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From Seed to Skyrocket: Airbnb’s Valuation Odyssey and Early-Stage Valuation Principles

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Master in Finance

Supervisor: PhD Professor Rui Manuel Meireles dos Anjos Alpalhão, Professor Catedrático Convidado, ISCTE Business School

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BUSINESS
SCHOOL

Department of Finance

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Resumo

Esta tese explora a dinâmica de valorização de empresas em fase inicial, com foco no estudo de caso da Airbnb. Ao seguir a trajetória corporativa da Airbnb desde a sua fundação em 2008 até ao seu OPI (Oferta Pública Inicial) em 2020, a investigação examina como as valorizações em fase inicial são impulsionadas pelo sentimento especulativo do mercado, pela psicologia dos investidores e pelos perfis de risco variáveis ao longo das rondas de financiamento. Através da análise de dados financeiros, das tendências de capital de risco e das condições macroeconómicas, o estudo testa hipóteses relacionadas com o papel da especulação de mercado, o perfil dos investidores e os indicadores de valorização no desenvolvimento corporativo da Airbnb. Os resultados sugerem que as valorizações em fase inicial são mais influenciadas pela reputação dos fundadores e pelo otimismo do mercado do que por modelos financeiros tradicionais, enquanto que as valorizações pós-OPI estão cada vez mais alinhadas com princípios financeiros normativos, como o rácio preço-lucro. Este estudo contribui para a literatura sobre a valorização de startups e capital de risco, oferecendo perspetivas sobre a interseção entre finanças, psicologia e condições de mercado no crescimento e capitalização de mercado de uma startup.

Palavras-chave: Valorização em fase inicial, capital de risco, OPI, Airbnb, investimento especulativo, sentimento de mercado, finanças de startups, valorização corporativa.

Classificação JEL: G32, G41

Abstract

This thesis explores the valuation dynamics of early-stage companies, focusing on the case study of Airbnb. By tracing Airbnb's corporate journey from its inception in 2008 to its 2020 IPO (Initial Public Offering), the research examines how early-stage valuations are driven by speculative market sentiment, investor psychology, and the changing risk profiles across funding rounds. Through the analysis of financial data, venture capital trends, and macroeconomic conditions, the study tests hypotheses related to the role of market speculation, investor profiles, and valuation metrics in shaping Airbnb's corporate trajectory. The findings suggest that early-stage valuations are influenced more by founder reputation and market optimism than by traditional financial models, while post-IPO valuations increasingly align with standard financial principles such as price-to-earnings ratios. This study contributes to the broader literature on startup valuation and venture capital by offering insights into the intersection of finance, psychology, and market conditions in shaping a startup's growth and market capitalization.

Keywords: Early-stage valuation, venture capital, IPO, Airbnb, speculative investment, market sentiment, startup finance, corporate valuation.

JEL Classifications: G32, G41

General Index

Appendix Index

Glossary of Acronyms

$: dollar

$XXb: XX billions of dollars

$XXm: XX millions of dollars

EBIT: Earnings before interest and taxes

EBITDA: Earnings before interest, taxes, depreciation, and amortization

EPS: Earnings per share

IPO: Initial Public Offering

Nasdaq: The Nasdaq Composite stock market index

S&P 500: The Standard and Poor's 500 stock market index

Startup: Refers to a company in the first stages of operations

VC: Venture Capital

1. Introduction

In the expansive realm of business, finance holds a fundamental role as the driving force behind economic activities, enabling the movement of money and capital across a diverse range of sectors. The scope of finance spans from individual investment management to the intricate operations of financial institutions. Corporate finance, a central branch within this domain, is concerned with how companies manage their financial resources, particularly through investment decisions, capital structuring, and funding strategies. In today’s dynamic markets, corporate finance is crucial not only for established corporations but also for startups and emerging ventures as they navigate increasingly complex and uncertain financial landscapes.

Securing investment from wealthy individuals and institutional investors is a critical aspect of entrepreneurship. Convincing these stakeholders of a business’s potential is essential to secure the funding required to develop and achieve a startup's various milestones throughout its lifecycle.

The startup world offers numerous examples of both success and failure. Some of the most iconic success stories include ventures that have grown into multi-billion-dollar corporations, integrated into the everyday lives of millions. Companies like Facebook, Apple, Google, and Amazon are household names, with global recognition of how they have transformed daily life. However, these companies were built by entrepreneurs who endured long and challenging journeys before their ideas achieved worldwide success.

In the world of finance, these companies are just as renowned but for different reasons. The stock market sees a high volume of trading in their shares, with millions of shares exchanged daily, driven by a variety of motivations. Financial analysts specialize in assessing the fair value of these companies’ stocks, applying diverse valuation methods and financial theories.

The field of financial theory offers a vast array of valuation metrics and techniques, ranging from financial ratios to discounted cash flow analysis, and from individual company analysis to broader market evaluation. The financial analysis of publicly traded stocks encompasses a wide range of ideas and methodologies, and the literature in corporate finance and valuation is extensive. Renowned figures such as Aswath Damodaran and Benjamin Graham have contributed significantly to the development of these concepts, and their ideas continue to influence stock market participants worldwide.

However, one area where finance encounters greater challenges is in the early stages of a company's lifecycle, before it becomes publicly traded. The complexity of valuing early-stage companies has captured the attention of financial scholars and academics, who have long sought to establish a reliable theoretical framework for this niche. The key players in early-stage financing—

venture capitalists and angel investors—often operate in a space where their names are more widely known than the specifics of what they do.

Venture capital, in particular, stands out as a field marked by significant divergence and disagreement in terms of concepts and approaches. The operations of venture capitalists differ substantially from those of other investment providers, and emotions often play a more prominent role compared to the methodical, numbers-driven approach typical of stock market investors. Venture capitalists are crucial in helping companies grow from startups to success stories in the public markets. Fred Wilson, a prominent venture capitalist in the United States, has famously remarked:

"Venture capital is about capturing the value between the start-up phase and the public company phase." (Sahoo, 2017)

Venture capital investors are exposed to high-risk, high-volatility investments, as early-stage companies often have little evidence to support the likelihood of their success. In fact, the venture capital model assumes that not all investments will yield substantial returns. However, the expectation is that the gains from successful investments will offset the losses from failed ventures. This industry is inherently cyclical, experiencing both prosperous and challenging periods, and the ability of investors to capitalize on the former while weathering the latter largely determines their success. As Fred Wilson noted:

"All markets have boom and bust cycles, and I think venture capital market has even more exaggerated boom and bust cycles." (Sahoo, 2017)

Despite these challenges, venture capital has proven to be a remarkable success story within the framework of capitalism. According to the National Bureau of Economic Research (NBER) (2001), the average return on venture capital investments is 57% annually, significantly higher than the returns seen in any major stock market index.

Venture capital has also experienced significant global growth, with the amount of capital raised increasing substantially since its inception. With a few exceptions, the industry has expanded at a pace far exceeding general economic activity. Data from the National Venture Capital Association, a nonprofit organization, shows that from 2004 to 2023, global venture capital fundraising increased by more than 500%. This exponential growth underscores the pivotal role venture capital now plays in financing innovation and driving economic progress across the globe. (Appendix A)

What is behind the success of venture capital investors?

Valuing early-stage companies does not align with the traditional financial metrics and valuation methods that are widely accepted in finance theory. Numerous challenges emerge when attempting to apply conventional formulas to these types of companies. With early-stage ventures often facing negative earnings, negative cash flows, and the absence of comparable companies, arriving at a concrete valuation through standard analysis proves difficult.

This research paper will examine two influential papers by Aswath Damodaran that specifically address this issue. Damodaran's insights into early-stage valuations are grounded in established financial concepts and metrics, closely aligned with other theoretical models put forth by academics. However, applying these models to real-world early-stage startups is often more complex than it appears in theory. Unlike large, publicly traded companies, startups do not follow the same valuation rules or patterns.

The rationale behind the valuations of early-stage companies or startups is often less clear than those in the stock market. Masayoshi Son, a prominent venture capitalist known for his successes (such as being an early investor in Alibaba) and failures (notably Wework), highlighted a key aspect of his investment approach when he said:

"I don't look for companies. I look for Founders." (*The VC Factory*)

This approach emphasizes that determining a startup's valuation is not based solely on financial metrics, but also on intangible factors like the vision, passion, and capabilities of its founders. In the startup world, valuation rules are far from uniform, with each case being unique in its characteristics and prospects.

This research aims to explore a specific case study of a company that successfully transitioned from an early-stage startup to a multi-billion-dollar firm publicly traded on the Nasdaq. By analyzing its journey, the objective is to uncover the factors that contributed to its valuation and, ultimately, its success. The study will attempt to shed light on the determinants that made this company a standout case in the world of startups, revealing the elements that set it apart in its path to becoming a publicly traded powerhouse.

Airbnb

Airbnb was founded in 2008 by three young entrepreneurs who were grappling with the challenge of finding affordable housing in their hometown. What began as a simple solution to their personal financial problems evolved into a global business that revolutionized the way people find short-term accommodations. Over the years, the three founders embarked on a journey that has seen their initial idea grow into a widely recognized brand with a global presence.

It took twelve years from the company's inception for Airbnb to go public, culminating in a successful initial public offering (IPO) in 2020. The founders, once struggling with financial difficulties, have since transformed their fortunes, becoming billionaires as their company grew exponentially in value.

According to Search Logistics, a digital marketing agency, Airbnb had an estimated 12.7 million listings on its platform worldwide by 2021. This vast inventory demonstrates the company's remarkable expansion and its ability to create a vast network of hosts and travelers across the globe, becoming one of the most influential companies in the sharing economy. (Appendix B)

In this research paper, we will explore the corporate journey of Airbnb, tracing its development from the founders' initial decision to transform their idea into a reality, to the final trading day of Airbnb's stock in 2023. Our analysis will focus on the various stages of Airbnb's valuation, beginning with its Seed round, the first funding phase for startups, and continuing through subsequent rounds like Series A, each reflecting different valuation determinants. As Airbnb transitioned from an early-stage startup to a publicly traded company, its valuation metrics evolved, as did the types of investors involved at each stage. With each milestone, new protagonists emerged, guiding the company along its path to becoming a multi-billion-dollar enterprise.

This research will identify the key drivers behind Airbnb's valuation at each stage and examine how the founders successfully secured capital for their business. We will compare these findings with established financial theory, analyzing where the two fields align and where they diverge.

Obtaining financial data from Airbnb's early days, prior to its public financial disclosures, presents a challenge. However, by triangulating estimates from credible sources, we aim to establish reliable figures, sometimes using an average within a certain range. In its early stages, when the company was not yet profitable, revenue will serve as the most important financial metric for this analysis, providing a basis for comparing the valuations assigned to Airbnb by its investors.

Airbnb's journey will be divided into two main parts: the period before the company became publicly traded, and its post-IPO era as a stock listed on the Nasdaq. We will compare the evolution of Airbnb's valuation, the profiles of its investors, and the factors driving success in each phase.

Following our detailed analysis of Airbnb's corporate journey, this research paper will test four hypotheses aimed at investigating the differences between early-stage valuation dynamics and those of the stock market. By doing so, we hope to shed light on the challenges and nuances involved in valuing startups during their formative years.

Ultimately, this research paper aims to contribute to financial theory by offering an in-depth study of an individual case: the entire corporate lifecycle of a successful startup. In conclusion, the thesis will address its central question:

What factors have fundamentally influenced Airbnb's valuation from its inception to its public trading debut?

2. Review of literature

Valuation, by itself, is considered subjective by most academics. This happens because of the old saying that "each case is a case", i.e., each company has its own particularities that affect its valuation.

However, there is already a solid foundation of the main techniques that should be followed when valuing a company. According to Damodaran (2000), in accordance with most academics, the value of an asset considers its cash flows, life expectancy of the asset, how will the cash flows behave in the future and the risk associated with the asset:

$$Value\ of\ an\ Asset: \sum_{t=1}^{t=N} \frac{Expected\ Cash\ Flows}{(1+r)^t}$$

(1)

The same rationale is applied when valuing a whole firm, notwithstanding the higher complexity.

Cash Flow

The cash flow that needs to be estimated is the *Free Cash Flow to the Firm* and, according to Damodaran (2000), can be estimated through the following:

$$FCFF = EBIT * (1 - tax\ rate) - (Capital\ Expenditures - Depreciation) - Change\ in\ Non - Cash\ Working\ Capital$$

(2)

This cash flow factors in equity and debt investors, and it is after taxes and investments needed to keep the business going.

Expected Growth Rate

The expected growth rate is a more sophisticated topic, due to its uncertainty. In the same research paper, Damodaran (2000), it is argued that the expected growth rate is a function of a firm's reinvestment rate.

$$Expected\ Growth_{EBIT} = Reinvestment\ Rate * Return\ on\ Capital$$

(3)

The reinvestment rate corresponds to the portion of the after-tax operating income that is invested:

$$Reinvestment\ Rate = \frac{Capital\ Expenditure - Depreciation + \Delta Non - cash\ WC}{EBIT * (1 - tax\ rate)}$$

(4)

The return on capital is a metric that aims to reflect the return a firm is able to obtain from its investments:

$$Return\ on\ Capital = \frac{EBIT * (1 - tax\ rate)}{Capital\ Invested}$$

(5)

Cost of Capital

The cash flows need to be discounted back to the present period. The discount rate will correspond to the cost of financing the business and needs to consider both equity and debt investors. Damodaran states that the cost of capital should derive from:

$$Cost\ of\ Capital = K_{equity} * \left(\frac{Equity}{Debt + Equity}\right) + K_{debt} * \left(\frac{Debt}{Debt + Equity}\right)$$

(6)

The K_{equity} represents the rate of return required by equity investors on the capital employed. On the other hand, K_{debt} represents the cost of financing after taking into account the tax advantages on taking debt. Often, this cost of capital is referred to as *weighted average cost of capital (WACC)* in a lot of academic papers and books.

Terminal Value

Finally, it remains the terminal value. This metric usually has a meaningful impact in the result of a valuation of a company. There are a lot of approaches and preferences among academics. In order to keep it consistent with the *Discounted Free Cash Flow Model*, Damodaran embraces the constant and infinite growth methodology:

$$Terminal\ Value = \frac{Free\ Cash\ Flow\ to\ the\ Firm}{Cost\ of\ Capital - Expected\ Growth\ Rate}$$

(7)

The application of this formula is designed for the period immediately following the estimation of the last cash flow. If there are *n* estimated cash flows, the formula should be applied to the subsequent period, denoted as *n+1*.

Value of Equity

After estimating the parameters mentioned above, the value of the firm, or the *enterprise value*, can be estimated. This corresponds to the present value of the perpetual stream of the *FCFF*, discounted by its cost of capital.

To estimate the value of equity, some adjustments need to be made to the *enterprise value* of the firm:

$$Equity\ Value = Enterprise\ Value + Market\ Value\ of\ Non\ Operating\ Assets - Debt$$

Non-operating assets need to be added because their value is not included in the operating income of the firm, hence not included in the *enterprise value*.

In addition to this research paper elaborated by Damodaran in March 2000, the *Discounted Cash Flow Model (DCF)* resumed above is a famous and standard practice when valuing a firm. Its main rivals are the *Multiples Approach* and the *Economic Value-Added Model*. The latter will be neglected for the purpose of this academic paper.

The multiples approach consists in applying a multiple to a certain metric of a company. This is made acknowledging and comparing with similar companies. Regularly, the similarity between companies is defined by a company's size, sector, industry, and capital structure. This method takes into account the *Law of One Price* and a relatively efficient market, i.e., similar companies should lead to similar valuation multiples.

