
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, 2021
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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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, 2021, 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 \$27,432,567,930.

As of February 4, 2022, 61,521,484 shares of Class A common stock, 6,217,447 shares of Class B common stock, and 182,933,088 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 by reference to the Registrant's definitive proxy statement relating to the 2022 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 2021 fiscal year.

ZILLOW GROUP, INC.
Annual Report on Form 10-K
for the Fiscal Year Ended December 31, 2021

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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:

- disruptions in operations (including in our ability to complete the disposition of homes in inventory), and relationships with customers, suppliers, vendors, broker partners, contractors, employees, lenders and customers given our decision to wind down Zillow Offers operations;
- unanticipated developments that may prevent, delay or increase the costs associated with our wind down activities;
- our access to and the availability of financing on terms acceptable to us to finance the purchase of homes through Zillow Offers during the wind down of Zillow Offers operations;
- the impact of the COVID-19 pandemic (including variants) 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 (including variants) and the availability, widespread distribution, use and efficacy of vaccines;
- the impact of actions taken by governments, businesses and individuals in response to the COVID-19 pandemic (including variants), 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 (including variants);
- 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 (including variants);
- 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 rates of growth and innovation 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 protect the information and privacy of our customers and other third parties;
- ability to protect our brand and intellectual property;
- 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 origination 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 or regulatory actions; 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. As the most visited real estate website in the United States, Zillow and its affiliates help high-intent movers find and win their home through digital solutions, first class partners and easier buying, selling, financing and renting experiences. Millions of people visit our mobile applications and websites every month to begin their journey. Traffic to our services reached an annual monthly high of 234 million unique users in July 2021, with more than 10.2 billion visits to our mobile applications and websites in 2021, primarily to Zillow, Trulia and StreetEasy.

At the core of Zillow is our 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 home value estimates. With the launch of the Zestimate in 2006, we introduced important transparency to residential real estate in order to empower consumers to make better decisions. Our improved Zestimate currently has a median absolute percent error of 2.65% for homes listed for sale and 7.26% for off-market homes. Our data and content has helped the Zillow brand become synonymous with residential real estate. Today, more people search for "Zillow" than "real estate," according to a 2021 Google Trends report, and Zillow is the most visited brand in the online real estate industry according to a 2021 Comscore Media Metrix® report.

Our position as the leading online residential real estate company in the United States today has afforded us the opportunity to significantly expand our strategy over the past several years. We have evolved from an advertising lead generation model to a transactional model that is more directly involved with our customers' moving journeys. With that, our strategic expansion has dramatically increased our Total Addressable Market ("TAM") from \$19 billion in residential real estate related advertising (according to a 2019 Borrell Associates report) to approximately \$300 billion of the \$2 trillion residential real estate market, derived from transaction fees from our real estate partners, advertising from rental professionals, and revenue earned from mortgage originations and title and escrow service fees (according to the National Association of REALTORS® U.S. Economic Outlook published in November 2021, Fortune Business Insights 2021 Property Management Market Size Report and the Mortgage Bankers Association® 2020 Production Volume Report, respectively).

We meet our customers primarily on our mobile applications and websites, where we help them find their next home and make their moving experience easier. We do this through a combination of trusted partners – Premier Agents, property managers, lenders, and homebuilders – as well as directly-owned transaction services including Zillow Home Loans and Zillow Closing Services. As a company, going forward we plan to focus on growing customer transactions and revenue per customer transaction, which we define as Premier Agent, Zillow Home Loans and Zillow Closing Services revenue divided by the number of customer transactions during the relevant period, excluding those customer transactions and revenue attributable to Zillow Offers. We believe excluding transactions and revenue attributable to Zillow Offers enables management and investors to better understand and monitor the health and performance of Zillow Group's continuing transaction-based lines of business while controlling for impacts from Zillow Offers. For purposes of calculating revenue per customer transaction, a "customer transaction" includes each unique purchase or sale transaction in which the home buyer or seller uses Zillow Home Loans, Zillow Closing Services and/or involves a Premier Agent that they connected with through Zillow Group. We expect to provide additional information about customer transactions and revenue per customer transaction in future periods as it becomes relevant to investors and others' assessment of our financial condition and results of operations following the wind down of Zillow Offers. This focus allows us to build closer relationships with our customers to help them find and move into the places they call home, which is at the core of our mission. As we move forward, we plan to continue to build on the strong foundation of our established real estate marketplaces as we strive to grow customer transactions and revenue per transaction.

We have organized our business into three segments, the Homes segment, the Internet, Media & Technology ("IMT") segment and the Mortgages segment. 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. On November 2, 2021, we made the determination to wind down Zillow Offers operations within the Homes segment. As a result of this decision, we plan to report Zillow Offers as a discontinued operation beginning with the period during which disposition of the business is complete. The IMT segment includes the financial results for the Premier Agent, rentals and new construction marketplaces, dotloop, ShowingTime, display and other advertising and business software solutions. The Mortgages segment

primarily includes financial results for mortgage originations through Zillow Home Loans and advertising sold to mortgage lenders and other mortgage professionals.

Customer Offerings

To deliver on our mission, we strive to provide a seamless, integrated transaction experience for movers through Zillow, our network of trusted partners, and affiliated brands. 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 2021 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, two in five plan to buy their next home.

Our services are primarily designed for the following:

For Buyers and Sellers – When a buyer or seller is ready to meet with a local real estate professional after searching for a home on our mobile applications and websites, we 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. Our customers can also facilitate a seamless transaction with financing through Zillow Home Loans and adjacent title and escrow services through Zillow Closing Services.

For Renters – Over 32% more households move to a new rental than homes are sold in the U.S. annually, (over 9.2 million leases executed, according to the 2020 American Community Survey versus 6.9 million homes sold, derived of 6.1 million existing homes sold and 763 thousand new homes sold, according to 2021 economic data from the Federal Reserve Bank of St. Louis), 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 2021 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 2021 National Association of REALTORS® “2021 Home Buyers and Sellers Generational Trends Report,” approximately 87% 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 is currently available in 46 states and jurisdictions, 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 monthly high of 234 million unique users in July 2021 and more than 10.2 billion visits in 2021. Our master brand “Zillow” is searched more often than “real estate,” according to a 2021 Google Trends report, and has become the most trusted brand in the online real estate industry, according to the Comscore Media Metrix®. Our large and engaged audience and brand trust keeps our customer acquisition costs low.
- **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 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 38 million property records. This data is the foundation of our proprietary Zestimate, Rent Zestimate, Zestimate Forecast and Zillow Home Value Index. In 2021, we launched significant upgrades to our Zestimate home valuation model. The changes allowed the Zestimate algorithm to react more quickly to current market trends and improved the national median error rate of 2.65% for homes listed for sale and 7.26% for off-market homes. The algorithm now leverages neural networks, the latest machine learning approach, and incorporates deeper history of property data such as sales transactions, tax assessments and public records, in addition to home details such as square footage and location. In 2021, Zillow also became a licensed brokerage, giving us access to higher-quality, real-time data from multiple listing services (“MLSs”) around the U.S. via a significantly lower number of data feeds.

- *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, regional MLSs and more. Our partnership with the MLSs was enhanced in 2021 when Zillow became a licensed brokerage entity. As we focus on real estate 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.
- *Engaged customers.* Zillow is the leader in online residential real estate in the United States today, with the largest brand awareness and audience and the highest level of customer trust, and is uniquely positioned to address customer needs. With an annual average of approximately 200 million average monthly unique users, successful Premier Agent network and integrated residential housing and rental platform, Zillow is number one in brand awareness and audience trust. Of the estimated 6.1 million home buyers each year we estimate that approximately 4.1 million shopped using Zillow.
- *Experienced, Proven Management Team.* We have a highly experienced management team who have successfully built Zillow and other brands into category leaders. 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 2021” with a score of 100 and “Best Place to Work for LGBTQ Equality” by the Human Rights Campaign Foundation. Additionally, in 2021, Zillow Group was named one of the Best Workplaces in the technology industry for Millennials, for Parents, for Women, 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® 2021 and was included on Bloomberg’s “2021 Gender Equality Index”.
- *Solid Financial Position.* Zillow has a flexible 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 move towards a transactional model focused on helping customers move, we estimate our TAM has expanded from \$19 billion in U.S. residential real estate related advertising in 2019 (according to a Borrell Association report) to nearly \$300 billion. Our TAM includes Zillow’s estimate of over \$100 billion in referral fees derived from participating in real estate transactions with our partners (based on the 2021 National Association of REALTORS® U.S. Economic Outlook published in November 2021). In addition, we provide important adjacent services, including mortgages through Zillow Home Loans and title and escrow closing services through Zillow Closing Services. U.S. mortgage origination revenue represents a \$155 billion annual opportunity (according to a 2021 Mortgage Bankers Association Report), while title and escrow represents a combined \$26 billion annual opportunity (according to an American Land and Title press release dated April 7, 2021 and a report by Doma Holdings, Inc. published in May 2021).

With nearly half of all people looking to buy also considering renting (according to the Zillow Group 2021 Consumer Housing Trends Report), our TAM also includes our complementary rentals marketplace which we estimate participates in nearly \$11 billion of estimated annual rentals advertising spend. We also participate in the nearly \$5.0 billion annual property management software industry (according to a May 2021 report published by Fortune Business Insights). Our rentals marketplace assists our partners with listings, advertising and leasing services in a market of nearly 47 million rental units in the U.S. (according to the 2021 U.S. Census’ Current Population Survey).

We also may explore additional opportunities in the future, including but not limited to home insurance (\$119 billion TAM according to an IBISWorld report published in August 2021), home renovation services (\$595 billion TAM according to a 2021 report published by Angi Inc.), moving services (nearly \$18 billion TAM according to an IBISWorld report published in September 2021) and home appraisal services (over \$9 billion TAM according to IBIS World in May 2021). The amounts listed represent the estimated total industry size associated with these opportunities.

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 and new entrants joining at a rapid pace. According to the Federal Reserve Economic Data, 6.9 million existing and new homes were sold in the U.S. in 2021, with over 202 thousand real estate brokerages (according to the National Association of REALTORS®) and over 57 thousand mortgage lenders (according to the 2021 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 2021). Zillow Home Loans currently 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 Premier Agent business competes for customers based on price, visibility and level of service provided by companies selling online advertising in the real estate industry. 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, 2021, we have 62 patents of varying lengths issued and 109 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 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, 2021, we had 8,005 full-time employees. Our internal data shows that 51% of our workforce self-identified as men and 49% self-identified as women, with women representing 37% of our leadership team (defined as director level and above). The ethnicity of our workforce was 59% White, 18% Asian, 9% LatinX, 9% Black and 4% for all other races. For leadership, the breakdown was 74% White, 15% Asian, 5% Black, 3% LatinX and 3% for all other races. The diversity of our workforce and leadership team continues to be an area of focus.

In connection with the wind down of Zillow Offers operations announced on November 2, 2021, we expect to reduce our workforce by approximately 25%, which reductions will primarily go into effect during the first half of 2022.

Zillow as a Flexible Workforce

Our focus on employees throughout 2021 has been critically important in light of the unique challenges brought on by the COVID-19 pandemic. We are redefining the employee experience and the future of flexible work, beginning with our announcement of a permanent move to a flexible workforce in late 2020. In addition, we updated our compensation philosophy to view our roles competitively nationally and not just locally, connecting to our flexible work philosophy of employees being able to work from anywhere. In 2021, to better align with Zillow's movement to a flexible workforce, we updated our base pay compensation frameworks to prioritize performance over geographic location when making pay decisions. As we have transitioned to a flexible 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, though on a far less frequent basis. In 2021, we redesigned our physical workspaces to provide more space for collaboration and engagement, especially to support team gatherings.

We are also restructuring our flexible work model to more effectively use our time together, provide more opportunities to work asynchronously, and allow all employees to thrive regardless of location. By implementing company-wide core collaboration hours and flexible working hours to enable employees to build their work life around their home life, we are resetting the expectation of availability and providing greater flexibility in how we work. In 2022, our focus will be on developing additional working norms that increase productivity while also supporting mental and physical health.

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

Zillow Group is committed to ensuring all employees in similar roles with similar qualifications are paid equitably regardless of their identity. In support of this commitment, we complete a comprehensive annual evaluation with the commitment to disclose results publicly on our corporate website. Based on our assessment of compensation in 2021, we have found that women and men with similar skills are paid within approximately 1% of each other when we control for job title, function and location. In 2021, White women, Black men and LatinX men at Zillow Group had controlled pay of \$0.99 and

Black and LatinX women had controlled pay of \$0.98. Asian women and men at Zillow Group had pay equity of \$1.01 and \$1.02, respectively.

While intersectionality of gender and ethnicity in our pay equity data is something we began assessing in 2020 and progress has been shown, we cannot ignore the disparities and recognize our work is far from over. We will continue our commitment and comprehensive reviews of pay equity and will look to expand our data collection and analysis to include LGBTQ+ data in the future. We were included in the 2021 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 Group, 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 Talent Success team, which creates educational resources and conducts training on a wide range of topics including job-specific onboarding, effective communication, collaboration, as well as sophisticated leadership training programs and experiences with focused learning tracks for both new managers and experienced leaders. In 2021, we offered over 1,100 online learning opportunities through Zillow University. Zillow Group employees have completed nearly 92,000 hours of content in the past year on Zillow University and LinkedIn Learning.

A key piece in development is cultivating a learning culture where learning is a habit, and learning agility is at the forefront. This means creating the right learning resources for our employees for their current and future roles. We have developed a robust Learning & Development portfolio that includes a number of key career development programs that support our employees to equip them with the knowledge and experience to grow their careers. Below is a summary of certain of these programs:

- Leadership Entrance Experience Program (LEEP) is designed for individual contributors who want to explore people management and develop their leadership skills.
- Career Pathways Program provides employees with access to skills, connections and experiences aimed at creating development opportunities through cross-functional roles.
- Professional skills development through courses like Crucial Conversations, Insights Discovery® workshops, and access to virtual coaching.

Our people managers play a critical role in moving our business forward by coaching their team, developing their talent and providing strong communication to create team engagement. To help achieve this goal, we utilize our Leadership Blueprint, a 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 Group. The Blueprint provides the foundation of our leadership development programs. Twice a year, employees are given the opportunity to provide valuable information about how their manager is demonstrating our Leadership Expectations and the feedback provided is incorporated into their manager's overall performance evaluation for the year.

In 2021, we launched programming for Zillow Group women executives, which aims to build better relationships and connections and provide additional professional and leadership development. To ensure an even smoother transition from Senior Director roles to Vice President, we are now providing new executives with additional support, including an executive coach and access to senior executive leadership roundtable discussions. Externally hired executives are also provided with extra tools and support to ensure their success. 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 2021, we continued to refine our rewards program in support of a flexible workforce, launching new base pay frameworks which mitigated pay impacts to employees choosing to move locations within a given country. In addition, our robust 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.

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 (<https://investors.zillowgroup.com>)
- Zillow Group Blog (<https://www.zillowgroup.com/news/>)
- 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 and reflects current updated channels as of the date of this Annual Report on Form 10-K. 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 we believe 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 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 (including variants) 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, widespread distribution, use and efficacy of vaccines.
- Our business may be impacted by the current and future health and stability of the economy and residential real estate industry, including any extended slowdown in the real estate markets as a result of COVID-19 (including variants).
- 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 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.
- 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 and general market 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 and other disputes or enforcement actions 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.
- 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.

Risks Related to Our Zillow Offers Operations and Wind Down

- Zillow Offers is an unproven business model that relies on our ability to accurately value homes and manage inventory, our ability to expeditiously sell inventory and on the ability of third parties to renovate and repair homes before resale, failure of which may adversely impact our business or financial results.
- The wind down process for Zillow Offers operations may adversely impact our business, results of operations, financial performance and reputation.

Risks Related to 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.
- We may be involved in costly intellectual property disputes and may be unable to adequately protect our 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

- Given the remaining uncertainty surrounding the COVID-19 pandemic and our plans to wind down Zillow Offers operations, financial performance for prior and current periods may not be indicative of future performance.
- 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 and securitization transactions 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, estimates 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 (Including Variants) 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 (including variants), its broad impact and preventive measures taken to contain or mitigate the pandemic have had, and may 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.

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 operational changes in light of the pandemic 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, loan repurchase agreements and warehouse lines of credit. 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 (including variants) 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 (including variants), 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, use and efficacy of 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 (including variants) 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 or a decrease in labor availability, 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 customer confidence in the economy and/or the United States residential real estate industry;
- inflationary conditions;
- low home and/or rental inventory levels or lack of affordably priced homes and rentals;
- increased interest rates, 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.

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 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 certain 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, loss of MLS memberships, 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 customer 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.

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 access certain of this data from vendors or government agencies if changes in local laws or regulations or other prohibitions on data sharing are implemented or because the quality and quantity of data available to these third parties changes. We may also 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 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 access and use listings data through MLS memberships (the “MLS Members”) must comply with each MLS’s rules and compliance requirements to maintain their access to listings data and remain a member in good standing. 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.

If Real Estate, Rental and Mortgage Professionals, Home Builders, Property Managers 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, property managers, and other real estate partners in categories relevant to real estate (“real estate partners”). 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 17% of total revenue for the year ended December 31, 2021. 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 certain markets. We now offer this pricing model to certain partners, and provide it alongside our legacy market-based pricing model in certain markets. With the Flex model, Premier Agent partners and Premier Broker partners are provided with connections at no initial cost and they pay a success fee only when a real estate transaction is closed with one of those connections. To estimate variable consideration and revenue associated with the Flex model, we use a number of assumptions, including estimating the conversion rate of a lead to a real estate transaction, estimating the velocity of conversions and estimating the fee amounts likely to be received. Estimates are primarily developed based on historical data and our future expectations based on current market trends. Our estimation methodology may be inaccurate and some or all of the revenue we recognize when leads are transferred to Flex partners 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.

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 customer 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. Any of our current or future competitors could merge with each other or a separate entity, which may enable them to compete with us even more vigorously, which could result in an increase proportion of customer preference and market share in their favor. In addition, search engines are always evolving and changes to their models or algorithms may negatively impact our placement or require greater investment of resources to optimize our placement and attract customers. If the use of online products and services for shopping, 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 rental listing service providers, 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 customers with real estate transaction 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. Further, if we do not realize the benefits we expect from the strategic relationships we enter into, 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.

Zillow Home Loans funds substantially all of its lending operations using warehouse and loan 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 loan 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. Such offerings are subject to change based on various factors such as availability, business needs and customer demand. 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 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 using other Zillow products and services 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 of the wind down of Zillow Offers operations, Zillow Home Loans may experience a reduction in potential customers that would have been expecting to borrow with Zillow Home Loans as part of a Zillow Offers transaction. In addition, 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 customer 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, 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. Continued high refinance loan origination volume within the low interest rate environment in 2021 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, customer 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 provides products and services to customers throughout the United States and to a lesser extent, in Canada. In addition, through Zillow Home Loans, we originate loans in over 46 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 business 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 is derived 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, in November 2021 we announced plans to wind down Zillow Offers operations, in part, because it served too narrow a portion of our customers. In addition, 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 Zillow Offers and 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 and to develop and offer other products and services that address the needs of a larger audience of customers. 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 Home Loans and Zillow Closing Services as well as some of our business-to-business products, for example, may be perceived as impinging upon the business models of real estate agents, brokerages and lenders, which may cause them to terminate or decrease the scope of their relationships 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 and Current or Proposed Rules and Regulations 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 are also subject to proposed legislation that may impose liability or disclosure of our proprietary algorithms, which could impact our competitive advantage and potentially harm our financial position or business results. This legislation could also result in an increased occurrence of enforcement actions or legal disputes as discussed above.

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. For example, we acquired ShowingTime.com, Inc. in September 2021. Any transactions that we enter into could be material to our financial condition and results of operation. The transactions we pursue 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 closing a transaction and 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 closing and 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; compliance with differing laws and regulations applicable to international jurisdictions, if applicable; 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. We also transact through our Zillow Rental Manager products, which may be separately subject to a risk of fraudulent activity. 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 between two third-party platform users such as renters and 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.

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, non-availability of critical data 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 and liability, 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”), Infrastructure-as-a-Service (“IaaS”) and Software-as-a-Service (“SaaS Services”) technologies hosted by third parties (together with CPaaS and IaaS, “Cloud 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 Cloud 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 Cloud 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 Cloud 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.

Risks Related to Our Zillow Offers Operations and Wind Down

The Wind Down Process for Zillow Offers Operations May Adversely Impact Our Business, Results of Operations, Financial Performance and Reputation.

There are risks and uncertainties inherent to the wind down of Zillow Offers operations that could adversely impact our overall business, results of operations, financial performance and reputation.

Our ability to operate Zillow Offers during the wind down period, including our ability to complete the purchase and disposition of homes currently in inventory, may be adversely impacted by disruptions in relationships with customers, suppliers, vendors, broker partners, contractors, utility providers, employees, lenders, real estate investment trusts and customers. If operational challenges impair our ability to efficiently dispose of inventory, such as through the effectuation of bulk sale transactions, it may lead to, among other things, longer hold times for homes in inventory, increased holding, renovation and transaction costs, and/or a decrease in profitability.

The wind down may create unintended staffing challenges and/or adversely impact workforce morale, create a distraction affecting the focus of our workforce, impact our ability to recruit going forward, and/or result in failure to retain key employees, contingent workers, and/or critical functions during the wind down period and beyond, which could, among other things, negatively impact our ability to operate other non-Zillow Offers business lines, corporate functions, or critical technology systems; to maintain necessary state broker or entity-level licenses; and to manage renovations, transactions, and closings and support other critical functions necessary to maintain Zillow Offers operations through the wind down period and the broader company going forward.

We primarily utilize debt financing arrangements, including uncommitted credit facilities and securitizations, to finance the purchase of homes through Zillow Offers. Our access to and the ongoing availability of financing on acceptable terms may be adversely impacted by the wind down, which could require us to utilize cash and current investments to finance the purchase of homes. We may also be subject to prepayment and other penalties under existing arrangements as a result of the wind down.

Our financial projections and financial performance may be adversely impacted by, among other things, the accuracy of the estimates and assumptions related to the wind down of Zillow Offers operations on which the Company’s projections are based; other facts we discover that could require us to incur additional expenses and/or record additional charges that may be materially different from our initial expectations about the costs of the wind down; our ability to realize benefits from cost improvement efforts including avoided costs and restructuring plans; our ability to assess and manage any loss of synergies that Zillow Offers had with our other lines of business; unanticipated changes to management’s estimates (including, but not limited to, the accounting for the estimated net realizable value of inventory), reserves or allowances and future costs we incur, such as those related to warranty or customer claims. The extent to which the wind down will impact our operations will depend on future developments, which cannot be predicted at this time. Any of these risks could delay the wind down of Zillow Offers operations, increase costs and charges associated with the wind down and disrupt the operations of our other businesses, any of which may adversely impact our business, results of operations, financial performance 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 Zillow Offers business 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. For example, during the year ended December 31, 2021, we identified that a large portion of homes in our inventory had a cost exceeding net realizable value as a result of purchasing homes at higher prices than the Company's then current estimates of future selling prices after selling costs. As a result, we recorded a write-down totaling \$407.9 million to inventory with a corresponding increase to cost of revenue in our consolidated statements of operations for the year ended December 31, 2021. 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 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 (loss) and results of operations may be affected, which could have an adverse effect on our business, results of operations, and financial condition.

Our Zillow Offers Business is Dependent Upon Our Ability to Expediently Sell Inventory. Failure to Expediently 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, latent defects in properties and the wind down of Zillow Offers operations. 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, resale of properties or other decisions made in connection with the wind down. Listings for the homes we sell may be inaccurate. These and other factors may reduce customer confidence in Zillow Offers, which in turn may reduce their confidence in the Company and 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. The wind down of Zillow Offers operations may further exacerbate these issues.

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 customer 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, customer 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 the 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. For example, for the year ended December 31, 2021, we recorded write-downs totaling \$407.9 million to inventory with a corresponding increase to cost of revenue in our consolidated statements of operations. If we do not determine that it is appropriate to record a write-down, a property in inventory could still decline in value, resulting in reduced return from the property and potentially additional write-downs, which would adversely affect our Zillow Offers business and financial results. Additionally, in connection with the wind down of Zillow Offers, we may dispose of inventory via bulk sale or other transactions which may result in reduced return from the property, which could adversely affect our Zillow Offers business and financial results.

Risks Related to Our Intellectual Property

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 trade secret affording us 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 to our patented technology, our Zestimate home valuation uses a significant amount of proprietary, trade secret methodology. Any accidental disclosure, or disclosure in response to litigation or regulatory inquiries that do not include confidential information protection could harm our competitive advantage.

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. 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. This misappropriation of data may also harm our relationships with any third party data providers who originally licensed the data to us, including potentially breaching our agreements with these third parties depending on the terms of each license agreement. 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, many provinces in Canada and other locations where employees perform work, and may increase the costs and expenses we incur to comply with or seek compliance with these laws. Presence of our employees located in Serbia requires us to conform to employment, tax and other applicable requirements in Serbia and may increase costs and expenses we incur to comply with or seek compliance with these requirements. In addition, our contingent workers through the United States, Canada and other current and future global locations may subject us to laws and taxes in those jurisdictions and may increase the costs and expenses we incur to comply with applicable laws and maintain adequate protection of our rights, including intellectual property rights.

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 imposes obligations and restrictions on companies regarding their collection, use, and sharing of personal information. Several other states, as well as the federal government, have passed or are actively considering passing additional 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, including any future changes to those 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 customers 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 needed to support our business. 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, enforcement actions and proceedings arising from our business, including actions with respect to intellectual property, privacy, consumer protection, information security, mortgage origination, real estate, real estate brokerage, environmental, data protection, antitrust, the Real Estate Settlement Procedures Act of 1974 (RESPA), compliance with securities laws, 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 18 under the subsection titled “Legal Proceedings” in our Notes to Consolidated Financial Statements in this Annual Report on Form 10-K. For example, in connection with the closing of our acquisition of ShowingTime.com, Inc. (“ShowingTime”), the U.S. Federal Trade Commission (the “FTC”) sent a form letter to Zillow Group indicating that its investigation of the proposed acquisition of ShowingTime was continuing, the FTC reserved the right to take further action with respect to the transaction after the closing, and additional information requests may be forthcoming. This letter is consistent with the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (the “HSR Act”) and the FTC’s announced practice of sending such letters to parties making filings under the HSR Act. Such claims, suits, government investigations, and proceedings, including this investigation by the FTC, 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, fines, 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 may be financially responsible, which could adversely affect our financial condition and cash flow.

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, 2021, we had an accumulated deficit of \$1.7 billion. Although we have experienced significant growth in revenue in recent periods, we expect our revenue to decline in future quarters as a result of the wind down of Zillow Offers operations and the revenue growth rate of our other lines of business 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 certain of 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 Home Loans;
- product development;
- sales and marketing;
- technology infrastructure;
- restructuring costs to wind down Zillow Offers operations;
- 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.

A failure by Zillow Home Loans to operate at a profit could also place its Federal Housing Administration authorization in jeopardy, adversely impact our relationship with Federal National Mortgage Association (Fannie Mae) and Federal Home Loan Mortgage Corporation (Freddie Mac) and may adversely impact our ability to utilize our loan repurchase facilities and warehouse lines of credit. Any such adverse impacts could threaten Zillow Home Loans' ability to continue operations.

