Fraud in startups: what stakeholders need to know

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Abstract

Purpose – This paper aims to explain the fundraising and valuation processes of startups and discuss the conflicts of interest between entrepreneurs, venture capital (VC) firms and stakeholders in the context of startup corporate governance. Further, this paper uses the examples of WeWork and Zenefits to explain how a failure of stakeholders to demand an external audit from an independent accounting firm in early stages of funding led to an opportunity for fraud.

Design/methodology/approach – The methodology used is a literature review and analysis of startup valuation combined with the Fraud Triangle Theory. This paper also provides a discussion of WeWork and Zenefits, both highly visible examples of startup fraud, and explores an increased role for independent external auditors in fraud risk mitigation on behalf of stakeholders prior to an initial public offering (IPO).

Findings – This paper documents a number of fraud risks posed by the "fake it till you make it" ethos and investor behavior and pricing in the world of entrepreneurial finance and VC, which could be mitigated by a greater awareness of startup stakeholders of the value of an external audit performed by an independent accounting firm prior to an IPO.

Research limitations/implications – An implication of this paper is that regulators should consider greater oversight of the startup financing process and potentially take steps to facilitate greater independence of participants in the IPO process.

Practical implications – Given the potential conflicts of interest between VC firms, investment banks and startup founders, the investors at the time of an IPO may be exposed to the risk that the shares of the IPO firms are overvalued at offering.

Social implications – This study demonstrates how startup practices can be extended to the Fraud Triangle and issue a call to action for the accounting profession to take a greater role in protecting the public from startup fraud. This study then offers recommendations for regulators and standards entities.

Originality/value – There are few academic papers in the financial crime literature that link the valuation and culture of startup firms with fraud risk. This study provides a concise explanation of the process of

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JEL classification - G32, G34, G38, L26, M41, M42

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Journal of Financial Crime Vol. 29 No. 4, 2022 pp. 1191-1221 Emerald Publishing Limited 1359-0790 DOI 10.1108/JFC-12-2021-0264 valuation for startups and highlights the considerations for stakeholders in assessing fraud risk. In addition, this study documents an emerging role for auditors as stewards of proper valuation for pre-IPO firms.

Keywords Startups, Entrepreneurial finance, Fraud Triangle, Stakeholders, IPO, Valuation, Fraud, Venture capital

Paper type Conceptual paper

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1. Introduction

In recent years, startups have become a key pillar of economic growth and job creation (Haltiwanger *et al.*, 2013; Adelino *et al.*, 2017). However, because of their innovative nature and because any innovative corporate activity goes hand in hand with a high probability of failure (Holmström, 1989; Tian and Wang, 2014), startups' default rates are high, making them risky investments. Various research over the past ten years suggests that between 70% and 80% of all startups do not reach a desired or projected rate of return, whereas as many as 40% of all startups are a complete failure, losing 100% of their original investment [1]. The extraordinary risk even prompted Securities and Exchange Commission (SEC) chair Mary Jo White to comment on the subject:

An equally interesting statistic from one post-mortem analysis is that 70 percent of failed startups die within 20 months after their last financing [...]. In other words, not only are these investments highly risky, they fail quickly too.

In addition to high rates of failure, the nascent nature of the technology underlying both the operations and products of startups make investors' revenue or profitability forecasts highly uncertain, which makes them difficult to value using traditional valuation models. The nascent nature of the startups themselves also poses disclosure and governance risks; as reporting and disclosure rules are extremely limited for the type of privately held companies, most startups are yielding low transparency [2].

Despite these risks, billions of dollars have been poured into venture markets to finance startup business development. In the USA alone, venture capital (VC) assets under management have more than doubled since 2013, from \$267bn to \$548bn at year end 2020; in 2020 alone, VC firms raised \$74.5bn in new funds which will soon be deployed into thousands of startups globally [3]. Besides traditional VC investors, investment banks, mutual funds and sovereign wealth funds have also leapt into startup financing. Mutual funds have been the most active of all new VC market entrants, with estimate ranges showing that 14 separate mutual fund families invested between \$7bn and \$10bn into over 250 startups since 2009 (Kwon *et al.*, 2020; Imbierowicz and Rauch, 2021). They do so with the hope that the startups will be successful in permitting them to achieve a successful exit in the form of an initial public offering (IPO) or acquisition at the highest possible valuation.

