2018, the United States District Court for the Western District of Washington consolidated the two federal shareholder derivative lawsuits pending in that court. On February 16, 2018, the Superior Court of the State of Washington, King County, consolidated the two shareholder derivative lawsuits pending in that court. All four of the shareholder derivative lawsuits were stayed until our motion to dismiss the second consolidated amended complaint in the securities class action lawsuit discussed above was denied in April 2019. On July 8, 2019, the plaintiffs in the consolidated federal derivative lawsuit filed a consolidated shareholder derivative complaint, which we moved to dismiss on August 22, 2019. On February 28, 2020, our motion to dismiss the consolidated federal shareholder derivative complaint was denied. On May 18, 2020 we filed an answer in the consolidated federal derivative lawsuit. On August 24, 2020, we filed an answer in the consolidated state derivative matter. We do not believe that there is a reasonable possibility that a material loss will be incurred related to this lawsuit.

On September 17, 2019, International Business Machines Corporation ("IBM") filed a complaint against us in the United States District Court for the Central District of California, alleging, among other things, that the Company has infringed and continues to willfully infringe seven patents held by IBM and seeks unspecified damages, including a request that the amount of compensatory damages be trebled, injunctive relief and costs and reasonable attorneys' fees. On November 8, 2019, we filed a motion to transfer venue and/or to dismiss the complaint. On December 2, 2019, IBM filed an amended complaint, and on December 16, 2019 we filed a renewed motion to transfer venue and/or to dismiss the complaint. The Company's motion to transfer venue to the United States District Court for the Western District of Washington was granted on May 28, 2020. We filed our answer with counterclaims in response to the amended complaint on June 11, 2020. On July 2, 2020, IBM filed a motion to dismiss our counterclaims. In response to IBM's motion, on July 22, 2020, we filed an amended answer with counterclaims. On August 12, 2020, IBM filed its answer to our counterclaims. On September 18, 2020, we filed four Inter Partes Review ("IPR") petitions before the United States Patent and Trial Appeal Board ("PTAB") seeking the Board's review of the patentability with respect to three of the patents asserted by IBM in the lawsuit. On December 23 and 24, 2020, IBM filed its responses to Zillow's four petitions before the PTAB. On January 22, 2021, at a status conference before the court, the court partially stayed the action with respect to all patents for which Zillow filed an IPR. We deny the allegations of any wrongdoing and intend to vigorously defend the claims in the lawsuit. There is a reasonable possibility that a loss may be incurred related to this complaint; however, the possible loss or range of loss is not estimable.

On July 21, 2020, IBM filed a second action against us in the United States District Court for the Western District of Washington, alleging, among other things that the Company has infringed and continues to willfully infringe five patents held by IBM and seeks unspecified damages. On September 14, 2020, we filed a motion to dismiss the complaint filed in the action, to which IBM responded by the filing of an amended complaint on November 5, 2020. On December 18, 2020 Zillow filed its motion to dismiss IBM's first amended complaint. On December 23, 2020, the Court issued a written order staying this case in full. We deny the allegations of any wrongdoing and intend to vigorously defend the claims in the lawsuit. We do not believe a loss related to this lawsuit is probable.

In addition to the matters discussed above, from time to time, we are involved in litigation and claims that arise in the ordinary course of business. Although we cannot be certain of the outcome of any such litigation or claims, nor the amount of damages and exposure that we could incur, we currently believe that the final disposition of such matters will not have a material effect on our business, financial position, results of operations or cash flow. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Indemnifications

In the ordinary course of business, we enter into contractual arrangements under which we agree to provide indemnification of varying scope and terms to business partners and other parties with respect to certain matters, including, but not limited to, losses arising out of the breach of such agreements and out of intellectual property infringement claims made by third parties. In addition, we have agreements that indemnify certain issuers of surety bonds against losses that they may incur as a result of executing surety bonds on our behalf. For our indemnification arrangements, payment may be conditional on the other party making a claim pursuant to the procedures specified in the particular contract. Further, our obligations under these agreements may be limited in terms of time and/or amount, and in some instances, we may have recourse against third parties for certain payments. In addition, we have indemnification agreements with certain of our directors and executive officers that require us, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors or officers. The terms of such obligations may vary.

Note 20. Self-Insurance

We are self-insured for medical benefits and dental benefits for all qualifying Zillow Group employees. The medical plan carries a stop-loss policy which provides protection when cumulative medical claims exceed 125% of expected claims for the plan year with a limit of \$1.0 million and from individual claims during the plan year exceeding \$500,000. We record estimates of the total costs of claims incurred based on an analysis of historical data and independent estimates. Our liability for self-insured claims is included within accrued compensation and benefits in our consolidated balance sheets and was \$4.2 million and \$3.6 million, respectively, as of December 31, 2020 and 2019.

Note 21. Employee Benefit Plan

We have a defined contribution 401(k) retirement plan covering Zillow Group employees who have met certain eligibility requirements (the "Zillow Group 401(k) Plan"). Eligible employees may contribute pretax compensation up to a maximum amount allowable under the Internal Revenue Service limitations. Employee contributions and earnings thereon vest immediately. We currently match up to 4% of employee contributions under the Zillow Group 401(k) Plan. The total expense related to the Zillow Group 401(k) Plan was \$25.6 million, \$20.8 million, and \$16.0 million, respectively, for the years ended December 31, 2020, 2019 and 2018.

Note 22. Segment Information and Revenue

We have three operating and reportable segments, which have been identified based on the way in which our chief operating decision-maker manages our business, makes operating decisions and evaluates operating performance. The chief executive officer acts as the chief operating decision-maker and reviews financial and operational information for the Homes, IMT and Mortgages segments.

The Homes segment includes the financial results from Zillow Group's purchase and sale of homes directly through Zillow Offers and the financial results from title and escrow services through Zillow Closing Services. The IMT segment includes the financial results for the Premier Agent, rentals and new construction marketplaces, dotloop and display, as well as revenue from the sale of various other marketing and business products and services to real estate professionals. The Mortgages segment includes financial results for mortgage originations and the sale of mortgages on the secondary market through Zillow

Home Loans, advertising sold to mortgage lenders and other mortgage professionals as well as Mortech mortgage software solutions.

Revenue and costs are directly attributed to our segments when possible. However, due to the integrated structure of our business, certain costs incurred by one segment may benefit the other segments. These costs primarily include headcount-related expenses, general and administrative expenses including executive, finance, accounting, legal, human resources, recruiting and facilities costs, product development and data acquisition costs and marketing and advertising costs. These costs are allocated to each segment based on the estimated benefit each segment receives from such expenditures.

The chief executive officer reviews information about our revenue categories as well as statement of operations data inclusive of income (loss) before income taxes by segment. This information is included in the following tables for the periods presented (in thousands):

	Year Ended December 31, 2020			Year Ended December 31, 2019			Year Ended December 31, 2018		
	Homes	IMT	Mortgages	Homes	IMT	Mortgages	Homes	IMT	Mortgages
Revenue:									
Zillow Offers	\$ 1,710,535	\$ —	\$ —	\$ 1,365,250	\$ —	\$ —	\$ 52,365	\$ —	\$ —
Premier Agent	—	1,046,954	—	—	923,876	—	—	898,332	—
Other	4,840	403,278	—	—	353,020	—	—	302,811	—
Mortgages	—	—	174,210	—	—	100,691	—	—	80,046
Total revenue	1,715,375	1,450,232	174,210	1,365,250	1,276,896	100,691	52,365	1,201,143	80,046
Costs and expenses:									
Cost of revenue	1,621,040	104,091	31,264	1,315,345	98,522	18,154	49,392	96,693	7,505
Sales and marketing	190,829	422,385	59,602	171,634	488,909	53,585	17,134	502,785	32,702
Technology and development	119,885	367,070	31,117	78,994	365,769	32,584	21,351	363,712	25,755
General and administrative	87,071	225,102	44,949	81,407	243,636	41,133	22,002	220,564	19,587
Impairment costs	—	73,900	2,900	—	—	—	—	75,000	4,000
Acquisition-related costs	—	—	—	—	—	—	—	27	2,305
Integration costs	—	—	—	—	—	650	—	—	2,015
Total costs and expenses (1)	2,018,825	1,192,548	169,832	1,647,380	1,196,836	146,106	109,879	1,258,781	93,869
Income (loss) from operations	(303,450)	257,684	4,378	(282,130)	80,060	(45,415)	(57,514)	(57,638)	(13,823)
Segment other income	—	5,300	2,369	—	—	1,409	—	—	244
Segment interest expense	(16,804)	—	(2,233)	(29,990)	—	(956)	(2,177)	—	(132)
Income (loss) before income taxes (2)	\$ (320,254)	\$ 262,984	\$ 4,514	\$ (312,120)	\$ 80,060	\$ (44,962)	\$ (59,691)	\$ (57,638)	\$ (13,711)

(1) The following table presents depreciation and amortization expense and share-based compensation expense for each of our segments for the periods presented (in thousands):

	Year Ended December 31, 2020			Year Ended December 31, 2019			Year Ended December 31, 2018		
	Homes	IMT	Mortgages	Homes	IMT	Mortgages	Homes	IMT	Mortgages
Depreciation and amortization expense	\$ 13,315	\$ 89,862	\$ 6,854	\$ 8,414	\$ 73,369	\$ 5,684	\$ 1,323	\$ 91,232	\$ 6,836
Share-based compensation expense	\$ 48,166	\$ 134,691	\$ 14,693	\$ 32,390	\$ 150,434	\$ 16,078	\$ 7,731	\$ 131,404	\$ 9,949

(2) The following table presents the reconciliation of total segment loss before income taxes to consolidated loss before income taxes for the periods presented (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Total segment loss before income taxes	\$ (52,756)	\$ (277,022)	\$ (131,040)
Corporate interest expense	(136,190)	(70,846)	(38,946)
Corporate other income	17,860	38,249	19,026
Gain on extinguishment of 2021 Notes	1,448	—	—
Consolidated loss before income taxes	\$ (169,638)	\$ (309,619)	\$ (150,960)

Certain corporate items are not directly attributable to any of our segments, including the gain on the extinguishment of the 2021 Notes, interest income earned on our short-term investments included in other income and interest costs on our convertible senior notes included in interest expense.

