Zillow and its iBuying Venture[1]

Shopping for a home is usually a high-stake, time-consuming, stressful process, characterized by uncertainty and lack of transparency. Most buyers and sellers are involved in one of the largest one-time financial decisions of their lifetime, so getting a good estimate is critical. Buyers interested in a particular home need to invest time researching the recent prices of comparable properties and investigate the home's specific features, such as how well it has been cared for, neighborhood noise, upcoming constructions, zoning changes, etc. At the same time, sellers need to set a price which will attract buyers and hopefully facilitate the sale within a reasonable time frame.

In the United States, real estate sales are usually regulated and licensed by state governments. While specific regulations vary, the general practice is that licensed brokers and agents act as intermediaries between buyers and sellers and have a fiduciary duty to serve the best interests of the clients they represent. These brokers and agents are compensated through commissions when a sale is successfully completed. Typically, the commission is a percentage of the agreed-upon selling price. Information about properties available for sale is disseminated through Multiple Listing Services (MLSs), private regional databases created, maintained, and paid for by real estate professionals to facilitate the buying and selling of properties.

In early 2005, Rich Barton and Lloyd Frink sought to replicate the success of their previous startup, Expedia Group Inc., in the housing market with Zillow Inc. Their vision was to aggregate and map a comprehensive range of real estate data, both publicly available and proprietary, in order to enhance transparency and empower consumers. They sought to disrupt the real estate industry in a similar way to what they did with the air travel industry. They were well aware that shopping for a home was a bit like shopping in the dark, and Zillow's mission was to turn the lights on.

Zillow Estimates (Zestimates)

In February 2006, Zillow announced the launch of its beta real estate site which offered data as well as free valuations for more than 40 million homes across the United States. To find a valuation, or Zestimate, consumers just needed to enter the address of the property they were interested in, without the need to enter any personal information.

A Zestimate is the result of Zillow's proprietary Automated Valuation Model (AVM) which uses machine learning based algorithms and real estate information such as comparable sales, property characteristics, and market trends to provide a current estimate of market value for a specific property.

Throughout Zillow's history, improving the accuracy of Zestimates was paramount. In 2007, Zillow was crunching two terabytes of data every night to come up with Zestimates for more than 52 million homes, with a 14% median absolute percent error. That error improves substantially when focusing only on homes that are currently on the market. In 2007, Zillow also reported a median 7.2% difference between Zestimates and actual prices for on-market homes, and an independent analysis conducted by the Wall Street Journal on 1,000 properties showed that the median difference between their Zillow estimates and the corresponding sale prices was 7.8%. In 2017 and with the medial absolute percent error at 5%, Zillow announced the Zillow prize. Zillow would award $1 million to the person or team who could most improve the Zestimates of 110 million homes across the United States. Two years later, the prize had attracted submissions by nearly 4,000 teams and the winning team was able to bring Zillow's median absolute percent error to below 4%. As of 2021, the Zestimate currently has a