The funding frenzy in VC markets, paired with an obsession for fast and aggressive startup growth to achieve astronomical valuations, has led to a new kind of startup: the "Unicorn," which is a startup that reaches a valuation of \$1bn prior to an IPO or acquisition. These companies had been a rare phenomenon up until as recently as 2013 when the term was first coined by venture capitalist Aileen Lee [4]. While at that time only 39 startups surpassed the \$1bn valuation threshold, most recent (as of December 2021) CB Insights data show a total of 903 Unicorns globally with a joint valuation of \$2.9tn [5]. Achieving Unicorn status facilitates investor attention through media and industry coverage of the startup, which can stimulate demand for the startup's shares; it also enhances the reputational capital of the pre-IPO investors, who advertise the number of Unicorns in their portfolios as a status symbol.

However, the dynamics underlying the scramble to achieve aggressive growth and ultimately Unicorn status have created a new problem: fraud. Imbierowicz and Rauch (2021) document that 98 Unicorns in their sample were sued a combined 1,723 times over an average investment horizon of 2.5 years; this means each Unicorn is sued an average of seven times per year, with the vast majority of lawsuits being for fraudulent behavior. The backdrop for this fraudulent behavior is the dynamic between VC investors and startups. For startups, attracting capital is critical for product and business development as well as customer acquisition through all phases of the startup lifecycle. This lifecycle consists of several important stages that correspond to obtaining funding. After the startup is founded, investors require that it develops a product or service, demonstrates proof of concept, provides evidence that there is a market for its product or service and shows indicators of extraordinary growth in the market including a number of key performance indicators (KPIs) relied upon by startup investors. Obtaining funding over the lifecycle requires that the startup achieves these milestones. Failure in doing so results in a failure of raising new funds; inevitably, a lack of new funds causes the startup to fail and all prior investments to be lost. The pressure of keeping the startup growing and consistently raising new funds is therefore crucial for both the entrepreneurs as well as the existing VC investors.

Therefore, startups oftentimes resort to questionable or fraudulent activities to achieve these milestones in the pursuit of growth. Particularly, fraud is a problem because startup stakeholders – such as employees, creditors, suppliers and future shareholders when the startup goes public or acquirors in an exit – often engage with startups without a proper understanding of these dynamics and without requesting and verifying information prior to making the decision to engage with the startup. The complexity of the technology underlying many Unicorns and the lack of transparency also contribute to the difficulty for stakeholders to adequately navigate their relationship with the startup, avoid potential pitfalls and measure its valuation correctly.

In this paper, based on a variety of stylized facts and arguments, we will argue that the nature of the startup funding and valuation processes, the instruments used for financing, startup governance and the role of startup investors lend themselves to the potential for fraud. We describe the startup finance culture explains the funding process and corporate governance issues in startups. Furthermore, we describe the process of startup valuation and distinguish it from the valuation of publicly traded firms and identify ways of startup misvaluation and imprecisions. We then describe two notable Unicorn fraud cases, WeWork (legal name "The We Company") and Zenefits (legal name "YourPeople, Inc."), to illustrate our arguments with real-life representative scenarios. Using the "Fraud Triangle" theory, we finally describe the manner in which the startup environment increases fraud risk to stakeholders. In doing so, we also explain how the failure of stakeholders to insist on an external audit prior to their engagement with the startup creates an additional vulnerability to fraud. This is particularly important as third-party stakeholders and postventure startup owners, such as retail investors in venture-backed IPOs, are typically the victims of such fraud.