Note 23. Subsequent Event

Amendment of Credit Facility Agreement

On January 6, 2021, certain wholly owned subsidiaries of Zillow Group amended the Credit Suisse AG, Cayman Islands Branch credit agreement previously maturing on July 31, 2021 such that it now matures on December 31, 2022. The credit facility will continue to be classified within current liabilities in our consolidated balance sheets.

Amendment of Warehouse Line of Credit

On February 4, 2021, Zillow Home Loans amended its Comerica Bank warehouse line of credit to increase the total maximum borrowing capacity to \$100.0 million with a maturity date of June 26, 2021. The Comerica Bank warehouse line of credit will continue to be classified within current liabilities in our consolidated balance sheets.

Acquisition of ShowingTime.com, Inc.

On February 6, 2021, Zillow Group, Inc., Zillow, Inc., Sky Merger Sub, Inc., ShowingTime.com, Inc. and the seller representative entered into an Agreement and Plan of Merger (the “Agreement”), pursuant to which Zillow, Inc. will acquire ShowingTime.com, Inc. for \$500.0 million in cash, subject to adjustments at closing of the acquisition. ShowingTime.com, Inc. is a real estate scheduling software provider headquartered in Chicago, Illinois.

The Agreement contains customary representations, warranties and covenants of the parties as well as conditions to closing, including, among other things, expiration or termination of the waiting period under Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

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

The Company carried out an evaluation, with the participation of our management, and under the supervision of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as defined under Rule 13a-15(e) and Rule 15d-15(e) under the Exchange Act) as of the end of the period covered by this report. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2020.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined under Rule 13a-15(f) under the Exchange Act. Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on our evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2020.

We intend to regularly review and evaluate the design and effectiveness of our disclosure controls and procedures and internal control over financial reporting on an ongoing basis and to improve these controls and procedures over time and to correct any deficiencies that we may discover in the future. While we believe the present design of our disclosure controls and procedures and internal control over financial reporting are effective, future events affecting our business may cause us to modify our controls and procedures.

The Company's independent registered public accounting firm has issued an attestation report regarding its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2020.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the three months ended December 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Zillow Group, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Zillow Group, Inc. (the “Company”) as of December 31, 2020, 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, 2020, 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 of the Company as of and for the year ended December 31, 2020, and our report dated February 12, 2021 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, 2021

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 the Company's definitive proxy statement relating to the 2021 annual meeting of shareholders. The definitive proxy statement will be filed with the Securities and Exchange Commission within 120 days after the end of the 2020 fiscal year.

We have adopted a Code of Ethics that applies to our Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer, controller and persons performing similar functions. The Code of Ethics is posted on our website at <https://investors.zillowgroup.com/investors/governance/governance-documents/default.aspx>. We intend to satisfy the disclosure requirements under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of the Code of Ethics by posting such information on our website at the address specified above.

Item 11. Executive Compensation.

The information required by this item is incorporated by reference to the Company's definitive proxy statement relating to the 2021 annual meeting of shareholders. The definitive proxy statement will be filed with the Securities and Exchange Commission within 120 days after the end of the 2020 fiscal year.

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 the Company's definitive proxy statement relating to the 2021 annual meeting of shareholders. The definitive proxy statement will be filed with the Securities and Exchange Commission within 120 days after the end of the 2020 fiscal year.

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

The information required by this item is incorporated by reference to the Company's definitive proxy statement relating to the 2021 annual meeting of shareholders. The definitive proxy statement will be filed with the Securities and Exchange Commission within 120 days after the end of the 2020 fiscal year.

Item 14. Principal Accountant Fees and Services.

The information required by this item is incorporated by reference to the Company's definitive proxy statement relating to the 2021 annual meeting of shareholders. The definitive proxy statement will be filed with the Securities and Exchange Commission within 120 days after the end of the 2020 fiscal year.

PART IV**Item 15. Exhibits, Financial Statement Schedules.****(a)(1) Financial Statements**

We have filed the financial statements listed in the Index to Consolidated Financial Statements as a part of this Annual Report on Form 10-K.

(a)(2) Financial Statement Schedules

All financial statement schedules have been omitted because they are not applicable, not material or the required information is presented in the financial statements or the notes thereto.

(a)(3) Exhibits

Certain of the following exhibits have heretofore been filed with the Securities and Exchange Commission and are incorporated by reference from the documents described in parentheses. Certain others are filed herewith. The exhibits are numbered in accordance with Item 601 of Regulation S-K. In reviewing the agreements included as exhibits to this Annual Report on Form 10-K, please remember that they are included to provide you with information regarding their terms and are not intended to provide any other factual or disclosure information about the Company or the other parties to the agreement. The agreements may contain representations and warranties by each of the parties to the applicable agreement. These representations and warranties have been made solely for the benefit of the other party or parties to the applicable agreement and (i) should not be treated as categorical statements of fact, but rather as a means of allocating the risk to one of the parties if those statements prove to be inaccurate; (ii) may have been qualified by disclosures that were made to the other party or parties in connection with the negotiation of the applicable agreement, which disclosures are not necessarily reflected in the agreement; (iii) may apply standards of materiality in a manner that is different from what may be viewed as material to you or other investors; and (iv) were made only as of the date of the applicable agreement or other date or dates that may be specified in the agreement and are subject to more recent developments. Accordingly, these representations and warranties may not describe the actual state of affairs as of the date they were made or at any other time. Additional information about the Company may be found elsewhere in this Annual Report on Form 10-K and the Company's other public filings, which are available without charge through the SEC's website at <http://www.sec.gov>.

Exhibit Number	Description
2.1+	Agreement and Plan of Merger, dated August 16, 2013, by and among Zillow, Inc., NMD Interactive, Inc., d/b/a StreetEasy, Strawberry Acquisition, Inc. and Shareholder Representative Services LLC (Filed as Exhibit 2.1 to Zillow, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on August 19, 2013, and incorporated herein by reference).
3.1	Amended and Restated Articles of Incorporation of Zillow Group, Inc. (Filed as Exhibit 3.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 17, 2015, and incorporated herein by reference).
3.2	Amended and Restated Bylaws of Zillow Group, Inc. (Filed as Exhibit 3.1 to Zillow Group, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 5, 2020, and incorporated herein by reference).
4.1	Specimen of Class A Common Stock Certificate (Filed as Exhibit 4.1 to Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015, and incorporated herein by reference).
4.2	Specimen of Class C Capital Stock Certificate (Filed as Exhibit 4.1 to Registrant's Form 8-A filed with the Securities and Exchange Commission on July 29, 2015, and incorporated herein by reference).

- 4.3 [Transfer Restriction Agreement and Amendment to Noncompetition Agreement, dated July 20, 2015, among Zillow Group, Inc., Zillow, Inc., Richard Barton and the other holders signatory thereto \(Filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 21, 2015, and incorporated herein by reference\).](#)
- 4.4 [Transfer Restriction Agreement and Amendment to Noncompetition Agreement, dated July 20, 2015, among Zillow Group, Inc., Zillow, Inc., Lloyd Frink and the other holders signatory thereto \(Filed as Exhibit 10.2 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 21, 2015, and incorporated herein by reference\).](#)
- 4.5 [Indenture, dated as of July 3, 2018, by and between Zillow Group, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee \(Filed as Exhibit 4.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 3, 2018, and incorporated herein by reference\).](#)
- 4.6 [Form of 1.50% Convertible Senior Note due 2023 \(incorporated by reference to Exhibit 4.5 hereto\).](#)
- 4.7 [Indenture dated as of September 9, 2019, by and between Zillow Group, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee \(Filed as Exhibit 4.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 10, 2019, and incorporated herein by reference\).](#)
- 4.8 [Indenture dated as of September 9, 2019 by and between Zillow Group, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee \(Filed as Exhibit 4.2 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 10, 2019, and incorporated herein by reference\).](#)
- 4.9 [Form of 0.75% Convertible Senior Note due 2024 \(incorporated by reference to Exhibit 4.7 hereto\).](#)
- 4.10 [Form of 1.375% Convertible Senior Note due 2026 \(incorporated by reference to Exhibit 4.8 hereto\).](#)
- 4.11 [Description of Registrant's Securities \(Filed as Exhibit 4.17 to Zillow Group, Inc.'s Form 10-K filed with the Securities and Exchange Commission on February 19, 2020, and incorporated herein by reference\).](#)
- 4.12 [Indenture dated as of May 15, 2020, by and between Zillow Group, Inc. and The Bank of New York Mellon Trust Company, N.A., as trustee \(Filed as Exhibit 4.1 to Zillow Group, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on May 18, 2020, and incorporated herein by reference\).](#)
- 4.13 [Form of 2.75% Convertible Senior Note due 2025 \(incorporated by reference to Exhibit 4.12 hereto\).](#)
- 10.1* [Trulia, Inc. 2005 Stock Incentive Plan, as amended, and form of Stock Option Agreement and form of Stock Option Grant Notice thereunder \(Assumed by Registrant; Filed as Exhibit 10.2 to Trulia, Inc.'s Form S-1 filed with the Securities and Exchange Commission on August 17, 2012, and incorporated herein by reference\).](#)
- 10.2* [Zillow, Inc. Amended and Restated 2011 Equity Incentive Plan \(Filed as Appendix A to Zillow, Inc.'s Definitive Proxy Statement filed with the Securities and Exchange Commission on April 17, 2012, and incorporated herein by reference\).](#)
- 10.3* [Amendment No. 1 to the Zillow, Inc. Amended and Restated 2011 Incentive Plan \(Filed as Appendix A to Zillow, Inc.'s Definitive Proxy Statement filed with the Securities and Exchange Commission on April 16, 2013, and incorporated herein by reference\).](#)