Early-Stage Valuation

In March 2000, Aswath Damodaran also identified what he calls "The Dark Side of Valuation". Referring to the valuation of early-stage companies, which have no history, earnings or suitable comparable, Damodaran elaborated a research paper diving into to the topic.

According to the research paper, the negative earnings, absence of historical data and comparable firms make it challenging to follow the normal route of the DCF model.

The author suggests some methodologies to deal with the problems.

Negative Earnigns

It is proposed three alternative solutions to get through this hurdle.

The first is to normalize earnings, replacing the negative results with a positive one. This path assumes that the firm will be able to have positive earnings in the near future or that the negative earnings of the present are not recurring, being adjusted for the benefit of the valuation model.

Another alternative mentioned is to base the valuation model considering metrics like revenues and margins to base the projections. A variation of this approach is to arrive at an estimation of future earnings acknowledging the capital invested by the company and its returns on capital over time.

Finally, the third possibility put forward applies when a company has negative earnings because of financial distress. The solution goes by reducing leverage, expecting that it is the management intention to do it.

No History or Comparable Firms

The author starts by mentioning the paradox in this case: when a firm has no history, the existence of comparable firms can compensate that fact; when there are no comparable firms, the valuation model should consider its earnings history to mitigate that absence.

The real problem is when a firm has no history and no comparable firms. In this case, the research paper suggests that the most recent financial information should be considered. Expected revenue growth and the operating margin a firm can maintain are going to play a key role in the valuation analysis.

The reinvestment rate, together with the return on capital, will impact how the operating income grows.

It is mentioned that the conventional approaches to estimate risk parameters are inoperable in this case, since the regression beta estimate and the averages of main comparable firms is not available data. Following this, risk parameters can be estimated using the financial information of the firm.

The author emphasizes the importance of the terminal value and its bigger impact on the valuation of young companies. It is crucial to have a good estimate of how long it will take the firm to reach sustainable margins and stable growth.

Damodaran elaborated another research paper on the topic in May 2009. The author refers, once again, to the *Dark Side of Valuation* when valuing young, start-up and growth companies. It starts by mentioning common errors when valuing this type of companies:

- Disregard of intermediate financial items that position in between of revenues and earnings in the financial statements.
- Short time horizon forecasted (three to five years).
- Combining relative valuation with intrinsic value of the company
- Input all the uncertainty in the discount rate.
- Arbitrary adjustments to mitigate differences in equity claims.

According to the research paper, these errors play a part in the *Venture Capital Approach*. This valuation method composed of four steps:

- Estimate expected revenues and expected earnings until the point in time at which the venture capitalist plans to exit the investment (two to five years).
- Use a multiples approach and use the value at the end of the forecast period to apply it:

$$Equity\ Value\ at\ end\ of\ forecast\ period = Expected\ Earnings_{year\ n} * Forecasted\ PE$$

$$Enterprise\ Value\ end\ of\ forecast\ period = Expected\ Revenues_{year\ n} * {}^{EV}/_{Sales}$$

- To get the equity value at the present period, a discount rate is applied. This discount rate accommodates the target rate of return of the venture capitalist:

$$Equity\ Value\ today = \frac{Equity\ Value\ at\ end\ of\ forecast\ horizon}{(1 + Target\ Rate\ of\ Return)^n} \tag{8}$$

- Finally, the calculation for determining the equity percentage entitled to a venture capitalist involves dividing the amount of capital invested by the post-money valuation of the company.

$$Porportion\ of\ equity\ to\ new\ capital\ provider = \frac{New\ Capital\ Provided}{Post\ Money\ Valuation}$$

(9)

In this research paper calls for *The Light Side of Valuation*, referring to the Discounted Cash Flow Valuation model applied to young/early-stage companies.

Estimation of Future Cash Flows

Starting with the estimation of future cash flows, the author suggests two approaches, a top-down approach and a bottom-up one.

The former, starts by assessing the potential market for the product or service that the business is selling. Subsequently, evaluate the market share the firm will be able to capture in the long term. Later, after computing the operating expenses and margins the business is probable to obtain, it is critical to predict the cash outflows resulting from investments needed to sustain the growth of the business.

The bottom-up approach goes on the other way around. Before estimating revenues, capacity size and investments needed to keep the business alive are computed. This approach leads, usually, to lower estimation of future cash flows.

Estimating Discount Rates

According to the research paper, the problems in estimating cost of equity and cost of debt derive from three references:

- *Betas* and cost of equity that is held by undiversified/partially diversified shareholders. The CAPM (capital asset pricing model) assumes that the investors hold a diversified portfolio when estimating their cost of equity.
- The cost of debt that comes from bank loans is harder to estimate.
- There are no market values for the equity and debt of the company, making it harder to estimate the debt ratio.

The author proposes five alternative processes.

The first is to use the sector averages and access the market risk of the business.

Another possibility is to adjust for the absence of diversification. For example, the total *Beta* for a venture capitalist investor would be a function of the following:

$$Total\ Beta_{VC} = \frac{Market\ Beta_{Publicly\ Traded\ Firms\ in\ Business}}{Correlation\ with\ Market_{VC\ Portfolio}}$$

(10)

The third option is to create a *synthetic bond* for the private business, using the company's financial information and ratios.

An alternate route is to allow the values of equity and debt to vary across the time horizon and expect their risk and cash flows to change over the forecasted time horizon.

Finally, is to base the valuation model's assumptions in the management targets.

Estimating Value Today and Adjusting it for Survival

As was mentioned before, the terminal value is crucial for the final valuation of these type of companies. It can be computed considering the perpetuity lifetime of the firm, the present value of the cash flows or consider the salvage value – the liquidation value of the firm.

The author suggests an alternative to adjusting the discount for the likelihood of survival of the business, as it is practiced in the venture capital industry. By considering the value of the firm on the assumption that it survives, it can then be computed the probability of failure:

$$\begin{aligned} Expected\ Value \\ &= Value\ of\ the\ firm\ if\ survives * (1 - Probability\ of\ Failure) \\ &+ Distress\ Sale * (Probability\ of\ Failure) \end{aligned} \quad (11)$$

Valuing Equity Claims in the Business

Valuing equity in businesses differs based on their stage and ownership structure. For publicly traded firms, it is straightforward, involving cash, debt, and shares outstanding.

According to the research paper, young private companies are more complex due to dynamic cash balances and capital infusions. To address this, the author suggests considering pre-money and post-money valuations when raising capital.

Equity claims vary among stakeholders, including cash flow rights, which can be valued differently, and control claims, which can impact overall firm value.

Damodaran states that understanding these nuances is crucial for equitable valuation in different business contexts.

The Effect of Illiquidity

The effect of illiquidity on investment valuation is complex. According to the author, less liquid investments, although similar in other aspects, should be valued lower.

Approaches to quantify this effect include using fixed illiquidity discounts with subjective ranges.

The author also approaches relative valuation. This method, according to the research paper, is most suitable for small, privately held businesses, especially in industries with numerous private transactions.

Damodaran affirms best practices involve scaling less discretionary variables, focusing on enterprise value rather than equity.

Forward revenues/earnings, adjustments for firm characteristics, survival, non-diversification, and illiquidity are recommended for public multiples' use.

These two research papers authored by Damodaran offer a robust academic foundation for comprehending the challenges associated with the valuation of early-stage companies. They serve as suitable resources for gaining insights into the complexities inherent to this subject matter.

Up until this point, the focus has been primarily on the pre-IPO valuation of a company. Aswath Damodaran has made significant contributions to this area, offering valuable insights into the complexities of early-stage valuation. During this phase, the principles of private equity economics dominate, shaping the trajectory of a startup as it navigates through various funding rounds. However, all of this leads up to the most anticipated milestone for any startup: the Initial Public Offering (IPO). The IPO represents a critical juncture where private investors transition to public markets, and the company is subjected to the broader forces of market economics.

IPO (Initial Public Offering)

An Initial Public Offering (IPO) is the process through which a private company goes public by offering its shares for sale to the general public on a stock exchange. This transition marks a significant milestone, as it allows ordinary investors to buy into a company that was previously only accessible to private market investors (Fernando, 2024). However, an IPO is a complex and time-consuming process for the company's management, as it requires compliance with extensive regulatory requirements. In the U.S., for example, companies must meet all the conditions set by the Securities and Exchange Commission (SEC), which oversees the American stock market (Ashford, 2024).

The IPO is particularly important for private investors, as it brings a new level of liquidity to their shares. Once the company is public, its stock price is determined in real-time, and selling shares becomes significantly easier. Additionally, an IPO often includes a premium on the shares for early investors, further enhancing their returns (Fernando, 2024).

Beyond liquidity, an IPO is a crucial step in the long-term growth of any company. By going public, a company dramatically increases its ability to raise capital through the sale of shares to the public, which is a cheaper source of financing compared to venture capital or bank loans. Going public also enhances the company's visibility and brand recognition, while providing an additional layer of credibility. Lenders, in particular, are more likely to extend financing to companies that disclose financial and operational data to the public, as SEC scrutiny ensures the quality and accuracy of these documents (Ashford, 2024).

While the benefits of going public seem compelling, not every company opts for an IPO. In fact, many large American corporations remain privately held, and in Europe, remaining private is more common. A research study conducted by Marco Pagano, Fabio Panetta, and Luigi Zingales (1995) explored this phenomenon, examining why some companies pursue IPOs while others remain private.

The study revealed several key trends in IPO dynamics. First, the likelihood of a company going public is closely tied to its market-to-book ratio and its size—larger companies in industries with high ratios are more inclined to initiate an IPO. However, companies often experience an unexpected decline in profitability after going public. Furthermore, the capital raised from the IPO is often used not for future investments but to pay down existing debt. Another key finding is that going public reduces the cost of obtaining bank loans, and IPOs are often accompanied by the sale of shares by controlling shareholders. These companies also see a higher rate of control changes post-IPO compared to firms that remain private (Pagano, Panetta, & Zingales, 1995).

Typically, companies seeking to go public hire an underwriter – usually an investment bank—to assess the appropriate price for the IPO by forming a syndicate of other banking firms (Ashford, 2024). The underwriters handle every aspect of the IPO process, from due diligence to documentation filing, marketing, and issuance (Fernando, 2024).

The IPO issue price is influenced by various factors, including demand, industry comparables, growth prospects, and the company's specific narrative (Gad, 2024). After performing due diligence, the underwriter sets the final price. There are two common types of IPOs: a fixed price offering, where the issuer sets a predetermined share price, and a book-building offering, where the final price is determined through investor bids within a set price range (Investopedia, 2023).

However, underwriters often underprice IPOs. According to Tim Loughran et al. (2000), IPOs are typically underpriced by underwriters for several reasons. While a higher issue price may appear to increase the bank's revenue, underpricing offers external benefits, such as easier buyer acquisition, reduced marketing costs, and the ability to provide certain investors with favorable deals, which enhances the underwriter's future business prospects. This suggests an opaque compensation scheme underlying the underwriting of IPOs (Loughran et al., 2000).

Loughran et al. introduced a formula to calculate the "money left on the table," which represents the opportunity cost of underpricing an IPO:

$$\begin{aligned} &Money\ left\ on\ the\ table \\ &\qquad = (First\ day\ share\ closing\ price - Issue\ price) * Number\ of\ shares\ sold \end{aligned} \tag{12}$$

This formula highlights the opportunity cost for the company and its pre-IPO shareholders, as the first-day gains primarily benefit post-issue investors at the expense of the company.

Another concept that can affect IPOs is the "Hot Issue Market," where an IPO generates significant investor excitement. In such cases, the stock often becomes oversubscribed, leading speculators to buy and quickly sell shares for short-term profits. This activity can create a bubble during the stock's early trading days (Fernando, 2023).

Post-IPO performance – The Stock Market

The post-IPO performance of a company often differs significantly from its time as a private entity. The types of investors and the company's characteristics shift, introducing a new "investing DNA" that is distinct from the private equity markets. The aftermarket performance refers to the price movement of a company's shares, beginning on the first day the IPO is publicly traded and continuing over a period of time afterward (Mitchell, 2023).

While going public opens up a wide range of opportunities, it also presents new challenges for companies. They must navigate the complexities of the public markets while continuing to manage their day-to-day operations. Meeting investor expectations and maintaining transparency are crucial for preserving the company's credibility and maintaining investor confidence (Farbman, 2024).

Jay Ritter (1991) conducted an influential study on IPO performance, analyzing a sample of over 1,000 IPOs between 1975 and 1984. His findings suggest that IPOs tend to be overpriced in the long run, with evidence that they underperform in the three years following their first day of trading. Ritter attributes this underperformance to the tendency of companies to go public at the peak of industry-specific trends or "fads." However, his research does not show evidence that IPO underperformance extends beyond the three-year period (Ritter, 1991).

Another study by Paul Gompers (2001) examined the performance of IPOs before the creation of NASDAQ, the U.S. technology-focused stock exchange. Gompers found no consistent pattern in post-IPO performance, highlighting the unpredictability of how newly public companies fare in the long term.

These studies suggest that while the initial years following an IPO can present challenges, the performance trajectory of companies varies, and long-term outcomes are influenced by a range of factors including market conditions, company-specific fundamentals, and investor sentiment.

Gaps in Literature

Financial theory around early-stage valuation often emphasizes "how" a startup should be valued, but it frequently overlooks what actually happens in the venture capital and angel investing world. Numerous theories attempt to establish formulas or sets of formulas to apply universally to startups in their formative years. However, in practice, applying these theoretical models often presents significant challenges.

As highlighted by Aswath Damodaran in the research papers mentioned in the Literature Review, many traditional valuation methods and models are not well-suited to early-stage companies.

Damodaran critiques the approaches used by venture capitalists and early-stage investors, proposing alternatives that he believes offer a more accurate and less risky way to value businesses in these uncertain phases. However, the core question remains:

Do early investors even conduct formal valuation methods?

Theories surrounding early-stage valuation tend to generalize how startups should be valued, but when these models are applied to specific cases, they often fail. A key issue, as outlined by Damodaran (2000), is that traditional valuation techniques or comparable market analyses rely heavily on precise financial data and established market comparisons—factors that early-stage startups often lack. These companies frequently operate in emerging or rapidly evolving markets, rendering traditional market-based approaches less useful.

Additionally, valuation methods that project future success introduce significant subjectivity. As Damodaran points out, assumptions about a company's future potential vary widely between investors, leading to inconsistent valuations. While Damodaran proposes solutions to address these issues in his papers, one critical element of early-stage investing remains underexplored: the impact of human psychology and investor behavior.

Early-stage valuations are often influenced by market sentiment and human behavior, which can skew valuations in ways that financial models fail to capture. For example, sectors experiencing a surge in popularity may receive inflated valuations, while equally viable but less trendy industries may be undervalued. The reliance on market sentiment and psychological factors makes early-stage valuation a combination of both art and science, often resulting in significant deviations from theoretical predictions. These subjective factors are rarely considered in mainstream financial theories.

At the core, startup valuations are made by humans for humans. Consequently, psychological and emotional factors can play a larger role than is often accounted for in financial research. While financial models aim for objectivity, human decision-making, biases, and market dynamics can heavily influence outcomes, especially in early-stage ventures.

Given the unique circumstances of each startup, it is nearly impossible to generalize valuation methods universally. Every case is influenced by different factors, and when financial theory fails to explain a particular case, new determinants are often introduced. This leads to an infinite loop of theory refinement, where new factors will always emerge, making it difficult to establish a one-size-fits-all formula.

Are early-stage valuation methods impossible to generalize?

In contrast, financial theorists find more comfort in post-IPO dynamics, where higher levels of rationality and methodical behavior are more present in the stock market. This raises an important question:

Should financial literature attempt to apply post-IPO valuation models to early-stage companies?