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, credit facilities and securitization transactions for Zillow Offers, and warehouse and repurchase facilities for Zillow Home Loans. Our indebtedness includes the \$608.4 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 \$498.8 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 \$3.3 billion as of December 31, 2021), mortgage debt facilities (maximum borrowing capacity of \$460.0 million as of December 31, 2021), securitization variable funding lines (maximum borrowing capacity of \$140.0 million as of December 31, 2021) and the \$1.2 billion aggregate principal amount under our securitization term loans. 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 times 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 therefore 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 credit facilities and securitization transactions 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 13 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, 2021, \$2.3 billion 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. In the coming years, these reforms and other pressures are expected to 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 or fund future growth and development, 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, to provide capital for mortgage home loan originations for Zillow Home Loans, as of December 31, 2021, we utilize warehouse and loan repurchase facilities. Refer to Note 13 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 credit facilities, securitization transactions and warehouse and loan repurchase facilities. In addition, in February 2021, the Company entered into an Equity Distribution Agreement pursuant to which the Company may offer and sell from time to time, through certain financial institutions, shares of the Company's Class C capital stock having an aggregate gross sales price of up to \$1 billion, and in December 2021, the Company's board of directors authorized the repurchase of up to \$750 million of its Class A common stock, Class C capital stock, or a combination thereof. We may decide to raise additional capital or repurchase stock through these arrangements at levels or under terms that prove to be unfavorable or at times and share prices that prove to be disadvantageous based on changes in market conditions. Such decisions may negatively impact our financial position and/or future ability to raise capital. Financing arrangements we maintain, 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 by segment growth. 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 income taxes in the United States (federal and state), Canada, and Serbia. 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, 2021, we had federal net operating loss carryforwards of approximately \$2.1 billion, state net operating loss carryforwards of approximately \$72.7 million (tax effected), and net tax credit carryforwards of approximately \$134.0 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 \$203.79 per share (adjusted for the August 2015 stock split effected in the form of a dividend) through December 31, 2021. 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 \$199.90 per share through December 31, 2021. 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;
- repurchases 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 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, changes to federal monetary policy, interest rates 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, 2021, Mr. Barton's holdings and Mr. Frink's holdings represented approximately 30.6% and 19.9%, 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, including under our Equity Distribution Agreement. 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 2024 Notes, 2026 Notes and Our Class C Capital Stock.

In connection with the pricing of each of the 2024 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 2024 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”) and 2023 (“2023 Notes”), the balance of which we redeemed in late 2020 and mid-2021 respectively, we exercised our right to keep the associated capped call confirmations open through the expiration of the 2021 Notes and 2023 Notes, which caused short term dilution. We may pursue similar options with the capped call confirmations associated with each of the 2024 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 2024 Notes and 2026 Notes (and are likely to do so during any observation period related to a conversion of 2024 Notes or 2026 Notes or in connection with any repurchase of 2024 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 2024 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, 2021 in the table below by reportable segment. Zillow Group has three reportable 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	387,765	2032
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
Overland Park, Kansas	General office space	Mortgages and IMT	78,874	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 and Note 12 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 18 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 4, 2022, there were 73, three, and 124 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***

None.

Purchases of Equity Securities by the Issuer

The following table summarizes the Company’s Class C capital stock repurchases during the three months ended December 31, 2021 (in thousands, except share and per share amounts):

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs (1)
December 1 - December 31, 2021	4,944,462	\$61.12	4,944,462	\$447,801

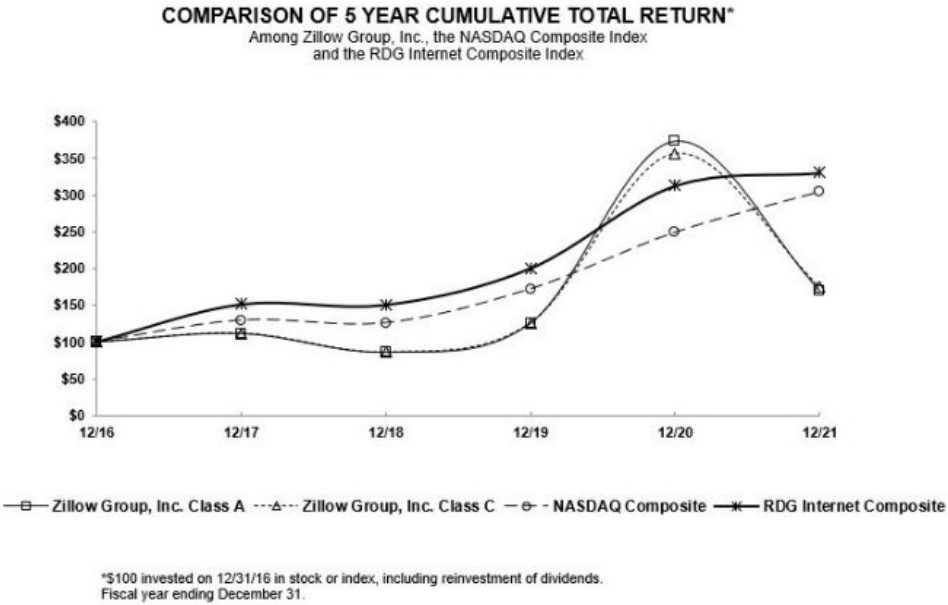
(1) On December 2, 2021, the Company’s Board of Directors authorized a stock repurchase program (the “Stock Repurchase Program”) granting the Company authority to repurchase up to \$750.0 million of the Company’s Class A common stock, Class C capital stock or a combination of both. The Stock Repurchase Program does not have an expiration date.

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, 2016 through December 31, 2021 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, 2016.

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



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 2021 and 2020 financial condition and results of operations and year-to-year comparisons between 2021 and 2020. Similar discussion of our 2019 financial condition and results and year-to-year comparisons between 2020 and 2019 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, 2020.

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 United States, Zillow and its affiliates help high-intent movers find and win their home through digital solutions, first class partners and easier buying, selling, financing and renting experiences. We help customers find and win their home with referrals to trusted Zillow Premier Agent and Premier Broker partners and our portfolio of Zillow-branded and affiliated transaction-oriented services. Zillow Offers has purchased and sold homes directly in markets across the country. Beginning in the fourth quarter of 2021, Zillow Offers operations are being wound down with expected completion in the second half of 2022. 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.

Other customer brands include Zillow Rentals, Trulia, StreetEasy, Zillow Closing Services, HotPads and Out East. In addition, Zillow Group provides a comprehensive suite of marketing software and technology solutions for the real estate industry which include Mortech, dotloop, Bridge Interactive, New Home Feed and ShowingTime.

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. Beginning in the fourth quarter of 2021, the IMT segment also includes the financial results of ShowingTime.com, Inc. (“ShowingTime”). For additional information regarding the September 2021 acquisition of ShowingTime, see Note 9 in our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K. The Mortgages segment primarily includes financial results for mortgage originations through Zillow Home Loans and advertising sold to mortgage lenders and other mortgage professionals.

The Homes segment has primarily generated 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. As a result of the decision to wind down Zillow Offers operations, we plan to report Zillow Offers as a discontinued operation beginning with the period during which disposition of the business is complete. We expect the disposition to be complete in the second half of 2022.

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 products, which include the delivery of validated customer connections, or leads, are primarily offered on a share of voice basis. Connections 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. Connections are delivered when customer contact information is provided to Premier Agents and Premier Brokers. Connections are provided as part of our suite of advertising services for Premier Agent and Premier Brokers; we do not charge a separate fee for these customer leads.

We also offer a pay for performance pricing model called “Flex” for Premier Agent and Premier Broker services in certain markets. We 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 initial cost and pay a performance 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 and ShowingTime. Rentals revenue includes advertising sold to property managers, landlords and other rental professionals on a cost per lead, click, lease, listing or impression basis or for a fixed fee for certain advertising packages. 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. ShowingTime revenue is primarily generated by Appointment Center, a software-as-a-service and call center solution allowing real estate agents, brokerages and multiple listing services to efficiently schedule real estate viewing appointments on behalf of their customers. Appointment Center services also include call center specialists who provide scheduling support to customers. Appointment Center revenue is primarily billed in advance on a monthly basis.

In our Mortgages segment, we primarily 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. 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, 2021 and 2020, we generated revenue of \$8.1 billion and \$3.3 billion, respectively, representing year-over-year growth of 144%. The increase in total revenue was primarily attributable to the following:

- Zillow Offers revenue increased by \$4.3 billion to \$6.0 billion for the year ended December 31, 2021 due to the sale of 15,436 homes at an average selling price of \$387.6 thousand per home. For the year ended December 31, 2020, Zillow Offers revenue was \$1.7 billion due to the sale of 5,337 homes at an average selling price of \$320.5 thousand per home.
- Premier Agent revenue increased by \$348.8 million to \$1.4 billion for the year ended December 31, 2021 compared to \$1.0 billion for the year ended December 31, 2020. The increase in Premier Agent revenue was primarily due to a 26% increase in Premier Agent revenue per visit, driven primarily by continued strong demand across the residential real estate industry and growth in monetization of customer connections.
- Other IMT revenue increased by \$86.8 million to \$490.1 million for the year ended December 31, 2021 compared to \$403.3 million for the year ended December 31, 2020, primarily due to a 19% increase in rentals revenue.
- Mortgages segment revenue increased by \$71.6 million to \$245.8 million for the year ended December 31, 2021 compared to \$174.2 million for the year ended December 31, 2020, driven by an increase in revenue generated by Zillow Home Loans, as total loan origination volumes increased 131%, and an increase in revenue from Custom Quote and Connect advertising services.
- Visits for the years ended December 31, 2021 and 2020 were 10.2 billion and 9.6 billion, respectively, representing year-over-year growth of 6%. The increase in visits increased the number of events we monetized across our revenue categories.

For the years ended December 31, 2021 and 2020, we generated total gross profit of \$1.8 billion and \$1.5 billion, respectively, representing a year-over-year increase of 19%. Gross profit was negatively impacted by a \$211.0 million write-down for Homes inventory lower of cost or net realizable value adjustments for homes that remain in inventory as of December 31, 2021. These adjustments were primarily due to unintentionally purchasing homes at higher prices than our current estimates of future selling prices.

Zillow Offers Suspension of Entering into New Contracts

On October 18, 2021, we issued a press release announcing that Zillow Offers would not sign any additional contracts to buy homes through the end of 2021. We paused new contracts in light of renovation and operational capacity constraints and to enable Zillow Offers to focus operations on purchasing homes with already-signed contracts and reducing the renovation pipeline for homes in inventory.

Wind Down of Zillow Offers Operations

On November 2, 2021, the Board of Directors of Zillow Group made the determination to wind down Zillow Offers operations. This decision was made in light of home pricing unpredictability, capacity constraints and other operational challenges faced by Zillow Offers that were exacerbated by an unprecedented housing market, a global pandemic and a difficult labor and supply chain environment, all of which led us to conclude that, despite its initial promise in earlier quarters, Zillow Offers was unlikely to be a sufficiently stable line of business to meet our goals and needs going forward. The wind down is expected to continue into the second half of 2022 and result in approximately a 25% reduction of Zillow Group's workforce. During the wind down period, we continue to renovate and sell properties in inventory. As of early February 2022, we have sold, are under contract to sell or have reached agreement on disposition terms for more than 85% of the homes we expected to resell during the entire wind down process. As of December 31, 2021, we were under contract to purchase an additional \$108.7 million homes, all of which closed by January 31, 2022. For the year ended December 31, 2021, we recorded a write-down to inventory totaling \$407.9 million with a corresponding increase to cost of revenue as a result of unintentionally purchasing homes at higher prices than the Company's current estimates of the future selling prices after selling costs. For the year ended December 31, 2021, we have also incurred \$71.2 million in impairment and restructuring costs within our Homes segment associated with our wind down of Zillow Offers operations, primarily associated with one-time termination benefit costs, other severance and employee costs and contract termination costs. Additionally, for the year ended December 31, 2021, we incurred \$6.2 million of charges associated with winding down Zillow Offers financing facilities, which have been recorded within interest expense, and \$4.9 million of accelerated depreciation and amortization recorded to cost of revenue. For additional information regarding the write down to inventory and impairment and restructuring costs, including total expected costs to be incurred, see Note 5 and Note 22 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K and the subsection below titled "Impairment and Restructuring" under the caption "Results of Operations".

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. In 2020, we implemented a variety of relief initiatives to help them navigate their financial challenges. This included discounts provided to our Premier Agents and on certain of our other IMT and Mortgage marketplace products. In addition, we temporarily paused home buying in early 2020 in all markets in response to local public health orders and to help protect the safety and health of our employees, customers and partners. 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.

We have also taken action to promote the health and safety of our employees during the COVID-19 pandemic. We quickly transitioned the majority of our employees to work remotely and announced that most employees will have flexibility to work from home indefinitely. In September 2021, we enabled voluntary office access to certain office locations and continue to make adjustments in response to the guidelines issued by health authorities. We believe our physical offices will continue to provide our distributed workforce with another opportunity to work, learn and collaborate in-person in the future.

To preserve our liquidity in response to the COVID-19 pandemic, during the first half of 2020 we temporarily paused hiring for non-critical roles, paused the majority of our advertising spending and reduced other discretionary spending. As our financial position strengthened, we increased our hiring and marketing and advertising activities.

Our liquidity has also 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 and provides tax provisions and other stimulus measures to affected companies. Under the CARES Act, we were able to defer certain 2020 employer payroll tax payments until the fourth quarter of 2021 and 2022. In the fourth quarter of 2021, we made a payment of \$11.1 million related

to the deferred 2020 employer payroll taxes, and we expect to make a payment of \$12.7 million for the remaining deferred payroll taxes in the fourth quarter of 2022.

The effect and extent of the impact of the COVID-19 pandemic on our business continues to be uncertain and difficult to predict. While we have seen recovery in our business and the businesses of our customers and real estate partners from the initial economic effects of the pandemic, the impact of the COVID-19 pandemic (including variants) may continue to affect our financial results in 2022. The extent to which COVID-19 (including any variants) continues to impact our results and financial position will depend on future developments, which are uncertain and difficult to predict.

Key Metrics

Management has identified visits, unique users, the number of homes sold through Zillow Offers and the volume of loans originated through Zillow Home Loans as relevant to investors' and others' assessment of our financial condition and results of operations.

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 have participated 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,		2020 to 2021 % Change	
	2021	2020		
Visits	10,207.0	9,627.2	6	%

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 depended in part, and our Mortgages segment revenue depends in part, on users accessing our mobile applications and websites to engage in the sale, purchase and financing of homes with Zillow Offers and Zillow Home Loans, and our 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,		2020 to 2021 % Change	
	2021	2020		
Average Monthly Unique Users	198.0	200.7	(1)	%

During the three months ended December 31, 2021, unique users decreased 1% compared to the three months ended December 31, 2020, driven primarily by strong residential real estate industry recovery in the comparable prior year period coupled with more normalized seasonality impacts during the three months ended December 31, 2021 compared to the three months ended December 31, 2020.

Homes Sold

The number of homes sold through Zillow Offers was 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,		2020 to 2021 % Change	
	2021	2020		
Number of Homes Sold	15,436	5,337	189	%

Loan Origination Volume

Loan origination volume is an important metric as it is a measure of how successful we are at growing originations and subsequent sales of mortgage loan products through our mortgage origination business, Zillow Home Loans, which directly impacts our Mortgages segment revenue. Loan origination volume represents the total value of mortgage loan originations closed through Zillow Home Loans during the period.

The following table presents loan origination volume by purpose and in total for Zillow Home Loans for the periods presented (in thousands):

	Year Ended December 31,		2020 to 2021 % Change	
	2021	2020		
Purchase loan origination volume	\$ 1,035,393	\$ 540,329	92	%
Refinance loan origination volume	3,022,940	1,212,748	149	%
Total loan origination volume	\$ 4,058,333	\$ 1,753,077	131	%

Results of Operations

Given the remaining uncertainty surrounding the COVID-19 pandemic and our plans to wind down the Zillow Offers business, financial performance for prior and current periods may not be indicative of future performance.

Revenue

	Year Ended December 31,				% of Total Revenue	
	2020 to 2021		Year Ended December 31,			
	2021	2020	\$ Change	% Change	2021	2020
	(in thousands)					
Revenue:						
Homes segment:						
Zillow Offers	\$ 5,982,357	\$ 1,710,535	\$ 4,271,822	250 %	73 %	51 %
Other	33,421	4,840	28,581	591	—	—
Total Homes segment revenue	6,015,778	1,715,375	4,300,403	251	74	51
IMT segment:						
Premier Agent	1,395,723	1,046,954	348,769	33	17	31
Other	490,059	403,278	86,781	22	6	12
Total IMT segment revenue	1,885,782	1,450,232	435,550	30	23	43
Mortgages segment	245,816	174,210	71,606	41	3	5
Total revenue	\$ 8,147,376	\$ 3,339,817	\$ 4,807,559	144 %	100 %	100 %

Total revenue increased \$4.8 billion, or 144%, to \$8.1 billion:

- Homes segment revenue increased 251% to \$6.0 billion, primarily due to an increase of \$4.3 billion, or 250%, in Zillow Offers revenue. Zillow Offers revenue increased to \$6.0 billion due to the sale of 15,436 homes at an average selling price of \$387.6 thousand per home as compared to the sale of 5,337 homes at an average selling price of \$320.5 thousand per home for the year ended December 31, 2020. The pause in home buying activities in Zillow Offers in the first half of 2020 in response to the COVID-19 pandemic resulted in lower inventory available for resale during the second half of 2020. We resumed home buying activities in all markets by early August 2020 and subsequently grew our acquisition and resale volumes, including accelerating resales as we wind down Zillow Offers operations, driving a year-over-year increase in revenue. We expect Zillow Offers revenue to decrease for the three months ending March 31, 2022 and to continue to decrease in subsequent quarters as we complete our wind down of Zillow Offers.
- IMT segment revenue increased 30% to \$1.9 billion, primarily due to an increase of \$348.8 million, or 33%, in Premier Agent revenue. The increase in Premier Agent revenue was primarily driven by an increase in Premier Agent revenue per visit, which increased by 26% to \$0.137 for the year ended December 31, 2021 from \$0.109 for the year ended December 31, 2020, driven primarily by continued strong demand across the residential real estate industry and growth in monetization of customer connections. 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. The increase in visits increased the number of impressions and leads we could monetize in our Premier Agent marketplace. Additionally, Premier Agent revenue for the year ended December 31, 2020 was negatively impacted by temporary discounts offered to our Premier Agent partners in response to the COVID-19 pandemic. Other IMT revenue increased \$86.8 million, or 22%, primarily due to a 19% increase in revenue generated by our rentals marketplace, including our flat fee, pay per listing and rental applications products. The increase in rentals revenue was also impacted by COVID-19 related discounts offered during the first half of 2020. Other IMT revenue also increased due to a 58% increase in display revenue as display advertisers increased discretionary marketing spend after lower spend in 2020 as a result of the COVID-19 pandemic, and as a result of the addition of ShowingTime revenue beginning in the fourth quarter of 2021. We expect IMT segment revenue to increase in absolute dollars in future periods primarily as a result of increased lead and transaction volumes.

- Mortgages segment revenue increased 41% to \$245.8 million primarily due to growth in mortgage originations revenue, which drove 57% of the increase in Mortgages segment revenue, and growth in our Custom Quote and Connect advertising services revenue, which accounted for 41% of the increase in Mortgages segment revenue. The increase in mortgage originations revenue was primarily driven by an increase in loan origination volume from \$1.8 billion to \$4.1 billion, or 131%, as we continued to grow our mortgage originations business. We believe low interest rates coupled with growth of our mortgage originations business, driven by purchase origination growth from Zillow Offers, supported strong refinance and home purchase activity during the year ended December 31, 2021. This was partially offset by a 36% decrease in gain on sale margin driven by industry margin compression. Gain on sale margin represents the net gain on sale of mortgage loans divided by total loan origination volume for the period. Net gain on sale of mortgage loans includes all components related to the origination and sale of mortgage loans, including the net gain on sale of loans into the secondary market, loan origination fees, unrealized gains and losses associated with changes in fair value of interest rate lock commitments and mortgage loans held for sale, realized and unrealized gains or losses from derivative financial instruments and the provision for losses relating to representations and warranties. The increase in our Custom Quote and Connect advertising revenue was primarily due to a 20% increase in leads sold from our marketing products sold to mortgage professionals. We expect Custom Quote and Connect advertising revenue to increase in absolute dollars in future periods primarily due to seasonality, while we expect purchase and refinance activity through Zillow Home Loans to decrease due to the wind down of Zillow Offers operations and increasing interest rates, respectively.

Income (Loss) Before Income Taxes

	Year Ended December 31,		2020 to 2021		% of Revenue Year Ended December 31,	
	2021	2020	\$ Change	% Change	2021	2020
	(in thousands)					
Income (loss) before income taxes:						
Homes segment	\$ (881,464)	\$ (320,254)	\$ (561,210)	(175)%	(15)%	(19)%
IMT segment	544,590	262,984	281,606	107	29	18
Mortgages segment	(51,823)	4,514	(56,337)	(1248)	(21)	3
Corporate items (1)	(137,817)	(116,882)	(20,935)	(18)	N/A	N/A
Total loss before income taxes	<u>\$ (526,514)</u>	<u>\$ (169,638)</u>	<u>\$ (356,876)</u>	<u>(210)%</u>	<u>(6)%</u>	<u>(5)%</u>

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

Adjusted EBITDA

	Year Ended December 31,		2020 to 2021		% of Revenue Year Ended December 31,	
	2021	2020	\$ Change	% Change	2021	2020
	(in thousands)					
Net loss:	\$ (527,777)	\$ (162,115)	\$ (365,662)	(226)%	(6)%	(5)%
Adjusted EBITDA:						
Homes segment	\$ (649,994)	\$ (241,969)	\$ (408,025)	(169)%	(11)%	(14)%
IMT segment	853,226	556,137	297,089	53	45	38
Mortgages segment	(8,651)	28,825	(37,476)	(130)	(4)	17
Total Adjusted EBITDA	<u>\$ 194,581</u>	<u>\$ 342,993</u>	<u>\$ (148,412)</u>	<u>(43)%</u>	<u>2 %</u>	<u>10 %</u>

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 and restructuring costs;
- Adjusted EBITDA does not reflect acquisition-related costs;
- Adjusted EBITDA does not reflect the gain (loss) on extinguishment of debt;
- 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, 2021				
	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	\$ (527,777)
Income taxes	N/A	N/A	N/A	N/A	1,263
Income (loss) before income taxes	\$ (881,464)	\$ 544,590	\$ (51,823)	\$ (137,817)	\$ (526,514)
Other income	(2,878)	—	(5,019)	(2,291)	(10,188)
Depreciation and amortization	22,393	99,026	8,361	—	129,780
Share-based compensation	76,879	200,963	33,844	—	311,686
Acquisition-related costs	—	8,615	—	—	8,615
Loss on extinguishment of debt	—	—	—	17,119	17,119
Impairment and restructuring costs	71,247	—	926	—	72,173
Interest expense	63,829	32	5,060	122,989	191,910
Adjusted EBITDA	<u>\$ (649,994)</u>	<u>\$ 853,226</u>	<u>\$ (8,651)</u>	<u>\$ —</u>	<u>\$ 194,581</u>

	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 taxes	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	13,315	89,862	6,854	—	110,031
Share-based compensation	48,166	134,691	14,693	—	197,550
Gain on extinguishment of debt	—	—	—	(1,448)	(1,448)
Impairment and restructuring costs	—	73,900	2,900	—	76,800
Interest expense	16,804	—	2,233	136,190	155,227
Adjusted EBITDA	<u>\$ (241,969)</u>	<u>\$ 556,137</u>	<u>\$ 28,825</u>	<u>\$ —</u>	<u>\$ 342,993</u>

(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 (expense) 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 (loss) on extinguishment of debt, interest income earned on our short-term investments included in other income and interest costs on our convertible senior notes included in interest expense.

Costs and Expenses, Gross Profit and Other Items

	Year Ended December 31,		2020 to 2021		% of Total Revenue	
	Year Ended December 31,		2020 to 2021		Year Ended December 31,	
	2021	2020	\$ Change	% Change	2021	2020
	(in thousands)					
Cost of revenue	\$ 6,394,177	\$ 1,866,392	\$ 4,527,785	243 %	78 %	56 %
Gross profit	1,753,199	1,473,425	279,774	19	22	44
Operating expenses:						
Sales and marketing	1,076,235	691,119	385,116	56	13	21
Technology and development	474,396	390,172	84,224	22	6	12
General and administrative	448,773	356,722	92,051	26	6	11
Impairment and restructuring costs	72,173	76,800	(4,627)	(6)	1	2
Acquisition-related costs	8,615	—	8,615	N/A	—	—
Integration costs	680	—	680	N/A	—	—
Total operating expenses	2,080,872	1,514,813	566,059	37	26	45
Gain (loss) on extinguishment of debt	(17,119)	1,448	(18,567)	(1282)	—	—
Other income	10,188	25,529	(15,341)	(60)	—	1
Interest expense	(191,910)	(155,227)	(36,683)	(24)	(2)	(5)
Income tax benefit (expense)	(1,263)	7,523	(8,786)	(117)	—	—

Cost of Revenue

Cost of revenue consists of expenses related to operating our mobile applications and websites, including associated headcount-related 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. Cost of revenue also includes amortization costs related to capitalized website and development activities, amortization of software, amortization of certain intangible assets and other costs to obtain data used to populate our mobile applications and websites, and amortization of certain intangible assets recorded in connection with acquisitions, including developed technology. For our Homes segment, 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, cost of revenue also consists of direct costs to originate loans, including underwriting and processing costs.

Cost of revenue increased \$4.5 billion, or 243%, due primarily to increases of \$4.5 billion in our Homes segment, \$45.2 million in our Mortgages segment and \$10.4 million in our IMT segment.

- The increase in Homes segment cost of revenue was primarily driven by a \$4.2 billion increase in home acquisition costs due to the increase in homes sold during the period from 5,337 homes sold during the year ended December 31, 2020 to 15,436 homes sold during the year ended December 31, 2021. The increase in cost of revenue was also attributable to write-downs totaling \$407.9 million related to homes in inventory during the year ended December 31, 2021 with a carrying value exceeding their net realizable value as a result of purchasing homes at higher prices than our current estimates of future selling prices. We expect Homes segment cost of revenue to decrease during the three months ending March 31, 2022 and to continue to decrease in subsequent quarters as we complete our wind down of Zillow Offers.
- The increase in cost of revenue in our Mortgages segment was primarily attributable to an increase in headcount-related expenses, including share-based compensation expense, of \$18.3 million, an increase in lead acquisition costs of \$17.7 million associated with growth in our Zillow Home Loans business, and an increase in mortgage loan processing costs of \$4.2 million corresponding with the increase in loan origination volume.

- The increase in cost of revenue in our IMT segment was primarily attributable to an increase of \$12.8 million in depreciation and amortization expense, an increase of \$9.2 million in direct product costs, an increase of \$7.1 million in lead acquisition costs, and an increase of \$6.5 million in headcount-related expenses, including share-based compensation expense, partially offset by a decrease of \$27.7 million in data acquisition costs.

Gross Profit

Gross profit is calculated as revenue less cost of revenue. Gross margin is gross profit expressed as a percentage of revenue. Our gross profit has and will continue to be affected by a number of factors, including the mix of revenue from our relatively higher gross margin segments, IMT and Mortgages, and our relatively lower gross margin Homes segment.