- 10.4* [Form of Stock Option Grant Notice and Stock Option Agreement under the Zillow, Inc. 2011 Incentive Plan \(Filed as Exhibit 10.3 to Zillow, Inc.'s Amendment No. 3 to Registration Statement on Form S-1 filed with the Securities and Exchange Commission on June 20, 2011, and incorporated herein by reference\).](#)
- 10.5* [Form of Restricted Stock Unit Award Notice and Restricted Stock Unit Award Agreement under the Zillow, Inc. Amended and Restated 2011 Incentive Plan \(Filed as Exhibit 10.2 to Zillow, Inc.'s Form 10-Q filed with the Securities and Exchange Commission on May 8, 2014, and incorporated herein by reference\).](#)
- 10.6* [Form of Restricted Unit Award Notice and Restricted Unit Award Agreement under the Zillow, Inc. Amended and Restated 2011 Incentive Plan \(Filed as Exhibit 10.3 to Zillow, Inc.'s Form 10-Q filed with the Securities and Exchange Commission on May 8, 2014, and incorporated herein by reference\).](#)
- 10.7* [Amended and Restated Stock Option Grant Program for Nonemployee Directors under the Zillow, Inc. Amended and Restated 2011 Incentive Plan \(Filed as Exhibit 10.11 to Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015, and incorporated herein by reference\).](#)
- 10.8* [Amended and Restated Stock Option Grant Program for Nonemployee Directors under the Zillow Group, Inc. Amended and Restated 2011 Incentive Plan \(Filed as Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q filed on May 4, 2016, and incorporated herein by reference\).](#)
- 10.9* [Amended and Restated Stock Option Grant Program for Nonemployee Directors under the Zillow Group, Inc. Amended and Restated 2011 Incentive Plan \(Filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 13, 2017, and incorporated herein by reference\).](#)
- 10.10* [Form of Stock Option Grant Notice and Stock Option Agreement under the Zillow, Inc. Amended and Restated 2011 Incentive Plan \(Assumed by Registrant; Filed as Exhibit 10.12 to Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015, and incorporated herein by reference\).](#)
- 10.11* [Form of Restricted Stock Unit Award Notice and Restricted Stock Unit Award Agreement under the Zillow, Inc. Amended and Restated 2011 Incentive Plan \(Assumed by Registrant; Filed as Exhibit 10.13 to Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015, and incorporated herein by reference\).](#)
- 10.12* [Trulia, Inc. 2012 Equity Incentive Plan, as amended and restated \(Assumed by Registrant; Filed as Exhibit 10.1 to Trulia, Inc.'s Form 10-Q filed with the Securities and Exchange Commission on August 12, 2013, and incorporated herein by reference\).](#)
- 10.13* [Form of Nonqualified Stock Option Grant Notice and Stock Option Agreement under the Trulia, Inc. 2012 Equity Incentive Plan \(Assumed by Registrant; Filed as Exhibit 10.15 to Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015, and incorporated herein by reference\).](#)
- 10.14* [Form of Restricted Stock Unit Award Notice and Restricted Stock Unit Award Agreement under the Trulia, Inc. 2012 Equity Incentive Plan \(Assumed by Registrant; Filed as Exhibit 10.16 to Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015, and incorporated herein by reference\).](#)
- 10.15* [Form of Confidential Information, Inventions, and Nonsolicitation Agreement for certain officers of Zillow, Inc. \(Filed as Exhibit 10.4 to Zillow, Inc.'s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on May 8, 2014, and incorporated herein by reference\).](#)
- 10.16* [Form of Confidential Information, Inventions, Nonsolicitation and Noncompetition Agreement for the Officers of Zillow Group, Inc. \(Filed as Exhibit 10.29 to Registrant's Quarterly Report on Form 10-Q filed on May 12, 2015, and incorporated herein by reference\).](#)
- 10.17* [Form of Indemnification Agreement between Zillow Group, Inc. and each of its directors and executive officers \(Filed as Exhibit 10.9 to Registrant's Current Report on Form 8-K12B filed with the Securities and Exchange Commission on February 17, 2015, and incorporated herein by reference\).](#)

10.18*	Zillow Group, Inc. Amended and Restated 2011 Incentive Plan (Filed as Exhibit 10.3 to Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 5, 2016, and incorporated herein by reference).
10.19*	Form of Stock Option Grant Notice and Stock Option Agreement under the Zillow Group, Inc. Amended and Restated 2011 Incentive Plan (Filed as Exhibit 10.2 to Registrant's Quarterly Report on Form 10-Q filed on August 5, 2015, and incorporated herein by reference).
10.20*	Form of Restricted Stock Unit Award Notice and Restricted Stock Unit Award Agreement under the Zillow Group, Inc. Amended and Restated 2011 Incentive Plan (Filed as Exhibit 10.3 to Registrant's Quarterly Report on Form 10-Q filed on August 5, 2015, and incorporated herein by reference).
10.21	Office Lease between The Northwestern Mutual Life Insurance Company and Zillow, Inc. dated March 22, 2011 (Filed as Exhibit 10.10 to Zillow, Inc.'s Registration Statement on Form S-1 filed on April 18, 2011, and incorporated herein by reference).
10.22	Amendment to Office Lease by and between FSP-RIC LLC and Zillow, Inc., dated as of June 27, 2012 (Filed as Exhibit 10.1 to Zillow, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 29, 2012, and incorporated herein by reference).
10.23	Second Amendment to Lease by and between FSP-RIC, LLC and Zillow, Inc., dated as of April 16, 2013 (Filed as Exhibit 10.1 to Zillow, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on April 22, 2013, and incorporated herein by reference).
10.24	Third Amendment to Lease by and between FSP-RIC, LLC and Zillow, Inc., dated as of January 10, 2014 (Filed as Exhibit 10.10 to Zillow, Inc.'s Form 10-K filed with the Securities and Exchange Commission on February 18, 2014, and incorporated herein by reference).
10.25	Fourth Amendment to Lease by and between FSP-RIC, LLC and Zillow, Inc., dated as of May 2, 2014 (Filed as Exhibit 10.1 to Zillow, Inc.'s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 6, 2014, and incorporated herein by reference).
10.26	Fifth Amendment to Lease by and between FSP-RIC, LLC and Zillow, Inc., dated as of November 19, 2014 (Filed as Exhibit 10.1 to Zillow, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on November 24, 2014, and incorporated herein by reference).
10.27	Sixth Amendment to Lease by and between FSP-RIC, LLC and Zillow, Inc., dated as of June 21, 2016 (Filed as Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 5, 2016, and incorporated herein by reference).
10.28	Lease, dated March 10, 2014, between Trulia, Inc. and BXP Mission 535 LLC (Filed as Exhibit 10.1 to Trulia, Inc.'s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on May 2, 2014, and incorporated herein by reference).
10.29	First Amendment to Office Lease, dated July 25, 2014, between Trulia, Inc. and BXP Mission 535 LLC (Filed as Exhibit 10.1 to Trulia, Inc.'s Form 10-Q filed with the Securities and Exchange Commission on August 8, 2014, and incorporated herein by reference).
10.30	Base Capped Call Confirmation, dated December 6, 2016, between Zillow Group, Inc. and Citigroup Global Markets Inc. (Filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2016, and incorporated herein by reference).
10.31	Base Capped Call Confirmation, dated December 6, 2016, between Zillow Group, Inc. and Goldman Sachs & Co. (Filed as Exhibit 10.2 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2016, and incorporated herein by reference).

- 10.32 [Base Capped Call Confirmation, dated December 6, 2016, between Zillow Group, Inc. and Bank of America, N.A. \(Filed as Exhibit 10.3 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2016, and incorporated herein by reference\).](#)
- 10.33 [Additional Capped Call Confirmation, dated December 8, 2016, between Zillow Group, Inc. and Citigroup Global Markets Inc. \(Filed as Exhibit 10.4 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2016, and incorporated herein by reference\).](#)
- 10.34 [Additional Capped Call Confirmation, dated December 8, 2016, between Zillow Group, Inc. and Goldman, Sachs & Co. \(Filed as Exhibit 10.5 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2016, and incorporated herein by reference\).](#)
- 10.35 [Additional Capped Call Confirmation, dated December 8, 2016, between Zillow Group, Inc. and Bank of America, N.A. \(Filed as Exhibit 10.6 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 12, 2016, and incorporated herein by reference\).](#)
- 10.36 [Capped Call Partial Termination Agreement, dated May 11, 2020, between Zillow Group, Inc. and Citigroup Global Markets Inc.](#)
- 10.37 [Capped Call Partial Termination Agreement, dated May 11, 2020, between Zillow Group, Inc. and Goldman, Sachs & Co.](#)
- 10.38 [Capped Call Partial Termination Agreement, dated May 13, 2020, between Zillow Group, Inc. and Bank of America, N.A.](#)
- 10.39 [Zillow, Inc. Proprietary Rights Agreement \(Filed as Exhibit 10.1 to Zillow, Inc.'s Form 10-Q filed with the Securities and Exchange Commission on May 8, 2018, and incorporated herein by reference\).](#)
- 10.40 [Base Capped Call Confirmation, dated June 28, 2018, between Zillow Group, Inc. and Goldman Sachs & Co. LLC \(Filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 3, 2018, and incorporated herein by reference\).](#)
- 10.41 [Base Capped Call Confirmation, dated June 28, 2018, between Zillow Group, Inc. and Citibank, N.A. \(Filed as Exhibit 10.2 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 3, 2018, and incorporated herein by reference\).](#)
- 10.42 [Base Capped Call Confirmation, dated June 28, 2018, between Zillow Group, Inc. and Royal Bank of Canada, represented by RBC Capital Markets, LLC as its agent \(Filed as Exhibit 10.3 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 3, 2018, and incorporated herein by reference\).](#)
- 10.43 [Base Capped Call Confirmation, dated June 28, 2018, between Zillow Group, Inc. and Bank of America, N.A. \(Filed as Exhibit 10.4 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 3, 2018, and incorporated herein by reference\).](#)
- 10.44 [Additional Capped Call Confirmation, dated July 2, 2018, between Zillow Group, Inc. and Goldman Sachs & Co. LLC \(Filed as Exhibit 10.5 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 3, 2018, and incorporated herein by reference\).](#)
- 10.45 [Additional Capped Call Confirmation, dated July 2, 2018, between Zillow Group, Inc. and Citibank, N.A. \(Filed as Exhibit 10.6 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 3, 2018, and incorporated herein by reference\).](#)