Additionally, we elaborate on the role of VC investors in startup fraud. Implicit or explicit collusion between VC investors and entrepreneurs to grow startups as aggressively and fast as possible is a major trigger of fraudulent behavior within startups. Instead of vilifying unethical or illegal practices on the parts of the entrepreneurs, VC investors may tolerate or foster a culture of "fake it till you make it" in startups, a term describing the practice of – at best – the cutting of corners or – at worst – the deliberate use of illegal activity in the pursuit of business growth. As both entrepreneurs and VC investors benefit equally strongly from "fake it till you make it," the concept has become a widely accepted fixture within the *modus*

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operandi of startups. Furthermore, the main facilitators of startup fraud are all integral parts of VC markets, put in place and requested as standard procedures by VC investors: insufficient and insider-only governance structures without proper checks and balances, staged funding processes requiring the constant achievement of short-term growth objectives and milestones and opaque valuation processes, especially the usage of various classes of different types of convertible preferred shares with differing valuations.

Based on these considerations and because VC investors do not take the "classic" principals' role of detecting and alleviating moral hazard but instead partake in or tolerate it, we argue for an expanded role for auditors as stewards of corporate governance in providing assurance to stakeholders of startups.

2. Features of startups

The goal of a venture-backed startup is to build a product, technology or business model within a five- to seven-year period. The development must proceed quickly and aggressively because the goal of VC investors as capital providers is to sell the startup at the end of the five- to seven-year period. In this process, the VC investors work closely with the startup and are known to improve its performance through their active involvement (Hellmann and Puri, 2002; Bottazzi *et al.*, 2008; Inderst and Mueller, 2009; Chemmanur *et al.*, 2011; Chemmanur *et al.*, 2014; Bernstein *et al.*, 2016; Ewens and Marx, 2018).

The capital provided by the venture investors is fully spent on the technology, product and business development, and accordingly, despite substantial absolute growth in magnitude, startups are rarely profitable at the end of the development phase and before being sold (Kaplan *et al.*, 2009; Puri and Zarutskie, 2012). Paired with the nascency of the technology being developed and the extreme uncertainties surrounding the success of the developed products and business model, startups are extraordinarily risky investments, but with potentially high payouts at exit (Cochrane, 2005; Korteweg and Sorensen, 2010; Korteweg and Nagel, 2016).

We argue that because of their peculiar nature, startups are a playground for fraudulent behavior. Particularly, we identify three factors that contribute to and foster fraudulent behavior:

- (1) the staged funding process in which venture investors provide capital;
- (2) the corporate governance structure evolving out of the staged funding process, along with the limited disclosure environment surrounding startups; and
- (3) the startup valuation process, involving opaque and complex valuation methodologies and multiple different share classes with differing contractual rights which, jointly, make obtaining a single enterprise valuation for a startup near impossible.

Additionally, we argue that because of the close collaboration between venture investors and founders as well as their strong alignment of interests, particularly in the early stages of a startup's lifecycle, fraudulent behavior occurs either with the investors' implicit or explicit approval or, in selected cases, following the investors' request for more aggressive conducts of business [6].

2.1 Startup funding

Startups obtain capital through multiple stages/rounds of funding prior to exit (Gompers, 1995; Tian, 2011). Initial financing of preoperational, or preseed, stage startups is either provided by the founders' own funds (including both equity and personal debt), the so-called "three F's" (family, friends and fools), startup accelerators or professional "angel" investors

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(generally high-net-worth individuals) (Kerr *et al.*, 2014; Robb and Robinson, 2014; Lee and Persson, 2016; Lerner *et al.*, 2018). The latter two investor groups also participate in the second financing stage, the seed round, alongside specialized early-stage VC firms which invest in startups using funds pooled from other investors (Hellmann and Thiele, 2015; Hellmann *et al.*, 2021).