Gross profit increased by \$279.8 million, or 19%, due to increases of \$425.2 million in our IMT segment and \$26.4 million in our Mortgages segment, partially offset by a decrease of \$171.8 million in our Homes segment. Total gross margin decreased from 44% to 22%.

- The increase in IMT segment gross profit was driven by an improvement in gross margin from 87% to 89%, primarily associated with increased revenue, discussed above.
- The increase in Mortgages segment gross profit was driven by an increase in revenue, discussed above. However, gross margin declined from 78% to 66%, driven by increases in cost of revenue, primarily associated with additional lead acquisition costs and headcount-related expenses as a result of increased origination volume, which outpaced the growth in revenue, primarily due to industry margin compression.
- The decrease in Homes segment gross profit was primarily driven by a \$211.0 million inventory write-down for homes that remain in inventory as of December 31, 2021. Gross margin decreased from 5% for the year ended December 31, 2020 to (2)% for the year ended December 31, 2021.

Sales and Marketing

Sales and marketing expenses consist of advertising costs and other sales expenses related to promotional and marketing activities, headcount-related 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, depreciation expense and amortization of certain intangible assets recorded in connection with acquisitions, including trade names and trademarks and customer relationships. 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. For our Mortgages segment, sales and marketing expenses include headcount-related expenses for loan officers and specialists supporting Zillow Home Loans.

Sales and marketing expenses increased \$385.1 million, or 56%, due to increases of \$224.0 million in our Homes segment, \$112.1 million in our IMT segment and \$49.1 million in our Mortgages segment.

- The increase in sales and marketing expenses in the Homes segment was primarily attributable to a \$181.7 million increase in home holding and selling costs driven by the increase in the number of homes sold during the year ended December 31, 2021 compared to the year ended December 31, 2020. Home holding and selling costs for the year ended December 31, 2020 were impacted by our pause in home buying activities in the first half of 2020, which resulted in lower inventory available for resale during the second half of 2020. The increase in sales and marketing expenses was also attributable to an increase in headcount-related expenses, including share-based compensation expense, of \$23.7 million. During the year ended December 31, 2020, Homes segment sales and marketing expenses also included \$5.5 million in expenses attributable to our efforts to pause home buying in response to the COVID-19 pandemic, which partially offset the aforementioned increases as no comparable costs were incurred during the year ended December 31, 2021. Sales and marketing expenses for the Homes segment include \$62.3 million and \$11.3 million in holding costs for the years ended December 31, 2021 and 2020, respectively. We expect sales and marketing expenses within the Homes segment to decrease throughout 2022 as we wind down Zillow Offers operations.

- The increase in sales and marketing expenses in the IMT segment was primarily attributable to a \$68.9 million increase in marketing and advertising costs and an increase in headcount-related expenses, including share-based compensation expense, of \$45.5 million. Marketing and advertising costs for the year ended December 31, 2021 were higher than the comparable prior year period due to our pause in most discretionary spending associated with liquidity preservation in response to the COVID-19 pandemic in the comparable prior year period. We expect sales and marketing expenses within the IMT segment to increase in absolute dollars in future periods due to seasonal advertising and marketing spend, as well as due to increased investment in human capital.
- The increase in sales and marketing expenses in the Mortgages segment was primarily attributable to an increase in headcount-related expenses, including share-based compensation expense, of \$32.1 million, and a \$14.7 million increase in marketing and advertising expenses associated with growth of our Zillow Home Loans business. We expect sales and marketing expenses within our Mortgages segment to decrease in absolute dollars in future periods due to decreased loan origination volumes primarily as a result of the wind down of Zillow Offers operations.

Technology and Development

Technology and development expenses consist of headcount-related 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 equipment and maintenance costs and depreciation expense.

Technology and development expenses increased \$84.2 million, or 22%, due to increases of \$57.4 million in our IMT segment, \$18.3 million in our Homes segment and \$8.5 million in our Mortgages segment.

The increase in technology and development expenses for each of our segments was primarily attributable to increases in headcount-related expenses, including share-based compensation expense, of \$54.4 million, \$15.4 million and \$5.0 million for our IMT, Homes and Mortgages segments, respectively.

We expect technology and development expenses within the Homes segment to decrease throughout 2022 due to the wind down of Zillow Offers operations. We expect technology and development expenses to increase in absolute dollars in future periods for our IMT and Mortgages segments due to increased headcount related spend as we continue to invest in the development of technology to help high-intent movers find and win their homes.

General and Administrative

General and administrative expenses consist of headcount-related 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 increased \$92.1 million, or 26%, due to increases of \$33.4 million in our IMT segment, \$31.8 million in our Homes segment and \$26.9 million in our Mortgages segment.

The increase in general and administrative expenses for each of our segments was primarily attributable to increases in headcount-related expenses, including share-based compensation expense, of \$40.1 million, \$22.6 million and \$20.0 million for our IMT, Homes and Mortgages segments, respectively, as we have continued to invest in human capital to grow our businesses.

We expect general and administrative expenses within the IMT segment to increase in absolute dollars as we continue to invest to grow our business. We expect general and administrative expenses within the Homes segment to decrease throughout 2022 due to the wind down of Zillow Offers operations.

Impairment and Restructuring Costs

Restructuring costs for the year ended December 31, 2021 primarily relate to our wind down of Zillow Offers operations and include employee termination costs, contract termination costs, and charges related to write-offs of assets pertaining to Zillow Offers. Restructuring costs of \$72.2 million for the year ended December 31, 2021 include \$60.8 million for employee termination costs, \$10.0 million of contract termination costs, and \$1.4 million related to write-offs of assets pertaining to Zillow Offers. For additional information regarding the restructuring, see Note 22 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

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 10 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

Acquisition-Related Costs

Acquisition-related costs consist of investment banking, legal, accounting and tax costs associated with effecting acquisitions. Acquisition-related costs were \$8.6 million for the year ended December 31, 2021 primarily as a result of our September 2021 acquisition of ShowingTime. We did not record any acquisition-related costs for the year ended December 31, 2020.

Gain (Loss) on Extinguishment of Debt

We recorded a \$17.1 million loss on extinguishment of debt for the year ended December 31, 2021 associated with conversions of the convertible senior notes maturing in 2023 (“2023 Notes”), 2024 (“2024 Notes”) and 2026 (“2026 Notes”). During the year ended December 31, 2020, we recorded a \$1.4 million gain on extinguishment of debt primarily associated with the repurchase of the convertible senior notes maturing in 2021 (“2021 Notes”). For additional information on the gain (loss) on extinguishment of debt, see Note 13 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 investments. Other income decreased \$15.3 million, or 60%, due to a decrease of \$15.6 million in corporate other income not directly attributable to our segments driven by lower cash and investment balances during the second half of the year. Also driving the decrease was \$5.3 million of other income in our IMT segment related to the gain recognized on the sale of our October 2016 equity investment during the year ended December 31, 2020. 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 our convertible senior notes and also includes the amortization of the debt discount and deferred issuance costs for the convertible senior notes. Refer to Note 13 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 Zillow Offers. Borrowings on these credit facilities bear interest at the one-month London Inter-Bank Offered Rate (“LIBOR”) plus an applicable margin, and in certain cases are subject to a LIBOR floor, as defined in the credit agreements. Interest expense also includes interest on the term loans and variable funding lines associated with our 2021-1 and 2021-2 securitization transactions beginning in August 2021 and October 2021, respectively, including the amortization of the debt discount for the term loans and the amortization of deferred issuance costs for the term loans and variable funding lines. The term loans bear interest at a fixed rate and the variable funding lines bear interest at LIBOR plus an applicable margin. Refer to Note 13 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information on Homes segment financing.

For our Mortgages segment, interest expense includes interest on the warehouse lines of credit and interest on the master repurchase agreements related to our Zillow Home Loans business. Borrowings on the warehouse lines 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 \$36.7 million, or 24%, due to a \$47.0 million increase related to our Homes segment and a \$2.8 million increase related to our Mortgages segment, partially offset by a \$13.2 million decrease in corporate interest expense not attributable to any of our segments.

The increase in Homes segment interest expense was primarily attributable to the increased number of homes financed on our credit facilities and through our securitization transactions, as described above. We expect interest expense for the Homes segment to decrease throughout 2022 as we wind down Zillow Offers operations and inventory levels decline. The increase in Mortgages segment interest expense was due to increased borrowings on our repurchase agreements and warehouse line of credit.

The decrease in corporate interest expense not attributable to any of our segments was primarily attributable to the settlement of the convertible senior notes due in 2020 (the “2020 Notes”) and the 2021 Notes during the year ended December 31, 2020 and the settlement of the 2023 Notes, 2024 Notes and 2026 Notes during the year ended December 31, 2021, which decreased the outstanding principal balances of our convertible senior notes upon which interest was incurred. The decrease in corporate interest expense was partially offset by the impact of additional interest for the May 2020 issuance of the convertible senior notes due in 2025 (the “2025 Notes”).

Income Taxes

We are subject to income taxes in the United States (federal and state), Canada, and Serbia. As of December 31, 2021 and December 31, 2020, 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 \$2.1 billion as of December 31, 2021, which are available to reduce future taxable income. We have accumulated state tax losses of approximately \$72.7 million (tax effected) as of December 31, 2021. The income tax expense/benefit was immaterial in both 2021 and 2020.

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 the COVID-19 pandemic and our plans to wind down the Zillow Offers business. 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, and prior period amounts have been recast to conform to the current format (see Note 2 in our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for additional details regarding the reclassifications).

	Three Months Ended							
	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020
Statement of Operations Data:								
Revenue:								
Homes	\$ 3,348,323	\$ 1,186,158	\$ 777,145	\$ 704,152	\$ 304,145	\$ 187,105	\$ 454,252	\$ 769,873
IMT	483,169	480,195	476,090	446,328	423,838	415,389	280,339	330,666
Mortgages	50,821	70,290	56,745	67,960	60,969	54,198	33,761	25,282
Total revenue	3,882,313	1,736,643	1,309,980	1,218,440	788,952	656,692	768,352	1,125,821
Cost of revenue (1):								
Homes	3,331,920	1,422,899	707,522	644,603	281,040	183,056	434,900	735,759
IMT	61,597	51,371	43,444	47,037	47,698	49,992	45,354	50,053
Mortgages	21,695	21,790	20,619	19,680	14,000	10,725	7,229	6,586
Total cost of revenue	3,415,212	1,496,060	771,585	711,320	342,738	243,773	487,483	792,398
Gross profit	467,101	240,583	538,395	507,120	446,214	412,919	280,869	333,423
Operating expenses:								
Sales and marketing (1)	354,492	294,354	229,434	197,955	166,114	155,894	160,667	208,444
Technology and development (1)	114,141	111,491	128,463	120,301	97,410	94,774	97,507	100,481
General and administrative (1)	120,087	113,130	115,102	100,454	93,338	85,804	85,380	92,200
Impairment and restructuring costs (1)	72,173	—	—	—	—	—	—	76,800
Acquisition-related costs	892	3,235	3,671	817	—	—	—	—
Integration costs	680	—	—	—	—	—	—	—
Total operating expenses	662,465	522,210	476,670	419,527	356,862	336,472	343,554	477,925
Income (loss) from operations	(195,364)	(281,627)	61,725	87,593	89,352	76,447	(62,685)	(144,502)
Gain (loss) on extinguishment of debt	—	(14,785)	(931)	(1,403)	(4,943)	—	6,391	—
Other income	4,198	1,964	1,587	2,439	2,803	3,018	10,115	9,593
Interest expense	(68,188)	(44,737)	(39,430)	(39,555)	(40,575)	(39,470)	(37,590)	(37,592)
Income (loss) before income taxes	(259,354)	(339,185)	22,951	49,074	46,637	39,995	(83,769)	(172,501)
Income tax benefit (expense)	(1,854)	11,011	(13,310)	2,890	(601)	(425)	(679)	9,228
Net income (loss)	\$ (261,208)	\$ (328,174)	\$ 9,641	\$ 51,964	\$ 46,036	\$ 39,570	\$ (84,448)	\$ (163,273)
Net income (loss) per share:								
Basic	\$ (1.03)	\$ (1.29)	\$ 0.04	\$ 0.21	\$ 0.20	\$ 0.17	\$ (0.38)	\$ (0.78)
Diluted	\$ (1.03)	\$ (1.29)	\$ 0.04	\$ 0.20	\$ 0.18	\$ 0.16	\$ (0.38)	\$ (0.78)
Weighted-average shares outstanding:								
Basic	254,013	254,074	248,152	243,234	235,341	229,719	219,467	210,674
Diluted	254,013	254,074	261,496	259,346	251,499	242,632	219,467	210,674

	Three Months Ended							
	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020
(1) Includes share-based compensation as follows:								
Cost of revenue	\$ 2,735	\$ 2,573	\$ 2,972	\$ 2,688	\$ 2,064	\$ 1,855	\$ 1,364	\$ 1,402
Sales and marketing	12,161	12,733	13,350	9,887	8,370	8,631	9,116	6,993
Technology and development	28,495	28,077	34,951	26,091	21,212	19,555	21,421	18,688
General and administrative	36,822	36,022	37,122	25,007	20,799	18,918	20,450	16,712
Impairment and restructuring costs	5,506	—	—	—	—	—	—	—
Total	\$ 85,719	\$ 79,405	\$ 88,395	\$ 63,673	\$ 52,445	\$ 48,959	\$ 52,351	\$ 43,795

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, 2021	September 30, 2021	June 30, 2021	March 31, 2021	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020
Revenue:								
Homes segment:								
Zillow Offers	\$ 3,336,660	\$ 1,172,693	\$ 772,030	\$ 700,974	\$ 301,703	\$ 185,904	\$ 453,816	\$ 769,112
Other	11,663	13,465	5,115	3,178	2,442	1,201	436	761
Total Homes segment revenue	3,348,323	1,186,158	777,145	704,152	304,145	187,105	454,252	769,873
IMT segment:								
Premier Agent	353,799	358,852	348,754	334,318	314,213	298,673	191,962	242,106
Other	129,370	121,343	127,336	112,010	109,625	116,716	88,377	88,560
Total IMT segment revenue	483,169	480,195	476,090	446,328	423,838	415,389	280,339	330,666
Mortgages segment	50,821	70,290	56,745	67,960	60,969	54,198	33,761	25,282
Total revenue	\$ 3,882,313	\$ 1,736,643	\$ 1,309,980	\$ 1,218,440	\$ 788,952	\$ 656,692	\$ 768,352	\$ 1,125,821
Three Months Ended								
	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020
Percentage of Revenue:								
Homes segment:								
Zillow Offers	86 %	68 %	59 %	58 %	38 %	28 %	59 %	68 %
Other	—	1	—	—	—	—	—	—
Total Homes segment revenue	86	68	59	58	39	28	59	68
IMT segment:								
Premier Agent	9	21	27	27	40	45	25	22
Other	3	7	10	9	14	18	12	8
Total IMT segment revenue	12	28	36	37	54	63	36	29
Mortgages segment	1	4	4	6	8	8	4	2
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 growth of our Zillow Offers business.

Homes Segment

Homes segment 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 the three months ended December 31, 2020, we began to see a sequential increase in revenue as we increased our inventory levels following the home buying pause earlier in 2020. For all other quarters, Homes segment revenue increased, which was primarily attributable to an increase in the number of homes sold in each period as we grew our acquisition and resale volumes, including accelerating resales as we wind down Zillow Offers operations. We expect Homes segment revenue to decrease throughout 2022 as we wind down Zillow Offers operations.

IMT Segment

Premier Agent Revenue. Premier Agent revenue increased sequentially in all quarters presented with the exception of the three months ended December 31, 2021 and the three months ended June 30, 2020. The sequential decrease in revenue for the three months ended December 31, 2021 was attributable to a sequential decrease in visits driven by seasonality related to the normal cycles of the residential real estate market coupled with tighter inventory due to the latest COVID-19 variant which decreased the number of customer connections and leads we monetized in our Premier Agent marketplace. 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. 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 September 30, 2021, the three months ended December 31, 2020 and the three months ended June 30, 2020. The decrease in revenue for the three months ended September 30, 2021 was primarily driven by a decrease in our rentals revenue as a result of high occupancy rates, which created headwinds for advertising demand. The decrease in revenue for the three months ended December 31, 2020 was driven by a decrease in display advertising sales and aligns to the seasonality of the residential real estate market. 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 pandemic on our customers, which adversely impacted other IMT revenue in the second quarter of 2020. 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. Additionally, beginning in the fourth quarter of 2021, other IMT revenue includes the financial results of ShowingTime which contributed to the increase in other IMT revenue for the three months ended December 31, 2021.

Mortgages Segment

Mortgages revenue increased sequentially in all quarters presented with the exception of the three months ended December 31, 2021 and three months ended June 30, 2021. The decrease in revenue for the three months ended December 31, 2021 was primarily related to the wind down of Zillow Offers operations. Additionally, the decrease in revenue for the three months ended December 31, 2021 as well as the three months ended June 30, 2021 was due to a decrease in revenue generated by Zillow Home Loans associated with lower loan origination volumes and lower gain on sale margins driven by industry margin compression. Mortgages revenue increased sequentially in all other quarters presented, 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.

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 have increased our home buying and home selling activities over the past two years may have masked seasonality in revenue. 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

Our primary sources of liquidity and capital resources are cash flows from operations, debt financing and equity offerings. Our cash requirements consist principally of working capital, general corporate needs, mortgage loan originations and purchasing homes through Zillow Offers, all of which home purchases closed by January 31, 2022. We generally reinvest available cash flows from operations into our business and to service our debt obligations.

Sources of Liquidity

As of December 31, 2021 and 2020, we had cash and cash equivalents, investments and restricted cash of \$3.4 billion and \$4.0 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 U.S. government agency securities, municipal securities, treasury bills and certificates of deposit, investment grade corporate securities and the beneficial interests in our Homes segment securitization transactions. Restricted cash consists of amounts funded to the reserve and collection accounts related to our credit facilities, home sales proceeds held in restricted accounts associated with our credit facilities and securitizations and amounts held in escrow related to funding home purchases in our mortgage origination 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, 2021, 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, during the first half of 2020 we temporarily paused hiring for non-critical roles, paused the majority of our advertising spending and reduced other discretionary spending. As our financial position strengthened, we increased our hiring and marketing and advertising activities. Additionally, we temporarily paused home buying through Zillow Offers in the first half of 2020 and resumed home buying activities in all markets in early August 2020.

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,	
	2021	2020
Cash Flow Data:		
Net cash provided by (used in) operating activities	\$ (3,176,694)	\$ 424,197
Net cash provided by (used in) investing activities	1,088,279	(1,038,489)
Net cash provided by financing activities	3,147,630	1,162,318

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, 2021, net cash used in operating activities was \$3,176.7 million. This was primarily driven by a net loss of \$527.8 million, adjusted by an inventory valuation adjustment of \$407.9 million, share-based compensation expense of \$311.7 million, depreciation and amortization expense of \$129.8 million, amortization of debt discount and debt issuance costs of \$104.4 million, impairment and restructuring costs of \$56.8 million, amortization of contract cost assets of \$41.6 million, amortization of right of use assets of \$22.7 million, a loss on extinguishment of debt of \$17.1 million and \$12.5 million in other adjustments to reconcile net loss to net cash used in operating activities, including deferred income taxes. Changes in operating assets and liabilities offset these adjustments by \$3,753.5 million. The changes in operating assets and liabilities are primarily related to a \$3,826.7 million increase in inventory due to home purchases outpacing the sale of homes through Zillow Offers for the year ended December 31, 2021, an \$82.3 million increase in accounts receivable due primarily to an increase in revenue from products and services billed in arrears, an \$81.6 million increase in prepaid expenses and other current assets due to the timing of payments, a \$29.3 million decrease in lease liabilities, a \$26.3 million increase in contract cost assets due primarily to capitalized sales commissions and an \$11.4 million decrease in other long-term liabilities. These changes were partially offset by a \$224.0 million decrease in mortgage loans held for sale, a \$61.5 million increase in accrued expenses and other liabilities driven by the timing of payments, \$13.2 million in accrued compensation and benefits and a \$4.7 million change in accounts payable.

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 debt discount and debt issuance costs 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 and \$4.8 million in other adjustments to reconcile net loss to cash provided by operating activities. This was partially offset by a \$7.5 million change in deferred taxes and a gain on extinguishment of debt 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.

Cash Flows Provided By (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, 2021, net cash provided by investing activities was \$1,088.3 million. This was the result of \$1,690.0 million of net proceeds from the maturity of investments, partially offset by \$497.3 million of net cash paid for our September 2021 acquisition of ShowingTime, and \$104.4 million of purchases of property and equipment and intangible assets.

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.

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, 2021, cash provided by financing activities was \$3,147.6 million, which was primarily related to \$1,838.4 million of net borrowings on our credit facilities related to Zillow Offers, \$1,138.2 million in proceeds from the issuance of the 2021-1 and 2021-2 term loans, net of issuance costs, \$544.6 million in proceeds from the sale of 3,163,502 shares of Class C capital stock under our equity distribution agreement and \$127.2 million of proceeds from the exercise of option awards. These cash inflows were partially offset by \$302.3 million of cash paid for share repurchases pursuant to our stock buyback program and \$197.1 million of net repayments on our warehouse line 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.

Capital Resources

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. As of December 31, 2021, we have outstanding a total of \$1.7 billion aggregate principal of convertible senior notes. The convertible notes are senior unsecured obligations, and interest on the convertible notes is paid semi-annually. On May 26, 2021, we submitted notice to the trustee to exercise our right to redeem the remaining \$372.8 million in aggregate principal amount of the 2023 Notes on July 6, 2021 (the "Redemption Date"). Holders of the 2023 Notes had the option to convert their 2023 Notes in whole or in part into shares of Class C capital stock prior to the Redemption Date. During the year ended December 31, 2021, holders of the 2023 Notes elected to convert \$371.5 million of aggregate principal amount prior to the Redemption Date. We satisfied these conversions through the issuance of approximately 4.7 million shares of Class C capital stock and an immaterial amount of cash in lieu of fractional shares. The remaining \$1.3 million of aggregate principal amount was redeemed on July 6, 2021 for \$1.3 million in cash, plus accrued and unpaid interest. 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, 2021		December 31, 2020	
			Carrying Value		Carrying Value	
September 1, 2026	\$ 498,800	1.375 %	\$ 368,773	\$ 347,566		
May 15, 2025	564,998	2.75 %	443,505	414,888		
September 1, 2024	608,382	0.75 %	506,946	524,273		
July 1, 2023	—	1.50 %	—	326,796		
Total	\$ 1,672,180		\$ 1,319,224	\$ 1,613,523		

Refer to Note 13 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information regarding our convertible senior notes, including conversion rates, conversion and redemption dates and the related capped call transactions.

On February 17, 2021, we entered into an equity distribution agreement with certain sales agents and/or principals (the "Managers"), pursuant to which we may offer and sell from time to time, through the Managers, shares of our Class C capital stock, having an aggregate gross sales price of up to \$1.0 billion, in such share amounts as we may specify by notice to the Managers, in accordance with the terms and conditions set forth in the equity distribution agreement. During the year ended December 31, 2021, we issued and sold 3,163,502 shares of our Class C capital stock for total proceeds of \$550.6 million and net proceeds of \$544.6 million, after deducting \$6.1 million of commissions and other offering expenses incurred. For additional information regarding the equity distribution agreement, see Note 15 in our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

On December 2, 2021, Zillow Group's Board of Directors authorized the repurchase of up to \$750.0 million of its Class A common stock, Class C capital stock or a combination thereof (the "Stock Repurchase Program"). Repurchases may be made in open-market transactions or privately negotiated transactions, or in such other manner as deemed appropriate by management, and may be made from time to time as determined by management depending on market conditions, share price, trading volume, cash needs and other business factors, in each case as permitted by securities laws and other legal requirements. We reserve the right to terminate or suspend the Stock Repurchase Program at any time, and it does not have an expiration date. During the year ended December 31, 2021, we repurchased 4,944,462 of Class C capital stock at an average price of \$61.12 per share for an aggregate purchase price of \$302 million. As of December 31, 2021, \$447.8 million remained available for future repurchases pursuant to the Stock Repurchase Program, which repurchases decrease our liquidity and capital resources, when effected. For additional information on our Stock Repurchase Program, see Note 15 in our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

Homes

Zillow Group's purchase of homes through the Zillow Offers program and sale of homes has had a significant impact on our liquidity and capital resources as a cash and inventory intensive business. We use credit facilities, and beginning in the third quarter of 2021, asset-backed securitizations, to fund a portion of the purchase price of homes and certain related costs. On October 18, 2021, Zillow Group announced that Zillow Offers would not sign any new, additional contracts to buy homes through the end of 2021. Subsequently, on November 2, 2021, the Board of Directors of Zillow Group made the determination to wind down Zillow Offers operations. As a result, we expect home financing to decrease in 2022 as we have ceased home buying activities. In the meantime, if we are unable to continue financing the purchase of homes, we may be required to use cash and cash equivalents to fund the purchase price of homes and certain related costs. 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, 2021	Outstanding Borrowings at December 31, 2020	Weighted Average Interest Rate
Goldman Sachs Bank USA	April 21, 2023	\$ 750,000	\$ 548,345	\$ 145,825	2.90 %
Citibank, N.A.	May 2, 2022	1,000,000	770,306	87,103	2.84 %
Credit Suisse AG, Cayman Islands	December 31, 2022	1,500,000	834,906	128,238	2.92 %
Total		\$ 3,250,000	\$ 2,153,557	\$ 361,166	

Refer to Note 13 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. On September 30, 2021, Zillow Group acquired ShowingTime in exchange for approximately \$511.8 million in cash, subject to certain adjustments. For additional information regarding our acquisition of ShowingTime, see Note 9 of our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

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, 2021	Outstanding Borrowings at December 31, 2020	Weighted Average Interest Rate
Credit Suisse AG, Cayman Islands	March 18, 2022	\$ 300,000	\$ 76,392	\$ 149,913	2.50 %
Citibank, N.A.	June 10, 2022	100,000	16,912	90,227	1.85 %
Comerica Bank	June 25, 2022	60,000	18,656	68,903	2.50 %
Total		\$ 460,000	\$ 111,960	\$ 309,043	

Refer to Note 13 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.

Contractual Obligations and Other Commitments

Convertible Senior Notes - Includes the aggregate principal amounts of the 2024 Notes, 2025 Notes and 2026 Notes due on their contractual maturity dates, as well as the associated coupon interest. As of December 31, 2021, we have an outstanding aggregate principal amount of \$1.7 billion, none of which is payable within 12 months. Future interest payments associated with the convertible senior notes total \$105.0 million, with \$29.5 million payable within 12 months. Refer to Note 13 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.

Homes Segment Credit Facilities - Includes principal amounts due for amounts borrowed under the credit facilities used to provide capital for our Zillow Offers business. As of December 31, 2021, we have outstanding principal amounts of \$2.2 billion. 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, if not replaced by new real estate inventory of equal or greater value. Amounts exclude an immaterial amount of estimated interest payments. Given the wind down of Zillow Offers operations, we expect to incur prepayment penalties of approximately \$6 million to \$8 million associated with the pay-down of one of our credit facilities.