This approach is likely to fail, given that the dynamics and motivations of investors at these two stages are fundamentally different. However, comparing pre- and post-IPO valuation scenarios for the same company could yield valuable insights.

While financial theory often relies on generalized frameworks that are then applied on a case-by-case basis, this method has proven more effective in the stock market, even though it occasionally fails to explain certain market events. Two key questions arise from this observation:

1. Why has general financial theory partially succeeded in explaining stock market behavior?
2. Why has it struggled to explain early-stage valuations?

An alternative approach, less popular but potentially more effective, would involve analyzing specific cases to identify the determinants of a company's valuation at various stages of its lifecycle. Only after examining these individual cases could a broader theory be formulated – if one exists at all.

This research paper seeks to contribute to this field by presenting a detailed case study of Airbnb's valuation journey, exploring the factors that influenced its valuation from its earliest days through its eventual IPO and beyond. By doing so, it aims to offer new insights into the complex world of early-stage valuation and challenge the traditional approaches of financial theory.

3. Research design and Hypothesis Testing

The availability and reliability of data present certain limitations to this research paper, particularly in the pre-IPO stage. For this phase, the research relies more on indicative data points rather than exact figures. Two key metrics are crucial in contributing to the conclusions of this thesis: the valuation of Airbnb during each funding round and the company's revenue at those respective points. Revenue estimates, especially before the IPO, vary significantly depending on the source, as these figures are often speculative. Nonetheless, by using a wide range of data sources, this paper seeks to compile the most accurate and reliable information possible, though discrepancies between sources cannot be entirely ruled out.

From the IPO onwards, data becomes more readily available from trusted financial databases, such as Yahoo Finance and NASDAQ.com. For the purposes of this paper, financial data up to December 31, 2023, will be considered, ignoring any inputs received after that date.

After collecting data from Airbnb's first funding round (the Seed round) through to its post-IPO stock performance, a comprehensive table was created. This table serves as a useful summary, supporting the narrative of the research. Once the data has been assembled, the paper delves into Airbnb's evolution—from a small venture of three young entrepreneurs to a publicly traded company on NASDAQ—and draws conclusions based on its financial journey.

The main goal of this research is to test four hypotheses based on the insights gained from Airbnb's corporate trajectory.

Hypotheses

Hypothesis 1: *Airbnb's early-stage valuations were significantly influenced by market speculation rather than traditional valuation metrics*

Throughout Airbnb's early stages, from 2009 to 2020, its equity valuation multiplied several times, with the company growing from a startup that raised $20,000 from Y Combinator to a multi-billion-dollar business. The rapid growth in valuation occurred despite the company's minimal cash flows and insufficient revenue to support such high prices. This hypothesis tests whether market speculation—driven by excitement, trends, and expectations—was a major factor in Airbnb's early-stage valuations.

Hypothesis 2: *Post-IPO performance of Airbnb is more aligned with traditional valuation principles compared to its early-stage financing*

After going public, Airbnb's valuations became more tied to its actual financial performance. This hypothesis examines whether post-IPO valuations reflect traditional valuation methods based on financial metrics such as revenue, cash flow, and profitability, in contrast to the speculative nature of early-stage funding.

Hypothesis 3: *The shift in investor profile impacts valuation*

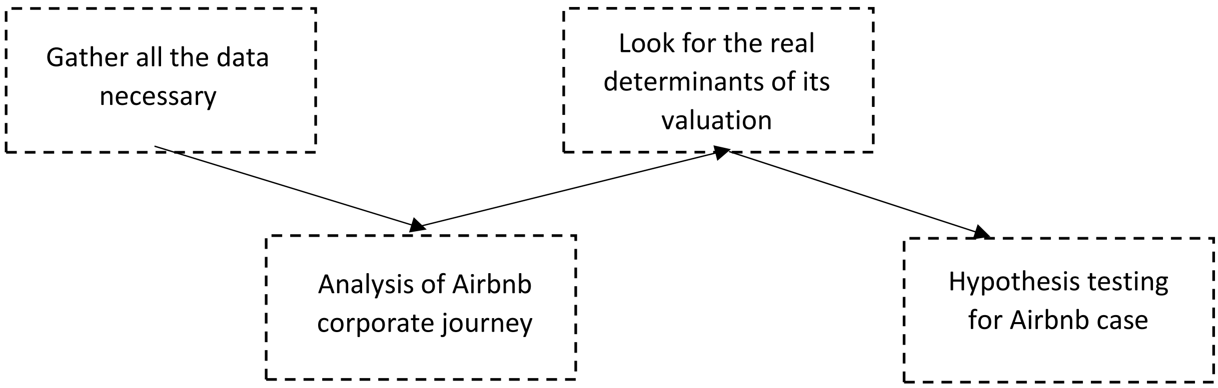
The types of investors involved in Airbnb's journey have shifted over time. In the early stages, venture capitalists, who typically expect higher returns to compensate for the increased risk, played a significant role. Post-IPO, institutional investors, asset managers, and traditional investment banks with different risk appetites became involved. This hypothesis tests whether changes in the investor profile influenced Airbnb's valuation at different stages of its lifecycle.

Hypothesis 4: *Non-renumeration of specific risk leads to valuation surge in public markets*

In the pre-IPO stage, risk levels are much higher due to the uncertainty around a company's future prospects. Post-IPO, investors typically diversify their portfolios, and the specific risks associated with a company may become less relevant, as the stock becomes a small part of a broader portfolio. This hypothesis explores whether the reduction in the perceived importance of company-specific risks in public markets contributes to a surge in valuation.

Research design

The hypotheses will be tested through a detailed case study of Airbnb's corporate journey. The data collected—ranging from Airbnb's Seed round valuation to its post-IPO stock performance—will form the basis for these tests. The research design incorporates both qualitative and quantitative analysis, comparing Airbnb's financial performance and valuation across different funding rounds, investor profiles, and risk levels.



Research Objective

Ultimately, this research aims to answer the primary question:

What factors have fundamentally influenced Airbnb's valuation from its inception to its public trading debut?

By exploring Airbnb's entire corporate journey and testing these hypotheses, the paper seeks to contribute to a deeper understanding of early-stage valuation dynamics and how they evolve as a company transitions to the public markets. This will offer insights not only into Airbnb's valuation but also into broader trends in startup financing and public market behavior.

4. Overview and definitions

Venture capital overview

The venture capital (VC) industry operates under a unique set of rules, distinct from most other investment sectors. It is admired by many for its role in driving innovation, but also criticized by some who argue that the "investment mentality" of VCs undermines capitalism's broader goal of promoting the well-being of society.

Typically, a venture capital fund has a lifespan of around 10 years: the first five years are focused on investing in startups and small businesses, while the remaining years are dedicated to selling those investments at a profit. The proceeds from these exits are then distributed between the fund's managers, known as the general partners, and the investors, called limited partners.

The basic principle behind venture capital investments is relatively straightforward: the VC fund invests in a startup with the expectation that it will increase in value over the next five to ten years. This contrasts with the longer-term outlook favored by more traditional investment strategies, where lifetime investments are often seen as the ideal. In the VC world, investments must pay off within a shorter timeframe—usually a decade or less.

The returns demanded by venture capitalists are another key differentiator. While consistent annual returns of 10% are considered strong for most asset managers in the stock or debt markets, VC investors aim for "jackpots" or outsized returns. The fundamental law of finance holds true here: higher returns come with higher risk.

According to Damodaran's research, VC investors typically realize the highest returns when they invest at the earliest stages of a company's development. Startups can deliver returns in the range of 50-70%, but as a company matures, those returns decrease, eventually settling at around 25-35% at the IPO stage. These returns are considerably higher than the long-term average annualized return of 7.58% observed in the S&P 500 since 1971 (Sullivan, 2024).

However, this high-return potential comes with significant risk. While investing in bonds or stocks offers lower returns, the probability of a well-diversified portfolio collapsing is also low. In a VC fund, on the other hand, it is more common for investments to fail than to meet expectations. Many startups go bankrupt during their early stages, and countless ideas prove unviable. Yet, despite these risks, the venture capital industry continues to thrive, largely because it has been profitable for many investors and is a favored choice for alternative investments after real estate.

VC funds focus on atypical companies—startups and early-stage ventures that are not listed on public markets. Access to these investments is limited for the average retail investor, and even if it were available, the specialized expertise required to perform due diligence on these companies is beyond the reach of most non-professional investors. Moreover, the valuation of these startups does not conform to the traditional rules of finance.

As discussed in the Literature Review, traditional valuation methods contrast sharply with those used in venture capital. While conventional wisdom might suggest that valuation is fundamental to any investment, within the VC space, it is often argued that valuation is temporary. Startups experience high volatility across all their metrics, and valuation is no exception. Venture capitalists who backed household names like Facebook, Amazon, or Apple invested in these companies at valuations above their "supposed" worth, focusing instead on the potential future value. Their due diligence placed a heavy emphasis on future growth prospects, often projecting high levels of growth into their models.

In traditional financial due diligence, valuation is determined by considering present and future cash flows, the cost of capital, and the company's cash reserves. The product itself would primarily affect growth projections for revenue and, consequently, cash flows.

However, in the VC approach, the product or service—or even just the idea—plays a central role in the due diligence process, often more so than financial data. The entrepreneur(s) behind the company and the VC investor's intuition about their likelihood of success are critical factors that influence the investment decision. While traditional valuation methods are still relevant for determining the price paid for equity, the question remains: Is valuation truly ignored, or does it still matter in venture capital?

To explore this further, this research paper will analyze Airbnb's funding history and examine the factors that impacted its valuation during each round of financing. This case study will help test the hypothesis that venture capitalists focus less on traditional valuation methods and more on the potential for future growth when making their investment decisions.

Short-Term Rental Industry

The short-term rental industry, as it stands today, emerged from the intersection of technology, real estate, and the sharing economy. While short-term rentals in the form of vacation homes and bed-and-breakfasts have existed for decades, platforms like Airbnb and Vrbo revolutionized the sector by formalizing and scaling the model. These platforms offered a simple solution to a common problem: individuals with extra space—or even entire homes—could rent them out to travelers for short stays, creating an alternative to traditional hotel accommodations. This concept was grounded in the principles of the sharing economy, where resources are shared via digital platforms, making the industry more accessible and scalable than ever before.

The rapid growth of short-term rental platforms has had profound economic consequences, particularly in urban and high-tourism areas:

1. Increased Property Values and Rents: Property owners quickly realized that short-term rentals could be far more profitable than traditional long-term leases. This spurred a wave of real estate investors purchasing properties specifically for short-term rental purposes, thus driving up demand in housing markets. In many cities, this increased demand has contributed to rising property prices and rents, further reducing the availability of affordable housing for local residents.
2. Real Estate Investment Shift: The rise of short-term rentals led to a strategic shift among real estate investors, with some focusing exclusively on properties that could generate income through platforms like Airbnb. This created a sub-sector within the real estate industry, with specialized property managers dedicated to maintaining and operating short-term rental properties.
3. Regulatory Response: As short-term rentals grew in popularity, many cities experienced challenges such as housing shortages, noise complaints, and changes in neighborhood dynamics. In response, governments began to implement regulations to curb the industry's growth, such as limiting the number of days a property could be rented or introducing zoning restrictions to control the proliferation of short-term rentals.

In addition to its impact on real estate, the short-term rental industry also disrupted the traditional tourism and hospitality sectors, especially hotels:

1. Affordability and Choice for Travelers: Short-term rentals often provide more affordable accommodations than hotels, especially for larger groups or families. They also offer a wide range of lodging options, from city apartments to countryside villas, allowing travelers to choose personalized and unique experiences that hotels may not offer.
2. Competition for Hotels: Hotels, particularly in popular tourist destinations, faced significant competition from short-term rentals. This competition forced many hotels to reconsider their strategies, with some focusing on improving service quality, enhancing loyalty programs, or offering boutique experiences to differentiate themselves from the growing short-term rental market. In certain regions, particularly during high-demand seasons, the presence of short-term rentals can lower the average nightly rate, directly impacting hotel profitability.
3. Shift in Tourist Patterns: The availability of short-term rentals allowed tourists to explore residential areas previously overlooked by traditional tourists, spreading the economic benefits of tourism more evenly across cities and regions. However, this shift also raised concerns about "over-tourism" in residential neighborhoods, where an influx of visitors can disrupt local communities and strain public infrastructure.

The rise of the short-term rental industry has fundamentally altered the economic landscape of both real estate and tourism. It has empowered individual property owners, provided travelers with greater flexibility and choice, and democratized access to tourism. However, it has also led to unintended consequences, such as housing shortages, rising property values, and increased competition for the traditional hotel industry. As the industry continues to evolve, cities and regions are striving to find a balance between its benefits and challenges, particularly through the use of regulatory measures and zoning policies. The future of short-term rentals will depend on how well these market and regulatory forces are managed.

Airbnb business overview and history

In the dynamic and innovative environment of Silicon Valley, three friends—Brian Chesky, Joe Gebbia, and Nathan Blecharczyk—embarked on a journey that would forever change the way people travel and connect with new experiences. United by a shared vision, they sought to create a platform that would link travelers with unique accommodations and empower individuals to monetize their unused spaces.

In the summer of 2008, while searching for affordable lodging during a major conference in San Francisco, the trio encountered a challenge familiar to many. Instead of settling for the conventional, they embraced their entrepreneurial spirit. They turned their apartment into a makeshift bed-and-breakfast, offering air mattresses and homemade breakfasts to conference attendees. This simple, yet inventive solution laid the groundwork for what would later become Airbnb.

Their unconventional idea quickly gained traction. As word spread, the trio realized the broader potential of their concept to disrupt the traditional hospitality industry. By the end of 2008, they had officially launched Airbnb with the tagline: "Book rooms with locals, rather than hotels."

Airbnb’s platform created a new marketplace where individuals could list homes, apartments, or spare rooms for short-term rental. In turn, travelers could browse and book accommodations while connecting with local hosts, fostering not only convenience but also community and cultural exchange.

What distinguished Airbnb from competitors was its focus on authenticity and personalization. From urban apartments to remote treehouses, the platform offered a variety of unique lodging options catering to different traveler preferences and budgets. Its appeal continued to grow, attracting both hosts eager to monetize their spaces and travelers looking for distinct, off-the-beaten-path experiences. A review system and host verification process helped foster trust and transparency, further enhancing its appeal.

As the platform expanded, Airbnb reached a global scale, with listings across more than 220 countries and regions and millions of users worldwide. The company also introduced additional features, such as Airbnb Experiences—curated local activities that enriched the travel experience beyond just accommodations.

Airbnb reached a major milestone in December 2020 with its highly anticipated initial public offering (IPO). This marked its transition from a modest startup to a publicly traded company, valued at over $100 billion at the time of its IPO. Despite its success, Airbnb faced challenges along the way, from regulatory hurdles to competition with established hotel chains and other rental platforms. Nonetheless, its adaptability and resilience enabled it to overcome these obstacles and continue growing.

Looking to the future, Airbnb remains dedicated to innovation, continuously enhancing its platform and expanding its offerings. With a commitment to sustainability and a focus on fostering meaningful connections between hosts and guests, Airbnb continues to lead the travel industry, inspiring exploration and adventure across the globe.

However, Airbnb’s journey was not without its struggles. In the company’s early days, in an effort to keep the business afloat, the founders sold cereal boxes to sustain operations. Yet, the company also experienced remarkable achievements, including securing multi-million-dollar valuations during its financing rounds. The biggest milestone was the 2020 IPO, which valued Airbnb at over $100 billion.