10.46	Additional Capped Call Confirmation, dated July 2, 2018, between Zillow Group, Inc. and Royal Bank of Canada, represented by RBC Capital Markets, LLC as its agent (Filed as Exhibit 10.7 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 3, 2018, and incorporated herein by reference).
10.47	Additional Capped Call Confirmation, dated July 2, 2018, between Zillow Group, Inc. and Bank of America, N.A. (Filed as Exhibit 10.8 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 3, 2018, and incorporated herein by reference).
10.48*	Executive Employment Agreement, dated November 6, 2018, between Zillow Group, Inc. and Allen Parker (Filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on November 6, 2018, and incorporated herein by reference).
10.49*	Amended and Restated Executive Employment Agreement, dated November 13, 2018, between Zillow Group, Inc. and Allen Parker (Filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on November 14, 2018, and incorporated herein by reference).
10.50*	Executive Employment Agreement, dated January 29, 2019, between Zillow Group, Inc. and Arik Prawer (Filed as Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on May 9, 2019, and incorporated herein by reference).
10.51*	Executive Departure Agreement and Release, dated February 20, 2019, between Zillow Group, Inc. and Spencer Rascoff (Filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 21, 2019, and incorporated herein by reference).
10.52*	Zillow, Inc. Proprietary Rights Agreement (Filed as Exhibits 10.3 to Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on May 9, 2019, and incorporated herein by reference).
10.53*	Zillow Group, Inc. 2019 Equity Inducement Plan (Filed as Exhibit 99.2 to Registrant's Form S-8, filed with the Securities and Exchange Commission on August 8, 2019, and incorporated herein by reference).
10.54*	Form of Stock Option Grant Notice and Stock Option Agreement under the Zillow Group, Inc. 2019 Equity Inducement Plan (Filed as Exhibit 10.2 to Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 7, 2019, and incorporated herein by reference).
10.55*	Form of Restricted Stock Unit Award Notice and Restricted Stock Unit Award Agreement under the Zillow Group, Inc. 2019 Equity Inducement Plan (Filed as Exhibit 10.3 to Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 7, 2019, and incorporated herein by reference).
10.56	Capped Call Confirmation (2024 Notes), dated September 4, 2019, between Zillow Group, Inc. and Morgan Stanley & Co., LLC (Filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 10, 2019, and incorporated herein by reference).
10.57	Capped Call Confirmation (2026 Notes), dated September 4, 2019, between Zillow Group, Inc. and Morgan Stanley & Co., LLC (Filed as Exhibit 10.2 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 10, 2019, and incorporated herein by reference).
10.58	Capped Call Confirmation (2024 Notes), dated September 4, 2019, between Zillow Group, Inc. and Citibank, N.A. (Filed as Exhibit 10.3 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 10, 2019, and incorporated herein by reference).
10.59	Capped Call Confirmation (2026 Notes), dated September 4, 2019, between Zillow Group, Inc. and Citibank, N.A. (Filed as Exhibit 10.4 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 10, 2019, and incorporated herein by reference).

10.60	Capped Call Confirmation (2024 Notes), dated September 4, 2019, between Zillow Group, Inc. and Goldman Sachs & Co. LLC (Filed as Exhibit 10.5 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 10, 2019, and incorporated herein by reference).
10.61	Capped Call Confirmation (2024 Notes), dated September 4, 2019, between Zillow Group, Inc. and Barclays Bank PLC (Filed as Exhibit 10.6 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 10, 2019, and incorporated herein by reference).
10.62	Capped Call Confirmation (2026 Notes), dated September 4, 2019, between Zillow Group, Inc. and Barclays Bank PLC (Filed as Exhibit 10.7 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 10, 2019, and incorporated herein by reference).
10.63	Capped Call Confirmation (2026 Notes), dated September 4, 2019, between Zillow Group, Inc. and JPMorgan Chase Bank, National Association (Filed as Exhibit 10.8 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 10, 2019, and incorporated herein by reference).
10.64	Capped Call Confirmation (2024 Notes), dated October 4, 2019, between Zillow Group, Inc. and Morgan Stanley & Co., LLC (Filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 9, 2019, and incorporated herein by reference).
10.65	Capped Call Confirmation (2024 Notes), dated October 4, 2019, between Zillow Group, Inc. and Citibank, N.A. (Filed as Exhibit 10.2 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 9, 2019, and incorporated herein by reference).
10.66	Capped Call Confirmation (2024 Notes), dated October 4, 2019, between Zillow Group, Inc. and Goldman Sachs & Co. LLC (Filed as Exhibit 10.3 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 9, 2019, and incorporated herein by reference).
10.67	Capped Call Confirmation (2024 Notes), dated October 4, 2019, between Zillow Group, Inc. and Barclays Bank PLC (Filed as Exhibit 10.4 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 9, 2019, and incorporated herein by reference).
10.68*	Executive Departure Agreement and Release, dated November 15, 2019, between Zillow Group, Inc. and Greg Schwartz (Filed as Exhibit 10.1 to Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on November 18, 2019, and incorporated herein by reference).
10.69*	Amended and Restated Stock Option Program for Non-Employee Director Grants under the Zillow Group, Inc. Amended and Restated 2011 Incentive Plan (Filed as Exhibit 10.1 to Zillow Group, Inc.'s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on May 7, 2020, and incorporated herein by reference).
10.70*	Zillow Group, Inc. 2020 Incentive Plan (Filed as Exhibit 10.1 to Zillow Group, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on June 10, 2020, and incorporated herein by reference).
10.71*	Form of Nonqualified Stock Option Grant Notice and Nonqualified Stock Option Agreement under the Zillow Group, Inc. 2020 Incentive Plan (Filed as Exhibit 10.2 to Zillow Group, Inc.'s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 6, 2020, and incorporated herein by reference).
10.72*	Form of Restricted Stock Unit Award Notice and Restricted Stock Unit Award Agreement under the Zillow Group, Inc. 2020 Incentive Plan (Filed as Exhibit 10.3 to Zillow Group, Inc.'s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 6, 2020, and incorporated herein by reference).
10.73*	Zillow Group, Inc. Executive Severance Plan (Filed as Exhibit 10.1 to Zillow Group, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on September 17, 2020, and incorporated herein by reference).

10.74*	Form of Proprietary Rights Agreement for certain officers of Zillow Group, Inc. (Filed as Exhibit 10.2 to Zillow Group, Inc.'s Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 5, 2020, and incorporated herein by reference).
10.75*	Stock Option Grant Program for Nonemployee Directors under the Zillow Group, Inc. 2020 Incentive Plan (Filed as Exhibit 10.1 to Zillow Group, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on October 15, 2020, and incorporated herein by reference).
21.1	Subsidiaries of Zillow Group, Inc.
23.1	Consent of independent registered public accounting firm.
31.1	Certification of Chief Executive Officer pursuant to Rule 13-14(a) of the Securities Exchange Act of 1934 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Rule 13-14(a) of the Securities Exchange Act of 1934 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the inline XBRL document).
101.SCH	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Coverage Page Interactive Data File (embedded within the Inline XBRL document).
*	Indicates a management contract or compensatory plan or arrangement.
+	Schedules omitted pursuant to Item 601(b)(2) of Regulation S-K. Zillow Group agrees to furnish a supplemental copy of any omitted schedule to the Securities and Exchange Commission upon request.

Item 16. Form 10-K Summary.

None.

SIGNATURES

Pursuant to the requirements 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.

Dated: February 12, 2021

ZILLOW GROUP, INC.

By: /s/ JENNIFER ROCK
Name: Jennifer Rock
Title: Chief Accounting Officer

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 indicated below on February 12, 2021.

Signature	Title
<u>/s/ RICHARD BARTON</u> Richard Barton	Chief Executive Officer (Principal Executive Officer) and Director
<u>/s/ ALLEN PARKER</u> Allen Parker	Chief Financial Officer (Principal Financial Officer)
<u>/s/ JENNIFER ROCK</u> Jennifer Rock	Chief Accounting Officer (Principal Accounting Officer)
<u>/s/ LLOYD D. FRINK</u> Lloyd D. Frink	Executive Chairman, President and Director
<u>/s/ AMY C. BOHUTINSKY</u> Amy Bohutinsky	Director
<u>/s/ ERIK BLACHFORD</u> Erik Blachford	Director
<u>/s/ JAY C. HOAG</u> Jay C. Hoag	Director
<u>/s/ GREGORY B. MAFFEI</u> Gregory B. Maffei	Director
<u>/s/ GORDON STEPHENSON</u> Gordon Stephenson	Director
<u>/s/ CLAIRE CORMIER THIELKE</u> Claire Cormier Thielke	Director
<u>/s/ APRIL UNDERWOOD</u> April Underwood	Director

May 11, 2020

CAPPED CALL PARTIAL TERMINATION AGREEMENT

This CAPPED CALL PARTIAL TERMINATION AGREEMENT (this “**Termination Agreement**”) is made, by and between Citigroup Global Markets Inc. (“**Dealer**”) and ZILLOW GROUP, INC. (“**Counterparty**”), as of the date hereof.