Homes Segment Securitizations - Includes the principal amounts of the 2021-1 and 2021-2 term loans due on their contractual maturity dates, and the principal amounts due for amounts borrowed on the 2021-1 and 2021-2 variable funding lines associated with the securitizations as well as the associated coupon interest. As of December 31, 2021, we have outstanding principal amounts of \$1.3 billion associated with our Homes segment securitizations. Contractual future interest payments associated with the 2021-1 and 2021-2 term loans, if held to maturity, total \$75.0 million, with \$29.8 million payable within 12 months. Interest amounts exclude an immaterial amount of estimated interest payments on amounts borrowed on the 2021-1 and 2021-2 variable funding lines. However, given the wind down of Zillow Offers operations, we expect to settle the principal amounts associated with the securitization term loans and variable funding lines within the next 12 months, including contractual interest due and related prepayment penalties associated with the term loans. We estimate the related prepayment penalties will be approximately \$9 million to \$12 million. Refer to Note 13 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 securitizations.

Mortgages Segment Credit Facilities - 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. As of December 31, 2021, we have outstanding principal amounts of \$112.0 million. 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, if not replaced by new real estate inventory of equal or greater value. Amounts exclude an immaterial amount of estimated interest payments.

Homes under Contract - As of December 31, 2021, we have obligations related to homes under contract to purchase totaling \$108.7 million, however, these contracts could be cancelled without significant penalty and all closed by January 31, 2022.

Operating Lease Obligations - Our lease portfolio primarily comprises operating leases for our office space. As of December 31, 2021, we have operating lease obligations totaling \$251.5 million, with \$35.3 million payable within 12 months. For additional information regarding our operating leases, see Note 12 to our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K. Additionally, as of December 31, 2021 and 2020, 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.

Purchase Obligations - We have non-cancellable purchase obligations for content related to our mobile applications and websites and certain cloud computing costs. As of December 31, 2021, we have purchase obligations totaling \$140.7 million, with \$73.7 million payable within 12 months. For additional information regarding our purchase obligations, see Note 18 to our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

Restructuring Payments - We expect to make future cash payments of approximately \$81 million to \$97 million, excluding prepayment penalties associated with financing facilities, related to the wind down of Zillow Offers operations. We expect these additional cash payments to be made during 2022 and to primarily relate to employee termination costs and contract termination costs. For additional information regarding our restructuring costs, see Note 22 to our Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

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 as well as our decision to wind down Zillow Offers operations have 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, restructuring costs, 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 initial 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. As of December 31, 2021, we had accrued \$77.9 million in revenue associated with these products.

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 and our future expectations based on current market trends.

Mortgage Origination Revenue. Mortgage origination revenue generated by Zillow Home Loans reflects origination fees on purchase or refinance 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 Zillow Offers 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 to 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 determining the value of our inventory, we consider indicators that net realizable value may be lower than cost at the portfolio level, market level, and in certain circumstances by structure type (single family residence, condo, etc.) by reviewing economic analyses, recent trends in home price appreciation and changes to resale strategy. Factors we analyze include gross margin on homes closed in recent months, projected gross margin on homes under contract to sell, historical list price to resale price variances, and trends in gross margin, selling prices and average selling concessions or other costs of selling homes. Our estimates of net realizable value are significantly impacted by estimates of the sales price and timing of future sales of homes, which may be impacted by supply and availability of renovation services, location and desirability of our inventory, pricing and use of incentives by us and our competitors, and local economic and demographic trends.

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 our estimate of selling prices as of December 31, 2021 would result in an increase to our inventory valuation adjustment of \$17.8 million.

Restructuring Costs

Identifying and calculating the restructuring costs associated with the wind down of Zillow Offers operations requires certain assumptions and estimates to be made. For costs classified within impairment and restructuring costs, the most significant assumptions pertain to the timing and amount of current and anticipated future liabilities relating to employee termination costs and contract termination costs. Judgment is required to determine which employees under one-time employee termination benefits have met all criteria for recognition and to develop our estimates pertaining to which employees are expected to meet those criteria in future periods. Judgment is required in determining both the timing and amount of benefits recognized under ongoing employee benefit arrangements based on when it becomes probable that employees are entitled to the severance benefits and in developing an estimate of the cost of the benefit to recognize. Adjustments to asset values also requires judgment in determining the fair value of such assets and their remaining useful lives. If the amounts and timing of cash flows from restructuring activities are significantly different from what we have estimated, the actual amount of restructuring and other related charges included in could be materially different than those we have recorded.

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 are approximately 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, U.S. government agency securities and investment grade corporate securities. 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 short-term 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. The fair value of our beneficial interests in securitizations are subject to changes in market value through the impact of interest rates on the effective yield of the investment. For our investment portfolio, 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 and term loans associated with our Homes segment securitizations 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, 2021 (in thousands, except interest rates):

Maturity Date	Aggregate Principal Amount	Stated Interest Rate
September 1, 2026	\$ 498,800	1.375 %
May 15, 2025	564,998	2.75 %
September 1, 2024	608,382	0.75 %
	<u>\$ 1,672,180</u>	

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, 2021 and December 31, 2020, we had outstanding \$2.2 billion and \$361.2 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 \$22.0 million and \$3.6 million as of December 31, 2021 and December 31, 2020, respectively.

We are also subject to market risk which may impact our mortgage loan origination volume and associated revenue and the net interest margin derived from borrowings under our warehouse line of credit and master repurchase agreements that provide capital for Zillow Home Loans. Market risk occurs in periods where changes in short-term interest rates result in mortgage loans being originated with terms that provide a smaller interest rate spread above the financing terms of our warehouse line of credit and master repurchase agreements, which can negatively impact our net income (loss). This risk is primarily mitigated through expedited sale of our loans. As of December 31, 2021 and December 31, 2020, we had outstanding \$112.0 million and \$309.0 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 \$1.1 million as of December 31, 2021 and by \$3.1 million as of December 31, 2020.

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 a material effect on our business, results of operations or financial condition, particularly given we are winding down Zillow Offers operations. 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 quickly respond to inflation 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 U.S. 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

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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, 2021 and 2020, and 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, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, 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, 2021, 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 10, 2022 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.

Valuation of Inventory — Refer to Note 2 and Note 22 in the Notes to Consolidated Financial Statements

Critical Audit Matter Description

Inventory is comprised of residential homes acquired through the Company’s Zillow Offers business and is stated at the lower of cost or net realizable value. Each quarter management reviews 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. During the year ended December 31, 2021, management identified that a large portion of homes purchased primarily in the second half of 2021 had a cost exceeding net realizable value. The Company recorded write-downs of \$211.0 million related to inventory at December 31, 2021, which reduced the carrying value of inventory as of that date to approximately \$3.9 billion.

Given the significant judgment required by management in estimating the net realizable value of inventory, specifically the estimated selling price of each home, our associated audit procedures required a high degree of auditor judgment and an increased extent of effort. Accordingly, we considered the audit of the estimated net realizable value of inventory to be a critical audit matter.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's estimate of the net realizable value of inventory included the following, among others:

- We tested the effectiveness of the Company's internal controls over the determination of net realizable value.
- We evaluated the reasonableness of management's process for developing estimates where a net realizable value was not readily available or observable.
- We discussed with management the Company's plans to sell remaining inventory during the wind down of Zillow Offers operations and evaluated whether management's assessment of net realizable value of inventory was consistent with information obtained through such inquiries.
- We tested a sample of homes in inventory to determine whether the net realizable value of these homes was reasonable. To make this determination we obtained, where available, contracts to sell the inventory after December 31, 2021. For homes for which a sales contract was not available, we considered alternate evidence including external data on sales prices for similar homes in the same geographic location as our audit selections.
- We evaluated management's ability to develop reasonable estimates of net realizable value by comparing prior period estimates of net realizable value to the actual selling prices for homes sold in the current period.
- We tested the mathematical accuracy of management's analysis.

Revenue – Highly Automated Revenue Systems in the Internet, Media and Technology Segment — Refer to Note 2 and Note 21 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. Total revenue for the IMT segment for the year ended December 31, 2021 was \$1.9 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, 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 10, 2022

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

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

	December 31,	
	2021	2020
Assets		
Current assets:		
Cash and cash equivalents	\$ 2,611,499	\$ 1,703,130
Short-term investments	513,922	2,218,108
Accounts receivable, net of allowance for doubtful accounts of \$3,758 and \$3,427 at December 31, 2021 and 2020, respectively	154,937	69,940
Mortgage loans held for sale	106,753	330,758
Inventory	3,912,662	491,293
Prepaid expenses and other current assets	153,555	75,846
Restricted cash	226,651	75,805
Total current assets	7,679,979	4,964,880
Contract cost assets	35,465	50,719
Beneficial interests in securitizations	75,103	—
Property and equipment, net	214,555	196,152
Right of use assets	129,932	187,960
Goodwill	2,373,792	1,984,907
Intangible assets, net	180,072	94,767
Other assets	6,556	7,175
Total assets	<u>\$ 10,695,454</u>	<u>\$ 7,486,560</u>
Liabilities and shareholders' equity		
Current liabilities:		
Accounts payable	\$ 17,230	\$ 18,974
Accrued expenses and other current liabilities	161,459	94,487
Accrued compensation and benefits	108,464	47,666
Borrowings under credit facilities	2,311,556	670,209
Deferred revenue	51,484	48,995
Lease liabilities, current portion	23,503	28,310
Securitization term loans	1,208,753	—
Total current liabilities	3,882,449	908,641
Lease liabilities, net of current portion	147,967	207,723
Convertible senior notes	1,319,224	1,613,523
Other long-term liabilities	4,503	14,857
Total liabilities	5,354,143	2,744,744
Commitments and contingencies (Note 18)		
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; 61,513,634 and 61,101,303 shares issued and outstanding as of December 31, 2021 and 2020, 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; 182,898,987 and 173,207,170 shares issued and outstanding as of December 31, 2021 and 2020, respectively	18	17
Additional paid-in capital	7,001,084	5,880,883
Accumulated other comprehensive income	7,234	164
Accumulated deficit	(1,667,032)	(1,139,255)
Total shareholders' equity	5,341,311	4,741,816
Total liabilities and shareholders' equity	<u>\$ 10,695,454</u>	<u>\$ 7,486,560</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,		
	2021	2020	2019
Revenue:			
Homes	\$ 6,015,778	\$ 1,715,375	\$ 1,365,250
IMT	1,885,782	1,450,232	1,276,896
Mortgages	245,816	174,210	100,691
Total revenue	8,147,376	3,339,817	2,742,837
Cost of revenue:			
Homes	6,106,944	1,634,755	1,324,464
IMT	203,449	193,097	193,885
Mortgages	83,784	38,540	25,750
Total cost of revenue	6,394,177	1,866,392	1,544,099
Gross profit	1,753,199	1,473,425	1,198,738
Operating expenses:			
Sales and marketing	1,076,235	691,119	728,631
Technology and development	474,396	390,172	350,923
General and administrative	448,773	356,722	366,019
Impairment and restructuring costs	72,173	76,800	—
Acquisition-related costs	8,615	—	—
Integration costs	680	—	650
Total operating expenses	2,080,872	1,514,813	1,446,223
Loss from operations	(327,673)	(41,388)	(247,485)
Gain (loss) on extinguishment of debt	(17,119)	1,448	—
Other income	10,188	25,529	39,658
Interest expense	(191,910)	(155,227)	(101,792)
Loss before income taxes	(526,514)	(169,638)	(309,619)
Income tax benefit (expense)	(1,263)	7,523	4,258
Net loss	\$ (527,777)	\$ (162,115)	\$ (305,361)
Net loss per share — basic and diluted	\$ (2.11)	\$ (0.72)	\$ (1.48)
Weighted-average shares outstanding — basic and diluted	249,937	223,848	206,380

See accompanying notes to consolidated financial statements.

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

	Year Ended December 31,		
	2021	2020	2019
Net loss	\$ (527,777)	\$ (162,115)	\$ (305,361)
Other comprehensive income (loss):			
Unrealized gains (losses) on investments	7,078	(731)	1,434
Reclassification adjustment for net investment (gains) losses included in net loss	—	372	(57)
Net unrealized gains (losses) on investments	7,078	(359)	1,377
Currency translation adjustments	(8)	183	(132)
Total other comprehensive income (loss)	7,070	(176)	1,245
Comprehensive loss	\$ (520,707)	\$ (162,291)	\$ (304,116)

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, 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 convertible senior notes maturing in 2024 and 2026, net of issuance costs	—	—	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	8,800,000	1	411,522	—	—	411,523
Equity component of issuance of convertible senior notes maturing in 2025, net of issuance costs	—	—	154,813	—	—	154,813
Settlement of convertible senior notes	6,219,049	1	244,217	—	—	244,218
Unwind of capped call transactions	(317,865)	—	—	—	—	—
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
Issuance of common and capital stock upon exercise of stock options	3,304,241	—	127,222	—	—	127,222
Vesting of restricted stock units	2,982,148	—	—	—	—	—
Restricted stock units withheld for tax liability	(678)	—	(129)	—	—	(129)
Share-based compensation expense	—	—	347,564	—	—	347,564
Issuance of Class C capital stock in connection with equity offering, net of issuance costs	3,163,502	1	544,557	—	—	544,558
Settlement of convertible senior notes	6,264,954	1	403,294	—	—	403,295
Unwind of capped call transactions	(665,557)	—	—	—	—	—
Repurchases of Class C capital stock	(4,944,462)	(1)	(302,307)	—	—	(302,308)
Net loss	—	—	—	(527,777)	—	(527,777)
Other comprehensive loss	—	—	—	—	7,070	7,070
Balance at December 31, 2021	250,630,068	\$ 25	\$ 7,001,084	\$ (1,667,032)	\$ 7,234	\$ 5,341,311

See accompanying notes to the consolidated financial statements.

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

	Year Ended December 31,		
	2021	2020	2019
Operating activities			
Net loss	\$ (527,777)	\$ (162,115)	\$ (305,361)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	129,780	110,031	87,467
Share-based compensation	311,686	197,550	198,902
Amortization of right of use assets	22,705	24,338	23,142
Amortization of contract cost assets	41,577	36,494	35,323
Amortization of debt discount and debt issuance costs	104,437	102,401	52,097
Loss (gain) on extinguishment of debt	17,119	(1,448)	—
Impairment and restructuring costs	56,828	76,800	—
Inventory valuation adjustment	407,921	—	—
Deferred income taxes	(2,746)	(7,523)	(4,258)
Other adjustments to reconcile net loss to cash provided by (used in) operating activities	15,249	4,761	3,602
Changes in operating assets and liabilities:			
Accounts receivable	(82,312)	(5,585)	(3,694)
Mortgage loans held for sale	223,990	(294,251)	(1,098)
Inventory	(3,826,713)	345,277	(673,798)
Prepaid expenses and other assets	(81,614)	(15,957)	(978)
Contract cost assets	(26,323)	(42,004)	(34,713)
Lease liabilities	(29,276)	(2,149)	(18,940)
Accounts payable	4,699	12,972	(496)
Accrued expenses and other current liabilities	61,462	15,321	19,573
Accrued compensation and benefits	13,203	9,861	6,417
Deferred revenue	789	9,248	5,667
Other long-term liabilities	(11,378)	10,175	(1,028)
Net cash provided by (used in) operating activities	(3,176,694)	424,197	(612,174)
Investing activities			
Proceeds from maturities of investments	2,206,344	2,230,705	1,126,058
Proceeds from sales of investments	—	116,394	—
Purchases of investments	(516,346)	(3,287,071)	(1,495,477)
Purchases of property and equipment	(73,305)	(84,940)	(67,044)
Purchases of intangible assets	(31,094)	(23,577)	(19,591)
Proceeds from sale of equity investment	—	10,000	—
Cash paid for acquisition, net	(497,320)	—	—
Net cash provided by (used in) investing activities	1,088,279	(1,038,489)	(456,054)
Financing activities			
Proceeds from issuance of convertible senior notes, net of issuance costs	—	553,282	1,157,675
Premiums paid for capped call confirmations	—	—	(159,677)
Proceeds from issuance of Class C capital stock, net of issuance costs	544,557	411,522	—
Proceeds from issuance of term loan, net of issuance costs	1,138,227	—	—
Proceeds from borrowings on credit facilities	3,618,299	348,684	688,489
Repayments of borrowings on credit facilities	(1,779,869)	(679,042)	(113,665)
Net borrowings (repayments) on warehouse lines of credit and repurchase agreements	(197,083)	278,616	(2,590)
Repurchases of Class C capital stock	(302,297)	—	—
Settlement of convertible senior notes	(1,297)	(194,768)	—
Proceeds from exercise of stock options	127,222	444,028	65,465
Value of equity awards withheld for tax liability	(129)	(4)	(3)
Net cash provided by financing activities	3,147,630	1,162,318	1,635,694
Net increase in cash, cash equivalents and restricted cash during period	1,059,215	548,026	567,466
Cash, cash equivalents and restricted cash at beginning of period	1,778,935	1,230,909	663,443
Cash, cash equivalents and restricted cash at end of period	<u>\$ 2,838,150</u>	<u>\$ 1,778,935</u>	<u>\$ 1,230,909</u>
Supplemental disclosures of cash flow information			
Cash paid for interest	\$ 108,928	\$ 50,755	\$ 42,156
Noncash transactions:			
Beneficial interests in securitizations	\$ 63,289	\$ —	\$ —
Write-off of fully amortized intangible assets	57,995	62,622	9,999
Write-off of fully depreciated property and equipment	48,626	115,086	36,159
Capitalized share-based compensation	30,372	16,557	11,947
Property and equipment purchased on account	1,357	335	8,775

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 help high-intent movers find and win their home through digital solutions, first class partners and easier buying, selling, financing and renting experiences. We help customers find and win their home with referrals to trusted Zillow Premier Agent and Premier Broker partners and our portfolio of Zillow-branded and affiliated transaction-oriented services. Zillow Offers has purchased and sold homes directly in markets across the country. Beginning in the fourth quarter of 2021, Zillow Offers operations are being wound down with expected completion in the second half of 2022. 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.

Other customer brands include Zillow Rentals, Trulia, StreetEasy, Zillow Closing Services, HotPads and Out East. In addition, Zillow Group provides a comprehensive suite of marketing software and technology solutions which include Morteck, dotloop, Bridge Interactive, New Home Feed and ShowingTime.com, Inc. ("ShowingTime"). 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"), and upon the closing of the Trulia acquisition in February 2015, each of Zillow, Inc. and Trulia became wholly owned subsidiaries of Zillow Group, Inc.

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: disruptions in operations (including in our ability to complete the disposition of homes currently in inventory), and relationships with customers, suppliers, vendors, broker partners, contractors, employees, lenders and consumers given our decision to wind down Zillow Offers operations; unanticipated developments that may prevent, delay or increase the costs associated with our wind down activities; our access to and the availability of financing on terms acceptable to us to finance the purchase of homes through Zillow Offers during the wind down of Zillow Offers operations; public health crises, like the COVID-19 pandemic (including variants) and the availability, widespread distribution, use and efficacy of vaccines; rates of revenue growth; our ability to successfully integrate and realize the benefits of our past or future strategic acquisitions or investments; our ability to manage advertising inventory or pricing; engagement and usage of our products; our investment of resources to pursue strategies and develop products and services that may not prove effective; competition and innovation in our markets; the stability of the residential real estate market and the impact of changes to federal monetary policy including 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").

Reclassifications

Certain reclassifications have been made in the consolidated statements of operations to conform data for prior periods to the current format. Beginning with the year ended December 31, 2021, we presented a gross profit subtotal in our consolidated statements of operations, which requires certain depreciation expense and amortization expense to be included within cost of revenue. We believe the presentation of gross profit is preferable as it facilitates investors' ability to model across our segments and enhances comparability with our public company peers. To effect the presentation of gross profit, we present the amortization expense for certain intangible assets and data acquisition costs within cost of revenue and have reclassified certain amounts in prior periods in the consolidated statements of operations from technology and development expenses to cost of revenue. Additionally, we reclassified the amortization expense for trade names and trademarks and customer relationship intangible assets from technology and development expenses to sales and marketing expenses. This change has no impact on income (loss) from operations or net income (loss).

Amounts previously reported in the consolidated statements of operations for the periods presented were revised herein as shown below (in thousands):

	Year Ended December 31, 2020			Year Ended December 31, 2019		
	As Reported	As Revised	Effect of Change	As Reported	As Revised	Effect of Change
Cost of revenue:						
Homes	\$ 1,621,040	\$ 1,634,755	\$ 13,715	\$ 1,315,345	\$ 1,324,464	\$ 9,119
IMT	104,091	193,097	89,006	98,522	193,885	95,363
Mortgages	31,264	38,540	7,276	18,154	25,750	7,596
Total cost of revenue	1,756,395	1,866,392	109,997	1,432,021	1,544,099	112,078
Operating expenses:						
Sales and marketing	672,816	691,119	18,303	714,128	728,631	14,503
Technology and development	518,072	390,172	(127,900)	477,347	350,923	(126,424)
General and administrative	357,122	356,722	(400)	366,176	366,019	(157)

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, restructuring costs, 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 as well as our plans to wind down Zillow Offers operations have 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, 2021 and 2020. 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 U.S. 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 (loss) unless either we intend to sell the security or it is more likely than not we will be required to sell the security. 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, 2021 or 2020. Additionally, we have the ability to hold to maturity and more likely than not will not be required to sell the securities before a recovery of the amortized cost basis has occurred.

Restricted Cash

Restricted cash consists of cash received from the resale of homes through Zillow Offers which is held in restricted accounts associated with our credit facilities and securitizations (see Note 13) and amounts held in escrow related to funding home purchases in our mortgage origination 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. However, 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 (“MBSSs”), 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 MBSSs 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 in the consolidated statements of operations. 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. Refer to Note 5 to our consolidated financial statements for additional information regarding inventory.

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. To evaluate 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. Contract assets are recorded within prepaid expenses 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 are approximately 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. Refer to Note 7 of our consolidated financial statements for more information regarding contract cost assets.

Beneficial Interests in Securitizations

As the sponsor of certain securitization transactions for the Zillow Offers business, Zillow Group is required to retain at least a 5% interest in the credit risk of the asset-backed securities issued. The interests are presented as beneficial interests in securitizations in our consolidated balance sheet as of December 31, 2021. These investments are classified as available-for-sale debt securities and are measured at fair value on a recurring basis with unrealized gains and losses reported within our consolidated statements of other comprehensive loss.

The beneficial interests in securitizations accrete interest income over their expected lives using the effective yield method which reflects a portion of the overall fair value adjustment recorded each period on the investments. We reevaluate the cash flow estimates over the lives of the beneficial interests on a quarterly basis to determine if a change to the accretable yield is required on a prospective basis.

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. We remove 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 cost of revenue in our consolidated statements of operations.

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 remove 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 have 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 eleven 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. As of December 31, 2021, we have concluded that our renewal options are not reasonably certain of being exercised, therefore, renewals are not included in the right of use assets and lease liabilities.

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.

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

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, 2021, 2020 and 2019, we did not record any impairments related to goodwill. Refer to Note 10 for additional information related to goodwill.

Intangible Assets

We purchase and license data content from multiple data providers. This data content consists of United States county data about home details 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. In some instances, we retain perpetual rights to this information after our contract with a vendor 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. The amortization period for the capitalized purchased content is based on our best estimate of the useful life of the asset, which is approximately six years.

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, and trade names and trademarks 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.

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.

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.

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.

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 validated consumer connections, or leads, are primarily offered on a share of voice basis. Payment is received prior to the delivery of connections. 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 connections to customers, but instead control when and how many connections to deliver based on a customer's share of voice. We determine the number of 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 connections in the zip code during the month. This results in the delivery of 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 determines the proportion of consumer connections a Premier Agent or Premier Broker receives. The number of connections delivered for a given spend level is dynamic - as demand for advertising in a zip code increases or decreases, the number of 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 prepays 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.

We also offer a pay for performance pricing model called "Flex" for Premier Agent and Premier Broker advertising services in certain markets. Flex is available to select partners alongside our legacy market-based pricing model. With the Flex model, Premier Agents and Premier Brokers are provided with validated leads at no initial 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 consolidated 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, display and ShowingTime, 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, click, lease, listing or impression basis or for a fixed fee for certain advertising packages. 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. 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. We recognize revenue related to our fixed fee rentals product on a straight-line basis over the contract term as the performance obligations, rental listings on our mobile applications and websites, are satisfied over time based on time elapsed. 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.

ShowingTime revenue is primarily generated by Appointment Center, a software-as-a-service and call center solution allowing real estate agents, brokerages and multiple listing services to efficiently schedule real estate viewing appointments on behalf of their customers. Appointment Center revenue is primarily billed in advance on a monthly basis and recognized ratably over the contract period which aligns to our satisfaction of performance obligations.

Mortgages Segment

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

Mortgage origination revenue recorded within our Mortgages segment reflects origination fees on purchase or refinance mortgages and the corresponding sale, or expected future sale, of a loan. When an IRLC 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.

There were no customers that generated 10% or more of our total revenue in the years ended December 31, 2021, 2020 or 2019.

Cost of Revenue. Our cost of revenue consists of expenses related to operating our mobile applications and websites, including associated headcount-related 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. Cost of revenue also includes amortization costs related to capitalized website and development activities, amortization of software, amortization of certain intangible assets and other costs to obtain data used to populate our mobile applications and websites, and amortization of certain intangible assets recorded in connection with acquisitions, including developed technology. For our Homes segment, 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, 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-related 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, depreciation expense, and amortization of certain intangible assets recorded in connection with acquisitions, including trade names and trademarks and customer relationships. 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 \$62.3 million and \$11.3 million in holding costs for the years ended December 31, 2021 and 2020, 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-related expenses for loan officers and specialists supporting Zillow Home Loans.

Advertising costs are expensed as incurred. For the years ended December 31, 2021, 2020 and 2019, expenses attributable to advertising totaled \$210.1 million, \$113.0 million and \$185.2 million, respectively.

Technology and Development. Technology and development expenses consist of headcount-related 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 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, 2021, 2020 and 2019, expenses attributable to research and development for our business totaled \$481.9 million, \$383.1 million and \$343.7 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 U.S. 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, 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.

Restructuring Costs. The main components of our restructuring plan recorded within impairment and restructuring costs in our consolidated statement of operations for our wind down of Zillow Offers operations relate to employee termination costs, contract termination costs, and charges related to the write-off of assets pertaining to Zillow Offers. One-time employee termination benefits are recognized when the plan of termination has been communicated to employees and certain other criteria are met. Other severance and employee costs, primarily pertaining to ongoing employee benefit arrangements, are recognized when it is probable that the employees are entitled to the severance benefits and the amounts can be reasonably estimated. Contract termination costs are recognized when a contract is terminated in accordance with its terms or at the cease-use date. Asset write-offs are recognized upon their cease-use date. The cumulative effect of a change resulting from a revision to either the timing or the amount of estimated cash flows for restructuring is recognized as an adjustment to the liability in the period of the change. See Note 22 for additional information.

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 December 2019, the Financial Accounting Standards Board ("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. The adoption of this guidance did not have a material impact on our financial position, results of operations or cash flows.

Recently Issued Accounting Standards Not Yet Adopted

In October 2021, the FASB issued guidance which requires contract assets and contract liabilities acquired in a business combination to be recognized and measured in accordance with ASC 606, Revenue from Contracts with Customers. We currently recognize contract assets and contract liabilities at the acquisition date based on fair value estimates, which historically has resulted in a reduction to unearned revenue on the balance sheet, and therefore, a reduction to revenue that would have otherwise been recorded as an independent entity. The guidance is effective for interim and annual periods beginning after December 15, 2022 on a prospective basis, with early adoption permitted. We expect to adopt the guidance on January 1, 2023. We are currently evaluating the potential impact of the guidance on our financial position, results of operations and cash flows.