Airbnb’s meteoric rise—from a small startup to a global leader—was made possible by substantial investments from venture capitalists and other backers. This leads to several key questions: What drove these significant investments? How did Airbnb achieve such a high valuation in public markets? Were investors motivated more by the potential of the business itself, or by the entrepreneurs behind it?

This research paper aims to explore these questions by testing hypotheses surrounding the factors that influenced Airbnb’s valuation throughout its journey from startup to IPO.

5. Gathering the Data

Seed Round:

The Seed Round is typically the first significant stage of financing for a new business. At this stage, a company's ability to raise capital is primarily influenced by the strength of its business idea and the progress of product development, as the company's financials are usually underdeveloped and often weak in many aspects (Babac, 2024).

In the case of Airbnb, the founders initially resorted to creative means to fund their operations. From August to November 2008, they sold 800 limited-edition cereal boxes featuring themes of Barack Obama and John McCain, generating $30,000 in total revenue. This helped them sustain their business in its early days.

By January 2009, Airbnb was accepted into Y Combinator's Winter 2009 batch, receiving $20,000 in funding in exchange for a 6% equity stake. This acceptance gave the company significant validation, and by March of the same year, Airbnb had raised $600,000 from Sequoia Capital and Youniversity Ventures Partners (Sarath, 2021). According to Crunchbase, Airbnb's pre-money valuation at this point stood at $2.4 million.

$$Valuation\ in\ 2009{:}\ \$2.4m$$

At this stage, Airbnb did not officially disclose its financials, making it difficult to get a precise understanding of its profit and loss (P&L) statement. However, some indicators give a rough idea of how much revenue the company was generating. According to Bloomberg (2020), Airbnb was earning approximately $734 per week in fees during this period, which equates to around $38,168 annually. The management indicated that their goal was to reach $1,000 per week in revenue to achieve "ramen profitability"—a term used to describe just enough profit to cover basic operating expenses.

Further reports suggest that Airbnb's weekly revenue in 2008 ranged between $200 and $400, as confirmed by Co-founder Joe Gebbia, who noted that the company doubled its revenue by improving the quality of photos on its website (Agarwal, 2016).

Due to the lack of precise financials, an estimated revenue range for Airbnb in 2009 is more appropriate than an exact figure. Based on the information provided, the company's weekly revenue likely fell between $200 and $734, leading to the following annual revenue estimates:

$$Lower\ Limit \rightarrow Revenue\ in\ 2009{:}\ \$10{,}400$$

$$Upper\ Limit \rightarrow Revenue\ in\ 2009{:}\ \$38{,}168$$

Series A

The Series A round is typically when a company transitions from a promising idea to a proven business model, with a focus on preparing for future growth. At this stage, venture capital investors dominate the funding process, and financials, especially revenues, start to become a key factor in the evaluation of a company's potential (Babac, 2024).

In 2010, Airbnb raised $7.2 million in Series A funding from Greylock Partners, Sequoia Capital, and other investors. At the time of this funding round, Airbnb had already announced over 700,000 nights booked through its platform. By February 2011, this number had grown to 1,000,000 (Sarath, 2021).

$$Valuation\ in\ 2010{:}\ \$70m$$

According to estimates from Business Insider, Airbnb's revenue in 2010 was approximately $8.4 million, based on the number of nights booked and the fees charged by the platform (Cocotas, 2012). This revenue was generated by the 700,000+ nights booked through Airbnb's platform (Shontell, 2010).

$$Revenue\ in\ 2010{:}\ \$8.4m$$

The Series A round marked a crucial point in Airbnb's journey, as the company shifted from its initial startup phase into a rapidly growing business. The fact that Airbnb was able to secure $7.2 million in funding, with a $70 million valuation, underscores the confidence that investors had in its potential for future growth. The company's ability to generate $8.4 million in revenue by facilitating over 700,000 bookings highlights the success of its business model and the growing appeal of its platform in the short-term rental market.

Series B

At the Series B stage, companies are typically expected to demonstrate a steady stream of revenue and a significant user base. The goal of this financing round is to fuel growth and expansion, moving beyond the development phase and into broader market penetration (Babac, 2024).

In July 2011, Airbnb raised $114.9 million from a high-profile group of investors, including General Catalyst Partners, Ashton Kutcher, Oliver Jung, Jeff Bezos, CrunchFund, DST Global, Andreessen Horowitz, and Sequoia Capital. Additionally, the company secured an additional $2.1 million from CF and A-Grade Investments (Sarath, 2021).

$$Valuation\ in\ 2011{:}\ \$1.3b$$

During this period, Airbnb experienced significant growth, with 4 million nights booked through its platform in 2011. According to Inc. (Markowitz, 2012), the company likely generated at least $40 million in revenue based on an average booking price of $100 per night and an average commission of 10%. A separate estimate from Business Insider (Cocotas, 2012) suggests that Airbnb made $52.8 million in revenue, driven by an average booking price of $110 per night across 4 million bookings.

Given the variability in revenue estimates, this research will consider a range for Airbnb's 2011 revenue:

$$Lower\ Limit \rightarrow Revenue\ in\ 2011{:}\ \$40m$$

$$Upper\ Limit \rightarrow Revenue\ in\ 2011{:}\ \$52.8m$$

This significant leap in valuation and revenue underscores Airbnb's rapid ascent in the short-term rental market. By 2011, the company had evolved from a small startup to a high-growth business, attracting substantial venture capital investments and achieving a billion-dollar valuation. The company's ability to book 4 million nights and generate substantial revenue highlighted the growing acceptance of its platform and the strong interest from both users and investors in its business model.

Series C

Series C and subsequent funding rounds mark advanced phases in a company's growth journey. At this stage, businesses typically have a proven track record and seek additional capital for international expansion, new product development, and efforts to increase market share (Babac, 2024).

In October 2013, Airbnb secured another $200 million in funding from investors including CF, Ashton Kutcher, Founders Fund, and Sequoia Capital (Sarath, 2021).

$$Valuation\ in\ 2013{:}\ \$2.9b$$

By 2013, Airbnb had solidified its position in the short-term rental market, and its revenue reflected its continued rapid growth. According to an article in Fortune (Kokalitcheva, 2015), Airbnb's revenue for the year was estimated at $250 million. This figure is corroborated by Inc. (Mitra, 2016), which also noted that although Airbnb was generating significant revenue, it was still in a growth phase and had yet to achieve profitability.

$$Revenue\ in\ 2013{:}\ \$250m$$

The Series C round and beyond marked Airbnb's transition into a global company with a mature business model. The $200 million investment and $2.9 billion valuation reflected the confidence investors had in Airbnb's potential to continue its impressive growth trajectory. By this stage, the company was focusing on expanding its global footprint and enhancing its platform, while profits remained on the horizon as it prioritized market share and growth over short-term earnings.

Series D

By April 2014, Airbnb had entered its Series D funding round, securing $519.7 million from a range of investors (Sarath, 2021).

$$Valuation\ in\ 2014{:}\ \$10.5b$$

At this stage, Airbnb's growth continued to accelerate. According to a report by Skift (Ali, 2015), Airbnb facilitated close to 40,000 bookings in 2014, leading to estimated revenue of $423 million. This figure is supported by a Business of Apps article (Curry, 2024), which confirmed that Airbnb's revenue at this stage was approximately $400 million.

$$Revenue\ in\ 2014{:}\ \$423m$$

The Series D funding round reflected Airbnb’s rapid expansion and solidified its status as a global player in the short-term rental market. With a valuation of $10.5 billion, the company was well-positioned for further growth, driven by increasing demand and global reach. This round of funding allowed Airbnb to continue scaling its operations, refining its platform, and pushing forward with international expansion and market penetration.

Series E

In June 2015, Airbnb secured $1.6 billion in funding from a wide range of investors, followed by an additional $100 million investment from FirstMark in November of the same year (Sarath, 2021).

$$Valuation\ in\ 2015{:}\ \$25.5b$$

By 2015, Airbnb's revenue had surged to $914 million, representing a significant portion of the $8 billion in gross bookings value. This figure is confirmed by a Backlinko report (2024) and corroborated by Business of Apps (Curry, 2024).

$$Revenue\ in\ 2015{:}\ \$914m$$

This Series E funding round marked another significant leap in Airbnb's growth trajectory. With a valuation of $25.5 billion, the company had firmly established itself as a dominant force in the short-term rental industry. The $1.6 billion raised in June, along with the additional $100 million in November, allowed Airbnb to continue expanding its operations globally, refine its platform, and strengthen its position in an increasingly competitive market. The dramatic increase in revenue and gross bookings demonstrated Airbnb's ability to scale and capitalize on the growing demand for alternative accommodation options.

Series F

In 2017, Airbnb secured $1 billion in funding from various investors in its final round of financing before its IPO (Sarath, 2021).

$$Valuation\ in\ 2016{:}\ \$31b$$

By this point, Airbnb had become a mature and promising growth company, and it was on track to achieve EBITDA profitability in 2017, despite facing increasing legal challenges from city authorities, as noted by TechCrunch (Lunden, 2017).

According to Macrotrends, Airbnb's revenue in 2017 reached $2.562 billion, a figure validated by Statista and Business of Apps. However, the company’s operating income remained negative due to high selling, general, and administrative (SG&A) expenses and other operating costs required to support its rapid growth.

$$Revenue\ in\ 2017{:}\ \$2{,}562m$$

The Series F round, with a valuation of $31 billion, marked Airbnb’s readiness for an IPO. The $1 billion raised provided the company with additional capital to manage its expansion and handle the legal and regulatory pressures it faced globally. Despite still operating at a loss, Airbnb's substantial revenue growth signaled its strong market position and the confidence investors had in its potential to become a long-term leader in the travel and accommodation industry.

IPO (Initial Public Offering)

In December 2020, Airbnb officially became a public company during a period marked by the COVID-19 pandemic, which caused significant volatility in the stock market. According to The New York Times, Airbnb priced its IPO at $68 per share, raising $3.5 billion and valuing the company at $47 billion (Griffith, 2020). The IPO price was set through the book-building process, where underwriters assess demand for the stock based on bids submitted by institutional investors (Zeevou, 2023; Ganti, 2020).

$$Valuation\ in\ IPO: \$47b$$

At the time of its IPO, investors had a reasonable estimate of Airbnb’s financials for 2020, despite the disruptions caused by the COVID-19 pandemic. In its Form 10-K filing with the U.S. Securities and Exchange Commission (SEC), Airbnb reported $3.4 billion in revenue for the fiscal year ending December 2020. However, this figure was impacted by the pandemic, which significantly affected global travel starting in March 2020.

$$Revenue\ in\ 2020: \$3.4b$$

The IPO was a major milestone in Airbnb’s journey, allowing the company to access public capital markets and further fuel its growth. Despite the challenges posed by the pandemic, Airbnb’s ability to raise $3.5 billion in its IPO demonstrated strong investor confidence in its business model and future potential in the travel and accommodation sector.

Post-IPO

The day Airbnb began trading on the public market in December 2020, its valuation surged dramatically. Although the IPO valued the company at $47 billion, the stock price doubled during its first day of trading, closing with a market capitalization of $86 billion (Feiner, 2020). This rapid increase demonstrated significant demand and optimism from public investors.

For the purposes of this research paper, we will consider financial data up to the end of 2023. The valuations of Airbnb, based on its market capitalization at the end of each financial year, were as follows:

$$Valuation\ in\ 2020: \$87.7b$$

$$Valuation\ in\ 2021: \$105.8b$$

$$Valuation\ in\ 2022: \$54.9b$$

$$Valuation\ in\ 2023: \$88.3b$$

In terms of revenue, Airbnb’s financial performance from 2020 to 2023 showed significant growth, as reported by Yahoo Finance:

$$Revenue\ in\ 2020: \$3.4b$$
$$Revenue\ in\ 2021: \$6.0b$$
$$Revenue\ in\ 2022: \$8.4b$$
$$Revenue\ in\ 2023: \$9.9b$$

Notably, Airbnb reported its first profitable year in 2022, marking a major milestone for the company. This profitability, combined with strong top-line growth, highlighted Airbnb’s ability to generate revenue while controlling costs as it continued expanding globally (Bursztynsky, 2023).

Putting it all together

After gathering the relevant data from each of Airbnb's investment rounds, we can now analyze the company's financial evolution over time. For the rounds where an upper and lower limit of revenue was available, the average of these figures was used to simplify the analysis.

To ensure a comprehensive view of Airbnb’s revenue growth and to facilitate comparisons between funding rounds, it is essential to include financial data from 2018 and 2019—the two years between the last funding round and the IPO. This is especially important given the disruptions of 2020 due to the COVID-19 pandemic, which makes direct year-on-year comparisons challenging. According to the Form S-1 filed by Airbnb in 2020 with the SEC, the company reported the following revenue figures for those years:

$$Revenue\ in\ 2018: \$3.7b$$
$$Revenue\ in\ 2019: \$4.8b$$

The document also confirms the revenue obtained in this paper for the year of 2017.

The Form S-1 also confirms the revenue figure for 2017 used earlier in this paper, validating the overall data integrity.

To provide broader context and assess Airbnb's performance relative to the stock market, two indices were selected for comparison: S&P 500, the broad index of the American stock market, and Nasdaq, a widely used benchmark for technology related stocks.

For the pre-IPO period, only two financial metrics are consistently available: revenue and valuation. These will serve as the main focus for evaluating Airbnb’s performance during its early investment stages. In the post-IPO phase, additional metrics such as Adjusted EBITDA (as reported by Airbnb’s management) and Net Income will also be considered.

Key metrics for analysis include:

- Price to Sales Ratio (P/S) – This metric compares the valuation of the company to its current revenue and is particularly useful for understanding how investors valued Airbnb at different stages of its growth.

- Revenue Growth – Examining how Airbnb’s revenue increased over time, both before and after the IPO.

- Valuation Growth – Analyzing how the company's valuation evolved during the investment rounds and in the public markets.

With all the necessary data collected and financial metrics identified, the research can now proceed to hypothesis testing. The data will provide insights into the factors influencing Airbnb's valuation across different investment rounds and the company's journey from an early-stage startup to a public company. The table summarizing all key data and financial metrics is provided in Appendix C, which will serve as a reference for the analysis and conclusions drawn throughout this research.

6. Diving in

As reflected in the table (Appendix C), Airbnb's revenue has experienced a remarkable growth trajectory, increasing significantly across each funding round. The company's valuation has similarly expanded over time, but when comparing the valuation growth to revenue growth using the Price to Sales (P/S) ratio, we observe that the relationship between the two metrics does not follow a consistent or clear trend (Appendix D).

The year 2009, during Airbnb's Seed Round, stands out as an outlier in the data. Despite generating minimal revenue, the company was valued at $2.5 million. This discrepancy can be attributed to a key turning point in Airbnb's journey—joining Y Combinator, one of the world's most prestigious startup accelerators (Markowitz, 2012).

In the year leading up to this, Airbnb struggled to attract any investor interest, with their proposals consistently being rejected. However, once they decided to join Y Combinator, things changed. Paul Graham, the founder of Y Combinator, initially viewed the concept of an online bed-and-breakfast reservation service as unappealing. What caught his attention, though, was the founders' relentless determination. As Graham remarked, the founders "won't die," signaling their extraordinary perseverance and commitment to launching a business—any business (Markowitz, 2012).

Airbnb raised $20,000 through Y Combinator, but this investment was not based on the company's business model or potential profitability. In fact, Airbnb was making very little money at this stage. Instead, the investment was based on the strength of the founders themselves—Brian Chesky, Joe Gebbia, and Nathan Blecharczyk. Their resilience, vision, and ability to pivot were what inspired confidence in investors, even when the financial metrics were lacking.