In these early stages, founders are required to provide evidence that the venture will generate high revenue growth, is able to grow the customer base and achieve scalable operations. In doing so, the founder is sequentially tasked with the development of a business model, demonstrating proof of concept and a strategy to monetize the business plan. The majority of funds in all subsequent rounds, alphabetically sequenced "Series" (A. B. C. etc.), are raised from VC firms. Coinvestors in the earlier of these Series (A, B) might be strategic investors or ultrahigh-net-worth "angel" investors; coinvestors in the later Series (C and following) might be other institutional investors such as hedge funds, mutual funds, pension funds, sovereign wealth funds or corporate VC programs (Benson and Ziedonis, 2010; Chemmanur et al., 2014; Kwon et al., 2020; Agarwal et al., 2021). These "nontraditional" startup investors have become especially important since the 1996 private capital market deregulation efforts and estimates show that they provide around 60% of the later-stage funding, whereas "traditional" VC funds only provide 40% (Ewens and Farre-Mensa, 2019). Around these later stages, startups also expand their capital structure by raising funds through bank debt [7]. At or around Series B and C, startups seek to expand, or "scale," as quickly as possible, typically through aggressive customer acquisition or by buying up less successful or younger competitors. In each stage that the company reaches successfully, the initial investors (such as the founders) own less of the shares, but with each additional round achieved, the value of their equity most likely increases.

At the end of the later funding rounds, the equity investors seek to exit by selling their holdings at the highest possible price (subject to statutory constraints such as lockup period rules). The preferred exit route is the IPO, a formal and extensive process overseen by an investment bank underwriter charged with pricing and marketing the shares to institutional clients, relying on their reputational capital to signal the quality of the firm for the public capital markets (Barry *et al.*, 1990; Megginson and Weiss, 1991; Gompers, 1996; Carter *et al.*, 1998).

Throughout the process from founding to exit, the growth pressure on founders is extremely strong, because each new investor demands prior growth to invest. This staged financing process therefore leads to massive pressure on founders to grow by all means necessary within a 12–15-month time period. Long-term and perhaps sustainable growth is therefore not within the objectives of the founder. In addition, founders and preexit investors know the startup will only survive – or reach the exit phase – if there are subsequent funding rounds. This yields a compelling interest in the startup growing as aggressively as possible from funding round to funding round, with disregard for any long-term horizon. We argue that if these goals cannot be reached through the ordinary course of business, startups may resort to fraudulent behavior to either appear to reach the set milestones, or meet/surpass them with fraudulent means.

2.2 Startup governance

As a result of the unique staged funding process and because of startups' lack of interaction with third-party outside stakeholders, the traditional mechanisms of corporate governance of publicly traded firms – a board of directors with independent members and committees, the external auditor, listing and disclosure requirements, stakeholder representations and shareholder activists – do not exist.

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The core focus of a startup's governance is the oversight and monitoring of the entrepreneurs through the VC investors. Since the onset of the modern VC industry, investors have understood the potentially steep information asymmetries between investors and entrepreneurs because of the startups' development of complex and nascent technologies/products, fast-moving pace and lack of traditional governance features (Jensen, 1993; Gompers, 1995). Generally, VC investors face four types of agency problems:

- (1) unobservable and hence insufficient effort of the entrepreneur;
- (2) unobservable and hence potentially insufficient skills/quality of the entrepreneur;
- (3) hold-up problems if the entrepreneur threatens to leave the startup; and
- (4) disagreements between VCs and entrepreneurs in unforeseen circumstances in which decision-making might not be covered by incomplete contracts (Kaplan and Strömberg, 2004).

Consequently, all governance efforts have been directed at minimizing VC investors' agency costs caused by these information asymmetries. The aforementioned staged financing process itself can be a potential remedy for agency costs (Gompers, 1995; Neher, 1999). Additionally, VC investors "control" the entrepreneurs' behavior through two mechanisms:

- (1) active board involvement; as well as; and
- (2) strong control and voting rights embedded in the preferred shares they own.

In general, board control is seen as one of the most nonnegotiable factors in VCs' investment decision process (Gompers *et al.*, 2020) and more strongly used in more risky investments (Kaplan and Strömberg, 2004). Next to pure monitoring, VCs use their board seats to actively intervene in startups, particularly through the replacement of founders in managerial positions (Lerner, 1995; Hellmann and Puri, 2002).