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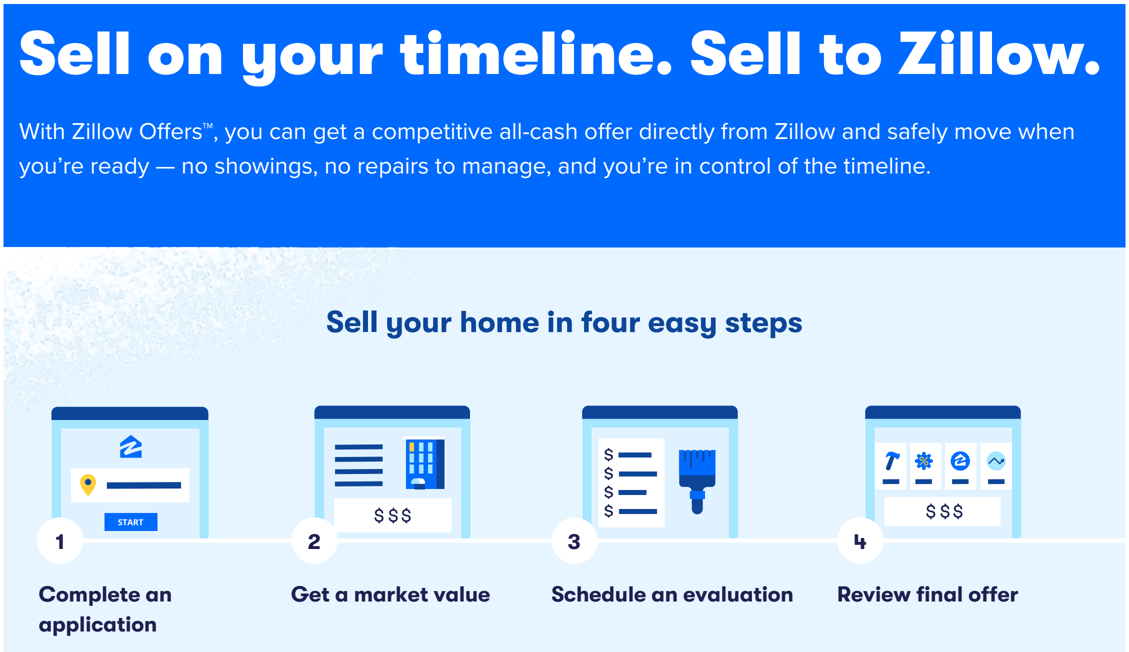

Figure 1: The Zillow Offers process.

median absolute percent error of 1.9% for homes that are on the market, and of 6.9% for off-market homes.

Over time, Zestimates have provided home owners, sellers, buyers, neighbors, online voyeurs, and Saturday Night Live viewers with the ability to track in real-time property values. This helped Zillow build a massive audience that, each month, attracts almost as many unique visitors as there are adults in the United States.

iBuying and the launch of Zillow Offers

In the mid 2010s, the San Francisco-based startup Opendoor and the Arizona-based Offerpad first entered iBuying, an online market in which companies (iBuyers) use technology to estimate a home's value and buy it directly from the owner for cash to eventually re-sell it. The iBuyers can be considered like institutionalized home flippers who work directly with consumers and eliminate banks and brokers. As a result, these companies offer a faster, more streamlined approach to the buying and the selling of homes. The convenience of this approach comes at a cost: iBuyers tend to offer slightly less than fair-market values and charge slightly higher fees than conventional listing agents.

Since Zillow's inception there has always been speculation that Zillow would eventually start selling homes and charge commissions, but Zillow's business model was focused on selling ads. They deliberately positioned themselves as a partner to real estate agents, emphasizing collaboration over disruption. That remained true for most of Zillow's life. As the company grew over time and expanded the services provided within real estate, Zillow strategically resisted iBuying. However, things changed drastically in 2017 because of the popularity of iBuying with millennials and the successes of Opendoor, Offerpad, and RedfinNow. Zillow worried that if sellers would more frequently seek offers from iBuyers, then they could lose their audience and advertising base. In May 2017, Zillow began testing iBuying

Figure 2: Current and coming soon markets of Zillow Offers as of December 9, 2019.

in Las Vegas and Orlando. About a year later it expanded it to Phoenix and then Atlanta, when it also launched the trademark Zillow Offers.

With Zillow Offers (see Figure 1), interested sellers would enter their home address in a website and complete a questionnaire. A preliminary cash offer would come in as little as two days, followed by an in-person inspection of the property by a Zillow representative. After the inspection, the seller would receive a final cash offer that includes deductions for repairs and Zillow's commission. The seller could then accept and sign a purchase agreement, or decline it with no penalty. The simplicity and the speed of the process (no agents, no staging, no open houses, . . .), would come at a premium. Zillow would charge the seller a percentage fee averaging 7.5% of the sales price which is 25% higher than the typical commission for real estate agents.