This leads to the first conclusion of this research paper:

Conclusion 1: *The founders of Airbnb played a bigger role in securing the initial funding for the company than the business idea or financial potential itself.*

As previously noted, Airbnb's revenue at the time was modest, ranging between $10,400 and $38,168. Yet, after Y Combinator's involvement, the company successfully raised $600,000 in a Seed Round within the same year (Markowitz, 2012). The time gap between Y Combinator's initial $20,000 investment and the $600,000 Seed Round was less than a year, and during this period, the fundamental aspects of the business did not change significantly. The founders remained the same, and the company's financial metrics showed little improvement.

What, then, accounted for this dramatic shift in valuation?

The key difference was the entry of Y Combinator as an investor. Y Combinator's backing provided a crucial signal to other investors, boosting their confidence in Airbnb's potential. The prestige and influence of Y Combinator as one of the leading startup accelerators in the world made Airbnb a more attractive investment prospect, despite the company's limited revenue and early-stage business model. This backing, although modest, increased Airbnb's credibility and led to a significant boost in its valuation, raising it to $2.5 million by the end of 2009.

This leads to the second conclusion of this research paper:

Conclusion 2: *Y Combinator's early investment in Airbnb significantly boosted the company's valuation by enhancing investor confidence.*

One year after Y Combinator's initial investment, Airbnb successfully raised $7.2 million in its Series A round, with participation from Sequoia Capital, a seed investor that reinvested in the company, along with other investors. At this point, Airbnb had booked over 700,000 nights on its platform, marking a significant milestone in the startup's growth (Shontell, 2010).

A critical new investor entered the scene during this round: Greylock Partners, a prominent venture capital firm. Joe Gebbia, Airbnb's Co-founder and Chief Product Officer at the time, explained the company's decision to target Greylock:

"*We wanted an investor that could really bring value to our business. We really admired Reid Hoffman, so he was on our shortlist of possible investors. He had already heard about us and was really excited about the product.*" (Shontell, 2010)

Interestingly, Greylock Partners and Reid Hoffman had initially passed on the opportunity to invest in Airbnb during its Seed Round. However, Sequoia Capital reached out to Greylock Partners, encouraging them to reconsider. Hoffman, who conducted a deeper investigation into the founders, received strong feedback about their capability and character (Hoffman, 2020).

Reid Hoffman's approach to investing, as echoed by Paul Graham of Y Combinator, places the founders at the core of any decision. Graham stated in an essay on the Y Combinator platform:

"The most important ingredient is formidable founders. Most investors decide in the first few minutes whether you seem like a winner or a loser, and once their opinion is set it's hard to change. [2] Every startup has reasons both to invest and not to invest. If investors think you're a winner they focus on the former, and if not they focus on the latter." (Graham, 2013).

After agreeing to meet with Airbnb's founders, Reid Hoffman made up his mind within a two-minute pitch, quickly proposing that they present their business to the entire Greylock partnership (Hoffman, 2020). This demonstrates once again that the founders – their reputation, drive, and ability to inspire confidence – played a pivotal role in securing investment. The trust and admiration within the venture capital community for the founders were instrumental in convincing Greylock Partners, one of the oldest and most respected VC firms, to invest in Airbnb.

This leads to the third conclusion of this research paper:

Conclusion 3: *Airbnb's founders' reputation and credibility were crucial in securing opportunities to pitch to top-tier investors and raise capital.*

According to a post on The VC Factory website, written by Aram, a veteran investment professional, a 2020 survey of 885 institutional venture capitalists revealed that founders are regarded as a crucial factor by 95% of participants when making investment decisions in startups. The survey highlighted the most significant factors considered by venture capitalists when evaluating potential investments (Appendix E).

This aligns with the experiences of Airbnb, where the credibility and reputation of the founding team—Brian Chesky, Joe Gebbia, and Nathan Blecharczyk—were pivotal in securing the attention and trust of top-tier investors like Reid Hoffman and Greylock Partners. It further illustrates the venture capital industry's emphasis on the strength of the founders as a key factor in securing funding.

Reid Hoffman's reflections on his decision to invest in Airbnb emphasize not only the ambition and vision of the founders but also the strategic importance of pitching to the right people. Hoffman noted:

"Part of the entrepreneurship game is deciding what league to play in. There's the junior league, the varsity league, and then there's the big leagues. Generally speaking, as investors and entrepreneurs, you want to go after ideas where, if you succeed, it transforms an industry or even the world. Those two minutes showed me that Airbnb's founders wanted to play in the big leagues."

(Hoffman, 2020)

This statement reflects the passion Hoffman had for the founders of Airbnb. Their ambition, their approach to solving the problem, and their growing reputation in the venture capital world clearly played a major role in Hoffman's decision to pursue participation in Airbnb's journey.

Greylock Partners, the firm Hoffman represented, is known for historic investments in transformative companies like LinkedIn and Facebook. As one of the oldest and most respected venture capital firms, Greylock had a team of seasoned professionals with a strong track record. While Hoffman was an influential collaborator, this alone was not enough to bring Greylock to the table. Hoffman himself recalled a critical moment when David, a key recruiter at Greylock, remarked:

"David, who was my primary recruiter at Greylock, looked at me after we debated the deal and said, "Every venture capitalist has to have a deal that they can fail on. Airbnb can be yours.""

(Hoffman, 2020)

This insight underscores that while the founders' pitch was strong, the ability to engage with the right people in the venture capital world—people who are open to taking risks—was equally important. The connection between Hoffman and Greylock's broader team provided a platform for debate and decision-making that ultimately led to Greylock's investment in Airbnb.

This leads to another key conclusion for this research paper:

Conclusion 4: *In the venture capital world, it's not only what you pitch but also whom you pitch to that influences investment decisions.*

Airbnb's founders found themselves pitching to Reid Hoffman at Greylock Partners, who had a "card to play" in the company—an opportunity to take a high-risk, high-reward bet. This highlights a critical aspect of venture capital dynamics: the internal decision-making process within VC firms.

As detailed by Orn (2023), decision-making authority in a venture capital firm is tiered. Managing partners, often the founders of the fund, wield the most power and can make investment decisions with minimal oversight. Senior partners have varying degrees of autonomy, depending on their experience and track record, but still face scrutiny—particularly if they are newly promoted. Junior partners, on the other hand, typically have limited decision-making power and require co-signatures from senior colleagues, focusing mainly on smaller, early-stage investments. Reid Hoffman's ability to make a strong case for Airbnb within Greylock Partners demonstrates the importance of having an internal champion who can navigate the internal dynamics of a venture capital fund to push for a deal.

In 2010, Airbnb was valued at $70 million, even though it generated only $8.4 million in revenue. As before, there were no concrete financial projections justifying such a valuation. Instead, the valuation was driven by hope and confidence from venture capital investors that Airbnb's value would grow exponentially in the future. At this point, Airbnb was still far from profitability, and its survival remained uncertain, even as bookings increased.

However, by 2011, Airbnb gained substantial recognition within the venture capital world, capturing the attention of numerous investors eager to be part of its journey. In February 2011, Airbnb announced that it had facilitated one million nights booked on its platform. This growing traction, coupled with strategic moves like the acquisition of Accoleo, a German Airbnb-like company, marked Airbnb's entry into the European market and fueled investor optimism (Taylor, 2011).

This international expansion was a key factor in Airbnb's Series B funding round, where the company reached a $1.3 billion valuation. The company's expansion into Europe significantly expanded its Total Addressable Market (TAM), a crucial factor driving the massive increase in valuation (Tsotsis, 2011). Despite its lack of profits and ongoing cash burn to support growth, Airbnb continued to attract significant investments, reflecting a common trend in early-stage growth companies.

Conclusion 5: *In the early stages of growth, particularly for disruptive startups like Airbnb, the Total Addressable Market (TAM) is often prioritized by investors over short-term profits or cash flows.*

By 2011, Airbnb had not only grown in terms of bookings and market presence, but it had also strengthened its credibility with the support of influential strategic advisors. Among these was Ashton Kutcher, an American actor and film producer with a reputation for his entrepreneurial acumen and investments in various tech startups (Austin, 2011). Kutcher's involvement added further legitimacy to Airbnb, positioning him as a powerful strategic advisor who brought both visibility and credibility to the company.

This growing credibility set off a notable trend in Airbnb's history: the more investors and high-profile figures who backed the company, the more interest it garnered from other investors. As Airbnb's list of investors expanded, so did the desire of other venture capitalists and institutional investors to get involved. This created a kind of momentum effect, where confidence in the company was amplified by the increasing number of well-known backers.

Conclusion 6: *As the number of investors backing Airbnb increased, it created a snowball effect, attracting even more investor interest and enhancing the company's ability to raise capital.*

In terms of valuation, Airbnb's Series B round in 2011 valued the company at $1.3 billion, even though it generated only $46 million in sales, resulting in a Price to Sales (P/S) ratio of 28. This was the highest multiple given to the company, alongside its Series E round in 2015. Several factors contributed to this elevated valuation, including Airbnb's promising international expansion, exponential growth in bookings, and the large number of investors who participated in this round.

As Airbnb continued its international expansion—opening offices globally (TechCrunch, 2012) and securing partnerships (TechCrunch, 2011)—it attracted further investment. In 2013, the company raised another $200 million from four investors, at a valuation of $2.9 billion and with $250 million in revenue. This translated into a P/S ratio of 12, indicating a more modest valuation relative to revenue compared to the Series B round.

In 2014, Airbnb's revenue growth slowed, with a 69% increase compared to 219% in the previous period. Despite this deceleration, the company raised $520 million at a P/S ratio of 25, signaling continued investor confidence.

By 2015, Airbnb had reached $914 million in revenue. In the Series E round, a large number of investors participated, valuing the company at $25.5 billion—again, a P/S ratio of 28, tied with the Series B round for the highest multiple given to the company (excluding the Seed Round).

A common characteristic between the Series B and Series E rounds is the significant number of investors participating, which seemed to push valuations higher. This suggests that the number of investors in a funding round has a direct influence on the valuation a company receives. Three factors contribute to this trend:

- Market perception and demand: when many investors are interested in a company, it often signals strong market confidence in that company's potential. This high demand can drive up the valuation as companies can leverage this interest to negotiate better terms.
- Competitive binding: when multiple investors compete for a stake in a promising startup, it can lead to a bidding war, where investors are willing to offer more favorable terms to secure their position. This competition naturally drives up the valuation of the company.
- Dilution concerns: startups often aim to minimize dilution of ownership. If a large number of investors are interested, the company might opt to raise more capital at a higher valuation to

reduce the percentage of equity given up, aligning with the idea that more investor interest can drive up valuations.

This leads to another important conclusion of this research paper:

Conclusion 7: *The number of investors participating in a funding round significantly influences the valuation assigned to a company.*

In Airbnb's final Series F funding round before its IPO, the company achieved a post-money valuation of $31 billion in 2017. A critical factor contributing to this high valuation was Airbnb’s shift toward EBITDA profitability in the second half of 2016, with expectations that it would maintain this performance throughout 2017 (Lunden, 2017). At this stage, rumors circulated about Airbnb going public, but this round provided the company with the capital needed to delay the IPO and continue building its business.

However, rising risks came from regulatory pressures and opposition from local authorities, particularly as Airbnb's growing influence began to disrupt local economies. By 2017, the company's impact on the hotel industry was becoming significant. According to Statista (2017), Airbnb was increasingly viewed as a direct competitor to traditional hotels, creating tension within one of the oldest industries in the world. Despite these risks, investors continued to back Airbnb, driven by its long-term potential rather than immediate challenges.

IPO in 2020

Airbnb eventually went public in December 2020, during an extraordinary year for the global economy. The COVID-19 pandemic caused unprecedented volatility in the stock market. While the S&P 500 reached a peak in February 2020, the outbreak of COVID-19 in China and its global spread caused the market to fall by more than 34% within a month (Forbes Council, 2023). Governments worldwide introduced massive stimulus packages to mitigate the economic effects of the virus (Shaban & Long, 2020), creating a disconnect between the struggling real economy and the booming financial markets (Appendix F).

Despite global uncertainty, the stock market rebounded after the March crash, with tech companies in particular benefiting from the pandemic’s shift toward digital services. By the end of 2020, valuations of tech companies reached record highs, as investors largely based their decisions on future projections rather than the present economic turmoil. This environment proved favorable for companies like Airbnb, which ultimately chose to go public alongside DoorDash, another tech-driven company benefiting from pandemic conditions.

The surge in Special Purpose Acquisition Companies (SPACs) in 2020, as well as a boom in capital raised through IPOs (Baker McKenzie’s report showed a 42% increase in capital raised compared to

2019), further influenced Airbnb's decision to enter the market (Potter, 2021). Many companies filed for IPOs to capitalize on the high valuations driven by bullish market sentiment and accommodative monetary policies.

Airbnb’s IPO decision reflects a broader trend in market timing. Companies are more likely to go public during bullish markets, as favorable sentiment can lead to higher valuations and stronger investor demand. In Airbnb’s case, the favorable American stock market conditions in late 2020, driven by optimism around tech stocks and future growth potential, made it an opportune time to go public, despite the uncertainty in the global economy caused by the pandemic.

Conclusion 8: *Airbnb's decision to go public in December 2020 was influenced by the favorable state of the American stock market, which enabled the company to achieve a high valuation, rather than by business-specific needs.*

Airbnb priced its IPO at $68 per share, far exceeding its originally anticipated range of $44 to $50 per share, which suggested a much higher demand than initially expected (Griffith, 2020). This higher price reflected strong investor interest, but in practical terms, the underwriters behind the operation underestimated investor demand for the stock.

As detailed in the Literature Review, underwriters often underprice IPOs to ensure the shares are attractive to a broad range of investors, but this can leave significant value uncaptured by the company. In Airbnb's case, despite increasing the IPO price to $68, shares opened at $144.71 on the Nasdaq Stock Market, representing a 113% increase above the IPO price (Mancini, 2023). According to Tim Loughran et al. (2000) theory of underpricing, this significant price jump represented "money left on the table"—a loss for pre-IPO shareholders, as the company failed to capture the full value investors were willing to pay.

Despite recognizing that the initial price range undervalued the company, the final IPO price of $68 still didn’t reflect the true market demand. The dramatic opening price shows that the market was willing to pay far more for Airbnb shares than the company and its underwriters anticipated.

Conclusion 9: *Airbnb’s IPO was a clear case of severe underpricing, with significant "money left on the table" as the stock surged 113% on its first day of trading.*

This underpricing resulted in a loss of potential capital for the company's pre-IPO shareholders, reinforcing the common practice in IPOs where companies, despite upward adjustments, still fail to fully capture the demand for their stock.

The valuation of Airbnb surged from $47 billion at its IPO to over $100 billion on its first day of trading, ultimately ending 2020 with a valuation of $87.7 billion. During this period, Airbnb's financial fundamentals did not change significantly, but its investor base underwent a major transformation.

Airbnb’s IPO attracted immense attention, becoming the most popular and largest IPO of the year (Griffith, 2020). This placed Airbnb in the Hot Issue category, as described in the Literature Review, where speculative behavior from investors, driven by short-term gain motives, helped push the stock's price upward on its first trading day. This influx of speculative activity played a key role in the valuation spike, despite minimal changes in the company's financial performance.

Before the IPO, Airbnb's investors, while varying in types (venture capitalists and angel investors), were primarily focused on capital appreciation. However, the stock market introduced a much broader and more diverse investor base, each with different objectives, timelines, and risk profiles. The stock market is a place where day traders, institutional investors, passive investors, hedge funds, and high-net-worth individuals all participate, with varying investment horizons, cost of capital, and expectations for returns.