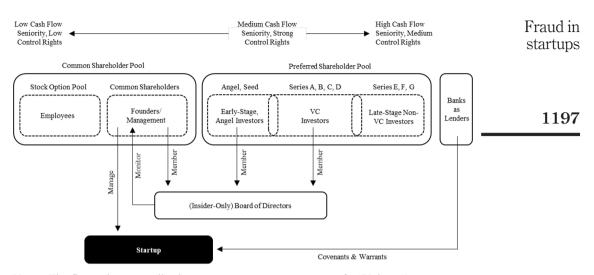
Beyond board seats, VCs are typically granted a variety of additional control rights, particularly voting rights along with specific veto rights for certain decisions or the rights to "force" a founder to vote a certain way in specific circumstances [8]. These rights serve the purpose of solving contracting problems between entrepreneur and investor (Aghion and Bolton, 1992; Trester, 1998; Cornelli and Yosha, 2003; Schmidt, 2003; Hellmann, 2006; Cestone, 2014), and as such, these rights have been the standard tools in VC investment contracts since the 1980s (Sahlman, 1990; Kaplan and Strömberg, 2001, 2003, 2004; Broughman and Fried, 2010; Gompers *et al.*, 2020; Ewens *et al.*, 2021), both in US and global venture markets (Kaplan *et al.*, 2007). Jointly, the board seats and strong control rights limit the possibility for moral hazard behavior on the part of the entrepreneur.

In Figure 1, we depict this governance structure, showcasing the high concentration of power within the VC investors and how this power is only partially shared with the entrepreneurs. Other third-party stakeholders or outsiders, such as independent directors, are missing. Even investment banks as late-round investors do not serve their typical role in monitoring startups as they do with other companies because of their desire to obtain the IPO and/or mergers and acquisition (M&A) business and future debt deals, thus creating an incentive to satisfy the founder and other investors (Hellmann *et al.*, 2008) [9]. It should be noted that the corporate governance of startups is unregulated; the specific stylized structure we show in Figure 1 can therefore be considered the first-best desired solution between entrepreneurs and their investors, solving the investors' aforementioned agency problems in the most efficient manner.

However, we argue that the true principal-agency problem is not rooted in the relationship between entrepreneurs and VCs, but in the relationship between the startup –

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Notes: The figure shows a stylized corporate governance structure of a "Unicorn" company. We depict both the common and preferred shareholder pool including all representative investors; banks are shown separately as venture lenders. Strongest control rights are typically awarded to early venture capital investors, whereas strongest cash-flow rights are typically awarded to late-stage investors. Common shareholders receive weakest protection, both in terms of control and cash-flow rights

Figure 1. Stylized "Unicorn" governance structure

including both VCs and entrepreneurs – and the late-stage investors as well as the exit investors, purchasing the startup from the VC investors. As explained above, both VCs and entrepreneurs are strongly aligned in interest. The VC investors benefit from supporting the growth narrative to gain from their ultimate goal of the exit, in addition to the reputational capital they extract from their association with successful startups. They have an extremely intense interest in investing in startups successful enough to raise capital through multiple funding rounds, obtain the highest possible valuation and provide an exit for the VC by selling their shares in an IPO or through an acquirer buying the shares from their startup postexit, want to achieve fast and aggressive growth to achieve a maximum valuation pre or at exit. Considering this overlap in interest, along with the strong VC control rights keeping entrepreneurs "in check" should they exhibit any value-destructive behavior for personal motives, suggests that entrepreneurs and VCs are complicit in pursuing fast and aggressive growth. Agency costs between them should therefore be negligible or nonexistent.