Zillow's executives were quite optimistic about its iBuying program. In a call with investors in May 2018, Zillow CEO Spencer Rascoff said that if the company were the buyer in 5% of the transactions in the largest housing markets in the country, then Zillow Offers could generate more than $1 billion in annual profit. In an effort to streamline and shorten the home-buying process for consumers who purchase homes through Zillow Offers, Zillow acquired Mortgage Lenders of America in November 2018, with the projection that this could generate additional $800 million a year in fees for underwriting home loans. Zillow also projected that it would bring in an additional $1 billion in revenues by connecting real estate agents with sellers who have turned down a Zillow offer. The stock market, however, had a more mixed reaction to the launch of Zillow Offers. Investors were worried that Zillow was moving from a high-margin business (online advertising) to a capital-intensive, low-margin one (iBuying). Zillow was shooting for a 1.5% profit margin on every house, so for the business to work it would need to be at a massive scale. The company would then have to add billions of dollars in debt, expose itself to the risk of declining home prices, and hire thousands of workers to inspect, repair, and manage its properties.

Zillow Offers grew rapidly. As of December 2019, it had launched in 22 markets with Tucson and Cincinnati to be added shortly after (see Figure 2). On March 24, 2020 and with a home inventory of about 1,860 homes, Zillow announced that it would pause home buying in all of its 24 markets because of the COVID pandemic. However, the company made clear that the marketing and the selling of homes through Zillow Offers would continue. By the end of July 2020, Zillow was back at buying homes in all of its markets. In February 2021, Zillow announced that the Zestimate would become an initial, fair-market, cash offer for eligible homes in more than 20 cities nationwide, further affirming its confidence in the accuracy of its proprietary AMV and its willingness to extend fair-market offers to sellers.

The winding down of Zillow Offers

Zillow's decision to make Zestimates an initial cash offer, however, came as a surprise to some. Sellers have superior knowledge about the home they offer on the market, and—despite the vast amount of available data—iBuyers are unable to discover all of the information that would affect their offer prices. As a result, by bidding based on predicted prices (such as Zestimates), iBuyers are more likely to acquire overpriced homes than underpriced ones thereby severely diminishing their profit potential upon resale.

The iBuying business model also exhibits additional challenges that come from the time it takes to flip a home and the need to accurately predict home prices in the future. While Zestimates and other AMVs are very accurate at predicting the average price of houses that are currently on the market, they are unable to do so six or more months into the future. When the iBuying lifecycle lags, iBuyers' risks increase substantially.

On November 2, 2021 and just 9 months after making Zestimates an initial cash offer, Zillow announced that it was winding down Zillow Offers and would reduce its workforce by approximately 25%. During its short lifetime, Zillow Offers bought more than 27,000 homes in the United States and accumulated more than $1.6 billion in losses (see Figure 3).

The future of iBuying

Despite the winding down of Zillow Offers and the headwinds caused by the COVID-19 pandemic, the iBuying business remains strong. Zillow Offers' competitors achieved the operational efficiency that allows them to execute the full iBuying cycle in less than 100 days, and avoid the risks that come from holding on to homes for too long.

Industry experts believe that iBuying is here to stay and some expect it to reach 18% market share by 2030. Zillow seems to share the same view and remains present in this space thanks to a 2022 multi-year partnership with Opendoor that allows home sellers on the Zillow platform to seamlessly request an Opendoor offer to sell their home.