By June 2021, Airbnb's shareholder structure had shifted dramatically compared to the pre-IPO period. According to reports, the general public owned 33.8% of the company, institutional investors held 20.8%, and individual insiders (including founders) retained 33.7% of the shares (Damchevski, 2021). In contrast, before the IPO, Forbes estimated that Airbnb's founders controlled more than 40% of the shares and voting power (Jeans, 2020). Prior to the IPO, the shareholder base was primarily made up of founders, venture capitalists, and angel investors, all of whom had a focus on capital appreciation.

The shift in the shareholder structure post-IPO had a notable impact on Airbnb's valuation. The broader investor base introduced different market dynamics, as the company was now subject to the influences of short-term speculative trading, institutional buying power, and the interests of passive funds tracking indices. This diversification of the investor base, along with varying goals and timelines, affected how Airbnb was valued in the public market compared to its pre-IPO days.

Conclusion 10: *The change in Airbnb's shareholder structure after its IPO, with the introduction of a diverse range of public market investors, significantly impacted its valuation.*

Indeed, when Airbnb went public, the underwriters, along with management and pre-IPO shareholders, set an IPO price that valued the company at $47 billion, nearly half of what public investors later valued it at on the first trading day. The Price to Sales (P/S) ratio at the IPO was 14, which jumped to 26 by the end of 2020. This significant increase implies that, although the company's fundamentals did not change during this brief period, public market investors assigned a much higher valuation to Airbnb compared to what the pre-IPO stakeholders had estimated.

This high P/S multiple was previously achieved in earlier funding rounds, such as during the Seed, Series B, and Series E rounds, but at those times, Airbnb's growth projections were much higher. By the time of the IPO, while Airbnb was still growing, the rapid, exponential growth of its earlier years had slowed down. This implies that the expected return per dollar invested in the company was lower compared to the pre-IPO period, yet public investors were willing to pay a premium for the company, likely driven by a combination of optimism for the future and the broader market conditions of 2020.

Airbnb’s valuation increase after entering the stock market is a clear reflection of how public investors, with different motives and risk profiles, can value a company differently from private market investors. The influx of a larger, more diverse set of investors, driven by factors like speculative demand, market momentum, and future growth potential, pushed Airbnb's valuation higher than what private investors and underwriters had anticipated.

Conclusion 11: *Airbnb's valuation increased significantly after entering the stock market due to the higher valuation assigned by public investors, despite lower growth projections compared to earlier funding rounds.*

Despite Airbnb generating $3.4 billion in revenue by the time of its IPO, the company showed no signs of profitability. A closer analysis of the data reveals that between 2017 and 2020, Airbnb's revenue growth significantly slowed. During this three-year period, revenue grew by just 33%, with an average annual growth rate of 11%, a noticeable decline compared to its earlier rapid growth phases.

However, investors largely overlooked this slowdown, attributing it to the pandemic, which had severely disrupted global travel and consequently, Airbnb’s business. This highlights the forward-looking nature of stock market participants, who remained confident in Airbnb's long-term growth potential despite its immediate challenges.

In 2018, Airbnb reported $3.7 billion in revenue, growing to $4.8 billion in 2019 – a 32% year-over-year growth rate. While this was still a healthy increase, it represented a deceleration compared to the company's earlier exponential growth. However, by 2021, Airbnb's revenue rebounded to $6 billion, signaling recovery after the pandemic disruptions. When comparing 2021 to 2019, this reflected a 25% revenue growth over two years, despite the volatility of 2020.

This dynamic provides a clear illustration of how growth stock investors behave. They focus not on immediate revenue slowdowns or a lack of profitability but instead remain optimistic about the company’s future potential. The stock market values companies like Airbnb based on their perceived ability to grow in the long run, especially once market disruptions—such as the pandemic—are accounted for.

Conclusion 12: *Stock market investors tend to focus on the long-term potential of growth stocks like Airbnb, often overlooking short-term revenue slowdowns and a lack of profitability, particularly when external factors like the pandemic disrupt business performance.*

After its IPO, Airbnb became fully integrated into the broader stock market, trading like any other public company. As a result, its valuation and stock price began to mirror broader market trends and macroeconomic events, reflecting the sentiment and conditions of the stock market as a whole.

In 2021, the S&P 500 reached new heights, recording 70 all-time highs as the global economy rebounded from the COVID-19 pandemic (Miao, 2021). This bullish market sentiment was fueled by accommodative monetary policies from the Federal Reserve and government stimulus measures, driving strong performance across equities, particularly tech stocks. Airbnb stock followed this trend, experiencing growth alongside the overall market.

However, in 2022, the landscape changed dramatically. Inflation surged, prompting the Federal Reserve to implement rate hikes—a move that hit the stock market hard, especially tech stocks, which had seen significant gains the year before. The Nasdaq, a tech-heavy index, performed the worst among major American stock indices (Subin, 2022). The stock market ended 2022 with its worst performance since the 2008 financial crisis. Airbnb, like many other companies, saw its stock fall amid this broader market decline.

In 2023, the markets rebounded from the previous year's downturn, with the S&P 500 rising by 24% as investors grew optimistic about potential rate cuts in 2024. A new market concept emerged—the "Magnificent 7," a group of large-cap tech stocks that drove much of the S&P 500's gains. However, despite these market movements, Airbnb's stock remained subject to the same market volatility that characterized the period from 2021 to 2023.

As shown in Appendix G, which illustrates the closing price of Airbnb stock on the last trading day of each financial year, the stock was not immune to the market volatility and experienced fluctuations in line with broader market trends.

A similar pattern can be observed when comparing Airbnb's stock performance with the Nasdaq: both followed similar trends, reflecting the broader market volatility and the ups and downs of the tech sector (Appendix H).

Despite this volatility, Airbnb's fundamentals told a different story. The company recorded impressive revenue growth – 76% in 2021, 40% in 2022, and 18% in 2023. Additionally, Airbnb reported its first positive Adjusted-EBITDA in 2021 and a net income of nearly $1.9 billion in 2022. The company's key performance indicators were consistently improving, demonstrating the strength of its business model.

However, despite these positive financial results, Airbnb's stock fluctuated in line with broader market trends. The stock performed well in 2021, but in both 2022 and 2023, it declined, mirroring the market downturn. This confirms that Airbnb's valuation evolution was heavily influenced by macroeconomic events and broader market performance rather than the company's underlying business fundamentals.

Conclusion 13: *Airbnb's valuation and stock performance were primarily driven by macroeconomic factors and broader market trends, rather than by the company's financial performance or business fundamentals.*

After Airbnb's IPO, its stock performance closely correlated with the broader stock market. But before going public, when Airbnb was still a private company, the relationship between its valuation and the performance of the S&P 500 was much weaker.

As illustrated in Appendix I, which compares Airbnb's valuation in each funding round with the performance of the S&P 500, both metrics generally trended upwards. However, there is a clear difference in the correlation between the two. A slowdown in the stock market did not necessarily translate into a slowdown in Airbnb's ability to raise its valuation.

Between 2013 and 2015, for instance, Airbnb saw a significant increase in its valuation through venture capital funding. During this time, the global economy was still recovering from the 2008 financial crisis, and the stock market was experiencing turbulence, particularly in the banking sector. The year 2015 was especially volatile, with the stock market facing two major flash crashes in March and August (Mitchell, 2021), and ultimately ending the year lower.

Despite these challenges in the stock market, Airbnb successfully raised capital and achieved record valuations, unaffected by the broader economic instability.

Conclusion 14: *Airbnb's valuation before its IPO did not correlate with stock market performance or macroeconomic events, as its value was driven by venture capital investments focused on long-term potential rather than short-term market fluctuations.*

The correlation between stock market performance, macroeconomic events, and Airbnb's valuation evolution only emerged after the company became publicly traded. This shift highlights the different approaches to risk between pre-IPO and post-IPO investors. Before the IPO, investors primarily focused on the company's unique potential, whereas after the IPO, the valuation became more aligned with broader market forces and systematic risk factors.

This brings us to two essential concepts of risk widely studied in finance:

- Idiosyncratic risk: This type of risk is unique to a particular asset or company and does not correlate with broader market movements. It is tied to the characteristics of the company, such as its business model, leadership, and growth potential (Chen, 2024).
- Systematic risk: This risk is inherent to the entire market and impacts all assets, driven by factors such as stock market volatility, interest rates, and broader financial system disruptions. Systematic risk cannot be mitigated through diversification (Chen, 2024).

In Airbnb's case, pre-IPO investors—primarily venture capitalists and angel investors—were driven by idiosyncratic risk. These investors assessed Airbnb based on its specific business model, growth potential, and unique characteristics, independent of the broader market conditions. They took a concentrated risk on Airbnb, expecting a high reward for the uncertainty tied to the company's early days.

By contrast, post-IPO investors account for systematic risk. Once Airbnb entered the public markets, its valuation was influenced more by market-wide factors such as interest rate changes, stock market fluctuations, and macroeconomic conditions. For these investors, Airbnb's individual business risk is less critical because their portfolios are typically diversified across various companies, sectors, and geographies.

This difference in risk perception also leads to variations in the cost of capital. Pre-IPO investors demand higher returns to compensate for the unpredictability and volatility associated with idiosyncratic risk, which involves unique challenges and risks specific to Airbnb. By contrast, post-IPO investors factor in systematic risk, which tends to be more predictable and linked to market trends. As a result, pre-IPO investors require a higher target rate of return due to the elevated risk, whereas post-IPO investors demand lower returns, as they bear less company-specific risk and more diversified, market-wide risk.

Conclusion 15: *The cost of capital and target rates of return were significantly higher for pre-IPO investors due to the idiosyncratic risks associated with Airbnb's early days, while post-IPO investors accounted more for systematic risks, resulting in lower return expectations.*

Until now, the post-IPO performance of Airbnb has been compared to the broader market index, the S&P 500. However, a more detailed analysis can be made by comparing Airbnb's stock performance with its sector peers. For this research paper, two companies were selected for comparison:

- Booking Holdings Inc. (BKNG): This company operates a range of online travel and accommodation platforms, such as Booking.com, Priceline, and Agoda. Like Airbnb, Booking Holdings connects travelers with accommodations, including hotels, vacation rentals, and alternative stays.
- Expedia Group Inc. (EXPE): Expedia owns Vrbo, a direct competitor to Airbnb, offering vacation rental properties. In addition, Expedia offers hotel bookings, flights, and other travel services through its brands such as Expedia.com and Hotels.com.

These companies are suitable for comparison because they operate similar business models and belong to the same travel and accommodation sector, meaning that macroeconomic factors and external conditions (such as market volatility, interest rates, and travel demand) impact all three similarly.

The graphic in Appendix J illustrates the stock performance of Airbnb, Booking Holdings, and Expedia for the period covered in this research paper.

The three stocks—Airbnb (ABNB), Booking Holdings (BKNG), and Expedia Group (EXPE)—performed in line with expectations, demonstrating a strong correlation with the broader market, particularly the S&P 500. When the market experienced positive returns, so did these companies; conversely, they faced declines during bearish market sentiment.

Upon reviewing the financial reports of Booking Holdings and Expedia, it is clear that both companies showed strong recovery from the pandemic, with robust revenue growth and improved profitability. Based on these positive fundamentals and optimistic future growth projections, one would expect a steady increase in their valuations over time.

However, the stock performance of all three companies was driven largely by macroeconomic events and the overall performance of the financial markets. In 2021, the stocks rose alongside a bullish market, while in 2022, they were penalized by the broader bearish sentiment. By 2023, the stocks recovered as the market turned more optimistic.

This behavior reflects the diverse investor base behind these companies post-IPO. As mentioned earlier, mutual funds, institutional investors, and index funds constitute the primary long-term investors in their shareholder structures. These investors mitigate idiosyncratic risk by diversifying their portfolios across companies, sectors, countries, and asset classes. Therefore, when macroeconomic conditions signal that certain sectors or asset classes should be disinvested, a company's individual financial performance or fundamentals may have little impact on its stock's annual returns.

Now, shifting from the Price to Sales (P/S) ratio—the focus in earlier discussions due to the limited data available for Airbnb—it's worth considering another popular stock market valuation metric: the Price to Earnings (P/E) Ratio. This metric compares a company’s stock price with its earnings per share (EPS), offering a more comprehensive measure of valuation as profitability becomes more relevant in mature stages.

The P/E Ratios for the three companies during the period under analysis are as illustrated in Appendix K.

In reviewing the P/E ratios of Airbnb, Booking Holdings, and Expedia, several observations can be made:

- In 2021, both Airbnb and Booking traded at high P/E ratios, reflecting strong investor optimism during the post-pandemic recovery period.
- By 2022 and 2023, the P/E ratios for these companies began to stabilize as they transitioned out of their exponential growth phases.
- Expedia's P/E ratio experienced the most volatility, lowering significantly to 27 in 2023, aligning more closely with Booking’s P/E ratio.
- Airbnb's P/E ratio in 2023 was lower than its peers. Despite the volatility in stock performance, the P/E ratios of the three companies are converging to an interval as the sector matures and growth projections normalize. This suggests that the market is aligning its expectations for companies within the sector, leading to similar valuation metrics.

Even with the high volatility observed in stock performances, the P/E ratio provides a rational foundation for understanding stock movements. As the companies in this sector mature, their P/E ratios tend to decline, reflecting more tempered growth projections and the sector’s progression beyond its initial growth phase.

Looking specifically at 2023, Booking's stock was the best performer, even though its P/E ratio dropped from 32 to 30. Airbnb, despite being the worst performer in stock returns, maintained its P/E ratio—indicating that investors continued to value the company's future earnings potential, despite short-term performance. Expedia's P/E ratio experienced the most volatility, but by 2023, it aligned closely with Booking's. This convergence suggests that the stock market tends to normalize valuation metrics within a sector over time.

Conclusion 16: *Stock market investors care about financial valuation metrics, particularly as companies mature.*

The year of 2023 marks the conclusion of this analysis of Airbnb's corporate journey, tracing its evolution from a struggling startup raising a few thousand dollars to a multi-billion-dollar publicly traded company. This journey can be divided into two major phases: pre-IPO and post-IPO. Several conclusions have been drawn along the way, and now it is time to test the hypotheses formulated at the beginning of this research paper.

7. Hypotheses Testing

Four hypotheses were proposed in this research paper, each aimed at evaluating different aspects of Airbnb's corporate journey. The following summarizes the testing of these hypotheses, drawing on Airbnb's individual case.

Hypothesis 1: *Airbnb's early-stage valuations were significantly influenced by market speculation rather than traditional valuation metrics.*

Before its IPO, Airbnb experienced seven funding rounds, each influenced by different factors. The Seed round was critical, but as we observed, it was the founders' talent and determination, rather than traditional financial metrics, that attracted Y Combinator's $20,000 investment. This early support, particularly from Y Combinator, sparked the interest of other venture capital investors.

In the Series B round, the emphasis shifted toward Airbnb's total addressable market (TAM) rather than its current financials. As the company progressed through subsequent rounds, investor confidence and the number of backers grew, driven by speculative market sentiment rather than financial fundamentals.

At this stage, the company's future success was uncertain, and its valuations were driven more by investor speculation than by financial performance. The involvement of investors became a cause of business growth rather than a result of it, with valuation metrics playing a minor role.

Conclusion: *In Airbnb's case, early-stage valuations were significantly influenced by market speculation, confirming the first hypothesis.*

Hypothesis 2: *Post-IPO performance of Airbnb is more aligned with traditional valuation principles compared to its early-stage financing.*

After Airbnb's IPO, its valuation became strongly correlated with broader market dynamics, reflecting traditional stock market behavior. The company's stock performance moved in tandem with the S&P 500, and when compared to sector peers such as Booking Holdings and Expedia, the correlation persisted.