We argue that if VC investors and entrepreneurs have the joint goal of building and exiting a company quickly and if their "joint" governance system is unchecked, they might collude, implicitly or explicitly, to engage in fraud to achieve that goal. Obvious examples for this type of fraudulent behavior are the artificial and short-term inflation of the startup's value, over- or misstating performance forecasts or attempting to create performance (e.g. in terms of customer acquisition or KPI improvement) through questionable, unethical or illegal practices. In this case, the defrauded party would be either late-round investors and/ or exit investors who invest at inflated values and/or based on misleading assumptions about the true economic performance, present and future, of the startup. As we argue in Subsection 2.3 below, startup valuation and performance forecasting are highly complex JFC 29,4 and oftentimes a "black box" which, paired with the opaque governance structure, creates steep information asymmetries between startup "insiders" (both entrepreneurs and VCs) and "outsiders." These are especially grave in IPO exits, in which retail and institutional public market investors are faced with the daunting task of having to understand the "black box" the entrepreneurs and VCs created. Normally, a fully functioning governance structure would alleviate these problems by reducing the information asymmetries between both parties. However, this is not the case in startups; to the contrary, the governance is a main contributor to opacity and information asymmetries and hence a facilitator of fraud.

2.3 Startup valuation and investment mechanics

In theory, the processes of valuing startup equity should be comparable with that of the valuation of publicly traded firms. Valuation is done using fundamental intrinsic valuation or relative valuation. The valuation process typically entails determining the value of the company as a whole (the so-called "enterprise value") through the present value of company's future cash flows using estimated growth rates. As companies usually use common shares with standardized rights, each share would have the same value and reflect its pro rata share in the total value of the company. As in mature, publicly traded companies, the valuation process in startups should be a technical necessity, serving the purpose of determining the value of ownership stakes when new investors come in or leave. The valuations would therefore be conducted during funding rounds and should reflect the economic fundamentals of the startup.

In recent years, however, the practical purpose of valuations in startups has become more and more distorted. Instead of being a technical afterthought and necessity, a startup's valuation is a most prominent focus of itself, particularly for marketing purposes. As of late, part of the startup "cult" is to obtain the Unicorn valuation as a signaling and marketing tool that comes for free: with obtaining the Unicorn status, the startup's visibility rises as it will be included in published Unicorn lists and receive more widespread press coverage. A high valuation is also a "quality seal" for the startup, as poorly performing startups would not obtain the necessary capital inflows at such inflated valuations to become a Unicorn. The investing VCs benefit as well, by obtaining reputational capital through bragging rights and by being able to proclaim the number of Unicorns in their portfolios. Because of valuations' heightened importance in the VC industry, both entrepreneurs and investors alike try and inflate the values of startups as much as possible. We argue that this artificial inflation of a startup's valuation is possible because of three key factors, all of which are unique to the valuation process in startups and all of which potentially enable and trigger fraudulent behaviors in startups.

First, despite increasing recent efforts in allowing startups to be traded on stock exchanges (Bernstein *et al.*, 2020), there are no liquid or continuous trading platforms in which startups' values are determined and observed. All private valuation processes are opaque and only done around funding rounds, and startups as private entities are under no obligation to report these valuations. The only exception are startups with mutual fund investments whose valuations can be observed via the mutual funds' SEC holdings reports (N-CSR, N-CSRS and N-Q filings); however, these represent only a small subsample of all startups and reports are typically filed every three months (Agarwal *et al.*, 2021). Additionally, with private markets come high transaction costs, the inability to short stocks and a lower informativeness of financial reports.

Second, deliberate artificial misvaluation of startups can be facilitated by the nascent technology and negative earnings that startups exhibit. Part of the problem lies in quantifying the value of intangible assets and in estimating realistic growth rates for the venture. Because the multiple valuations are a function of KPIs based on expected revenue growth and because growth rates are notoriously difficult to estimate for firms characterized by high intangibility and those in limited information environments, a wide range of highly optimistic but plausible growth rates can be justified (Berk *et al.*, 2004). These optimistic projections can push the valuation by millions or even billions, creating an opportunity to move into Unicorn valuation territory. Persistent negative earnings experienced by startups also make standard valuation models difficult to apply. Consequently, Gornall and Strebulaev (2020) find that the equity of Unicorn startups is overvalued by 48% on average. In short, the valuation of startups is scarcely based on economic fundamentals, but rather on an illusion of growth presented to investors; as Imbierowicz and Rauch (2021) state: "With the exception of revenues, financial performance indicators are not reflected in Unicorn stock prices."