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 adopted this guidance on January 1, 2022 using the modified retrospective approach. Upon adoption, we expect to recognize a decrease to additional paid-in capital of \$492.5 million, an increase to long-term debt and a cumulative-effect adjustment to accumulated deficit. Additionally, we expect total remaining interest expense over the contractual terms of our convertible senior notes to decrease after adoption of this guidance.

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. Our warehouse line of credit and master repurchase agreements each reference the one-month LIBOR in the applicable interest rate, and publication of the one-month LIBOR is expected to cease after June 30, 2023. We have amended our warehouse line of credit and master repurchase agreements to include transition language where in the event of the discontinuance of one-month LIBOR, our facility agreements will transition to an alternative reference rate. We do not believe the adoption of this guidance will 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 apply 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 (Level 1). The fair value measurement of other cash equivalents is based on observable market-based inputs principally derived from or corroborated by observable market data (Level 2).

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 (Level 2).

Restricted cash — The carrying value of restricted cash approximates fair value due to the short period of time amounts are borrowed on our credit facilities, home sales proceeds are held in restricted accounts associated with our credit facilities and securitizations, and amounts are held in escrow (Level 1).

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 (Level 2).

Forward contracts — The fair value of mandatory loan sales commitments and derivative instruments such as forward sales of mortgage-backed securities that are utilized as economic hedging instruments is calculated by reference to quoted prices for similar assets (Level 2).

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. 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 (Level 3).

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, 2021	December 31, 2020
Range	42% - 100%	47% - 100%
Weighted average	85%	75%

Beneficial interests in securitizations — The fair value of beneficial interests in securitizations is calculated using a discounted cash flow methodology. We rely on significant unobservable valuation inputs as the investments do not trade in active markets with readily observable prices and there is limited observable market data for reference. The primary unobservable inputs include the assumptions related to the expected timing and amount of prepayments and the discount rate of approximately 8% applied to the projected cash flows. An increase in the amount of prepayments, in isolation, would result in an increase in the fair value measurement (Level 3). An increase in the discount rate, in isolation, would result in a decrease in the fair value measurement (Level 3). As of December 31, 2021, we have included the expected full prepayment of both beneficial interests by the fourth quarter of 2022 due to the planned wind down of Zillow Offers operations.

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, 2021				
	Total	Level 1	Level 2	Level 3
Cash equivalents:				
Money market funds	\$ 2,132,389	\$ 2,132,389	\$ —	\$ —
Short-term investments:				
U.S. government agency securities	470,851	—	470,851	—
Corporate bonds	33,080	—	33,080	—
Commercial paper	9,991	—	9,991	—
Beneficial interests in securitizations	75,103	—	—	75,103
Mortgage origination-related:				
Mortgage loans held for sale	106,753	—	106,753	—
IRLCs	4,626	—	—	4,626
Forward contracts - other current assets	212	—	212	—
Forward contracts - other current liabilities	(222)	—	(222)	—
Total	\$ 2,832,783	\$ 2,132,389	\$ 620,665	\$ 79,729

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	—
U.S. 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	\$ 4,048,212	\$ 1,486,384	\$ 2,549,486	\$ 12,342

For the year ended December 31, 2021, the change in the balance of beneficial interests in securitizations was due to increases related to our new securitization transactions and unrealized gains of \$8.9 million. The following table presents the changes in our IRLCs for the periods presented (in thousands):

	Year Ended December 31, 2021	Year Ended December 31, 2020 (1)
Balance, beginning of the period	\$ 12,342	\$ 937
Issuances	69,958	63,662
Transfers	(78,898)	(60,648)
Fair value changes recognized in earnings	1,224	8,391
Balance, end of period	\$ 4,626	\$ 12,342

(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, 2021, the notional amounts of the hedging instruments related to our mortgage loans held for sale were \$305.0 million and \$387.8 million for our IRLCs and forward contracts, respectively. 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. We do not have the right to offset our forward contract derivative positions.

See Note 13 for the carrying amount and estimated fair value of our securitization term loans and convertible senior notes.

Note 4. Cash and Cash Equivalents, 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, investments, including beneficial interests in securitizations, and restricted cash as of the dates presented (in thousands):

December 31, 2021				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Market Value
Cash	\$ 479,110	\$ —	\$ —	\$ 479,110
Cash equivalents:				
Money market funds	2,132,389	—	—	2,132,389
Short-term investments:				
U.S. government agency securities	472,570	—	(1,719)	470,851
Corporate bonds	33,172	3	(95)	33,080
Commercial paper	9,991	—	—	9,991
Restricted cash	226,651	—	—	226,651
Beneficial interests in securitizations	66,167	8,936	—	75,103
Total	<u>\$ 3,420,050</u>	<u>\$ 8,939</u>	<u>\$ (1,814)</u>	<u>\$ 3,427,175</u>

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
U.S. 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	<u>\$ 3,996,980</u>	<u>\$ 122</u>	<u>\$ (59)</u>	<u>\$ 3,997,043</u>

The following table presents available-for-sale investments by contractual maturity date as of December 31, 2021 (in thousands):

	Amortized Cost	Estimated Fair Market Value
Due in one year or less	\$ 180,857	\$ 180,549
Due after one year	401,043	408,476
Total	<u>\$ 581,900</u>	<u>\$ 589,025</u>

All short-term investments as of December 31, 2020 had 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,	
	2021	2020
Finished goods	\$ 2,727,421	\$ 339,372
Work-in-process	1,185,241	151,921
Inventory	<u>\$ 3,912,662</u>	<u>\$ 491,293</u>

We recorded a write-down for homes in inventory as of December 31, 2021 of \$211.0 million with a corresponding increase to cost of revenue in our consolidated statement of operations for the year ended December 31, 2021. Prior to the year ended December 31, 2021 we did not record any material write-downs to inventory. Refer to Note 22 for a discussion of lower of cost or net realizable value adjustments recorded during the year ended December 31, 2021.

Note 6. Contract Balances

Contract assets were \$77.9 million and \$20.8 million as of December 31, 2021 and December 31, 2020, respectively.

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

	Year Ended December 31,		
	2021	2020	2019
Allowance for doubtful accounts:			
Balance, beginning of period	\$ 3,427	\$ 4,522	\$ 4,838
Additions charged to expense	1,073	2,650	2,772
Less: write-offs, net of recoveries and other adjustments	(742)	(3,745)	(3,088)
Balance, end of period	<u>\$ 3,758</u>	<u>\$ 3,427</u>	<u>\$ 4,522</u>

For the years ended December 31, 2021 and 2020, we recognized revenue of \$48.4 million and \$37.1 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, 2021 and 2020, we had \$35.5 million and \$50.7 million, respectively, of contract cost assets. For the years ended December 31, 2021 and 2020, we did not record any material impairment losses to our contract cost assets.

We recorded amortization expense related to contract cost assets of \$41.6 million, \$36.5 million and \$35.3 million during the years ended December 31, 2021, 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,	
	2021	2020
Website development costs	\$ 175,230	\$ 95,466
Leasehold improvements	107,017	110,280
Office equipment, furniture and fixtures	25,151	39,607
Computer equipment	19,122	20,433
Construction-in-progress	7,129	44,151
Property and equipment	333,649	309,937
Less: accumulated amortization and depreciation	(119,094)	(113,785)
Property and equipment, net	\$ 214,555	\$ 196,152

We recorded depreciation expense related to property and equipment (other than website development costs) of \$31.1 million, \$34.1 million and \$24.9 million, respectively, during the years ended December 31, 2021, 2020 and 2019.

We capitalized \$85.6 million, \$54.8 million and \$42.3 million, respectively, in website development costs during the years ended December 31, 2021, 2020 and 2019. Amortization expense for website development costs included in cost of revenue was \$36.9 million, \$24.8 million and \$17.0 million, respectively, for the years ended December 31, 2021, 2020 and 2019.

Note 9. Acquisition
Acquisition of ShowingTime.com, Inc.

On September 30, 2021, Zillow Group acquired ShowingTime in exchange for approximately \$511.8 million in cash, subject to certain adjustments. Our acquisition of ShowingTime has been accounted for as a business combination, and assets acquired and liabilities assumed were recorded at their preliminary estimated fair values as of September 30, 2021. 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 total preliminary purchase price has been allocated to the assets acquired and liabilities assumed, including identifiable intangible assets, based on their respective fair values at the acquisition date. The total preliminary purchase price was allocated as follows (in thousands):

Cash and cash equivalents	\$ 14,453
Identifiable intangible assets	111,100
Goodwill	388,885
Other acquired assets	6,006
Deferred tax liability	(3,920)
Other assumed liabilities	(4,751)
Total preliminary estimated purchase price	\$ 511,773

The preliminary estimated fair value of identifiable intangible assets acquired and associated useful lives consisted of the following (in thousands):

	Preliminary Estimated Fair Value	Estimated Weighted-Average Useful Life (in years)
Customer relationships	\$ 54,500	8
Developed technology	47,600	4
Trade names and trademarks	9,000	10
Total	<u>\$ 111,100</u>	

We used an income approach to measure the fair value of the customer relationships based on the excess earnings method, whereby the fair value is estimated based upon the present value of cash flows that the applicable asset is expected to generate. We used an income approach to measure the fair value of the developed technology and the trade names and trademarks based on the relief-from-royalty method. These fair value measurements were based on Level 3 inputs under the fair value hierarchy.

Our estimates and assumptions related to the purchase price allocation are preliminary and subject to change during the measurement period (up to one year from the acquisition date) as we finalize the amounts of intangible assets, goodwill and deferred taxes recorded in connection with the acquisition.

Acquisition-related costs incurred, which primarily included legal, accounting 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.

On an unaudited pro forma basis, consolidated revenue would have been approximately 1% higher for the year ended December 31, 2021 and approximately 2% higher for the year ended December 31, 2020 if the acquisition would have been consummated as of January 1, 2020. Unaudited pro forma earnings information has not been presented as the effects were not material to our consolidated financial statements.

Note 10. Goodwill and Intangible Assets, net

The following table presents goodwill by reportable segment as of December 31, 2021 and 2020 (in thousands):

	December 31,	
	2021	2020
IMT	\$ 2,175,301	\$ 1,786,416
Mortgages	198,491	198,491
Total	<u>\$ 2,373,792</u>	<u>\$ 1,984,907</u>

There is no goodwill attributable to the Homes segment. The goodwill recorded in connection with the acquisition of ShowingTime, which includes intangible assets that do not qualify for separate recognition, is not deductible for tax purposes and is included within the IMT segment.

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

	December 31, 2021		
	Cost	Accumulated Amortization	Net
Customer relationships	\$ 138,500	\$ (83,915)	\$ 54,585
Developed technology	133,664	(86,291)	47,373
Software	58,733	(19,542)	39,191
Trade names and trademarks	45,500	(9,181)	36,319
Intangibles-in-progress	1,516	—	1,516
Purchased content	3,941	(2,853)	1,088
Total	<u>\$ 381,854</u>	<u>\$ (201,782)</u>	<u>\$ 180,072</u>

	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	<u>\$ 298,472</u>	<u>\$ (203,705)</u>	<u>\$ 94,767</u>

Amortization expense recorded for intangible assets for the years ended December 31, 2021, 2020 and 2019 was \$61.3 million, \$50.5 million and \$44.9 million, respectively. Amortization expense for trade names and trademarks and customer relationships intangible assets is included in sales and marketing expenses. Amortization expense for all other intangible assets is included in cost of revenue.

Estimated future amortization expense for intangible assets, including amortization related to future commitments (see Note 18), as of December 31, 2021 is as follows (in thousands):

2022	\$ 60,793
2023	38,882
2024	30,116
2025	21,337
2026	12,605
Thereafter	34,971
Total future amortization expense	<u>\$ 198,704</u>

We did not record any impairment costs related to our intangible assets for the years ended December 31, 2021 and 2019. 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 in our consolidated statement of operations 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. The remaining carrying value of the intangible asset is amortized 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.

Note 11. 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,	
	2021	2020
Accrued marketing and advertising	\$ 27,126	\$ 16,239
Taxes payable	17,841	6,131
Accrued interest expense	8,264	5,916
Accrued estimated legal liabilities and legal fees	7,467	6,316
Merger consideration payable to former stockholders of certain acquired entities	6,590	6,117
Accrued restructuring costs	3,776	—
Accrued escrow payable	174	9,788
Other accrued expenses and other current liabilities	90,221	43,980
Total accrued expenses and other current liabilities	<u>\$ 161,459</u>	<u>\$ 94,487</u>

Note 12. Leases

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

	Year Ended December 31,		
	2021	2020	2019
Operating lease cost	\$ 37,915	\$ 40,292	\$ 35,837
Variable lease cost	13,418	10,323	11,231
Total lease cost	<u>\$ 51,333</u>	<u>\$ 50,615</u>	<u>\$ 47,068</u>

We have subleases related to certain of our operating leases. We recognize sublease income on a straight-line basis over the sublease term, which is recorded as a reduction to our operating lease cost. For the year ended December 31, 2021, we recognized \$6.9 million of sublease income. Sublease income was not material for the years ended December 31, 2020 and 2019.

Total lease costs associated with short-term leases were not material for the years ended December 31, 2021, 2020 and 2019.

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

	Year Ended December 31,		
	2021 (1)	2020	2019
Cash paid for amounts included in the measurement of operating lease liabilities, net of lease incentives of \$433, \$18,626 and \$— for the years ended December 31, 2021, 2020 and 2019, respectively	\$ 43,170	\$ 17,676	\$ 31,816
Right of use assets obtained in exchange for new operating lease obligations	\$ (35,719)	\$ 145	\$ 128,354
Weighted average remaining lease term for operating leases	7.00 years	8.00 years	8.50 years
Weighted average discount rate for operating leases	7.2 %	6.5 %	6.5 %

(1) During the year ended December 31, 2021, we modified our existing office space lease for our corporate headquarters in Seattle, Washington, whereby the renewal options for certain existing office space which we had previously included in the measurement of the lease liability and right of use asset were removed and we will partially terminate our lease early for certain existing office space, resulting in a reduction of the lease liability and right of use asset of approximately \$43.5 million and \$42.4 million, respectively. The lease term for certain other existing leased office space in Seattle was extended such that it now expires in 2032 and retains the two five-year renewal options, partially offsetting the reduction of the lease liability and right of use asset described above.

The following table presents the scheduled maturities of our operating lease liabilities by year as of December 31, 2021 (in thousands):

2022	\$ 35,340
2023	40,118
2024	36,470
2025	22,698
2026	22,759
Thereafter	94,085
Total lease payments	251,470
Less: Imputed interest	(80,000)
Present value of lease liabilities	\$ 171,470

Operating lease liabilities included in the table above do not include sublease income. As of December 31, 2021, we expect to receive sublease income of approximately \$41.7 million from 2022 through 2030.

Note 13. Debt

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

	December 31,	
	2021	2020
Homes segment		
Credit facilities:		
Goldman Sachs Bank USA	\$ 548,345	\$ 145,825
Citibank, N.A.	770,306	87,103
Credit Suisse AG, Cayman Islands	834,906	128,238
Securitizations:		
2021-1 variable funding line	16,846	—
2021-1 term loan	471,975	—
2021-2 variable funding line	29,193	—
2021-2 term loan	736,778	—
Total Homes segment debt	3,408,349	361,166
Mortgages segment		
Repurchase agreements:		
Credit Suisse AG, Cayman Islands	76,392	149,913
Citibank, N.A.	16,912	90,227
Warehouse line of credit:		
Comerica Bank	18,656	68,903
Total Mortgages segment debt	111,960	309,043
Convertible senior notes		
1.375% convertible senior notes due 2026	368,773	347,566
2.75% convertible senior notes due 2025	443,505	414,888
0.75% convertible senior notes due 2024	506,946	524,273
1.50% convertible senior notes due 2023	—	326,796
Total convertible senior notes	1,319,224	1,613,523
Total debt	\$ 4,839,533	\$ 2,283,732

Homes Segment
Variable Interest Entities

In the first half of 2021, certain wholly owned subsidiaries of Zillow Group amended and restated the Homes segment credit agreements in order to facilitate a titling trust structure. In March 2021, Zillow Group, through Zillow Offers, began buying and selling homes through a titling trust. The titling trust facilitates the allocation of beneficial ownership of properties to special purpose entities (each, an "SPE"), which SPEs are then party to agreements to finance the properties. Zillow Group initially formed these SPEs to purchase and sell residential properties through Zillow Offers, and subsequent to the creation of the titling trust, these SPEs hold beneficial interests in homes purchased by the titling trust, which the SPEs subsequently finance. 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 outside of these SPEs. The financings executed by the SPEs are secured by the assets and equity of one or more SPEs. These SPEs and titling trust 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' and titling trust's economic performance and the obligation to absorb losses of the SPEs and titling trust or the right to receive benefits that could potentially be significant to the SPEs and titling trust. The SPEs and titling trust are consolidated within Zillow Group's consolidated financial statements. As of December 31, 2021 and 2020, the total assets of the SPEs and titling trust were \$4.2 billion and \$551.2 million, respectively, of which \$3.9 billion and \$491.3 million are inventory, respectively, \$224.8 million and \$53.0 million are restricted cash, respectively, and \$78.1 million and \$3.9 million are accounts receivable, respectively. As of December 31, 2021 and 2020, the total liabilities of the SPEs and titling trust were \$3.5 billion and \$372.5 million, respectively, of which \$3.4 billion and \$361.2 million are credit facility and securitization-related borrowings, respectively, and \$55.3 million and \$10.8 million are accrued expenses, respectively.

Credit Facilities

To provide capital for Zillow Offers, we utilize revolving 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, if not replaced by new real estate inventory of equal or greater value. The following table summarizes certain details related to our credit facilities as of December 31, 2021 (in thousands, except interest rates):

Lender	Final Maturity Date	Maximum Borrowing Capacity	Weighted Average Interest Rate
Goldman Sachs Bank USA	April 21, 2023	\$ 750,000	2.90 %
Citibank, N.A.	May 2, 2022	1,000,000	2.84 %
Credit Suisse AG, Cayman Islands	December 31, 2022	1,500,000	2.92 %
Total		<u>\$ 3,250,000</u>	

On April 14, 2021, certain wholly owned subsidiaries of Zillow Group amended the credit agreement with Goldman Sachs Bank USA (“Goldman Sachs”) previously maturing on April 20, 2022 to extend the final maturity date to April 21, 2023. The credit agreement with Goldman Sachs was further amended on July 29, 2021 to increase the total maximum borrowing capacity from \$500.0 million to \$750.0 million, and on September 27, 2021 to temporarily increase the total maximum borrowing capacity from \$750.0 million to \$1.25 billion through December 27, 2021.

On June 11, 2021, certain wholly owned subsidiaries of Zillow Group amended the credit agreement with Citibank, N.A. (“Citibank”) previously maturing on November 30, 2021 to extend the final maturity date to December 9, 2023. The credit agreement with Citibank was further amended on August 24, 2021 to increase the total maximum borrowing capacity from \$500.0 million to \$1.0 billion, and further amended on November 30, 2021 such that it now matures on May 2, 2022 and no further advances may be made under the credit agreement. In addition, after January 18, 2022, no further eligible properties can be added to the borrowing base.

On January 6, 2021, certain wholly owned subsidiaries of Zillow Group amended the Credit Suisse AG, Cayman Islands (“Credit Suisse”) credit agreement previously maturing on July 31, 2021 such that it now matures on December 31, 2022. The credit agreement with Credit Suisse was further amended on September 17, 2021 to increase the total maximum borrowing capacity from \$500.0 million to \$1.5 billion.

Undrawn amounts available under the Goldman Sachs and Credit Suisse 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.

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 beneficially 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, 2021, 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.

Securitization Transactions

On August 11, 2021, we closed the 2021-1 securitization transaction (“2021-1”), and on October 1, 2021, we closed the 2021-2 securitization transaction (“2021-2”) for Zillow Offers. To effect the transactions, SPEs of the Company (the “Borrowers”) entered into non-revolving term loans with third-party lenders. The 2021-1 and 2021-2 term loans each consist of a single componentized promissory note evidencing a monthly-pay loan with initial principal balances of \$480.0 million and \$749.0 million, respectively, each having two fixed rate components and a single principal-only component. The term loans are each secured by a beneficial interest in a revolving pool of single-family homes that are owned by our titling trust. The term loans were immediately sold by the third-party lenders to a subsidiary of the Company (the “Depositor”) and then sold to a Real Estate Mortgage Investment Conduit (“REMIC”) trust in exchange for revolving notes which are secured by the term loans. The principal amount of each class of notes corresponds to the corresponding principal amount of the term loans’ components with an additional class that holds the residual REMIC interests. Upon receipt of the 2021-1 and 2021-2 notes, the Depositor sold \$450.0 million and \$700.0 million, respectively, of principal of the notes to third-party investors for gross proceeds of \$450.0 million and \$700.0 million, respectively. Total debt issuance costs associated with the 2021-1 and 2021-2 term loans were \$6.6 million and \$5.7 million, respectively. Zillow Group retained \$30.0 million and \$49.0 million in principal amounts of non-interest-bearing notes as the sponsor of the 2021 -1 and 2021-2 transactions, respectively. Proceeds received by the Depositor from the sale of the notes were used as consideration to purchase the term loans from the third-party lenders. The retained notes are presented as beneficial interests in securitizations in our consolidated balance sheet as of December 31, 2021.

The Depositor entity is a variable interest entity for which Zillow Group is the primary beneficiary, as it has the power to control the activities that most significantly impact the entity’s economic performance and the obligation to absorb losses of the Depositor or the right to receive benefits that could potentially be significant to the Depositor. We have evaluated our interests in the REMIC trusts, including our interest in the retained notes, and have concluded that we do not have a variable interest in the REMIC trusts and therefore do not consolidate the entities.

In conjunction with the securitizations, we entered into variable funding lines with Credit Suisse AG, Cayman Islands which bear interest at one-month LIBOR plus an applicable margin and have uncommitted maximum borrowing capacities. The variable funding lines are classified as current liabilities in our consolidated balance sheet. The following table summarizes certain details related to our variable funding lines as of December 31, 2021 (in thousands, except interest rates):

Securitization	Maturity Date	Carrying Value	Maximum Borrowing Capacity	Weighted Average Interest Rate
2021-1 variable funding line	February 9, 2024	\$ 16,846	\$ 65,000	2.84 %
2021-2 variable funding line	October 9, 2024	29,193	75,000	2.84 %
	Total	<u>\$ 46,039</u>	<u>\$ 140,000</u>	

The term loans and variable funding lines (together the “Borrower Loans”) are required to be repaid on their respective maturity dates, or earlier if accelerated due to an event of default. The term loans have scheduled reinvestment periods during which additional homes may be financed as existing homes are sold and are classified as current liabilities in our consolidated balance sheet to reflect the expected full prepayment of the term loans during 2022 due to the wind down of Zillow Offers operations. Voluntary prepayments of the term loans within the first year are subject to prepayment fees. The Borrowers are required to repay any resulting shortfall if the value of the eligible properties held in the collateral pool falls below a certain percentage of the principal amount outstanding under the Borrower Loans. Continued inclusion of properties in the collateral pool 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. In addition, continued ability to operate the Borrower Loans requires a certain minimum amount of proceeds to be generated monthly from resale of properties in the collateral pool.

The Borrower Loans include customary representations and warranties, provisions regarding events of default and covenants. The Borrower Loans 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, 2021, Zillow Group was in compliance with all financial covenants and no event of default had occurred. Except for certain limited circumstances, the Borrower Loans are non-recourse to Zillow Group.

The two fixed rate components of the 2021-1 term loan have stated interest rates of 2.3425% and 3.3524%, respectively, and principal amounts of \$370.5 million and \$79.5 million, respectively, as of December 31, 2021. The principal-only component of the 2021-1 term loan has a principal amount of \$30.0 million as of December 31, 2021. The two fixed rate components of the 2021-2 term loan have stated interest rates of 2.4294% and 3.5860%, respectively, and principal amounts of \$576.8 million and \$123.2 million, respectively, as of December 31, 2021. The principal-only component of the 2021-2 term loan has a principal amount of \$49.0 million as of December 31, 2021.

The following tables summarize certain additional details related to our term loans as of the dates presented or for the periods ended (in thousands, except interest rates):

Securitization	Maturity Date	Aggregate Principal Amount	Weighted Average Effective Interest Rate (1)	First Interest Payment Date	Reinvestment Period	December 31, 2021	
						Unamortized Debt Discount and Debt Issuance Costs	Fair Value (2)
2021-1 term loan	February 9, 2024	\$ 480,000	9.03 %	September 9, 2021	24 months	\$ 8,025	\$ 479,985
2021-2 term loan	October 9, 2024	749,000	6.44 %	November 9, 2021	30 months	12,222	746,977
Total		<u>\$ 1,229,000</u>				<u>\$ 20,247</u>	<u>\$ 1,226,962</u>

(1) The weighted average effective interest rate is calculated using the outstanding principal amounts and effective interest rates for the two fixed rate components and the single principal-only component of each of the term loans. Debt discount and debt issuance costs have been allocated to the components of each term loan and will be amortized using the effective interest method with the amortization classified as a component of interest expense.

(2) The estimated fair value of each term loan is calculated using a discounted cash flow methodology. The fair value is classified as Level 3 due to reliance on significant unobservable valuation inputs.

Securitization	Year Ended December 31, 2021			
	Contractual Coupon Interest	Amortization of Debt Discount	Amortization of Debt Issuance Costs	Interest Expense
2021-1 term loan	\$ 4,443	\$ 1,816	\$ 2,202	\$ 8,461
2021-2 term loan	4,608	2,141	1,079	7,828
Total	<u>\$ 9,051</u>	<u>\$ 3,957</u>	<u>\$ 3,281</u>	<u>\$ 16,289</u>

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 or directly to an agency. 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	March 18, 2022	\$ 300,000	2.50 %
Citibank, N.A.	June 10, 2022	100,000	1.85 %
Comerica Bank	June 25, 2022	60,000	2.50 %
Total		<u>\$ 460,000</u>	

Master Repurchase Agreements

On March 19, 2021, Zillow Home Loans amended its Credit Suisse AG, Cayman Islands (“Credit Suisse”) master repurchase agreement to increase the uncommitted total maximum borrowing capacity to \$300.0 million with a maturity date of March 18, 2022.

On June 11, 2021, Zillow Home Loans amended its Citibank, N.A. (“Citibank”) master repurchase agreement previously maturing on October 26, 2021 such that it now matures on June 10, 2022. The repurchase agreement with Citibank includes a committed amount of \$25.0 million.

In accordance with the master repurchase agreements, Credit Suisse and Citibank (together the “Lenders”) have agreed to pay Zillow Home Loans a negotiated purchase price for eligible loans, and Zillow Home Loans has simultaneously agreed 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, 2021 and 2020, \$87.0 million and \$240.1 million, respectively, in mortgage loans held for sale were pledged as collateral under the master repurchase agreements.

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. On June 26, 2021, Zillow Home Loans again amended its Comerica Bank warehouse line of credit such that it now matures on June 25, 2022 and provides an uncommitted total maximum borrowing capacity of \$60.0 million.