WHEREAS, on December 12, 2016, Counterparty issued \$460,000,000 principal amount of its 2.00% Convertible Senior Notes due 2021 (the “**Convertible Notes**”);

WHEREAS, in connection with the pricing of the Convertible Notes, Counterparty and Dealer, on December 6, 2016, entered into a letter agreement re: Base Call Option Transaction confirming the terms of a base call option transaction (such confirmation, the “**Base Capped Call Confirmation**” and such transaction the “**Base Capped Call Transaction**”);

WHEREAS, in connection with the exercise by the initial purchasers in the Convertible Notes offering of their right to purchase additional Convertible Notes, Counterparty and Dealer, on December 8, 2016, entered into a letter agreement re: Additional Call Option Transaction confirming the terms of an additional call option transaction (such confirmation, the “**Additional Capped Call Confirmation**” and together with the Base Capped Call Confirmation, the “**Confirmations**,” and such transaction the “**Additional Capped Call Transaction**” and together with the Base Capped Call Transaction, the “**Transactions**”);

WHEREAS, Counterparty intends to issue and sell shares of Counterparty’s Class C capital stock and convertible notes convertible into shares of Counterparty’s Class C capital in concurrent public offerings (the “**Offerings**”); and

WHEREAS, Counterparty intends to use a portion of the proceeds from the Offerings to repurchase an amount of Convertible Notes in \$1,000 denominations (the “**Notes Repurchase**” and such number of Convertible Notes in \$1,000 denominations, the “**Repurchase Number**”) and in connection therewith, Counterparty has requested a partial termination of the Transactions, and

NOW, THEREFORE, in consideration of their mutual covenants herein contained, the parties hereto, intending to be legally bound, hereby mutually covenant and agree as follows:

1. *Defined Terms.* Any capitalized term not otherwise defined herein shall have the meaning set forth for such term in the Confirmations.

2. *Termination and Amendment.*

(a) As of the Effective Date (as defined below):

(i) The Number of Options under the Transactions shall be reduced in the aggregate by the Repurchase Number;

(ii) The reduction to the Number of Options as set forth in clause (i) above shall be first allocated to the Additional Capped Call Confirmation and, to the extent there is a remainder of Number of Options to be reduced shall then be allocated to the Base Capped Call Confirmation. If the Number of Options under the Additional Capped Call Confirmation is reduced to zero pursuant to the foregoing sentence, the Additional Capped Call Confirmation shall be terminated in full, and all of the respective rights and obligations of the parties thereunder shall be cancelled and terminated, and each party shall be released and discharged by the other party, and agrees not to make any claim with respect to any obligations of the other party, in connection with the Additional Capped Call Confirmation.

- (b) In connection with the termination and amendment set forth in clause (a) above, no later than the second Exchange Business Day immediately following the last day of the VWAP Period (as defined below), Dealer shall deliver to Counterparty, for each Convertible Note included in the Repurchase Number, a number of Shares determined by Dealer in a commercially reasonable manner by calculating the amount payable (the **"Unwind Amount"**) to Counterparty under the Agreement as if an Early Termination Date had occurred as a result of an Additional Termination Event with respect to which Counterparty is the sole Affected Party in respect of such number of reduced Options on the date the Repurchase Number is determined and the related Note Repurchase is priced (the **"Note Repurchase Pricing Date"**) in respect of such number of reduced Options and dividing the Unwind Amount by the average of the per Share volume-weighted average prices as displayed under the heading **"Bloomberg VWAP"** on Bloomberg page **"Z <equity> AQR"** (or its equivalent successor if such page is not available) in respect of the period from the scheduled opening time of the Exchange to the Scheduled Closing Time on each of the two Exchange Business Days commencing on the Scheduled Trading Day immediately following the Note Repurchase Pricing Date (or if such volume-weighted average price is unavailable at such time, the market value of one Share on such Exchange Business Day, as determined by the Calculation Agent using, if practicable, a volume-weighted average method) (the **"Unwind Reference Price"**). For the avoidance of doubt, Dealer may use the Unwind Reference Price as one of the factors to determine the Unwind Amount. It is understood and agreed that the Calculation Agent may make adjustments to such price for the occurrence of any Market Disruption Event or Potential Adjustment Event during such two-day period (the **"VWAP Period"**).
- (c) For the avoidance of doubt, the parties agree that, except as provided for by this Termination Agreement, the Notes Repurchase shall be disregarded for all purposes under the Transactions, and without limiting the foregoing, no Early Termination Date shall be deemed to occur with respect to any Transaction or any portion thereof on account of the Notes Repurchase.

3. *Representations and Warranties of Counterparty.* Counterparty represents and warrants to Dealer on the date hereof that:

- (a) it has the power to execute this Termination Agreement and any other documentation relating to this Termination Agreement to which it is a party, to deliver this Termination Agreement and to perform its obligations under this Termination Agreement and has taken all necessary action to authorize such execution, delivery and performance;
- (b) the execution, delivery and performance by it does not violate or conflict with any law applicable to it (including, without limitation, Regulation M), any provision of its constitutional documents, any order or judgment of any court or other agency of government applicable to it or any of its assets or any material contractual restriction binding on or affecting it or any of its assets;
- (c) all governmental and other consents that are required to have been obtained by it with respect to this Termination Agreement have been obtained and are in full force and effect and all conditions of any such consents have been complied with;
- (d) its obligations under this Termination Agreement constitute its legal, valid and binding obligations, enforceable in accordance with their respective terms (subject to applicable bankruptcy, reorganization, insolvency, moratorium or similar laws affecting creditors' rights generally and subject, as to enforceability, to equitable principles of general application (regardless of whether enforcement is sought in a proceeding in equity or at law));

- (e) it is not in possession of any material nonpublic information regarding itself or the Shares, other than information regarding the Offerings;
- (f) it is not “insolvent” (as such term is defined under Section 101(32) of the U.S. Bankruptcy Code (Title 11 of the United States Code)) and it is able to consummate the Notes Repurchase in compliance with the laws of the jurisdiction of Counterparty’s incorporation;
- (g) it is not entering into this Termination Agreement to create actual or apparent trading activity in the Shares (or any security convertible into or exchangeable for the Shares) or to raise or depress or otherwise manipulate the price of the Shares (or any security convertible into or exchangeable for the Shares) or otherwise in violation of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”);
- (h) it is entering into this Termination Agreement in good faith and not as a part of a plan or scheme to evade the prohibitions of Rule 10b-5 under the Exchange Act;
- (i) other than with respect to the Offerings, it is not, and will not be at any time on or prior to the second Business Day following the relevant Effective Date, engaged in a distribution, as such term is used in Regulation M under the Exchange Act, of any securities of Counterparty, other than a distribution meeting the requirements of the exception set forth in Section 101(b)(10) or 102(b)(7) of Regulation M;
- (j) it will not take any action prohibited by Regulation M in connection with the distribution of the relevant securities offered by the Offerings; and
- (k) it acknowledges that execution of this Termination Agreement may constitute a purchase of its equity securities. It further acknowledges that, pursuant to the provisions of the Coronavirus Aid, Relief and Economic Security Act (the “**CARES Act**”), the Counterparty would be required to agree to certain time-bound restrictions on its ability to purchase its equity securities if it receives loans, loan guarantees or direct loans (as that term is defined in the CARES Act) under section 4003(b) of the CARES Act. It further acknowledges that it may be required to agree to certain time-bound restrictions on its ability to purchase its equity securities if it receives loans, loan guarantees or direct loans (as that term is defined in the CARES Act) under programs or facilities established by the Board of Governors of the Federal Reserve System for the purpose of providing liquidity to the financial system (together with loans, loan guarantees or direct loans under section 4003(b) of the CARES Act, “**Governmental Financial Assistance**”). Accordingly, it represents and warrants that it and its subsidiaries have not applied for, and prior to the termination of this Termination Agreement has no intention to apply for Governmental Financial Assistance under any governmental program or facility that (a) is established under the CARES Act or the Federal Reserve Act, as amended, and (b) requires, as a condition of such Governmental Financial Assistance, that the Counterparty agree, attest, certify or warrant that it has not, or otherwise be bound by law that it has not, as of the date specified in such condition, repurchased, or will not repurchase, any equity security of Counterparty.

4. *Representations and Warranties of Dealer.* Dealer represents and warrants to Counterparty on the date hereof that:

- (a) it has the power to execute this Termination Agreement and any other documentation relating to this Termination Agreement to which it is a party, to deliver this Termination Agreement and to perform its obligations under this Termination Agreement and has taken all necessary action to authorize such execution, delivery and performance;
- (b) the execution, delivery and performance by it does not violate or conflict with any law applicable to it, any provision of its constitutional documents, any order or judgment of

any court or other agency of government applicable to it or any of its assets or any material contractual restriction binding on or affecting it or any of its assets;

- (c) all governmental and other consents that are required to have been obtained by it with respect to this Termination Agreement have been obtained and are in full force and effect and all conditions of any such consents have been complied with; and
- (d) its obligations under this Termination Agreement constitute its legal, valid and binding obligations, enforceable in accordance with their respective terms (subject to applicable bankruptcy, reorganization, insolvency, moratorium or similar laws affecting creditors' rights generally and subject, as to enforceability, to equitable principles of general application (regardless of whether enforcement is sought in a proceeding in equity or at law)).

5. *Effectiveness.* This Termination Agreement shall become effective concurrently with the completion of the Notes Repurchase by Counterparty (such date, the "**Effective Date**").

6. *No Reliance.* Each of Counterparty and Dealer hereby confirms that it has relied on the advice of its own counsel and other advisors (to the extent it deems appropriate) with respect to any legal, tax, accounting, or regulatory consequences of this Termination Agreement, that it has not relied on the other party or such other party's affiliates in any respect in connection therewith, and that it will not hold the other party or such other party's affiliates accountable for any such consequences.