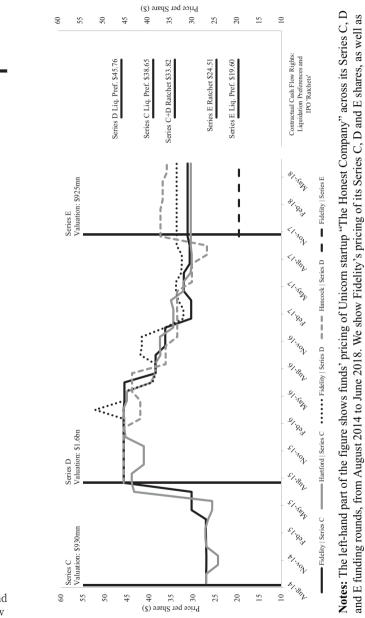
Third, as previously mentioned in Subsection 2.2, instead of common shares with equal rights, startups issue convertible preferred shares with different cash flow and control rights to outside investors. Next to the aforementioned control rights, these shares hold strong cash flow rights which serve the purpose of guaranteeing a minimum return at exit. Typically, these rights differentiate between different exit scenarios in the way they grant minimum guaranteed exit prices. In IPO exits, these return guarantees are colloquially known as "ratchets." If the offer price in an IPO is lower than the specified target exit price for that class of convertible preferred stock, the investor's shares convert into enough additional shares to make up the difference. For M&A exits, so-called "liquidation preferences" determine both the order in which share classes receive payouts, much like debt seniorities, as well as the minimum guaranteed amount that is being paid out (so-called "liquidation multipliers") per share class. It should be noted that not every investor obtains the same cash flow rights: In each funding round, the startup issues a new series of convertible preferred shares; as the contractual rights embedded in these shares are subject to negotiation with the new investors, they might differ across funding rounds.

Because of these rights and a variety of other cash flow rights, convertible preferred shares in reality do not necessarily reflect the valuation of the company as a whole. Instead, these differing rights lead to two valuation problems. First, the same startup has multiple different outstanding classes of shares with differing cash flow rights. Therefore, the same startup might have differing valuations across different outstanding shares classes. This substantially complicates the valuation process and makes it highly opaque for outsiders as the "one" valuation for a startup does not exist [10]. In Figure 2, we display this dynamic by showing a representative pricing scenario of a Unicorn (The Honest Company), including multiple different share classes with differing rights and differing valuations. After a steep drop in valuation between Series D and E, the Series C and D investors keep their pricing levels at or slightly below their guaranteed exit prices between approximately \$30 and \$35 per share, whereas Series E reflects the full drop in valuation at the time of the round at \$19.60. Even though the company communicated an overall valuation of \$925m for the Series E financing – reflected in the \$19.60 price per share of the Series E investors – the stronger contractual cash flow rights of Series C and D investors triggered wildly differing share prices across funding rounds. It is particularly striking that even the same investor, Fidelity, reports three different valuations for three different share classes at the same time. Determining the "true" valuation of the company for a third-party outsider and/or stakeholder therefore becomes virtually impossible, and the communicated "overall" enterprise valuation of \$925m is highly misleading.

A second valuation problem might arise when investors from earlier funding rounds with weaker cash flow rights and therefore lower share values may price stronger Fraud in startups

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Hartford's pricing of its Series C shares, and John Hancock's Series D shares. The pricing data is based on proprietary research,

taken from publicly available SEC N-CSR, N-CSRS and N-Q filings. The right-hand part of the figure shows the contractual

"ratchets." The share rights data is based on proprietary research, taken from the company's "Certificates of Incorporation" cash flow rights embedded in the Series C, D and E shares, particularly the liquidation preferences/multipliers and IPO

(Col)

Figure 2.