Borrowings on the repurchase agreements and warehouse line of credit bear interest at 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, 2021, 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 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, 2021		December 31, 2020	
						Unamortized Debt Discount and Debt Issuance Costs	Fair Value	Unamortized Debt Discount and Debt Issuance Costs	Fair Value
September 1, 2026	\$ 498,800	1.375 %	8.10 %	March 1, 2020	March 1; September 1	\$ 130,027	\$ 781,191	\$ 152,434	\$ 1,508,675
May 15, 2025	564,998	2.75 %	10.32 %	November 15, 2020	May 15; November 15	121,493	724,610	150,112	1,168,855
September 1, 2024	608,382	0.75 %	7.68 %	March 1, 2020	March 1; September 1	101,436	945,547	148,727	2,023,280
July 1, 2023	—	1.50 %	6.99 %	January 1, 2019	January 1; July 1	—	—	46,954	633,039
Total	\$ 1,672,180					\$ 352,956	\$ 2,451,348	\$ 498,227	\$ 5,333,849

Maturity Date	Year Ended December 31, 2021				Year Ended December 31, 2020				Year Ended December 31, 2019			
	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	\$ 6,862	\$ 21,523	\$ 527	\$ 28,912	\$ 6,876	\$ 19,893	\$ 486	\$ 27,255	\$ 2,139	\$ 5,869	\$ 144	\$ 8,152
May 15, 2025	15,536	27,168	1,450	44,154	9,689	15,585	832	26,106	—	—	—	—
September 1, 2024	4,663	32,589	1,116	38,368	5,034	32,618	1,117	38,769	1,539	9,482	325	11,346
July 1, 2023	2,819	7,958	778	11,555	5,606	15,142	1,479	22,227	5,606	14,047	1,374	21,027
December 1, 2021	—	—	—	—	6,350	13,820	1,429	21,599	9,200	18,899	1,957	30,056
December 15, 2020	—	—	—	—	234	—	—	234	265	—	—	265
Total	\$ 29,880	\$ 89,238	\$ 3,871	\$ 122,989	\$ 33,789	\$ 97,058	\$ 5,343	\$ 136,190	\$ 18,749	\$ 48,297	\$ 3,800	\$ 70,846

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.

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. They 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

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, 2021, the last reported sale price of our Class C capital stock exceeded 130% of the conversion price of the 2024 Notes and 2026 Notes, but did not exceed 130% of the conversion price of the 2025 Notes. Accordingly, the 2024 Notes and 2026 Notes are convertible at the option of the holders from January 1, 2022 through March 31, 2022 unless earlier repurchased or redeemed. Each series of the Notes were convertible for all quarterly periods in the year ended December 31, 2021.

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 carrying values of the equity components of the 2026 Notes, 2025 Notes and 2024 Notes, net of issuance costs, are \$171.8 million, \$154.8 million and \$165.9 million, respectively, as of December 31, 2021.

On May 26, 2021, we submitted notice to the trustee to exercise our right to redeem the remaining \$372.8 million in aggregate principal amount of the 2023 Notes on July 6, 2021 (the “Redemption Date”). Holders of the 2023 Notes had the option to convert their 2023 Notes in whole or in part into shares of Class C capital stock prior to the Redemption Date at a conversion rate of 12.7592 shares of Class C capital stock per \$1,000 principal amount of the 2023 Notes, equal to a conversion price of \$78.37 per share. Holders of the 2023 Notes elected to convert \$371.5 million of aggregate principal amount prior to the Redemption Date. We satisfied these conversions through the issuance of approximately 4.7 million shares of Class C capital stock and an immaterial amount of cash in lieu of fractional shares. The remaining \$1.3 million of aggregate principal amount was redeemed on July 6, 2021 for \$1.3 million in cash, plus accrued and unpaid interest. Settlement of the 2023 Notes was accounted for as a debt extinguishment. The 2023 Notes would have otherwise matured on July 1, 2023.

Each outstanding series of the Notes was convertible during the three months ended December 31, 2021, at the option of the holders. During the year ended December 31, 2021, holders of the 2024 Notes and 2026 Notes elected to convert \$64.6 million and \$1.2 million aggregate principal amount of the 2024 Notes and 2026 Notes, respectively. 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. 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 elected to convert \$265.2 million of aggregate principal amount prior to the Redemption Date. 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. The following tables summarizes the activity for our convertible senior notes for the periods presented (in thousands, except for share amounts):

	Year Ended December 31, 2021				Year Ended December 31, 2020	
	2023 Notes	2024 Notes	2026 Notes	Total	2021 Notes	
Aggregate principal amount settled	\$ 373,750	\$ 64,618	\$ 1,200	\$ 439,568	\$	460,000
Cash paid	1,297	—	—	1,297		194,761
Shares of Class C capital stock issued	4,752,232	1,485,114	27,579	6,264,925		5,819,561
Total fair value of consideration transferred (1)	\$ 571,897	\$ 200,478	\$ 4,204	\$ 776,579	\$	782,506
(Gain) loss on extinguishment of debt:						
Consideration allocated to the liability component (2)	\$ 349,241	\$ 53,115	\$ 883	\$ 403,239	\$	429,210
Carrying value of the liability component, net of unamortized debt discount and debt issuance costs	334,245	51,032	843	386,120		430,658
(Gain) loss on extinguishment of debt	\$ 14,996	\$ 2,083	\$ 40	\$ 17,119	\$	(1,448)
Consideration allocated to the equity component	\$ 222,656	\$ 147,363	\$ 3,321	\$ 373,340	\$	353,296

(1) For convertible senior notes converted by note holders, the total fair value of consideration transferred includes the value of shares transferred to note holders using the daily volume weighted-average price of our Class C capital stock on the conversion date and an immaterial amount of cash paid in lieu of fractional shares. For convertible senior notes redeemed, the total fair value of consideration transferred comprises cash transferred to note holders to settle the related notes. For convertible senior notes repurchased in the year ended December 31, 2020, the total value of consideration transferred includes the value of shares transferred to note holders using the daily volume weighted-average price of our Class C capital stock on the date of transfer as well as cash transferred to note holders to settle the related notes.

(2) Consideration allocated to the liability component is based on the fair value of the liability component immediately prior to settlement, which 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 following table summarizes certain details related to the capped call confirmations with respect to certain of the convertible senior 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 %

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 2026 Notes, the 2024 Notes and the 2023 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 2026 Notes, the 2024 Notes and the 2023 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.

In connection with the repurchase of a portion of the 2021 Notes as discussed above, 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. On December 1, 2021, the remaining capped call transactions entered into in connection with the issuance of the 2021 Notes were settled on their contractual maturity date. As a result, we received 665,532 shares of our Class C capital stock equal to a value of approximately \$43.0 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.

Note 14. Income Taxes

We are subject to income taxes in the United States (federal and state), Canada, and Serbia.

We recorded income tax expense of \$1.3 million for the year ended December 31, 2021. The income tax expense is comprised of \$4.5 million of tax expense related to state and foreign income taxes, partially offset by a \$3.2 million income tax benefit from a decrease in the valuation allowance associated with our September 2021 acquisition of ShowingTime.

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. 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. For additional information about the non-cash impairment, see Note 10 of our consolidated financial statements.

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.

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

	Year Ended December 31,		
	2021	2020	2019
Current income tax expense:			
State	\$ 3,851	\$ 588	\$ 304
Foreign	143	257	99
Total current income tax expense	3,994	845	403
Deferred income tax benefit:			
Federal	(2,577)	(7,388)	(1,631)
State	(302)	(1,095)	(2,856)
Foreign	148	115	(174)
Total deferred income tax benefit	(2,731)	(8,368)	(4,661)
Total income tax expense (benefit)	\$ 1,263	\$ (7,523)	\$ (4,258)

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

	Year Ended December 31,		
	2021	2020	2019
Tax expense at federal statutory rate	(21.0)%	(21.0)%	(21.0)%
State income taxes, net of federal tax benefit	(5.8)	(11.2)	(3.0)
Share-based compensation	(17.0)	(52.5)	(0.9)
Section 162(m) of Internal Revenue Code	1.7	2.3	1.1
Research and development credits	(8.5)	(10.6)	(7.2)
Other	0.9	(0.5)	1.0
Valuation allowance	49.9	89.1	28.6
Effective tax rate	0.2 %	(4.4)%	(1.4)%

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,	
	2021	2020
Deferred tax assets:		
Federal and state net operating loss carryforwards	\$ 524,109	\$ 400,509
Research and development credits	133,173	88,823
Inventory	68,840	15,115
Share-based compensation	66,345	43,065
Interest expense limitation	58,155	30,921
Lease liability	41,402	57,606
Accruals and reserves	12,782	3,988
Depreciation and amortization	1,496	1,035
Other deferred tax assets	1,100	4,736
Total deferred tax assets	907,402	645,798
Deferred tax liabilities:		
Debt discount on convertible senior notes	(60,448)	(80,280)
Website and software development costs	(43,814)	(32,021)
Right of use assets	(32,027)	(45,857)
Intangible assets	(21,697)	(12,968)
Goodwill	(4,631)	(3,267)
Total deferred tax liabilities	(162,617)	(174,393)
Net deferred tax assets before valuation allowance	744,785	471,405
Less: valuation allowance	(745,732)	(471,901)
Net deferred tax liabilities	<u>\$ (947)</u>	<u>\$ (496)</u>

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, 2021 and 2020 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 \$273.8 million and \$125.0 million, respectively, during the years ended December 31, 2021 and 2020.

We have accumulated federal tax losses of approximately \$2.1 billion and \$1.7 billion, as of December 31, 2021 and 2020, respectively, which are available to reduce future taxable income. We have accumulated state tax losses of approximately \$72.7 million and \$53.2 million (tax effected) as of December 31, 2021 and 2020, respectively. Additionally, we have net research and development credit carryforwards of \$133.2 million and \$88.8 million as of December 31, 2021 and 2020, respectively, 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, 2019	\$	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
Gross increases—current period tax positions		16,627
Gross increases—prior period tax positions		9,257
Balance at December 31, 2021	\$	74,978

At December 31, 2021, the total amount of unrecognized tax benefits of \$75.0 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 not material.

Note 15. 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, 2021 or December 31, 2020.

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, 2021, 2020 and 2019, 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.

Equity Distribution Agreement

On February 17, 2021, we entered into an equity distribution agreement with certain sales agents and/or principals (the "Managers"), pursuant to which we may offer and sell from time to time, through the Managers, shares of our Class C capital stock, having an aggregate gross sales price of up to \$1.0 billion, in such share amounts as we may specify by notice to the Managers, in accordance with the terms and conditions set forth in the equity distribution agreement.

The following table summarizes the activity pursuant to the equity distribution agreement for the period presented (in thousands, except share and per share amounts):

	Year Ended December 31, 2021
Shares of Class C capital stock issued	3,163,502
Weighted-average issuance price per share	\$ 174.0511
Gross proceeds (1)	\$ 550,611

(1) Net proceeds were \$544.6 million after deducting \$6.1 million of commissions and other offering expenses incurred.

Stock Repurchase Program

On December 2, 2021, Zillow Group's Board of Directors authorized the repurchase of up to \$750.0 million of its Class A common stock, Class C capital stock or a combination thereof (the "Stock Repurchase Program"). Repurchases may be made in open-market transactions or privately negotiated transactions, or in such other manner as deemed appropriate by management, and may be made from time to time as determined by management depending on market conditions, share price, trading volume, cash needs and other business factors, in each case as permitted by securities laws and other legal requirements. We reserve the right to terminate or suspend the Stock Repurchase Program at any time, and it does not have an expiration date. Costs incurred to repurchase stock under the Stock Repurchase Program are recorded as a reduction to the Class C capital stock account at the par value of the shares reacquired, then to additional paid-in capital. As of December 31, 2021, \$447.8 million remained available for future repurchases pursuant to the Stock Repurchase Program.

The following table summarizes, on a settlement date basis, our Class C capital stock repurchase activity under the Stock Repurchase Program for the period presented (in thousands, except share and per share amounts):

	Year Ended December 31, 2021
Shares of Class C capital stock repurchased	4,944,462
Weighted-average price per share	\$ 61.1186
Total purchase price	\$ 302,199

Equity Offering

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.

Note 16. Share-Based Awards***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 or nonqualified stock options, restricted stock, restricted stock units, restricted units, stock appreciation rights, performance shares or performance units to employees, directors and consultants 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.

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 nonqualified stock options, restricted stock or restricted stock units or restricted units to new employees of the Company and its subsidiaries.

Options under the Inducement 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 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, 2021:

	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, 2021	20,051,051	\$ 42.68	7.22	\$ 1,751,105
Granted	10,290,760	121.71		
Exercised	(3,304,241)	38.50		
Forfeited or cancelled	(1,291,637)	81.37		
Outstanding at December 31, 2021	25,745,933	72.86	7.48	354,479
Vested and exercisable at December 31, 2021	12,281,927	52.50	6.25	247,163

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,		
	2021	2020	2019
Expected volatility	52% – 58%	45% – 52%	45% – 47%
Expected dividend yield	—	—	—
Risk-free interest rate	0.57% – 1.15%	0.22% – 0.93%	1.60% – 2.53%
Weighted-average expected life	4.50 – 5.75 years	4.50 – 5.50 years	4.75 – 5.25 years
Weighted-average fair value of options granted	\$54.55	\$22.50	\$16.52

As of December 31, 2021, there was a total of \$518.2 million in unrecognized compensation cost related to unvested stock options, which is expected to be recognized over a weighted-average period of 2.6 years.

The total intrinsic value of options exercised during the years ended December 31, 2021, 2020 and 2019 was \$309.8 million, \$564.3 million and \$51.1 million, respectively. The fair value of options vested for the years ended December 31, 2021, 2020 and 2019 was \$172.5 million, \$85.2 million and \$100.1 million, respectively.

Restricted Stock Units

The following table summarizes activity for restricted stock units for the year ended December 31, 2021:

	Restricted Stock Units	Weighted- Average Grant- Date Fair Value
Unvested outstanding at January 1, 2021	7,316,557	\$ 48.14
Granted	2,744,325	96.48
Vested	(2,982,148)	51.02
Forfeited	(1,004,635)	60.59
Unvested outstanding at December 31, 2021	6,074,099	66.51

The total fair value of vested restricted stock units was \$152.1 million, \$124.8 million and \$89.9 million, respectively, for the years ended December 31, 2021, 2020 and 2019.

The fair value of the outstanding restricted stock units is based on the market value of our Class C capital stock on the date of grant and will be recorded as share-based compensation expense over the vesting period. As of December 31, 2021, there was \$374.1 million of total unrecognized compensation cost related to restricted stock units, which is expected to be recognized over a weighted-average period of 2.5 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,		
	2021	2020	2019
Cost of revenue	\$ 10,968	\$ 6,685	\$ 4,972
Sales and marketing	48,131	33,110	25,126
Technology and development	117,614	80,876	68,927
General and administrative	134,973	76,879	99,877
Impairment and restructuring costs	5,506	—	—
Total	\$ 317,192	\$ 197,550	\$ 198,902

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 provision, 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 17. 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 convertible senior 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 our outstanding convertible senior notes 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. 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 income 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, 2021 (in thousands, except per share amounts):

Maturity Date	Shares	Conversion Price per Share
September 1, 2026	11,464	\$ 43.51
May 15, 2025	8,408	67.20
September 1, 2024	13,983	43.51

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,		
	2021	2020	2019
Weighted-average Class A common stock and Class C capital stock option awards outstanding	17,996	25,913	19,183
Weighted-average Class A common stock and Class C capital stock restricted stock units outstanding	6,530	8,198	6,765
Class A common stock issuable upon conversion of the convertible notes maturing in 2020	—	338	404
Class C capital stock issuable upon conversion of the convertible notes maturing in 2021, 2023, 2024, 2025 and 2026	36,540	24,182	439
Total Class A common stock and Class C capital stock equivalents	<u>61,066</u>	<u>58,631</u>	<u>26,791</u>

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 18. Commitments and Contingencies

Interest Rate Lock Commitments

We have entered into IRLCs with prospective borrowers under our mortgage origination business whereby we commit to lend a certain loan amount under specific terms and at a specific interest rate to the borrower. These commitments are treated as derivatives and are carried at fair value. For additional information regarding our IRLCs, see Note 3 to our consolidated financial statements.

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 2022 and 2032. For additional information regarding our lease agreements, see Note 12 to our consolidated financial statements.

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. The amounts due for non-cancelable purchase commitments as of December 31, 2021 are as follows (in thousands):

	Purchase Obligations	
2022	\$	73,663
2023		55,287
2024		6,708
2025		3,080
2026		1,969
Total future purchase commitments	\$	140,707

Escrow Balances

In conducting our title and escrow operations through Zillow Closing Services, we routinely hold customers' assets in escrow, pending completion of real estate transactions, and are responsible for the proper disposition of these balances for our customers. Certain of these amounts are maintained in segregated bank accounts and have not been included in the accompanying consolidated balance sheets, consistent with GAAP and industry practice. These balances amounted to \$55.0 million at December 31, 2021 and were not material as of December 31, 2020.

Letters of Credit

As of December 31, 2021 and 2020, 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 \$12.4 million and \$10.1 million as of December 31, 2021 and 2020, respectively.

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, 2021 or 2020.

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 U.S. 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 U.S. 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 U.S. 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. On October 11, 2019, plaintiffs filed a motion for class certification which was granted by the court on October 28, 2020. On February 17, 2021, the Ninth Circuit Court of Appeals denied our petition 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 U.S. 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 U.S. 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 February 16, 2021, the court in the consolidated state derivative matter stayed the action. On March 5, 2021, a new shareholder derivative lawsuit was filed in the U.S. District Court for the Western District of Washington 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, alleging, among other things, violations of federal securities laws. The U.S. District Court for the Western District of Washington formally consolidated the new lawsuit with the other consolidated federal shareholder derivative lawsuit pending in that court on June 15, 2021. The defendants intend to deny the allegations of wrongdoing and vigorously defend the claims in this consolidated lawsuit. We do not believe that there is a reasonable possibility that a material loss will be incurred related to these derivative matters.

On September 17, 2019, International Business Machines Corporation (“IBM”) filed a complaint against us in the U.S. 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 U.S. District Court for the Western District of Washington was granted on May 28, 2020. 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 U.S. 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 March 15, 2021, the PTAB instituted IPR proceedings with respect to two of the three patents for which we filed petitions. On March 22, 2021, the PTAB denied institution with respect to the last of the three patents. On January 22, 2021, the court partially stayed the action with respect to all patents for which we filed an IPR and set forth a motion schedule. On March 8, 2021, IBM filed its second amended complaint. On March 25, 2021, we filed an amended motion for judgment on the pleadings. On July 15, 2021, the court rendered an order in connection with the motion for judgment on the pleadings finding in our favor on two of the four patents on which we filed our motion. On August 31, 2021, the court granted judgment with respect to the two patents for which it previously denied judgment on the pleadings, and vacated the stay with respect to one of the three patents for which Zillow filed an IPR, which was denied by the PTAB. On September 23, 2021, IBM filed a notice of appeal with the United States Court of Appeals for the Federal Circuit with respect to the August 31, 2021 judgment entered. 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 matter; however, the possible loss or range of loss is not estimable.

On July 21, 2020, IBM filed a second action against us in the U.S. 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, we filed a motion to dismiss IBM’s first amended complaint. On December 23, 2020, the Court issued a written order staying this case in full. On July 23, 2021, we filed an IPR with the PTAB with respect to one patent included in the second lawsuit. On October 6, 2021, the stay of this action was lifted, except for proceedings relating to the one patent for which we filed an IPR. On December 1, 2021, the Court dismissed the fourth claim asserted by IBM in its amended complaint. On December 16, 2021 Zillow filed a motion to dismiss the remaining claims alleged in IBM’s amended complaint. 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 matter; however, the possible loss or range of loss is not estimable.

On November 16, 2021, November 19, 2021 and January 6, 2022, three 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 stock between August 7, 2020 and November 2, 2021. The three purported class action lawsuits, captioned Barua v. Zillow Group, Inc. et al., Silverberg v. Zillow Group, et al. and Hillier v. Zillow Group, Inc. et al. were brought in the U.S. District Court for the Western District of Washington. The complaints allege, among other things, that we issued materially false and misleading statements regarding our Zillow Offers business. The complaints seek to recover, among other things, alleged damages sustained by the purported class members as a result of the alleged misconduct. We intend to deny the allegations of wrongdoing and intend to vigorously defend the claims in these lawsuits. We do not believe that a loss related to these lawsuits 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 19. 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 \$7.3 million and \$4.2 million, respectively, as of December 31, 2021 and 2020.

Note 20. 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 pre-tax 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 \$32.3 million, \$25.6 million and \$20.8 million, respectively, for the years ended December 31, 2021, 2020 and 2019.

Note 21. 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. On November 2, 2021, the Board of Directors of the Company made the determination to wind down Zillow Offers operations. 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. Beginning in the fourth quarter of 2021, the IMT segment also includes the financial results of ShowingTime. The Mortgages segment primarily includes the financial results for mortgage originations and the sale of mortgages on the secondary market through Zillow Home Loans and advertising sold to mortgage lenders and other mortgage professionals.

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, costs related to operating our mobile applications, and websites 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) and prior period amounts have been recast to conform to the current format (see Note 2 for additional details regarding the reclassifications):

	Year Ended December 31, 2021			Year Ended December 31, 2020			Year Ended December 31, 2019		
	Homes	IMT	Mortgages	Homes	IMT	Mortgages	Homes	IMT	Mortgages
Revenue:									
Zillow Offers	\$ 5,982,357	\$ —	\$ —	\$ 1,710,535	\$ —	\$ —	\$ 1,365,250	\$ —	\$ —
Premier Agent	—	1,395,723	—	—	1,046,954	—	—	923,876	—
Other	33,421	490,059	—	4,840	403,278	—	—	353,020	—
Mortgages	—	—	245,816	—	—	174,210	—	—	100,691
Total revenue	6,015,778	1,885,782	245,816	1,715,375	1,450,232	174,210	1,365,250	1,276,896	100,691
Cost of revenue (1)	6,106,944	203,449	83,784	1,634,755	193,097	38,540	1,324,464	193,885	25,750
Gross profit (loss)	(91,166)	1,682,333	162,032	80,620	1,257,135	135,670	40,786	1,083,011	74,941
Operating expenses (1):									
Sales and marketing	414,797	552,592	108,846	190,818	440,517	59,784	171,571	503,473	53,587
Technology and development	124,513	317,663	32,220	106,218	260,277	23,677	69,962	255,964	24,997
General and administrative	118,790	258,161	71,822	87,034	224,757	44,931	81,383	243,514	41,122
Impairment and restructuring costs	71,247	—	926	—	73,900	2,900	—	—	—
Acquisition-related costs	—	8,615	—	—	—	—	—	—	—
Integration costs	—	680	—	—	—	—	—	—	650
Total operating expenses	729,347	1,137,711	213,814	384,070	999,451	131,292	322,916	1,002,951	120,356
Income (loss) from operations	(820,513)	544,622	(51,782)	(303,450)	257,684	4,378	(282,130)	80,060	(45,415)
Segment other income	2,878	—	5,019	—	5,300	2,369	—	—	1,409
Segment interest expense	(63,829)	(32)	(5,060)	(16,804)	—	(2,233)	(29,990)	—	(956)
Income (loss) before income taxes (2)	\$ (881,464)	\$ 544,590	\$ (51,823)	\$ (320,254)	\$ 262,984	\$ 4,514	\$ (312,120)	\$ 80,060	\$ (44,962)

(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, 2021			Year Ended December 31, 2020			Year Ended December 31, 2019		
	Homes	IMT	Mortgages	Homes	IMT	Mortgages	Homes	IMT	Mortgages
Depreciation and amortization expense	\$ 22,393	\$ 99,026	\$ 8,361	\$ 13,315	\$ 89,862	\$ 6,854	\$ 8,414	\$ 73,369	\$ 5,684
Share-based compensation expense	\$ 76,879	\$ 200,963	\$ 33,844	\$ 48,166	\$ 134,691	\$ 14,693	\$ 32,390	\$ 150,434	\$ 16,078

(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,		
	2021	2020	2019
Total segment loss before income taxes	\$ (388,697)	\$ (52,756)	\$ (277,022)
Corporate interest expense	(122,989)	(136,190)	(70,846)
Corporate other income	2,291	17,860	38,249
Gain (loss) on extinguishment of debt	(17,119)	1,448	—
Consolidated loss before income taxes	\$ (526,514)	\$ (169,638)	\$ (309,619)

Certain corporate items are not directly attributable to any of our segments, including the gain (loss) on extinguishment of debt, 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 22. Restructuring and Zillow Offers Wind Down

On November 2, 2021, the Board of Directors of Zillow Group made the determination to wind down Zillow Offers operations. This decision was made in light of home pricing unpredictability, capacity constraints and other operational challenges faced by Zillow Offers that were exacerbated by an unprecedented housing market, a global pandemic and a difficult labor and supply chain environment, all of which led us to conclude that, despite its initial promise in earlier quarters, Zillow Offers was unlikely to be a sufficiently stable line of business to meet our goals and needs going forward. We expect to continue to renovate and sell properties currently in inventory through 2022. The wind down is expected to be complete during the second half of 2022 and result in approximately a 25% reduction of the Company's workforce.

Charges incurred during the year ended December 31, 2021 primarily related to the wind down of Zillow Offers operations and are primarily recorded to our Homes segment. Certain additional immaterial actions have been recorded to our Mortgages segment. We expect future charges to primarily relate to the wind down of Zillow Offers operations and to be recorded to our Homes segment. We plan to fund the cash costs through existing cash and investment balances.

The following table presents a summary of Zillow Offers wind down-related charges incurred for the period presented and our estimate of the total costs we expect to incur over the wind down period (in thousands):

	Statement of Operations Classification	Year Ended December 31, 2021			Total Expected
		Homes Segment	Mortgages Segment	Total Recognized	
Inventory write-down	Cost of revenue	\$ 407,921	\$ —	\$ 407,921	N/A
Other charges:					
Employee termination costs	Impairment and restructuring costs	59,914	926	60,840	\$99,000 - \$112,000
Contract termination costs	Impairment and restructuring costs	9,960	—	9,960	\$11,000 - \$18,000
Financing-related charges	Interest expense	6,227	—	6,227	\$40,000 - \$48,000
Accelerated depreciation and amortization	Cost of revenue	4,885	—	4,885	\$24,000 - \$25,000
Asset write-offs	Impairment and restructuring costs	1,373	—	1,373	\$1,000 - \$2,000
Total other charges		82,359	926	83,285	\$175,000 - \$205,000
Total		\$ 490,280	\$ 926	\$ 491,206	

The following table presents the accrual activity for exit and disposal costs for the year ended December 31, 2021, primarily related to cash severance employee termination costs and contract termination costs (in thousands):

	Employee Termination Costs	Contract Termination Costs	Total
Balance, beginning of period	\$ —	\$ —	\$ —
Additions charged to expense	54,339	9,024	63,363
Cash payments	(9,160)	(5,248)	(14,408)
Balance, end of period	\$ 45,179	\$ 3,776	\$ 48,955

Inventory write-downs

In determining the value of our inventory, we consider indicators that net realizable value may be lower than cost at the portfolio level, market level, and in certain circumstances by structure type (single family residence, condo, etc.) by reviewing economic analyses, recent trends in home price appreciation and changes to resale strategy. Factors we analyze include gross margin on homes closed in recent months, projected gross margin on homes under contract to sell, historical list price to resale price variances, and trends in gross margin, selling prices and average selling concessions or other costs of selling homes. During the year ended December 31, 2021, we identified that a large portion of homes we purchased primarily in the second half of 2021 had a cost exceeding net realizable value as a result of unintentionally purchasing homes at higher prices than the Company's current estimates of future selling prices after selling costs. As a result, we recorded a write-down to inventory totaling \$407.9 million with a corresponding increase to cost of revenue in our consolidated statement of operations for the year ended December 31, 2021. See Note 5 for additional information on inventory.