7. *Continuing Effect.* Except as expressly set forth in Section 2 above, all of the terms and provisions set forth in the Base Capped Call Confirmation shall remain and continue in full force and effect and are hereby confirmed in all respects.

8. *Jurisdiction; Waiver of Trial by Jury.*

- (a) With respect to any suit, action or proceedings relating to any dispute arising out of or in connection with this Termination Agreement ("**Proceedings**"), each party irrevocably (i) submits to the non-exclusive jurisdiction of the courts of the State of New York and the United States District Court located in the Borough of Manhattan in New York City, (ii) waives any objection which it may have at any time to the laying of venue of any Proceedings brought in any such court, waives any claim that such Proceedings have been brought in an inconvenient forum and further waives the right to object, with respect to such Proceedings, that such court does not have any jurisdiction over such party, and (iii) agrees, to the extent permitted by applicable law, that the bringing of Proceedings in any one or more jurisdictions will not preclude the bringing of Proceedings in any other jurisdiction.
- (b) Each party waives, to the fullest extent permitted by applicable law, any right it may have to a trial by jury in respect of any suit, action or proceeding relating to this Termination Agreement. Each party (i) certifies that no representative, agent or attorney of either party has represented, expressly or otherwise, that such other party would not, in the event of such a suit, action or proceeding, seek to enforce the foregoing waiver and (ii) acknowledges that it and the other party have been induced to enter into this Termination Agreement, as applicable, by, among other things, the mutual waivers and certifications provided herein.

9. *Governing Law.* This Termination Agreement and all matters arising in connection with this Termination Agreement shall be governed by and construed in accordance with the laws of the State of New York (without reference to choice of law doctrine).

10. *Counterparts.* This Termination Agreement (and any amendment, modification and waiver in respect of it) may be executed and delivered in counterparts, each of which will be deemed an original.

[End of Text]

IN WITNESS WHEREOF, the parties hereto have caused this Termination Agreement to be duly executed as of the date first written above.

Very truly yours,

CITIGROUP GLOBAL MARKETS INC.

By: /s/ Peter Barna

Name: Peter Barna

Title: Managing Director

ZILLOW GROUP, INC.

By: /s/ Allen Parker

Name: Allen Parker

Title: Chief Financial Officer

May 11, 2020

CAPPED CALL PARTIAL TERMINATION AGREEMENT

This CAPPED CALL PARTIAL TERMINATION AGREEMENT (this “**Termination Agreement**”) is made, by and between Goldman, Sachs & Co. (“**Dealer**”) and ZILLOW GROUP, INC. (“**Counterparty**”), as of the date hereof.

WHEREAS, on December 12, 2016, Counterparty issued \$460,000,000 principal amount of its 2.00% Convertible Senior Notes due 2021 (the “**Convertible Notes**”);

WHEREAS, in connection with the pricing of the Convertible Notes, Counterparty and Dealer, on December 6, 2016, entered into a letter agreement re: Base Call Option Transaction confirming the terms of a base call option transaction (such confirmation, the “**Base Capped Call Confirmation**” and such transaction the “**Base Capped Call Transaction**”);

WHEREAS, in connection with the exercise by the initial purchasers in the Convertible Notes offering of their right to purchase additional Convertible Notes, Counterparty and Dealer, on December 8, 2016, entered into a letter agreement re: Additional Call Option Transaction confirming the terms of an additional call option transaction (such confirmation, the “**Additional Capped Call Confirmation**” and together with the Base Capped Call Confirmation, the “**Confirmations**,” and such transaction the “**Additional Capped Call Transaction**” and together with the Base Capped Call Transaction, the “**Transactions**”);

WHEREAS, Counterparty intends to issue and sell shares of Counterparty’s Class C capital stock and convertible notes convertible into shares of Counterparty’s Class C capital in concurrent public offerings (the “**Offerings**”); and

WHEREAS, Counterparty intends to use a portion of the proceeds from the Offerings to repurchase an amount of Convertible Notes in \$1,000 denominations (the “**Notes Repurchase**” and such number of Convertible Notes in \$1,000 denominations, the “**Repurchase Number**”) and in connection therewith, Counterparty has requested a partial termination of the Transactions, and

NOW, THEREFORE, in consideration of their mutual covenants herein contained, the parties hereto, intending to be legally bound, hereby mutually covenant and agree as follows:

1. *Defined Terms.* Any capitalized term not otherwise defined herein shall have the meaning set forth for such term in the Confirmations.

2. *Termination and Amendment.*

(a) As of the Effective Date (as defined below):

(i) The Number of Options under the Transactions shall be reduced in the aggregate by the Repurchase Number;

(ii) The reduction to the Number of Options as set forth in clause (i) above shall be first allocated to the Additional Capped Call Confirmation and, to the extent there is a remainder of Number of Options to be reduced shall then be allocated to the Base Capped Call Confirmation. If the Number of Options under the Additional Capped Call Confirmation is reduced to zero pursuant to the foregoing sentence, the Additional Capped Call Confirmation shall be terminated in full, and all of the respective rights and obligations of the parties thereunder shall be cancelled and terminated, and each party shall be released and discharged by the other party, and agrees not to make any claim with respect to any obligations of the other party, in connection with the Additional Capped Call Confirmation.

- (b) In connection with the termination and amendment set forth in clause (a) above, no later than the second Exchange Business Day immediately following the last day of the VWAP Period (as defined below), Dealer shall deliver to Counterparty, for each Convertible Note included in the Repurchase Number, a number of Shares determined by Dealer in a commercially reasonable manner by calculating the amount payable (the “**Unwind Amount**”) to Counterparty under the Agreement as if an Early Termination Date had occurred as a result of an Additional Termination Event with respect to which Counterparty is the sole Affected Party in respect of such number of reduced Options on the date the Repurchase Number is determined and the related Note Repurchase is priced (the “**Note Repurchase Pricing Date**”) in respect of such number of reduced Options and dividing the Unwind Amount by the average of the per Share volume-weighted average prices as displayed under the heading “Bloomberg VWAP” on Bloomberg page “Z <equity> AQR” (or its equivalent successor if such page is not available) in respect of the period from the scheduled opening time of the Exchange to the Scheduled Closing Time on each of the two Exchange Business Days commencing on the Scheduled Trading Day immediately following the Note Repurchase Pricing Date (or if such volume-weighted average price is unavailable at such time, the market value of one Share on such Exchange Business Day, as determined by the Calculation Agent using, if practicable, a volume-weighted average method) (the “**Unwind Reference Price**”). For the avoidance of doubt, Dealer may use the Unwind Reference Price as one of the factors to determine the Unwind Amount. It is understood and agreed that the Calculation Agent may make adjustments to such price for the occurrence of any Market Disruption Event or Potential Adjustment Event during such two-day period (the “**VWAP Period**”).
- (c) For the avoidance of doubt, the parties agree that, except as provided for by this Termination Agreement, the Notes Repurchase shall be disregarded for all purposes under the Transactions, and without limiting the foregoing, no Early Termination Date shall be deemed to occur with respect to any Transaction or any portion thereof on account of the Notes Repurchase.

3. *Representations and Warranties of Counterparty.* Counterparty represents and warrants to Dealer on the date hereof that:

- (a) it has the power to execute this Termination Agreement and any other documentation relating to this Termination Agreement to which it is a party, to deliver this Termination Agreement and to perform its obligations under this Termination Agreement and has taken all necessary action to authorize such execution, delivery and performance;
- (b) the execution, delivery and performance by it does not violate or conflict with any law applicable to it (including, without limitation, Regulation M), any provision of its constitutional documents, any order or judgment of any court or other agency of government applicable to it or any of its assets or any material contractual restriction binding on or affecting it or any of its assets;
- (c) all governmental and other consents that are required to have been obtained by it with respect to this Termination Agreement have been obtained and are in full force and effect and all conditions of any such consents have been complied with;
- (d) its obligations under this Termination Agreement constitute its legal, valid and binding obligations, enforceable in accordance with their respective terms (subject to applicable bankruptcy, reorganization, insolvency, moratorium or similar laws affecting creditors’ rights generally and subject, as to enforceability, to equitable principles of general application (regardless of whether enforcement is sought in a proceeding in equity or at law));

- (e) it is not in possession of any material nonpublic information regarding itself or the Shares, other than information regarding the Offerings;
- (f) it is not “insolvent” (as such term is defined under Section 101(32) of the U.S. Bankruptcy Code (Title 11 of the United States Code)) and it is able to consummate the Notes Repurchase in compliance with the laws of the jurisdiction of Counterparty’s incorporation;
- (g) it is not entering into this Termination Agreement to create actual or apparent trading activity in the Shares (or any security convertible into or exchangeable for the Shares) or to raise or depress or otherwise manipulate the price of the Shares (or any security convertible into or exchangeable for the Shares) or otherwise in violation of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”);
- (h) it is entering into this Termination Agreement in good faith and not as a part of a plan or scheme to evade the prohibitions of Rule 10b-5 under the Exchange Act;
- (i) other than with respect to the Offerings, it is not, and will not be at any time on or prior to the second Business Day following the relevant Effective Date, engaged in a distribution, as such term is used in Regulation M under the Exchange Act, of any securities of Counterparty, other than a distribution meeting the requirements of the exception set forth in Section 101(b)(10) or 102(b)(7) of Regulation M;
- (j) it will not take any action prohibited by Regulation M in connection with the distribution of the relevant securities offered by the Offerings; and
- (k) it acknowledges that execution of this Termination Agreement may constitute a purchase of its equity securities. It further acknowledges that, pursuant to the provisions of the Coronavirus Aid, Relief and Economic Security Act (the “**CARES Act**”), the Counterparty would be required to agree to certain time-bound restrictions on its ability to purchase its equity securities if it receives loans, loan guarantees or direct loans (as that term is defined in the CARES Act) under section 4003(b) of the CARES Act. It further acknowledges that it may be required to agree to certain time-bound restrictions on its ability to purchase its equity securities if it receives loans, loan guarantees or direct loans (as that term is defined in the CARES Act) under programs or facilities established by the Board of Governors of the Federal Reserve System for the purpose of providing liquidity to the financial system (together with loans, loan guarantees or direct loans under section 4003(b) of the CARES Act, “**Governmental Financial Assistance**”). Accordingly, it represents and warrants that it and its subsidiaries have not applied for, and prior to the termination of this Termination Agreement has no intention to apply for Governmental Financial Assistance under any governmental program or facility that (a) is established under the CARES Act or the Federal Reserve Act, as amended, and (b) requires, as a condition of such Governmental Financial Assistance, that the Counterparty agree, attest, certify or warrant that it has not, or otherwise be bound by law that it has not, as of the date specified in such condition, repurchased, or will not repurchase, any equity security of Counterparty.