Valuation metrics such as the P/E ratio began to play a more significant role in explaining Airbnb's post-IPO stock performance, showing a convergence toward sector valuation thresholds. This is indicative of a shift from speculative pre-IPO valuations to post-IPO valuations influenced by financial metrics, industry standards, and macroeconomic conditions.

Conclusion: *The post-IPO performance of Airbnb aligns more with traditional valuation principles, confirming the second hypothesis.*

Hypothesis 3: *The shift in investor profile impacts valuation.*

Airbnb's IPO brought a fundamental shift in its shareholder structure. Before going public, venture capitalists, angel investors, and founders held the majority of shares. After the IPO, institutional investors, mutual funds, and the general public became the dominant players in Airbnb’s ownership.

The required rate of return for early-stage investors was higher than for post-IPO investors, reflecting the higher risk associated with early-stage ventures. Meanwhile, stock market investors' decisions were driven by portfolio management and broader economic conditions, with a strong focus on sector comparisons and financial metrics.

Airbnb's post-IPO valuation increase, despite no significant change in its business fundamentals, underscores the impact of shifting investor profiles, as public market investors tend to evaluate risk differently from early-stage backers.

Conclusion: *The shift in investor profiles post-IPO had a direct impact on Airbnb’s valuation, confirming the third hypothesis.*

Hypothesis 4: *Non-renumeration of specific risk leads to valuation surge in public markets.*

In this research paper, the distinction between idiosyncratic risk (specific to individual companies) and systematic risk (market-wide) was addressed. Pre-IPO investors, who bear both types of risk, require higher returns to compensate for the idiosyncratic uncertainties they face.

In contrast, public market investors can mitigate idiosyncratic risk through diversified portfolios across various asset classes. This diversification reduces the overall risk in their investments, leading to a lower cost of capital and lower required returns.

Following Airbnb's IPO, its valuation surged, as the stock market assigned less weight to the company-specific risk that had been a major factor in its early-stage valuations. This relationship between risk and required rate of return aligns with financial theory, suggesting that the lower the perceived risk, the higher the valuation.

Conclusion: *The reduction in specific risk after Airbnb's IPO led to a surge in its valuation, confirming the fourth hypothesis.*

8. Conclusion

Returning to the central research question of this paper:

What factors have fundamentally influenced Airbnb's valuation from its inception to its public trading debut?

One might expect a complex answer, involving sophisticated financial models or the theories of valuation experts like Damodaran. However, the analysis of Airbnb's journey, particularly during the pre-IPO phase, reveals that human psychology and the coincidence of events played a far greater role in its success than finance itself.

Shanti Mohan, an angel investor and Co-Founder of LetsVenture, stated:

"People make angel investing very complex than what it is, while it is actually very simple" (Poojary, 2021)

In Airbnb's case, the main driver behind its first funding in the Seed Round was the recognition by Paul Graham (Y Combinator's founder) of the founders' grit and determination. Interestingly, it wasn't the business idea that swayed the investor; in fact, Paul Graham didn't even like the idea at first. However, the founders' resilience made the difference, ultimately leading Y Combinator to invest $20,000.

This early investment triggered further interest, allowing Airbnb to raise $600,000 from Sequoia Capital and Youniversity Ventures with a valuation of $2.5 million. The valuation wasn't based on financial models but rather on a negotiation driven by founder reputation and Y Combinator's initial backing.

As angel investor Sanjay Mehta noted, Seed funding is a "launch pad" for startups, driven by hope and founder vision rather than financial performance:

"Seed funding is the launch pad. So every idea would need seed funding to kick off and begin across. At the early stage, investors are driven by hope. They look into the founder's mind and vision, and fund on the basis of hope and not on performance metrics" (Ganguly, 2021)

Following its launch, Airbnb's story spread rapidly through the venture capital world, attracting investors who wanted to be part of the "next big thing." As interest grew, so did its valuation, creating a crowd effect in early-stage investing. Venture capitalists were drawn to the potential and the hype, rather than the company's financial fundamentals.

The decision to go public in 2020 was similarly driven by market conditions, particularly the favorable U.S. stock market environment. The IPO was underpriced, and on the first trading day, Airbnb's valuation surged, showing how its stock market performance became correlated with macroeconomic events rather than business specifics. Once public, Airbnb lost some of its individuality, with its valuation converging with that of peers like Booking and Expedia, as the market began applying traditional valuation metrics like the P/E ratio.

What about Finance?

Despite the complexity one might expect from a startup that grew into a multi-billion-dollar company, finance played a surprisingly limited role in the early success of Airbnb. Traditional financial theories, which emphasize metrics such as cash flow, profitability, and return on investment, were largely irrelevant in Airbnb's early rounds of funding. Instead, the company's trajectory was shaped by human factors, founder charisma, and networking, which outweighed financial fundamentals during its initial phases.

In most early-stage startups, especially in the pre-IPO phase, financial performance is often weak or non-existent. This was certainly the case for Airbnb. In its Seed Round, the founders had very little revenue, no profitability, and a business model that was yet to prove its viability. By traditional finance standards, these metrics would disqualify a company from attracting significant investment. However, Airbnb’s ability to secure $20,000 from Y Combinator and later $600,000 from Sequoia Capital was not based on financial projections or valuation models.

Instead, the primary driver of early-stage investment was the founders' determination and vision, alongside the reputation of Paul Graham and Y Combinator. This reflects a broader trend in early-stage financing: investors are often more concerned with founder quality, network potential, and market excitement than with the company’s financials. Traditional financial valuation metrics like discounted cash flow (DCF) or price-to-earnings (P/E) ratios have little relevance when the company has no earnings or cash flow to measure.

A Shift in Focus: From Speculation to Valuation Metrics

As Airbnb progressed from its early-stage funding rounds to later rounds, such as Series B and Series C, financial data such as revenue growth began to play a slightly bigger role, but even then, the emphasis remained on the total addressable market (TAM) and the potential for disruption in the travel industry. Investors were betting on Airbnb’s ability to capture market share and revolutionize the way people travel, rather than scrutinizing its balance sheet or profit margins.

This is not to say that finance was completely absent. Investors used some financial models to estimate future growth, but these were highly speculative and based more on the company’s narrative and market hype than on robust financial modeling. The valuation assigned to Airbnb during these rounds was more a product of negotiation than any hard financial data. In many ways, Airbnb's early-stage valuation was influenced by market sentiment and herd mentality, as more venture capitalists joined the bandwagon, fearing they might miss out on the next big thing.

Post-IPO: The Rise of Traditional Finance

Once Airbnb went public, the dynamics changed. As the company entered the public market, it became subject to more traditional financial scrutiny. Public market investors—such as institutional investors, mutual funds, and index funds—were no longer just betting on potential but also required to analyze financial fundamentals, including revenue, profitability, and earnings growth.

After the IPO, valuation metrics such as the P/E ratio and price-to-sales ratio (P/S) became essential tools in valuing Airbnb. These metrics provided investors with a framework for comparing Airbnb to its sector peers, like Booking Holdings and Expedia, and helped normalize the company's valuation. The P/E ratio became a key determinant of investor confidence, with Airbnb's valuation eventually converging to the norms observed in its industry. As growth began to stabilize, profitability became a critical factor in shaping Airbnb's stock performance.

However, even in the post-IPO phase, macroeconomic factors—such as interest rate hikes, inflation, and overall market sentiment—played a significant role in influencing Airbnb's valuation. This reflects a key principle of finance: once a company goes public, its stock is subject not only to the company's financial performance but also to systematic risk, which affects all companies across the market.

Finance as an Enabler, Not a Driver

While financial theory underpins the logic of investments and valuations, Airbnb's early days illustrate a deeper truth: finance often plays a secondary role in the initial stages of startup development. The most critical element in early-stage financing is human psychology—the ability of founders to sell their vision, build networks, and convince investors to take a bet on their potential.

Financial models become more relevant as the company matures, but in the pre-IPO phase, investors are primarily driven by speculation, market sentiment, and the potential for future growth. As Airbnb grew and raised more capital, the financial support enabled the execution of the founders' vision, but it was not finance that initially sparked interest in the company.

A Paradigm Shift in Early-Stage Valuation

The Airbnb case also challenges a core assumption of traditional financial theory: that a good business idea and strong financials are essential for raising capital. This research suggests that capital raising is often the cause, not the consequence, of a startup's success. Investors often buy into the story, the team, and the network of founders rather than into any concrete financial data.

This creates a paradox in venture capital: the most financially-driven sector is also one of the least reliant on traditional financial models. Instead, venture capitalism is dominated by storytelling, founder charisma, and the psychology of investing.

Alejandro Cremades, author of The Art of Startup Fundraising, captured this perfectly by stating in his book:

"The best entrepreneurs are not the best visionaries. The greatest entrepreneurs are incredible salespeople. They know how to tell an amazing story that will convince talent and investors to join in on the journey."

The emergence of technology and data analysis

With the rise of artificial intelligence, sophisticated technology, and advanced data analysis, there is a unique opportunity for finance to redefine its role in early-stage startup valuation. Technology can help identify patterns and develop models that account for both financial and non-financial factors, including psychological elements and investor behavior.

To advance our understanding of early-stage valuation, future research should integrate finance, psychology, and behavioral economics. Large datasets comprising individual case studies, with inputs from all three fields, could allow researchers to identify patterns that can inform new models for evaluating startups. Such an approach could help prevent common mistakes in venture capital and provide entrepreneurs with clearer paths to success.

The world of early-stage startup investing is undergoing a transformation, driven by advances in artificial intelligence, big data, and financial technology. These tools can help bridge the gap between finance and human psychology, providing better models for early-stage valuation. By integrating insights from behavioral economics, neuroscience, and data analytics, the field of finance has the potential to uncover patterns and refine models that are better suited to capturing the nuances of startup valuation.

The final word

Finance, in its traditional form, plays a supporting role in early-stage startup valuation. It provides structure but is often overshadowed by human factors such as psychology, investor sentiment, and the unpredictability of events. As startups like Airbnb move from their nascent stages to the public markets, finance becomes more important. But in those early, pivotal moments, it's the people, not the numbers, that determine a company's fate.

Future research must continue to explore the intersection of finance, psychology, and data to provide a more holistic understanding of what truly drives early-stage startup success.

To truly grasp the essence of early-stage startup valuation, one must recognize that while financial models provide structure, it is the interplay of human psychology, investor sentiment, and the serendipity of events that ultimately shapes the trajectory of a venture's success.

In the end, it is not the numbers that build billion-dollar companies – it is the people behind them.

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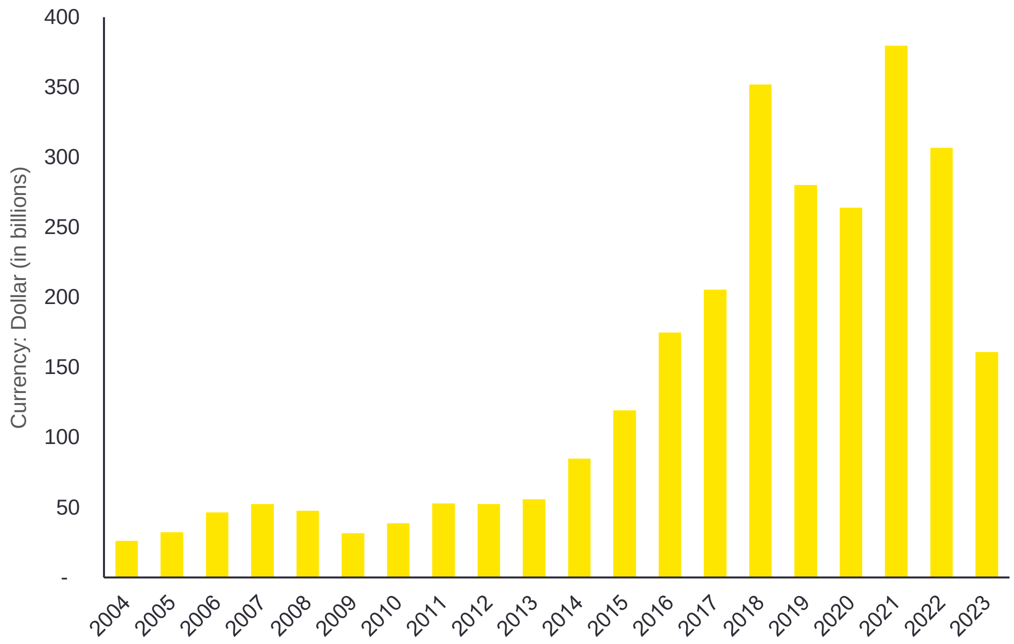
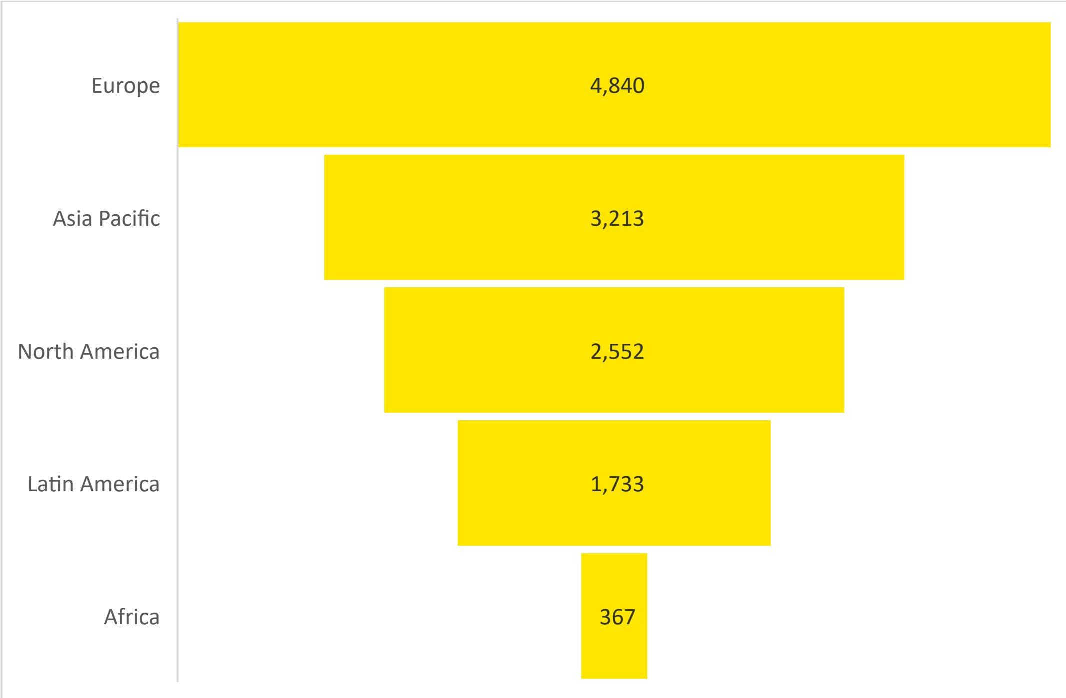
Appendix

Appendix A: Global Capital Raised from Venture Capital ($ billions)



Source: PitchBook (2024)

Appendix B: Number of Airbnb Listings (# 000)



Source: Search Logistics (2024)