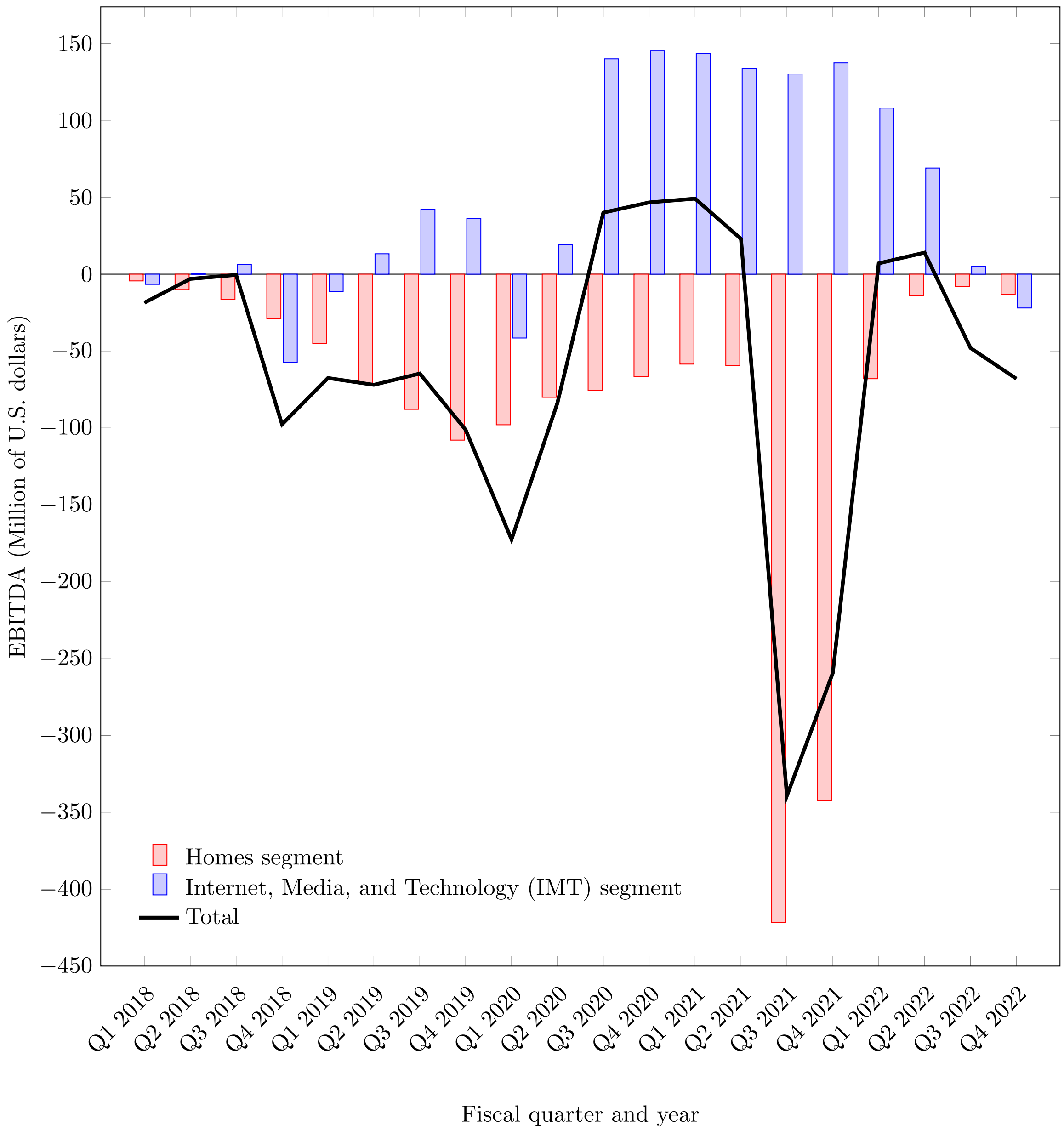

Figure 3: Zillow's EBITDA (earnings before interest, taxes, depreciation, and amortization) in million of U.S. dollars from the first quarter of 2018 to the fourth quarter of 2022. The chart reports the EBITDA for the IMT (Internet, Media and Technology) segment, for the Homes (Zillow Offers) segment, and in total. During this period, the IMT segment generated almost $1 billion in profits, while the Homes segment accumulated more than $1.6 billion in losses.