4. *Representations and Warranties of Dealer.* Dealer represents and warrants to Counterparty on the date hereof that:

- (a) it has the power to execute this Termination Agreement and any other documentation relating to this Termination Agreement to which it is a party, to deliver this Termination Agreement and to perform its obligations under this Termination Agreement and has taken all necessary action to authorize such execution, delivery and performance;
- (b) the execution, delivery and performance by it does not violate or conflict with any law applicable to it, any provision of its constitutional documents, any order or judgment of

any court or other agency of government applicable to it or any of its assets or any material contractual restriction binding on or affecting it or any of its assets;

- (c) all governmental and other consents that are required to have been obtained by it with respect to this Termination Agreement have been obtained and are in full force and effect and all conditions of any such consents have been complied with; and
- (d) its obligations under this Termination Agreement constitute its legal, valid and binding obligations, enforceable in accordance with their respective terms (subject to applicable bankruptcy, reorganization, insolvency, moratorium or similar laws affecting creditors' rights generally and subject, as to enforceability, to equitable principles of general application (regardless of whether enforcement is sought in a proceeding in equity or at law)).

5. *Effectiveness.* This Termination Agreement shall become effective concurrently with the completion of the Notes Repurchase by Counterparty (such date, the "**Effective Date**").

6. *No Reliance.* Each of Counterparty and Dealer hereby confirms that it has relied on the advice of its own counsel and other advisors (to the extent it deems appropriate) with respect to any legal, tax, accounting, or regulatory consequences of this Termination Agreement, that it has not relied on the other party or such other party's affiliates in any respect in connection therewith, and that it will not hold the other party or such other party's affiliates accountable for any such consequences.

7. *Continuing Effect.* Except as expressly set forth in Section 2 above, all of the terms and provisions set forth in the Base Capped Call Confirmation shall remain and continue in full force and effect and are hereby confirmed in all respects.

8. *Jurisdiction; Waiver of Trial by Jury.*

- (a) With respect to any suit, action or proceedings relating to any dispute arising out of or in connection with this Termination Agreement ("**Proceedings**"), each party irrevocably (i) submits to the non-exclusive jurisdiction of the courts of the State of New York and the United States District Court located in the Borough of Manhattan in New York City, (ii) waives any objection which it may have at any time to the laying of venue of any Proceedings brought in any such court, waives any claim that such Proceedings have been brought in an inconvenient forum and further waives the right to object, with respect to such Proceedings, that such court does not have any jurisdiction over such party, and (iii) agrees, to the extent permitted by applicable law, that the bringing of Proceedings in any one or more jurisdictions will not preclude the bringing of Proceedings in any other jurisdiction.
- (b) Each party waives, to the fullest extent permitted by applicable law, any right it may have to a trial by jury in respect of any suit, action or proceeding relating to this Termination Agreement. Each party (i) certifies that no representative, agent or attorney of either party has represented, expressly or otherwise, that such other party would not, in the event of such a suit, action or proceeding, seek to enforce the foregoing waiver and (ii) acknowledges that it and the other party have been induced to enter into this Termination Agreement, as applicable, by, among other things, the mutual waivers and certifications provided herein.

9. *Governing Law.* This Termination Agreement and all matters arising in connection with this Termination Agreement shall be governed by and construed in accordance with the laws of the State of New York (without reference to choice of law doctrine).

10. *Counterparts.* This Termination Agreement (and any amendment, modification and waiver in respect of it) may be executed and delivered in counterparts, each of which will be deemed an original.

[End of Text]

IN WITNESS WHEREOF, the parties hereto have caused this Termination Agreement to be duly executed as of the date first written above.

Very truly yours,

GOLDMAN SACHS & CO.

By: /s/ Michael Voris

Name: Michael Voris

Title: Managing Director

ZILLOW GROUP, INC.

By: /s/ Allen Parker

Name: Allen Parker

Title: Chief Financial Officer

May 13, 2020

CAPPED CALL PARTIAL TERMINATION AGREEMENT

This CAPPED CALL PARTIAL TERMINATION AGREEMENT (this "**Termination Agreement**") is made, by and between Bank of America, N.A. ("**Dealer**") and ZILLOW GROUP, INC. ("**Counterparty**"), as of the date hereof.

WHEREAS, on December 12, 2016, Counterparty issued \$460,000,000 principal amount of its 2.00% Convertible Senior Notes due 2021 (the "**Convertible Notes**");

WHEREAS, in connection with the pricing of the Convertible Notes, Counterparty and Dealer, on December 6, 2016, entered into a letter agreement re: Base Call Option Transaction confirming the terms of a base call option transaction (such confirmation, the "**Base Capped Call Confirmation**" and such transaction the "**Base Capped Call Transaction**");

WHEREAS, in connection with the exercise by the initial purchasers in the Convertible Notes offering of their right to purchase additional Convertible Notes, Counterparty and Dealer, on December 8, 2016, entered into a letter agreement re: Additional Call Option Transaction confirming the terms of an additional call option transaction (such confirmation, the "**Additional Capped Call Confirmation**" and together with the Base Capped Call Confirmation, the "**Confirmations**," and such transaction the "**Additional Capped Call Transaction**" and together with the Base Capped Call Transaction, the "**Transactions**");

WHEREAS, on May 12, 2020, Counterparty agreed to issue and sell shares of Counterparty's Class C capital stock and convertible notes convertible into shares of Counterparty's Class C capital in concurrent public offerings (the "**Offerings**"); and

WHEREAS, Counterparty has agreed to use \$194,670,000 from the proceeds from the Offerings to repurchase an amount of Convertible Notes in \$1,000 denominations (the "**Notes Repurchase**" and such number of Convertible Notes in \$1,000 denominations, the "**Repurchase Number**") and in connection therewith, Counterparty has requested a partial termination of the Transactions, and

NOW, THEREFORE, in consideration of their mutual covenants herein contained, the parties hereto, intending to be legally bound, hereby mutually covenant and agree as follows:

1. *Defined Terms.* Any capitalized term not otherwise defined herein shall have the meaning set forth for such term in the Confirmations.

2. *Termination and Amendment.*

(a) As of the Effective Date (as defined below):

(i) The Number of Options under the Transactions shall be reduced in the aggregate by the Repurchase Number;

(ii) The reduction to the Number of Options as set forth in clause (i) above shall be first allocated to the Additional Capped Call Confirmation and, to the extent there is a remainder of Number of Options to be reduced shall then be allocated to the Base Capped Call Confirmation. If the Number of Options under the Additional Capped Call Confirmation is reduced to zero pursuant to the foregoing sentence, the Additional Capped Call Confirmation shall be terminated in full, and all of the respective rights and obligations of the parties thereunder shall be cancelled and terminated, and each party shall be released and discharged by the other party, and agrees not to make any claim with respect to any obligations of the other party, in connection with the Additional Capped Call Confirmation.

- (b) In connection with the termination and amendment set forth in clause (a) above, no later than the second Exchange Business Day immediately following the last day of the VWAP Period (as defined below), Dealer shall deliver to Counterparty a number of Shares determined by Dealer in a commercially reasonable manner by calculating the amount payable (the “**Unwind Amount**”) to Counterparty under the Agreement as if an Early Termination Date had occurred on the date hereof as a result of an Additional Termination Event with respect to which Counterparty is the sole Affected Party in respect of such number of reduced Options and dividing the Unwind Amount by the average of the per Share volume-weighted average prices as displayed under the heading “Bloomberg VWAP” on Bloomberg page “Z <equity> AQR” (or its equivalent successor if such page is not available) in respect of the period from the scheduled opening time of the Exchange to the Scheduled Closing Time on each of the two Exchange Business Days commencing on the date hereof (or if such volume-weighted average price is unavailable at such time, the market value of one Share on such Exchange Business Day, as determined by the Calculation Agent using, if practicable, a volume-weighted average method) (the “**Unwind Reference Price**”). For the avoidance of doubt, Dealer may use the Unwind Reference Price as one of the factors to determine the Unwind Amount. It is understood and agreed that the Calculation Agent may make adjustments to such price for the occurrence of any Market Disruption Event or Potential Adjustment Event during such two-day period (the “**VWAP Period**”).
- (c) For the avoidance of doubt, the parties agree that, except as provided for by this Termination Agreement, the Notes Repurchase shall be disregarded for all purposes under the Transactions, and without limiting the foregoing, no Early Termination Date shall be deemed to occur with respect to any Transaction or any portion thereof on account of the Notes Repurchase.