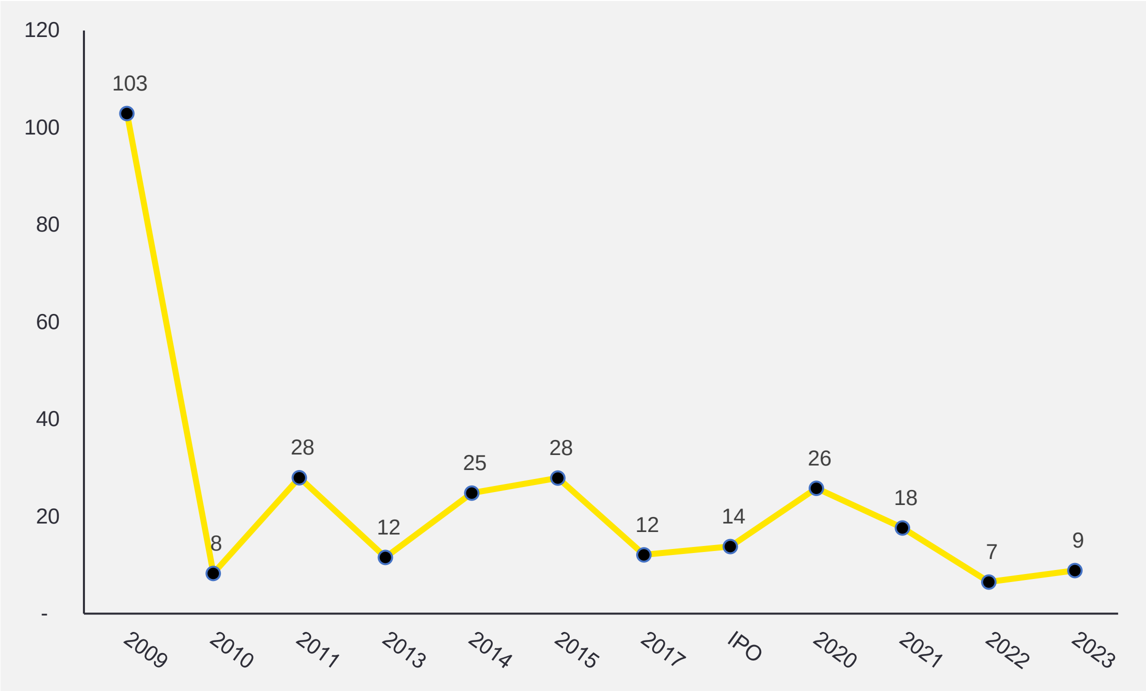
Appendix C: Gathering of all the data

Currency: $ 000 000	2009	2010	2011	2013	2014	2015	2017
Revenue	0	8	46	250	423	914	2,562
Adjusted EBITDA	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Net Income	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Airbnb Valuation	**3**	**70**	**1,300**	**2,900**	**10,500**	**25,500**	**31,000**
Price to sales	103	8	28	12	25	28	12
Revenue growth CAGR (%)	n.a.	34491%	452%	219%	69%	116%	90%
Valuation growth CAGR (%)	n.a.	2700%	1757%	62%	262%	143%	11%
Stock Market (last trading day of each period)							
Airbnb Stock	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
S&P 500	1,115	1,258	1,258	1,848	2,059	2,044	2,674
Nasdaq	2,269	2,653	2,605	4,177	4,736	5,007	6,903

Currency: $ 000 000	2018	2019	IPO	2020	2021	2022	2023
Revenue	3,652	4,805	3,400	3,400	6,000	8,400	9,900
Adjusted EBITDA	n.a.	n.a.	n.a.	n.a.	2	2,903	3,653
Net Income	n.a.	n.a.	n.a.	n.a.	n.a.	1,893	4,792
Airbnb Valuation	**n.a.**	**n.a.**	**47,000**	**87,700**	**105,800**	**54,900**	**88,300**
Price to sales	n.a.	n.a.	14	26	18	7	9
Revenue growth CAGR (%)	43%	32%	11%	11%	76%	40%	18%
Valuation growth CAGR (%)	n.a.	n.a.	17%	87%	21%	-48%	61%
Stock Market (last trading day of each period)							
Airbnb Stock	n.a.	n.a.	68	147	166	86	136
S&P 500	n.a.	n.a.	3,756	3,756	4,766	3,840	4,770
Nasdaq	n.a.	n.a.	12,888	12,888	15,645	10,466	15,011

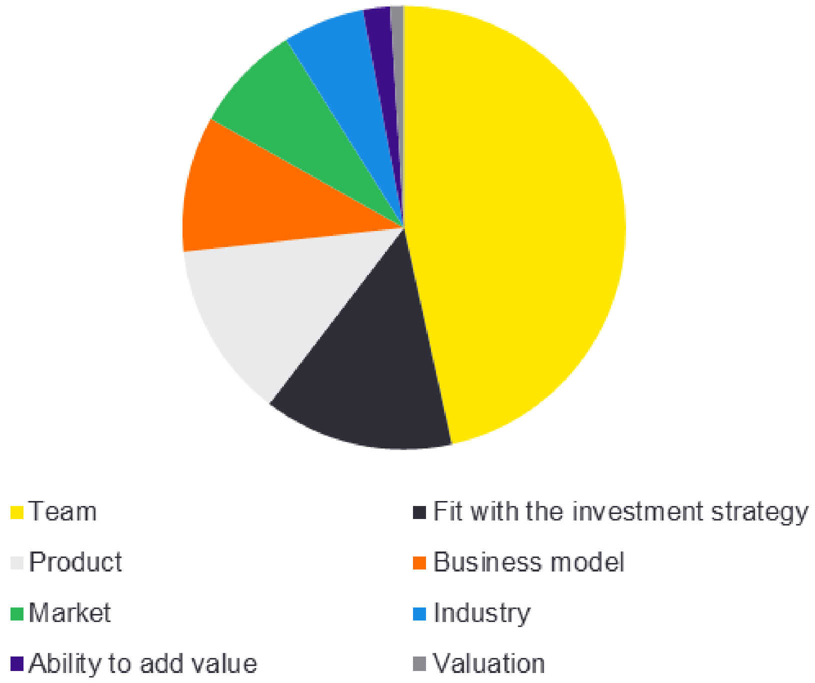
Source: Internal analysis

Appendix D: Price to Sales Ratio of Airbnb



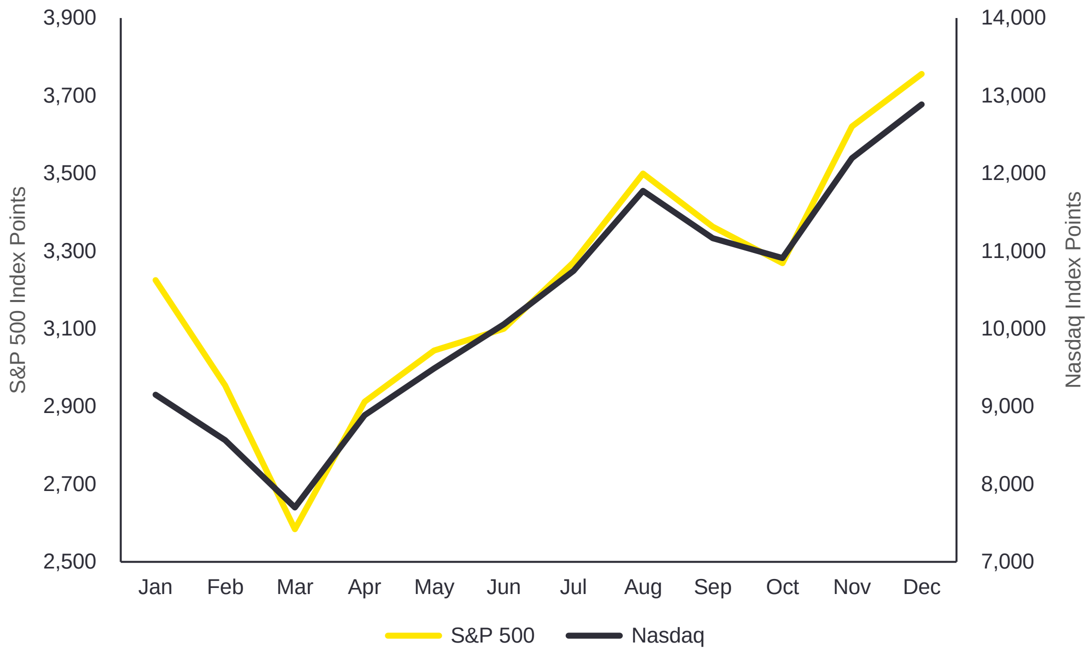
Source: Internal Analysis

Appendix E: The VC Factory Survey Results



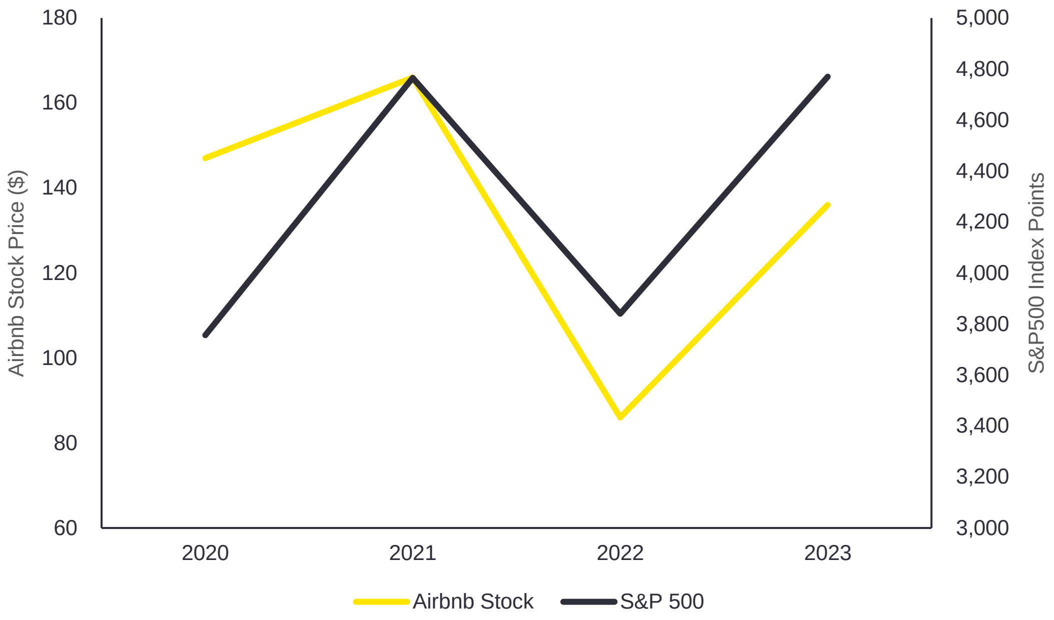
Source: The VC Factory (2020)

Appendix F: Stock Market 2020 Performance



Source: Yahoo Finance

Appendix G: Airbnb Stock Vs S&P 500 Index

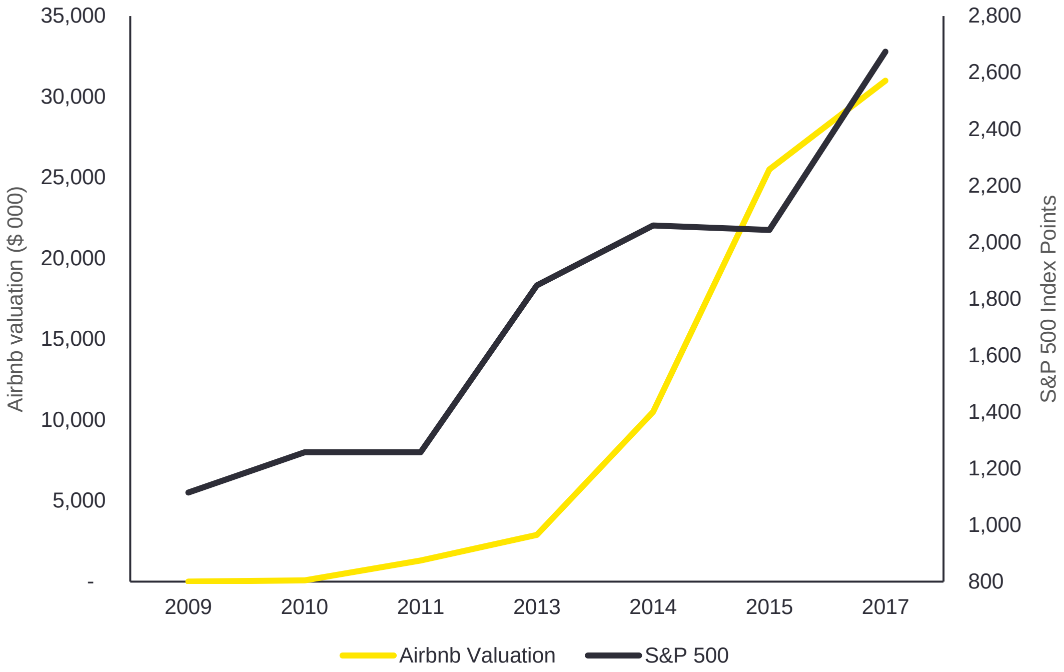


Source: Yahoo Finance

Appendix H: Airbnb Stock Vs Nasdaq Index

Source: Yahoo Finance

Appendix I: Airbnb Valuation Vs S&P 500 Index

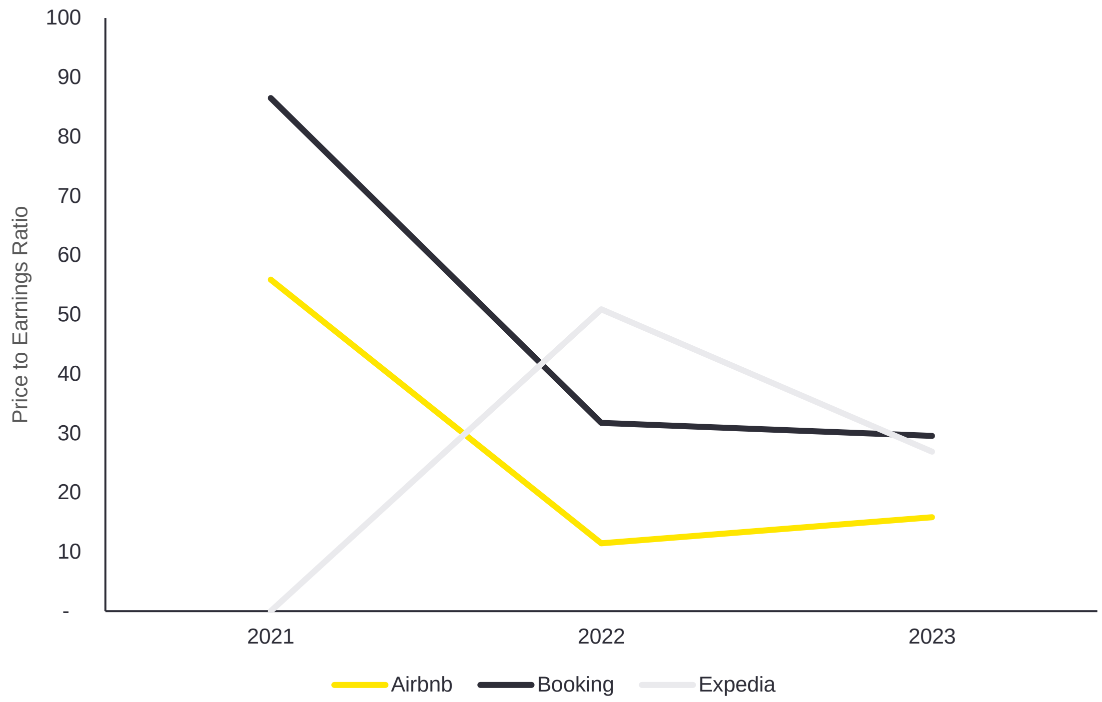


Source: Yahoo Finance & Internal Analysis

Appendix J: Airbnb & Booking & Expedia Stock Performances

Source: Yahoo Finance

Appendix K: P/E Ratios for the comparable companies



Source: Internal Analysis