Employee Termination Costs

At December 31, 2021, accrued employee termination costs of \$45.2 million related to one-time termination benefits and \$1.0 million related to other severance and employee costs, primarily pertaining to ongoing employee benefit arrangements, were recorded within accrued compensation and benefits in our consolidated balance sheet.

Asset Write-offs

Asset write-offs of \$1.4 million for the year ended December 31, 2021 primarily related to the write-off of intangibles-in-progress, as these capitalized costs are no longer expected to be placed into service.

Accelerated Depreciation and Amortization

We have adjusted the useful life of certain assets impacted by the wind down of Zillow Offers operations to end on the expected cease use date. This adjustment resulted in the accelerated recognition of depreciation and amortization primarily related to internal use software and website development costs.

Contract Termination Costs

At December 31, 2021, \$3.8 million of contract termination costs are included in accrued expenses and other current liabilities in our consolidated balance sheet. These costs relate to contract termination penalties and costs that will continue to be incurred under contracts without further economic benefit.

Financing-Related Charges

Financing-related charges incurred for the year ended December 31, 2021 relate to the accelerated recognition of certain deferred debt issuance costs and debt discounts pertaining to Zillow Offers credit facilities and securitization transactions. In addition to the accelerated recognition of deferred balances, our total expected financing-related charges include expected prepayment penalties primarily associated with winding down the term loans supporting our securitization transactions prior to their respective maturity dates.

Note 23. Subsequent Event

Amendment of Credit Facility Agreement

On January 3, 2022, certain wholly owned subsidiaries of Zillow Group amended the credit agreement with Credit Suisse AG, Cayman Islands ("Credit Suisse") that provides capital for Zillow Offers such that Credit Suisse will waive one half of any prepayment fees that may apply under the existing contract and no further advances may be made under the credit agreement. In addition, after January 31, 2022, no further eligible properties may be added to the borrowing base. When outstanding amounts drawn under the credit agreement fall below specified levels, cash available for distribution must first be applied to the repayment of outstanding principal amounts, and in any event beginning on March 31, 2022, cash available for distribution must be applied to the repayment of outstanding principal amounts until all outstanding amounts are repaid.

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, 2021.

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, 2021.

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, 2021.

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, 2021 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, 2021, 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, 2021, 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, 2021, and our report dated February 10, 2022 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 10, 2022

Item 9B. Other Information.

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

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 2022 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 2021 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 2022 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 2021 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 2022 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 2021 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 2022 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 2021 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 2022 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 2021 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+	<u>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).</u>
3.1	<u>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).</u>
3.2	<u>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).</u>
4.1	<u>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).</u>
4.2	<u>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).</u>
4.3	<u>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).</u>

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 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).
4.6	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).
4.7	Form of 0.75% Convertible Senior Note due 2024 (incorporated by reference to Exhibit 4.5 hereto).
4.8	Form of 1.375% Convertible Senior Note due 2026 (incorporated by reference to Exhibit 4.6 hereto).
4.9	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).
4.10	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).
4.11	Form of 2.75% Convertible Senior Note due 2025 (incorporated by reference to Exhibit 4.10 hereto).
10.1*	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).
10.2*	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).
10.3*	Form of Nonqualified 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).
10.4*	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).
10.5*	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).
10.6*	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).

10.7*	Form of Nonqualified 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).
10.8*	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).
10.9*	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).
10.10*	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).
10.11*	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).
10.12*	Form of Nonqualified 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).
10.13*	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).
10.14	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).
10.15	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).
10.16	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).
10.17	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).
10.18	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).
10.19	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).
10.20	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).
10.21	Seventh Amendment to Lease by and between FSP-RIC, LLC and Zillow, Inc., dated as of October 19, 2021.

10.22	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).
10.23	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).
10.24	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).
10.25*	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).
10.26*	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).
10.27*	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).
10.28*	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).
10.29*	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).
10.30*	Form of Nonqualified 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).
10.31*	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).
10.32*	Amended and Restated Nonqualified 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).
10.33*	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).
10.34*	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).
10.35*	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).

10.36*	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).
10.37*	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).
10.38*	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	Cover 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 10, 2022

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 10, 2022.

<u>Signature</u>	<u>Title</u>
<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

SEVENTH AMENDMENT TO LEASE

THIS SEVENTH AMENDMENT TO LEASE (this "Amendment") is dated for reference purposes as of October 19, 2021 between FSP-RIC LLC, a Delaware limited liability company ("Landlord"), and ZILLOW, INC., a Washington corporation ("Tenant"). Landlord is authorized to insert the date of its signature in the date blank above.

RECITALS

A. Landlord, as successor-in-interest to The Northwestern Mutual Life Insurance Company, and Tenant are parties to that certain Office Lease dated March 22, 2011 (the "Initial Lease"), as amended by Amendment to Office Lease dated June 27, 2012 (the "First Amendment"), Second Amendment to Lease dated April 16, 2013 (the "Second Amendment"), Third Amendment to Lease dated January 10, 2014 (the "Third Amendment"), Fourth Amendment to Lease dated May 2, 2014 (the "Fourth Amendment"), Fifth Amendment to Lease dated November 19, 2014 (the "Fifth Amendment"), and Sixth Amendment to Lease dated June 21, 2016 (the "Sixth Amendment"), and collectively with all of the foregoing, the "Lease"), pursuant to which Tenant leases certain space (the "Premises") in the building located at 1301 Second Avenue, Seattle, Washington (the "Building").

B. Pursuant to the Lease, Tenant currently leases the 29th through 40th floors of the Building.

C. The current Expiration Date of the Lease is December 31, 2024.

D. Landlord and Tenant desire to further amend the Lease on the terms and provisions set forth herein, including without limitation, (a) addition to the Premises of the 41st and 42nd floors of the Building effective as of March 1, 2022, (b) deletion from the Premises of the 29th and 30th floors of the Building effective as of February 28, 2022, (c) subject to the terms of this Amendment, deletion from the Premises of the 31st through 35th floors of the Building effective as of December 31, 2024, and (d) extension of the Term through December 31, 2032.

AGREEMENTS

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby mutually acknowledged, the parties agree as follows:

1. **Addition of Additional Space.** Landlord and Tenant hereby agree that the entire 41st and 42nd floors of the Building consisting of 40,213 square feet of Rentable Area (the "Additional Space") shall be added to the Premises effective as of March 1, 2022 (the "Additional Space Commencement Date") for the remaining Term, including the Additional Term (as defined in Section 4 below). The Additional Space is depicted on the floor plans attached hereto as Exhibit A, which Exhibit A shall be considered as having been added to and to have become a part of Exhibit B of the Lease effective as of the Additional Space Commencement Date. Tenant acknowledges that Tenant currently occupies the Additional Space pursuant to a pre-existing sublease arrangement, and thus Landlord shall have no affirmative obligations with respect to the delivery of possession of the Additional Space to Tenant. Tenant shall lease the Additional Space in their then-current "as-is" condition as of the Additional Space Commencement Date and Landlord has not made any representations or warranties, either express or implied, with regard to the condition of the Additional Space, and Landlord shall have no obligation to make or pay for any improvements or alterations to the Additional Space except for the Supplemental Allowance set forth in Section 8 below. For purposes of clarification, Landlord agrees that Tenant shall have no obligation to restore the Additional Space to its pre-existing condition at the expiration of Tenant's existing sublease of the Additional Space, and that for purposes of Tenant's restoration obligations with respect to the Additional Space at the expiration or termination of the Lease, the Additional Space shall be considered to have been delivered to Tenant in the condition that it exists as of the Additional Space Commencement Date. Effective as of the Additional Space Commencement Date, the Rentable Area of the Additional Space shall be added to the Rentable Area of the Premises and the Tenant's Proportionate Share and Monthly Base Rent shall be adjusted to account for the increased Rentable Area of the Premises.

2. **Deletion of Early Give-Back Space; Stairway Removal Work.** The Term shall expire with respect to the entire 29th and 30th floors of the Building (the "Early Give-Back Space") effective as of February 28,

2022. Tenant shall surrender possession of the Early Give-Back Space to Landlord on or prior to February 28, 2022 in a broom-clean condition, having removed the items set forth on Schedule 3 attached hereto. Tenant shall have no remaining rights and Landlord shall have no remaining obligations under the Lease with respect to the Early Give-Back Space after February 28, 2022, and, conditioned upon Tenant's surrender of possession of the Early Give-Back Space to Landlord on or prior to February 28, 2022 as required herein, Tenant shall have no further obligations under the Lease with respect to the Early Give-Back Space (including without limitation, the obligation to continue to pay Monthly Base Rent or Tenant's Proportionate Share of Operating Expenses and Real Estate Taxes) for any period after February 28, 2022, subject to any surviving obligations under the Lease (including the immediately following paragraph). If Tenant fails to surrender possession of the Early Give-Back Space to Landlord on or prior to February 28, 2022 as required herein, then the provisions of Article 34.11 of the Lease shall be applicable.

Notwithstanding the foregoing, Tenant's obligations with respect to the interconnecting stairwell between the 30th floor and the 31st floor (the "Stairwell") shall be as follows: (a) upon written notice from Landlord to Tenant (a "Stairwell Removal Notice"), Tenant, within thirty (30) days following receipt of the Stairwell Removal Notice, shall notify Landlord (such notice from Tenant being a "Stairwell Removal Election") whether Tenant will perform, or has elected to have Landlord perform (in which event Landlord shall perform), the following elements of work: (i) remove the existing Stairwell improvements, (ii) re-fill the floor slab cut-out to restore the structural specifications of the floor slab to its condition existing prior to the installation of the Stairwell, and (iii) perform all other associated work to restore the area associated with or affected by the Stairwell to its condition existing prior to the installation of the Stairwell (collectively, the "Stairwell Removal Work"); (b) until Landlord delivers a Stairwell Removal Notice to Tenant, Tenant shall have neither the right nor the obligation to perform the Stairwell Removal Work or to otherwise modify the Stairwell except as set forth in clause (h) below; (c) the Stairwell Removal Work shall be performed by the applicable party in a good and workmanlike manner, in compliance with all applicable laws (including fire/life safety laws) and, if performed by Tenant, in accordance with plans and specifications approved by Landlord, which approval shall not be unreasonably withheld, conditioned or delayed; (d) if performed by Tenant, Tenant shall complete the Stairwell Removal Work within six (6) months following Tenant's delivery of a Stairwell Removal Election, subject to extension for force majeure (as set forth in Section 34.30 of the Lease as if such section were applicable to Tenant); provided, however, that Tenant shall not be required to commence the Stairwell Removal Work prior to February 28, 2022 in the event Tenant elects to perform same (with such Stairwell Removal Election effectuating such election being deemed given on February 28, 2022 if in fact given prior to such date); (e) if Tenant elects to perform the Stairwell Removal Work, then upon Tenant's lien-free completion of the Stairwell Removal Work, Landlord agrees to reimburse Tenant for fifty percent (50%) of the documented out-of-pocket third party costs incurred by Tenant for the performance of the Stairwell Removal Work, provided that such third party costs shall not exceed the budgeted costs for the Stairwell Removal Work delivered by Tenant to Landlord prior to Tenant's commencement of the Stairwell Removal Work and approved by Landlord (not to be unreasonably withheld, conditioned or delayed) in connection with Landlord's approval of the plans and specifications for the Stairwell Removal Work, except to the extent any cost increase is due to the interference, negligence or willful misconduct of Landlord, its employees, agents or contractors; (f) if Landlord delivers a Stairwell Removal Notice, then in lieu of having Tenant perform the Stairwell Removal Work, Landlord shall have the right to notify Tenant in the Stairwell Removal Notice of Landlord's election to perform the Stairwell Removal Work, in which case notwithstanding any contrary provision hereof, Landlord shall perform the Stairwell Removal Work; (g) if either (A) Landlord delivers a Stairwell Removal Notice that notifies Tenant of Landlord's election to have Landlord perform the Stairwell Removal Work, or (B) Tenant delivers a Stairwell Removal Election setting forth Tenant's election to have Landlord perform the Stairwell Removal Work, then Tenant shall be obligated to reimburse Landlord for fifty percent (50%) of the documented out-of-pocket third party costs incurred by Landlord for the performance of the Stairwell Removal Work, which reimbursement shall be made by Tenant to Landlord within thirty (30) days after Landlord's completion of the Stairwell Removal Work and delivery of a written invoice from Landlord to Tenant, together with reasonable supporting documentation evidencing such costs; and (h) if Tenant delivers a Stairwell Removal Election that requires Tenant to perform the Stairwell Removal Work, but Tenant fails to diligently commence and complete the Stairwell Removal Work in the time period set forth above, then Landlord shall have the right on written notice to Tenant to perform the Stairwell Removal Work (or to complete the remaining portion of the Stairwell Removal Work), in which event Landlord shall be responsible for fifty percent (50%) of the cost of the Stairwell Removal Work, but not exceeding the budgeted cost thereof that was approved by Landlord in clause (e) above, and Tenant shall be responsible for all other costs incurred by either party (such costs to be documented, with respect to Landlord) for the completion of the Stairwell Removal Work.

If Landlord has not delivered a Stairwell Removal Notice to Tenant on or before February 28, 2022, then subsequent to such date and prior to delivering a Stairwell Removal Notice: (a) upon written notice from Landlord to Tenant (a “Stairwell Enclosure Notice”), Tenant, within thirty (30) days following receipt of the Stairwell Enclosure Notice, shall notify Landlord (such notice from Tenant being a “Stairwell Enclosure Election”) whether Tenant will perform, or has elected to have Landlord perform (in which event Landlord shall perform), the construction of an enclosure around the Stairwell on the 31st floor (and if required by applicable code, also around the 30th floor), (collectively, the “Stairwell Enclosure Work”); (b) until Landlord delivers a Stairwell Enclosure Notice to Tenant, Tenant shall have neither the right nor the obligation to perform the Stairwell Enclosure Work; (c) the Stairwell Enclosure Work shall be performed by the applicable party in a good and workmanlike manner, in compliance with all applicable laws (including fire/life safety laws) and, if performed by Tenant, in accordance with plans and specifications approved by Landlord, which approval shall not be unreasonably withheld, conditioned or delayed; (d) if performed by Tenant, Tenant shall complete the Stairwell Enclosure Work within three (3) months following Tenant’s delivery of a Stairwell Enclosure Election, subject to extension for force majeure (as set forth in Section 34.30 of the Lease as if such section were applicable to Tenant); (e) if Tenant elects to perform the Stairwell Enclosure Work, Tenant shall bear all the costs of such work, except to the extent any such costs are due to the interference, negligence or willful misconduct of Landlord, its employees, agents or contractors; (f) if Landlord delivers a Stairwell Enclosure Notice, then in lieu of having Tenant perform the Stairwell Enclosure Work, Landlord shall have the right to notify Tenant in the Stairwell Enclosure Notice of Landlord’s election to perform the Stairwell Enclosure Work, in which case notwithstanding any contrary provision hereof, Landlord shall perform the Stairwell Enclosure Work; (g) if either (A) Landlord delivers a Stairwell Enclosure Notice that notifies Tenant of Landlord’s election to have Landlord perform the Stairwell Enclosure Work, or (B) Tenant delivers a Stairwell Enclosure Election setting forth Tenant’s election to have Landlord perform the Stairwell Enclosure Work, then Tenant shall be obligated to reimburse Landlord for all of the documented out-of-pocket third party costs incurred by Landlord for the performance of the Stairwell Enclosure Work, which reimbursement shall be made by Tenant to Landlord within thirty (30) days after Landlord’s completion of the Stairwell Enclosure Work and delivery of a written invoice from Landlord to Tenant, together with reasonable supporting documentation evidencing such costs; and (h) if Tenant delivers a Stairwell Enclosure Election that requires Tenant to perform the Stairwell Enclosure Work, but Tenant fails to diligently commence and complete the Stairwell Enclosure Work in the time period set forth above, then Landlord shall have the right on written notice to Tenant to perform the Stairwell Enclosure Work (or to complete the remaining portion of the Stairwell Enclosure Work), in which event Tenant shall be responsible for all costs incurred by Tenant, and all documented costs incurred by Landlord, for the completion of the Stairwell Enclosure Work.

The rights and obligations of Landlord and Tenant under this paragraph 2 shall survive the termination of the Lease with respect to the 30th floor.

3. **Deletion of Remaining Give-Back Space.** Subject to the provisions of Section 9 below, the Term shall expire with respect to the 31st through 35th floors of the Building (the “Remaining Give-Back Space”) effective as of December 31, 2024, and no extension of the Term pursuant to Section 4 of this Amendment shall be applicable to the Remaining Give-Back Space. Notwithstanding the foregoing, any portion of the 31st through 35th floors of the Building that Tenant elects to continue to lease as Flex Space (pursuant to Section 9 below) shall be considered removed from the definition of Remaining Give-Back Space and this Section 3 shall not be applicable thereto. Tenant shall surrender possession of the Remaining Give-Back Space to Landlord on or prior to December 31, 2024 in the condition required under the Lease for the return of possession of the Premises to Landlord as of the expiration or earlier termination of the Lease. Tenant shall have no remaining rights and Landlord shall have no remaining obligations under the Lease with respect to the Remaining Give-Back Space after December 31, 2024, and, conditioned upon Tenant’s surrender of possession of the Remaining Give-Back Space to Landlord on or prior to December 31, 2024 as required herein, Tenant shall have no further obligations under the Lease with respect to the Remaining Give-Back Space (including without limitation, the obligation to continue to pay Monthly Base Rent or Tenant’s Proportionate Share of Operating Expenses and Real Estate Taxes) for any period after December 31, 2024, subject to any surviving obligations under the Lease. If Tenant fails to surrender possession of the Remaining Give-Back Space to Landlord on or prior to December 31, 2024 as required herein, then the provisions of Article 34.11 of the Lease shall be applicable.

4. **New Premises and Extension of Term.** For purposes of this Amendment, the term “New Premises” means the Additional Space, floors 36 through 40 and any Flex Space that is added to the Premises pursuant to Section 9 below. The Term is hereby extended for the period from January 1, 2025 through December 31, 2032

(the “Additional Term”) such that the new Expiration Date shall be December 31, 2032. Tenant shall retain its two (2) options to further extend the Term after the Additional Term for the Renewal Terms set forth in Article 33 of the Lease, which options shall be exercisable only as to all, but not less than all, of the entire then-existing Premises, on the terms and provisions set forth in such Article 33, as modified by the Fifth Amendment, except that in determining the Current Market Rate, the phrase “the following Class A office buildings in the commercial/business district of Seattle, Washington: 1201 Third Avenue, City Centre (1420 Fifth Avenue), Two Union Square and Fourth and Madison” in the last sentence of Article 33(3) of the Lease is hereby deleted and replaced with “the then-existing or pre-leased Class A+ first-class office projects in the commercial/business district of Seattle, Washington”.

5. **Rentable Area.** For purposes of the calculation of Monthly Base Rent, the Tenant’s Percentage Share and all other calculations under the Lease based on the Rentable Area of the Premises, the parties stipulate and agree to the following Rentable Areas, including the adjustments thereof set forth herein:

- (a) the Rentable Area of the Additional Space (floors 41 and 42) is 40,213 rentable square feet;
- (b) the existing Rentable Area of the entire Premises (floors 29 through 40) as of the date of this Amendment is 268,514 rentable square feet;
- (c) the existing Rentable Area of the Early Give-Back Space (floors 29 and 30) is 43,982 rentable square feet;
- (d) the existing Rentable Area of the Premises immediately following the deletion of the Early Give-Back Space but excluding the Additional Space (the existing Rentable Area of the 31st through 40th floors of the Premises) shall be 224,532 rentable square feet until December 31, 2024;
- (e) effective January 1, 2025, the Rentable Area of the Premises immediately following the deletion of the Remaining Give-Back Space (assuming no Flex Space is added to the Premises), but excluding the Additional Space (the Rentable Area of the 36th through 40th floors of the Premises) shall be 114,543 rentable square feet; and
- (f) effective January 1, 2025, the Rentable Area of the New Premises (assuming no Flex Space is added to the Premises) shall be 154,756 rentable square feet.

For purposes of clarification, the parties stipulate and agree that the Rentable Area of the Additional Space and each floor of the Premises from and after the commencement of the Additional Term shall be measured in accordance with BOMA 2017 for Office Buildings – ANSI/BOMA Z65.1-2017 Method A, as promulgated by the Building Owners and Managers Association (“2017 BOMA”), and that such rentable area is as follows:

<u>Floor of Premises</u>	<u>Square Feet of Rentable Area</u>
42	20,034
41	20,179
40	22,908
39	22,906
38	22,908
37	22,906
36	22,915

<u>Flex Space</u>	<u>Square Feet of Rentable Area</u>
35	21,908
34	21,908

33	22,906
32	22,906
31	22,906

Landlord shall have the right to change the standard for the measurement of the Rentable Area of the Premises and Building for any Renewal Term under Article 33 of the Lease and/or the standard for measurement of the Rentable Area of any Leased First Right Space (as defined in Schedule 2 to this Amendment) to the then-current BOMA standard promulgated as of the date of the commencement of the applicable Renewal Term or the First Right Commencement Date (as defined in Schedule 2 to this Amendment) with respect to the applicable Leased First Right Space.

6. **Monthly Base Rent.**

6.1 **Additional Space.** The Monthly Base Rent payable for the Additional Space shall be as follows:

<u>Period</u>	<u>Square Feet of Rentable Area</u>	<u>Annual Base Rent per Square Foot of Rentable Area</u>	<u>Monthly Base Rent</u>
March 1, 2022 – February 28, 2023	40,213	\$54.00	\$180,958.50
March 1, 2023 – February 29, 2024	40,213	\$55.62	\$186,387.26
March 1, 2024 – February 28, 2025	40,213	\$57.29	\$191,983.56
March 1, 2025 – February 28, 2026	40,213	\$59.01	\$197,747.43
March 1, 2026 – February 28, 2027	40,213	\$60.78	\$203,678.85
March 1, 2027 – February 29, 2028	40,213	\$62.60	\$209,777.82
March 1, 2028 – February 28, 2029	40,213	\$64.48	\$216,077.85
March 1, 2029 – February 28, 2030	40,213	\$66.41	\$222,545.44
March 1, 2030 – February 28, 2031	40,213	\$68.41	\$229,247.61
March 1, 2031 – February 29, 2032	40,213	\$70.46	\$236,117.33
March 1, 2032 – December 31, 2032	40,213	\$72.57	\$243,188.12

6.2 **Remainder of Premises.** The Monthly Base Rent payable for all of the remainder of the Premises, excluding the Additional Space and taking into consideration the deletion of the Early Give-Back Space as of February 28, 2022 and the deletion of the Remaining Give-Back Space as of December 31, 2024 (assuming no Flex Space is added to the Premises) shall be as follows:

<u>Period</u>	<u>Square Feet of Rentable Area</u>	<u>Annual Base Rent per Square Foot of Rentable Area</u>	<u>Monthly Base Rent</u>
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Through February 28, 2022	268,514	\$47.00	\$1,051,679.83
March 1, 2022 – November 30, 2022	224,532	\$47.00	\$879,417.00
December 1, 2022 – November 30, 2023	224,532	\$48.00	\$898,128.00
December 1, 2023 – November 30, 2024	224,532	\$49.00	\$916,839.00
December 1, 2024 – December 31, 2024	224,532	\$50.00	\$935,550.00
January 1, 2025 – December 31, 2025	114,543	\$52.00	\$496,353.00
January 1, 2026 – December 31, 2026	114,543	\$53.56	\$511,243.59
January 1, 2027 – December 31, 2027	114,543	\$55.17	\$526,611.44
January 1, 2028 – December 31, 2028	114,543	\$56.82	\$542,361.11
January 1, 2029 – December 31, 2029	114,543	\$58.53	\$558,683.48
January 1, 2030 – December 31, 2030	114,543	\$60.28	\$575,387.67
January 1, 2031 – December 31, 2031	114,543	\$62.09	\$592,664.57
January 1, 2032 – December 31, 2032	114,543	\$63.95	\$610,418.74

7. **Tenant's Percentage Share.** Tenant shall continue to pay Tenant's Percentage Share of Operating Expenses and Taxes in accordance with the terms and provisions of the Lease using the Rentable Area of the Office Unit as the denominator in the calculation fraction. For purposes of calculating Tenant's Percentage Share for the New Premises the same methodology shall be used to measure the Rentable Area of the Office Unit as used to measure the Rentable Area of the Premises (i.e., when the Rentable Area of a portion of the Premises is measured (or commences to be measured) in accordance with 2017 BOMA, then for purposes of the calculation of Tenant's Percentage Share for such portion of the Premises, the Rentable Area of the Office Unit shall be based on 2017 BOMA). Based on the foregoing and the agreed-upon Rentable Areas set forth in Section 5 above, the parties agree that the Tenant's Percentage Share shall be as follows:

- (a) 4.48% as to the Additional Space;
- (b) 30.79% as to the all of the Premises excluding the Additional Space, until the date of the deletion from the Premises of the Early Give-Back Space (through February 28, 2022);
- (c) 25.75% as to all of the remaining Premises excluding the Additional Space, from and after the date of the deletion from the Premises of the Early Give-Back Space and continuing until immediately prior to the deletion from the Premises of the Remaining Give-Back Space (March 1, 2022 – December 31, 2024); and
- (d) 12.88% as to the all of the remaining Premises excluding the Additional Space, from and after the date of the deletion from the Premises of the Remaining Give-Back Space (assuming no Flex Space is added to the Premises) (January 1, 2025 – Expiration Date).

The total Rentable Area of the Office Unit from and after adjustment to 2017 BOMA shall be 898,039 rentable square feet.

8. **Supplemental Allowance.** Landlord agrees to provide Tenant with an additional allowance in the amount of forty dollars (\$40.00) per rentable square foot of the portion of New Premises consisting of floors 36-40

and 41-42 (the “Supplemental Allowance,” being \$40.00 per rentable square foot multiplied by 154,756 rentable square feet, or \$6,190,240.00). The Supplemental Allowance shall be paid by Landlord to Tenant on or before any date requested by Tenant on not less than forty-five (45) days written notice from Tenant, provided that the Supplemental Allowance shall not be payable prior to March 1, 2022 nor after August 31, 2023 (subject to the last sentence hereof). Notwithstanding any contrary provision hereof, Tenant shall not be entitled to receive and Landlord shall not be required to pay any portions of the Supplemental Allowance to Tenant at any time during which Landlord has notified Tenant of an event or circumstance that if not cured within the applicable cure period set forth in Section 25.1 of the Lease would constitute an Event of Default under the Lease. If Tenant fails to pay any Rent or other amounts payable by Tenant under the Lease by the due date set forth in the Lease, Landlord shall have the right, but not the obligation, to offset portions of the Supplemental Allowance against such unpaid Rent or other amounts owing by Tenant to Landlord, and if such offset right is exercised, then such unpaid Rent or other amounts owing by Tenant to Landlord against which the Supplemental Allowance is applied shall be treated as having been paid by Tenant as of the date of such application. All amounts of the Supplemental Allowance that have not been paid or credited to Tenant by August 31, 2023 as provided above shall be paid to Tenant on August 31, 2023.