3. *Representations and Warranties of Counterparty.* Counterparty represents and warrants to Dealer on the date hereof that:

- (a) it has the power to execute this Termination Agreement and any other documentation relating to this Termination Agreement to which it is a party, to deliver this Termination Agreement and to perform its obligations under this Termination Agreement and has taken all necessary action to authorize such execution, delivery and performance;
- (b) the execution, delivery and performance by it does not violate or conflict with any law applicable to it (including, without limitation, Regulation M), any provision of its constitutional documents, any order or judgment of any court or other agency of government applicable to it or any of its assets or any material contractual restriction binding on or affecting it or any of its assets;
- (c) all governmental and other consents that are required to have been obtained by it with respect to this Termination Agreement have been obtained and are in full force and effect and all conditions of any such consents have been complied with;
- (d) its obligations under this Termination Agreement constitute its legal, valid and binding obligations, enforceable in accordance with their respective terms (subject to applicable bankruptcy, reorganization, insolvency, moratorium or similar laws affecting creditors’ rights generally and subject, as to enforceability, to equitable principles of general application (regardless of whether enforcement is sought in a proceeding in equity or at law));
- (e) it is not in possession of any material nonpublic information regarding itself or the Shares;
- (f) it is not “insolvent” (as such term is defined under Section 101(32) of the U.S. Bankruptcy Code (Title 11 of the United States Code)) and it is able to consummate the Notes

Repurchase in compliance with the laws of the jurisdiction of Counterparty's incorporation;

- (g) it is not entering into this Termination Agreement to create actual or apparent trading activity in the Shares (or any security convertible into or exchangeable for the Shares) or to raise or depress or otherwise manipulate the price of the Shares (or any security convertible into or exchangeable for the Shares) or otherwise in violation of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**");
- (h) it is entering into this Termination Agreement in good faith and not as a part of a plan or scheme to evade the prohibitions of Rule 10b-5 under the Exchange Act;
- (i) other than with respect to the Offerings, it is not, and will not be at any time on or prior to the second Business Day following the relevant Effective Date, engaged in a distribution, as such term is used in Regulation M under the Exchange Act, of any securities of Counterparty, other than a distribution meeting the requirements of the exception set forth in Section 101(b)(10) or 102(b)(7) of Regulation M;
- (j) it will not take any action prohibited by Regulation M in connection with the distribution of the relevant securities offered by the Offerings; and
- (k) it acknowledges that execution of this Termination Agreement may constitute a purchase of its equity securities. It further acknowledges that, pursuant to the provisions of the Coronavirus Aid, Relief and Economic Security Act (the "**CARES Act**"), the Counterparty would be required to agree to certain time-bound restrictions on its ability to purchase its equity securities if it receives loans, loan guarantees or direct loans (as that term is defined in the CARES Act) under section 4003(b) of the CARES Act. It further acknowledges that it may be required to agree to certain time-bound restrictions on its ability to purchase its equity securities if it receives loans, loan guarantees or direct loans (as that term is defined in the CARES Act) under programs or facilities established by the Board of Governors of the Federal Reserve System for the purpose of providing liquidity to the financial system (together with loans, loan guarantees or direct loans under section 4003(b) of the CARES Act, "**Governmental Financial Assistance**"). Accordingly, it represents and warrants that it and its subsidiaries have not applied for, and prior to the termination of this Termination Agreement has no intention to apply for Governmental Financial Assistance under any governmental program or facility that (a) is established under the CARES Act or the Federal Reserve Act, as amended, and (b) requires, as a condition of such Governmental Financial Assistance, that the Counterparty agree, attest, certify or warrant that it has not, or otherwise be bound by law that it has not, as of the date specified in such condition, repurchased, or will not repurchase, any equity security of Counterparty.

4. *Representations and Warranties of Dealer.* Dealer represents and warrants to Counterparty on the date hereof that:

- (a) it has the power to execute this Termination Agreement and any other documentation relating to this Termination Agreement to which it is a party, to deliver this Termination Agreement and to perform its obligations under this Termination Agreement and has taken all necessary action to authorize such execution, delivery and performance;
- (b) the execution, delivery and performance by it does not violate or conflict with any law applicable to it, any provision of its constitutional documents, any order or judgment of any court or other agency of government applicable to it or any of its assets or any material contractual restriction binding on or affecting it or any of its assets;

- (c) all governmental and other consents that are required to have been obtained by it with respect to this Termination Agreement have been obtained and are in full force and effect and all conditions of any such consents have been complied with; and
- (d) its obligations under this Termination Agreement constitute its legal, valid and binding obligations, enforceable in accordance with their respective terms (subject to applicable bankruptcy, reorganization, insolvency, moratorium or similar laws affecting creditors' rights generally and subject, as to enforceability, to equitable principles of general application (regardless of whether enforcement is sought in a proceeding in equity or at law)).

5. *Effectiveness.* This Termination Agreement shall become effective concurrently with the completion of the Notes Repurchase by Counterparty (such date, the "**Effective Date**").

6. *No Reliance.* Each of Counterparty and Dealer hereby confirms that it has relied on the advice of its own counsel and other advisors (to the extent it deems appropriate) with respect to any legal, tax, accounting, or regulatory consequences of this Termination Agreement, that it has not relied on the other party or such other party's affiliates in any respect in connection therewith, and that it will not hold the other party or such other party's affiliates accountable for any such consequences.

7. *Continuing Effect.* Except as expressly set forth in Section 2 above, all of the terms and provisions set forth in the Base Capped Call Confirmation shall remain and continue in full force and effect and are hereby confirmed in all respects.

8. *Jurisdiction; Waiver of Trial by Jury.*

- (a) With respect to any suit, action or proceedings relating to any dispute arising out of or in connection with this Termination Agreement ("**Proceedings**"), each party irrevocably (i) submits to the non-exclusive jurisdiction of the courts of the State of New York and the United States District Court located in the Borough of Manhattan in New York City, (ii) waives any objection which it may have at any time to the laying of venue of any Proceedings brought in any such court, waives any claim that such Proceedings have been brought in an inconvenient forum and further waives the right to object, with respect to such Proceedings, that such court does not have any jurisdiction over such party, and (iii) agrees, to the extent permitted by applicable law, that the bringing of Proceedings in any one or more jurisdictions will not preclude the bringing of Proceedings in any other jurisdiction.
- (b) Each party waives, to the fullest extent permitted by applicable law, any right it may have to a trial by jury in respect of any suit, action or proceeding relating to this Termination Agreement. Each party (i) certifies that no representative, agent or attorney of either party has represented, expressly or otherwise, that such other party would not, in the event of such a suit, action or proceeding, seek to enforce the foregoing waiver and (ii) acknowledges that it and the other party have been induced to enter into this Termination Agreement, as applicable, by, among other things, the mutual waivers and certifications provided herein.

9. *Governing Law.* This Termination Agreement and all matters arising in connection with this Termination Agreement shall be governed by and construed in accordance with the laws of the State of New York (without reference to choice of law doctrine).

10. *Counterparts.* This Termination Agreement (and any amendment, modification and waiver in respect of it) may be executed and delivered in counterparts, each of which will be deemed an original.

[End of Text]

IN WITNESS WHEREOF, the parties hereto have caused this Termination Agreement to be duly executed as of the date first written above.

Very truly yours,

BANK OF AMERICA, N.A.

By: /s/ Chris Hutmaker

Name: Chris Hutmaker

Title: Managing Director

ZILLOW GROUP, INC.

By: /s/ Allen Parker

Name: Allen Parker

Title: Chief Financial Officer

SUBSIDIARIES OF ZILLOW GROUP, INC.

The following is a list of subsidiaries of the company as of December 31, 2020, omitting subsidiaries which, considered in the aggregate, would not constitute a significant subsidiary.

Name	Place of Organization
Zillow, Inc.	Washington Corporation
ZGM Holdco, Inc.	Washington Corporation
Signpost Homes, Inc.	Washington Corporation
Zillow Homes, Inc.	Delaware Corporation
Zillow Home Loans, LLC	Kansas Limited Liability Company
SPH Property One, LLC	Delaware Limited Liability Company
SPH Property Two, LLC	Delaware Limited Liability Company
SPH Property Three, LLC	Delaware Limited Liability Company
SPH One, LLLP	Delaware Limited Liability Limited Partnership
SPH Two, LLLP	Delaware Limited Liability Limited Partnership
SPH Three, LLLP	Delaware Limited Liability Limited Partnership

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-225918 on Form S-3, Registration Statement No. 333-198695 on Form S-4, and Registration Statement Nos. 333-202132, 333-206434, 333-206512, 333-209951, 333-212933, 333-216002, 333-223045, 333-229772, 333-233105, 333-236524, and 333-238077 on Form S-8 of our reports dated February 12, 2021, relating to the financial statements of Zillow Group, Inc. (“the Company”) and the effectiveness of the Company’s internal control over financial reporting, appearing in this Annual Report on Form 10-K of the Company for the year ended December 31, 2020.

/s/ DELOITTE & TOUCHE LLP

Seattle, Washington
February 12, 2021

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302(a) OF THE SARBANES-OXLEY ACT OF 2002**

I, Richard Barton, certify that:

1. I have reviewed this Annual Report on Form 10-K of Zillow Group, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer 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.

ZILLOW GROUP, INC.

Date: February 12, 2021

By: /s/ RICHARD BARTON
 Name: Richard Barton
 Title: Chief Executive Officer

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302(a) OF THE SARBANES-OXLEY ACT OF 2002**

I, Allen Parker, certify that:

1. I have reviewed this Annual Report on Form 10-K of Zillow Group, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer 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.

ZILLOW GROUP, INC.

Date: February 12, 2021

By: /s/ ALLEN PARKER
Name: Allen Parker
Title: Chief Financial Officer

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Zillow Group, Inc. (the "Company") on Form 10-K for the fiscal year ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Richard Barton, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

ZILLOW GROUP, INC.

Date: February 12, 2021

By: /s/ RICHARD BARTON
Name: Richard Barton
Title: Chief Executive Officer

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Zillow Group, Inc. (the "Company") on Form 10-K for the fiscal year ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Allen Parker, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

ZILLOW GROUP, INC.

Date: February 12, 2021

By: /s/ ALLEN PARKER
Name: Allen Parker
Title: Chief Financial Officer