9. **Flex Space.** Tenant shall have the on-going right to add one or more additional contiguous full floors from floors 31 through 35 of the Building to the Premises for the Additional Term (the “Flex Space”) on a top-down contiguous basis by Tenant’s written notice(s) to Landlord received not later than June 30, 2023 of Tenant’s election to add Flex Space to the Premises (a “Flex Space Notice”). For purposes of clarification, if Tenant elects to add Flex Space to the Premises, then the floor(s) that are added to the Premises shall be the highest floor(s) from floors 31 through 35 that have not then been added to the Premises. For example, if Tenant elects to add one floor of Flex Space to the Premises, then the Flex Space that is added to the Premises shall be the 35th floor. If Tenant subsequently elects to add two (2) additional floors of Flex Space to the Premises, then such additional two (2) floors of the Flex Space that are added to the Premises shall be the 33rd and 34th floors. If Tenant elects to add Flex Space to the Premises in accordance with this Section 9, then (a) the Flex Space shall be leased to Tenant during the Additional Term at the same Monthly Base Rent rate per square foot of Rentable Area of Flex Space added to the Premises as applicable to floors 36 through 40 during the Additional Term; (b) the Tenant’s Percentage Share shall be increased to reflect the addition of the applicable Flex Space to the Premises; (c) the required amount of the Letter of Credit shall be increased as provided in Section 10 below; and (d) the Flex Space that is added to the Premises shall be leased to Tenant on all of the same other terms and conditions as applicable to the Tenant’s lease of floors 36 through 40 during the Additional Term, except that (i) the Supplemental Allowance for the Flex Space shall be seventy-nine dollars (\$79.00) per square foot of Rentable Area of the Flex Space that is added to the Premises, (ii) such Supplemental Allowance for the Flex Space shall be paid to Tenant within forty-five (45) days after each written notice from Tenant, but not prior to March 1, 2022, (iii) for purposes of the Flex Space all references in such Section 8 to August 31, 2023 shall be adjusted to eighteen (18) months after the date in clause (ii), and (iv) payment of such Supplemental Allowance otherwise shall be subject to the same requirements and limitations as set forth in Section 8 above. If Tenant elects to add Flex Space to the Premises in accordance with this Section 9, at Landlord’s option the parties shall execute an amendment to the Lease to add such Flex Space to the Premises on the terms set forth herein. The effectiveness of Tenant’s election to lease Flex Space shall not be conditioned upon execution of such an amendment.

10. **Letter of Credit.** Effective as of January 1, 2025, Paragraph 10 of Exhibit K to the Lease (as amended in the First Amendment, Second Amendment, Third Amendment and Fifth Amendment) is further amended to replace the amount “\$1,814,829.76” in each place it appears with the amount “\$1,194,214.00”. If Tenant elects to add Flex Space to the Premises, then the reference to \$1,194,214.00 set forth in the immediately preceding sentence shall be increased by an amount equal to \$7.71 per square foot of Rentable Area of the Flex Space added to the Premises.

11. **Confirmation of Additional Allowance.** The parties acknowledge and agree that in accordance with Section 7 of the Fifth Amendment, Tenant was granted an additional allowance in the amount of Three Million Dollars (\$3,000,000) (the “Previous Additional Allowance”) payable within thirty (30) days after December 1, 2022 in consideration of the extension of the Term for the entire then-existing Premises (i.e., floors 29-40) for the period from December 1, 2022 through December 31, 2024. In recognition that the Term of the Lease will expire with respect to the Early Give-Back Space in advance of December 1, 2022, the Previous Additional Allowance is hereby reduced from \$3,000,000 to \$2,508,607.00.

12. **Parking.** Tenant's parking rights shall continue as set forth in Sections 1.1(t) and (u) and Article 27 of the Lease, provided that effective from and after the date of this Amendment, the number of Parking Spaces to which Tenant is entitled under the Lease is hereby agreed to be one (1) Parking Space per each 1,600 square feet of Rentable Area of the Premises that are leased by Tenant from time to time, subject to adjustment from time to time in accordance with the provisions of Article 27 of the Lease. Tenant's parking rights shall be for unreserved parking spaces, except that Tenant shall have the right to convert up to ten percent (10%) of its parking allocation to reserved stalls. Such reserved stalls shall be located in the same location as Tenant's reserved stalls in effect as of the date of this Amendment (or a portion of such reserved stalls, as applicable) or in such other locations as mutually agreed upon by Landlord and Tenant. Tenant shall continue to pay monthly parking rates equal to the then-current market rates in effect from time to time for similar parking spaces at the Project, except that as provided in the Lease the rate for reserved spaces shall be 175% of the then-current market rate for unreserved spaces. For purposes of clarification, there shall be no monthly rental abatement for Parking Spaces as set forth in Section 1.1(u) or the last sentence of the first paragraph of Article 27 of the Lease.

13. **Signage.**

(a) **Elevator Signage.** Tenant shall continue to have the elevator signage rights set forth in Section 12 of the Fifth Amendment, except that the reference to "3 floors" in the first sentence of Section 12 of the Fifth Amendment is hereby changed to "2 floors".

(b) **Exterior Signage.** Section 13 of the Fifth Amendment is hereby deleted and replaced with Schedule 1 attached to this Amendment.

14. **Right of First Offer.** Effective as of the date of this Amendment, Article 32 of the Lease (as previously amended) is deleted in its entirety and replaced with Schedule 2 attached to this Amendment.

15. **Landlord Access.** Effective as of the date of this Amendment, and notwithstanding subparagraph (b) of Article 21.1 of the Lease to the contrary, Landlord may exhibit the Remaining Give-Back Space to prospective purchasers, lenders or tenants at any time until the applicable portion thereof shall be added to the Premises in accordance with Section 9 hereof. Thereafter, the provisions of Article 21.1 of the Lease (as modified herein) shall again apply to such space. Effective as of the date of this amendment, subparagraph (b) of Article 21.1 of the Lease is hereby deleted and replaced with the following: "(b) Exhibit the Premises to prospective purchasers, lenders, or, during the last twenty-four (24) months of the Term of the Lease pertaining to each particular portion of the Premises (or at any time which Tenant is not Occupying a particular portion of the Premises), to prospective tenants;"

16. **Future Alterations.** Landlord hereby confirms its approval under Article 15 of the Lease of the plans for the proposed alteration of floors 36-40 approved by Landlord on June 23, 2021. Notwithstanding any contrary provision of Article 15.2 of the Lease, Landlord shall have the right to approve any future modifications to the layout of the free-standing work station partitions in the Premises to the extent that such modifications affect the HVAC, electrical, plumbing, or other systems or conveyances serving the Premises or Building.

17. **Broker's Commission.** Tenant represents and warrants to Landlord that it has had no dealing with any broker or agent in connection with this Amendment other than Flinn Ferguson Corporate Real Estate, representing Tenant, and Colliers International, representing Landlord (collectively, the "Brokers"). To the extent any commission may be owing with respect to this Amendment, Landlord shall pay a commission to the Brokers in accordance with a separate written agreement. Tenant shall indemnify, defend and hold Landlord harmless from and against any and all liabilities for any commissions or other compensation or charges claimed by any broker or agent other than the Brokers based on dealings with Tenant.

18. **Defined Terms; Conflict.** Capitalized terms used herein and not otherwise defined shall have the meanings given to such terms in the Lease. If there is any conflict between the terms, conditions and provisions of this Amendment and the terms, conditions and provisions of the Lease, the terms, conditions and provisions of this Amendment shall prevail.

19. **No Further Amendment.** This Amendment set forth the entire agreement of the parties as to the subject matter hereof and supersedes all prior discussions and understandings between them. Except as expressly

modified by this Amendment, and terms, covenants and provisions of the Lease shall remain unmodified and in full force and effect, and are hereby expressly ratified and confirmed.

20. **Miscellaneous.** This Amendment may not be amended or rescinded in any manner except by an instrument in writing signed by a duly authorized officer or representative of each party hereto. Each of the schedules or exhibits referred to herein (if any), is incorporated herein as if fully set forth in this Amendment. If any of the provisions of this Amendment are found to be invalid, illegal or unenforceable by any court of competent jurisdiction, such provision shall be stricken and the remainder of this Amendment shall nonetheless remain in full force and effect unless striking such provision shall materially alter the intention of the parties. No waiver of any right under this Amendment shall be effective unless contained in a writing signed by a duly authorized officer or representative of the party sought to be charged with the waiver and no waiver of any rights arising from any breach or failure to perform shall be deemed to be a waiver of any future right or of any other right arising under this Amendment. Tenant waives any rights it may have to require the provisions of this Amendment to be construed against the party who drafted it. Time is strictly of the essence with respect to all dates and time periods set forth in this Amendment.

21. **Authority.** Each person signing this Amendment on behalf of each respective party represents and warrants that he or she is authorized to execute and deliver this Amendment, and that this Amendment will thereby become binding upon Landlord and Tenant, respectively.

22. **Counterparts.** This Amendment may be executed in counterparts, each of which will be deemed to be an original, but all of which together will constitute one and the same document. Copies of this Amendment, including electronic pdf or DocuSign copies shall have the same force and effect as an original of this Amendment.

[Signatures on following pages]

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TENANT:

ZILLOW, INC., a Washington corporation

By: /s/ TOBIAS MICHAEL ROBERTS

Name: Tobias Michael Roberts

Title: Senior Vice President, Technology & Real Estate

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

On this 27th day of October, 2021, before me, a Notary Public in and for the State of Washington, personally appeared Tobias Michael Roberts *[name]*, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed this instrument, on oath stated that he/she was authorized to execute the instrument, and acknowledged it as the SVP *[title]* of Zillow, Inc., to be the free and voluntary act and deed of said corporation for the uses and purposes mentioned in the instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year first above written.

/s/ Jade Rice

NOTARY PUBLIC in and for the State of Washington,
residing at Seattle, WA

My appointment expires 06232025

Print Name Jade Rice

EXHIBIT A

FLOOR PLANS FOR ADDITIONAL SPACE

SCHEDULE 1

EXTERIOR SIGNAGE

1. **Exterior Signs.** If (i) no Event of Default then exists, (ii) no Chronic Default has occurred or is continuing, (iii) Tenant and/or one or more Permitted Transferees continue to lease and Occupy (as defined below) at least 154,000 square feet of Rentable Area of the Premises, and Tenant and/or a Permitted Transferee(s) leases and Occupies more square feet of Rentable Area in the Premises than the most square feet of Rentable Area leased by any other tenant (including all affiliates of any such other tenant) in the Building, and (iv) such signage is allowed outright (subject to customary permitting) under applicable law without any additional cost (unless Tenant pays for any such cost) or any adverse impact on Landlord, then effective as of the Additional Space Commencement Date Tenant may replace the "Russell Investments Center" signage with comparable "Zillow" signage (the "Exterior Signs") on the columns adjacent to the main entrance to the Building that are not used for multi-tenant column signs. Notwithstanding the foregoing, Landlord may require that the Exterior Signs include the building name at the location and in a design selected by Landlord. Tenant shall be responsible for all costs relating to the fabrication, installation, repair, maintenance, restoration and removal of the Exterior Signs. The size, design, content and method of attachment of the Exterior Signs shall be consistent with the architectural and institutional quality of the Building and shall be subject to Landlord's prior approval, which approval shall not be unreasonably withheld, conditioned or delayed. Tenant shall supply Landlord with professionally prepared plans and specifications for the Exterior Signs in advance of their manufacture or submission for permits. The Exterior Signs must comply with all applicable City of Seattle laws, rules and regulations. The rights granted in this Section 1 are personal to the Original Tenant and may not be transferred to any other party without Landlord's express written consent in its sole discretion. Consent to a Transfer shall not constitute consent to an assignment of Tenant's rights under this Section 1. Upon termination of this Lease or if the foregoing conditions cease to be satisfied during the Term, Tenant's rights under this Section 1 shall terminate and Landlord may remove the Exterior Signs and restore, to Landlord's satisfaction, the affected areas so that they match the adjacent surfaces and no evidence of the Exterior Signs is visible. Tenant shall pay all actual, documented out-of-pocket costs incurred by Landlord under the prior sentence upon demand. Landlord may remove (and then restore) the Exterior Signs as and when necessary to perform repairs and maintenance, which repairs, maintenance and restoration (as applicable) shall be at Tenant's cost, as provided above.

2. **Multi-Tenant Column Monument Signs.** Until such time as the Exterior Signs set forth in Section 1 of this Schedule are first installed, and provided that (i) no Event of Default then exists, (ii) no Chronic Default has occurred or is continuing, and (iii) not more than two (2) floors of the Premises has been subleased to a subtenant that is not a Permitted Transferee, and Tenant or a Permitted Transferee continue to lease and Occupy all portions of the Premises that have not been subleased, Tenant shall continue to have the right to have the name "Zillow" displayed on each of the two (2) multi-tenant column monument signs at the main entrance to the Building ("Tenant's Monument Signage"). At such time as the Exterior Signs set forth in Section 1 of this Schedule are first installed, Tenant's rights under this Section 2 shall terminate. All actual, documented out-of-pocket costs incurred by Landlord relating to a particular tenant's multi-tenant sign shall be paid by such tenant. All actual, documented out-of-pocket costs incurred by Landlord relating to more than one multi-tenant sign shall be shared by the tenants that are exhibited on such signs in proportion to the number of signs of each such tenant. The foregoing costs shall include, without limitation, costs for installation, maintenance, repair, restoration and removal (including surface restoration in connection with removal). The rights granted in this Section 2 are personal to the Original Tenant and may not be transferred to any other party without Landlord's express written consent in its sole discretion. Consent to a Transfer shall not constitute consent to an assignment of Tenant's rights under this Section 2. At such time as the Exterior Signs set forth in Section 1 of this Schedule are first installed, or upon termination of the Lease, or if any of the foregoing conditions in clause (i) through (iii) of this Section 2 cease to be satisfied during the Term, Tenant's rights under this Section 2 shall terminate and Landlord may remove Tenant's Monument Signage and restore, to Landlord's satisfaction, the affected areas so that they match the adjacent surfaces and no evidence of the Tenant's Monument Signage is visible. Tenant shall pay all actual, documented out-of-pocket costs incurred by Landlord under the prior sentence upon demand. Landlord may remove (and then restore) Tenant's Monument Signage as and when necessary to perform repairs and maintenance, which repairs, maintenance and restoration (as applicable) shall be at Tenant's cost, as provided above.

3. **Building Naming Rights.** If (i) no Event of Default then exists, (ii) no Chronic Default has occurred or is continuing, (iii) Tenant and/or a Permitted Transferee(s) leases and Occupies at least 500,000 square feet of Rentable Area of Premises, and (iv) the naming rights described herein are allowed outright (subject to customary

permitting) under applicable law without any additional cost (unless Tenant pays for any such cost) or any adverse impact on Landlord, then at Tenant's request Landlord shall name the Building the "Zillow Tower" (the "Naming Right"). Tenant shall be responsible for all out-of-pocket costs incurred by Landlord in connection with Tenant's exercise of the Naming Right, including marketing, stationery and other expenses. The rights granted in this Section 3 are personal to Original Tenant, and may not be transferred to or exercised by any other person or entity. Consent to a Transfer shall not constitute consent to an assignment or transfer of Tenant's rights under this Section 3. Upon termination of the Lease or if at any time the foregoing conditions to the Naming Right cease to be satisfied, Tenant's rights under this Section 3 shall terminate, Landlord may take all action consistent with such termination and Tenant shall cease to refer to the Building as the Zillow Tower. During any period in which the Naming Right is in effect as provided hereunder, Landlord shall refer (and shall cause its employees, brokers, agents and representatives to refer) to the Building as the "Zillow Tower" in all marketing, advertising and promotional media and materials (whether print, electronic, digital or otherwise); provided, however, Landlord shall not be responsible for ensuring use of such name in verbal references to the Building.

4. **Definition of Occupy.** For purposes of this Schedule 1 and Schedule 2 of this Amendment, all space in the Premises shall be deemed "Occupied" by Tenant, Tenant "Occupies" all space in the Premises, and Tenant shall be deemed to be "Occupying" all space in the Premises that (i) is not subleased to a third party (that is not an Affiliate of Tenant) and (ii) is not being marketed for assignment or sublease.

SCHEDULE 2

RIGHT OF FIRST OFFER

1. **Grant.** Subject to all of the terms and conditions of this Schedule 2 ("**Schedule**"), commencing from and after January 1, 2025 and continuing during the remaining Term (except as expressly provided below) (the "**ROFO Period**"), Tenant shall have a right of first offer (the "**Right of First Offer**") with respect to all space (the "**First Right Space**") not then contained within the Premises and located on the 31st through 35th floors of the Building.

2. **Procedure for Offer and Acceptance.**

2.1 **Tenant's Request For First Offer Notice.** At any time during the ROFO Period, but not more frequently than once during any twelve (12) month period, Tenant may deliver to Landlord a written request ("**Request for First Offer Notice**"), which request shall request that Landlord offer to lease to Tenant any Available First Right Space (defined below) in accordance with this Section 2.1 of this Schedule. Any Request for First Offer Notice delivered by Tenant that does not comply with the foregoing condition shall, at the election of Landlord, be null, void and of no force or effect. As used herein, the term "**Available First Right Space**" shall mean any portion of the First Right Space that, as of as of the date of Landlord's First Offer Notice (defined below), is: (i) either vacant or is scheduled to become vacant (as a result of scheduled expiration or unscheduled termination of the lease encumbering such space or otherwise): (A) not more than twelve (12) months after the date Landlord received Tenant's Request for First Offer Notice and (B) not less than twenty-four (24) months prior to the date on which the Term is then scheduled to expire; (ii) is not subject to any Superior Rights (defined below); (iii) is not the subject of any then-ongoing written lease proposal or negotiations with any other party, and (iv) is of a size and configuration that Landlord is then marketing for lease or is otherwise willing to lease in Landlord's sole and absolute discretion; provided that no space that is leased to any third party at the time that Tenant delivers a Request for First Offer Notice shall be Available First Right Space unless Landlord shall have determined that the applicable tenant will not renew or extend the term of its lease of such space. "**Superior Rights**" means, at any particular time, each expansion or renewal right of any type which is set forth in any lease affecting space in the Building.

2.2 **Landlord's First Offer Notice.** Within thirty (30) days of Landlord's receipt from Tenant of a Request for First Offer Notice, Landlord shall deliver to Tenant a written notice (a "**First Offer Notice**"), which First Offer Notice shall: (a) describe the portion(s) of the First Right Space, if any, that at such time is (or are) Available First Right Space (each such space an "**Offered First Right Space**"), (b) state Landlord's estimate of (i) the Current Market Rate as of the First Right Commencement Date (as defined in Article 33 of the Lease, as adjusted in accordance with Section 3.3 of this Schedule) and ROFO Rent (defined below) and (ii) the delivery date (each such date, an "**Offered Space Scheduled Commencement Date**") for each Offered First Right Space, if any, identified in such First Offer Notice.

2.3 **Acceptance by Tenant.** Tenant shall have the right, exercisable only by delivery of a written notice (a "**Tenant's Acceptance Notice**") to Landlord within ten (10) business days after Landlord's delivery of a First Offer Notice, to elect to lease the Offered First Right Space (or Offered First Right Spaces) identified in such First Offer Notice; provided that notwithstanding anything to the contrary herein, Tenant shall not have any right to deliver a Tenant's Acceptance Notice with respect to the Offered First Right Space for which the Offered Space Scheduled Commencement Date will occur less than twenty-four (24) months before the date on which the Term is then scheduled to expire unless, at such time, Tenant has an unexercised Renewal Term pursuant to Article 33 of the Lease, and Tenant elects in writing to exercise such extension option with respect to the entire then existing Premises, in which case, the Term shall be extended by the applicable Renewal Term and the Current Market Rate (and the Monthly Base Rent) payable during such Renewal Term shall be determined in connection with the determination of the Current Market Rate (and ROFO Rent) with respect to the applicable Leased First Right Space. If Tenant does not deliver Tenant's Acceptance Notice to Landlord within ten (10) business days after Landlord's delivery of any First Offer Notice, time being of the essence, then Tenant shall have no right under this Schedule to lease any portion of the First Right Space during the twelve (12) month period following the date on which Tenant delivered its Request for First Offer First Offer Notice, and subject to Tenant's right to deliver another Request for First Offer Notice following expiration of the twelve (12) month period, Landlord shall be free to lease (or otherwise grant Superior Rights with respect to) all or any portion of the First Right Space to anyone to whom Landlord desires on any terms Landlord desires.

3. **Term; Rent; Other Terms.**

3.1 If Tenant duly exercises its Right of First Offer in accordance with this Schedule with respect to any Offered First Right Space that is identified in any First Offer Notice (any such space "Leased First Right Space"), then: (a) the term of the lease of such Leased First Right Space shall commence upon the date (the "First Right Commencement Date") that Landlord tenders to Tenant delivery of possession of such Leased First Right Space which Tenant shall accept in its then existing "AS IS" condition and state of repair (except that Landlord shall be deemed to have represented and warranted that the base Building systems serving the applicable Leased First Right Space are in good working order and condition up to the point of connection to the Leased First Right Space (but not including distribution)), (b) the expiration of Tenant's lease of the Leased First Right Space shall be coterminous with the termination of the Lease for the then existing Premises, (c) except as expressly provided to the contrary in this Schedule, the remaining terms of Tenant's lease of such Leased First Right Space shall be the terms and conditions of this Lease (provided that all provisions of the Lease which vary based upon the Rentable Area of the Premises shall be adjusted to reflect the addition of the Leased First Right Space to the Premises) and (d) Landlord and Tenant shall reasonably promptly thereafter execute an amendment to this Lease for such Leased First Right Space upon the terms and conditions as set forth in the First Offer Notice, subject to the provisions of this Schedule.

3.2 The Monthly Base Rent payable by Tenant with respect to any Leased First Right Space (the "ROFO Rent") shall commence on the applicable First Right Commencement Date, and shall be equal to the product of: (a) the number of square feet of Rentable Area contained in such Leased First Right Space and (b) the Current Market Rent for such Leased First Right Space as of the First Right Commencement Date, with such Current Market Rent to otherwise be as defined in Paragraph 3 of Article 33 of the Lease. If in the applicable Acceptance Notice, Tenant expressly rejects Landlord's determination of the Current Market Rent (and ROFO Rent) for the applicable Leased First Right Space and the parties fail to agree on the Current Market Rent (and ROFO Rent) within thirty (30) days after Tenant's delivery of the Acceptance Notice, then the Current Market Rent (and ROFO Rent) for such Leased First Right Space shall be determined in accordance with Paragraph 4 of Article 33 of the Lease, provided that if the Current Market Rent (and ROFO Rent) for any Leased First Right Space shall not be determined as of the First Right Commencement Date, the parties shall utilize the Current Market Rent submitted by Landlord to the Deciding Appraiser pursuant to Paragraph 4 of Article 33 to determine the ROFO Rent for the applicable Leased First Right Space, and if the Current Market Rent submitted by Tenant to the Deciding Appraiser pursuant to Paragraph 4 of Article 33 of the Lease shall be ultimately selected by the Deciding Appraiser, Tenant shall be given a credit against ROFO Rent next due hereunder equal to the amount of any overpayment. If Tenant fails, in the applicable Acceptance Notice, to expressly reject Landlord's determination of the Current Market Rate (and ROFO Rent) set forth in the applicable First Offer Notice, then Tenant shall conclusively be deemed to have accepted Landlord's determination of the Current Market Rate (and ROFO Rent) for the applicable Leased First Right Space as set forth in the applicable First Offer Notice. Notwithstanding anything to the contrary herein, Tenant shall pay Tenant's Percentage Share of Operating Expenses and Taxes with respect to any Leased First Right Space in the same manner as set forth in the Lease, and Tenant's Percentage Share shall be increased to take into account the expansion of the Premises to include such Leased First Right Space.

3.3 Notwithstanding any contrary provision of the Lease or this Schedule, for purposes of the determination of the Current Market Rent under this Schedule, the reference in the definition of Current Market Rate in Paragraph (3) of Article 33 of the Lease to "a term of five (5) years" shall be replaced with "a term equal to the duration of the lease term for the Leased First Right Space".

4. **Delivery and Condition of Leased First Right Space; Delivery; Improvement.**

4.1 Landlord shall endeavor to deliver the Leased First Right Space to Tenant on or before the applicable Offered Space Scheduled Commencement Date (as identified in the applicable First Offer Notice); provided, however, that if for any reason, Landlord is not in a position to so deliver such Leased First Right Space on such date, Landlord shall not be in breach under this Lease and otherwise shall have no liability to Tenant so long as Landlord uses commercially reasonable efforts to deliver such Leased First Right Space to Tenant as soon as reasonably possible thereafter (provided that Tenant shall have no obligation with respect to the applicable Leased First Right Space until Landlord actually delivers same).

5. **ROFO Requirements.** Notwithstanding anything to the contrary in this Lease: (a) the Right of First Offer and all of the rights of Tenant under this Schedule are and shall be personal to Zillow Inc. ("Original Tenant") and any assignee of all of Tenant's rights under the Lease that does not require Landlord's consent under Article 10.5 of the Lease ("Permitted Assignee"), are not transferable and may only be exercised by the Original Tenant or a Permitted Assignee (and not by any other assignee or subtenant), and (b) Tenant's rights and Landlord's obligations under this Schedule shall be applicable only on the condition that, at the applicable time, Original Tenant, a Permitted Assignee and/or a subtenant that does not require Landlord's consent under Article 10.5 of the Lease ("Permitted Subtenant") and collectively with Permitted Assignee, a "Permitted Transferee") then Occupies the entire Premises. In addition, notwithstanding anything to the contrary in this Schedule: (i) Tenant's rights and Landlord's obligations under this Schedule shall not be applicable at any time during which (A) there is a then-existing uncured Event of Default by Tenant under this Lease or (B) there has been a Chronic Default by Tenant under the Lease, and (ii) at the election of Landlord (in its sole and absolute discretion), if as of the date that Tenant's lease of any Leased First Right Space would otherwise commence (A) there is a then-existing uncured Event of Default by Tenant under this Lease or (B) there has been a Chronic Default by Tenant under the Lease, then Landlord may cancel Tenant's lease of the applicable Leased First Right Space by delivery of written notice thereof to Tenant.

SCHEDULE 3

REMOVAL ITEMS – 29TH AND 30TH FLOORS

- Furniture, trade fixtures and equipment
- Floor core penetration infill, as necessary
- Electric/low voltage desk whip decommissioning back to source
- Low Voltage Cabling (horizontal & vertical riser)
- Removal/Restoration of MDF room, partitions/dampers, and related MEP and F/LS equipment
- CRAC units
- Reconnect egress stairwell card readers to base-building access control system

SUBSIDIARIES OF ZILLOW GROUP, INC.

The following is a list of subsidiaries of the company as of December 31, 2021, omitting subsidiaries which, considered in the aggregate, would not constitute a significant subsidiary.

Name	Place of Organization
Zillow, Inc.	Washington Corporation
Signpost Homes, Inc.	Washington Corporation
Zillow Homes, Inc.	Delaware Corporation
Zillow Homes Property Trust	Delaware Trust
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
ZH-D, LLC	Delaware Limited Liability Company
ZH-E, LLC	Delaware Limited Liability Company

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-225918 and 333-253207 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, 333-238077, and 333-253038 on Form S-8 of our reports dated February 10, 2022, 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, 2021.

/s/ *DELOITTE & TOUCHE LLP*

Seattle, Washington

February 10, 2022

**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 10, 2022

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 10, 2022

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, 2021 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 10, 2022

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, 2021 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 10, 2022

By: /s/ ALLEN PARKER
Name: Allen Parker
Title: Chief Financial Officer