Unicorn share pricing, valuation and contractual cash flow rights: "The Honest Company" example contractual rights provided to investors in later funding rounds into the value at which they hold the investment on their books. This leads to an ever-inflating value of the equity of the startup in subsequent rounds, and therefore also does not reflect the "true and fair" economic value of the startup.

Based on these factors, we argue that valuation, next to the staged funding process and corporate governance, acts as the third potential contributor to fraudulent behavior in startups. The purpose of valuation in startup culture has been diverted away from measurement based on fundamentals to satisfying startup investors' desire to grandstand and obtain the highest possible price at the exit, yielding a cult of Unicorns. Becoming a Unicorn and obtaining a successful exit has become the objective of the funding process at the expense of long-term shareholder wealth. This objective is facilitated by the difficulty in valuing high intangibility companies in low information environments and it is perpetuated by complex share structures with differing cash flow rights across different investors, making determining the "one" valuation of a startup highly difficult.

2.4 Fake it till you make it

The staged funding process and all pressures that come with having to achieve extraordinary growth in short periods of time, paired with the obsession of achieving high valuations fast and a lack of checks and balances through a functioning governance structure, have been generating a culture of "fake it till you make it" within startups. The term refers to strategies startups used to achieve growth and high valuations fast.

In a narrow and literal sense, the term describes startups that "fake" having a (fully functioning) product or technology to market themselves to potential customers and lure investors into funding the sale and marketing of such product. They would do so until they "make" the actual fully functioning and market-ready version of the product. The prime real-world example of this behavior is former Unicorn "Theranos" and its founder Elizabeth Holmes who built a \$10bn company by pretending to have a fully functioning blood testing machine while the apparatus she presented to potential customers and investors only appeared to be functioning from the outside, whereas the actual technology was nonexistent [11]. Another, more general example is software startups which are known to "sell" working automated front ends without fully functioning or manually operated back ends to customers. This strategy allows for early monetization and "traction" (i.e. a growing customer base) which benefits attracting investors and raising funds. These funds would then be used to develop a fully functioning back ends.

A second and more broad way "fake it till you make it" can be used is by cutting legal or regulatory corners, a strategy that is particularly prominent with startups aiming at disrupting a certain industry. Instead of seeking regulatory approval ahead of a product release, startups aggressively sell an either unapproved or regulatory gray-zone product to attract as many customers as possible in the shortest possible time. By the time regulators become aware and involved, the prominence and widespread use of the product makes it difficult or impossible for it to be banned or regulated. The most prominent example is Uber which, without seeking regulatory approval and operating in a legal gray area, released its car hailing app in markets where commercial passenger transportation was licensed and only available to regulated taxicab entities with preapproved drivers. When regulators tried to step in, Uber's huge prominence amongst a wide customer base created sufficient political pressure forcing regulators to leave Uber (largely) unregulated.

Jointly, these different manifestations of "fake it till you make it" serve the purpose of achieving aggressive growth faster. Because of the complex and nascent nature of the technologies or products startups develop, entering the market with fully functioning version Fraud in startups

thereof is oftentimes not possible – or regulatory approval would take too long and let potential competitors catch up. Without cutting corners or "faking" a way into a market, startups would not be able to achieve the aggressive goals set by venture capitalists and therefore prevent them from obtaining the funding needed to build the full versions of the products.

As venture investors are the main benefactors from this fast and aggressive growth, they approve of these strategies and oftentimes enable or even request them from founders. As a matter of fact, implementing "fake it till you make it" successfully is widely regarded as having "entrepreneurial spirit" or "hustle," two desirable skill sets and character traits all venture investors seek in the founders they invest in. After all, growing and exiting a startup successfully does not only create immediate returns for the venture funds' investors but also benefits the reputation of the VC firms and facilitates access to better and more deals in the future (Lee and Wahal, 2004; Nahata, 2008; Nanda *et al.*, 2020). This is why especially young VC firms which have yet to build a reputation might seek the most aggressive growth in their startup companies, a conjecture that is underpinned by Gompers' (1996) "grandstanding" argument, showing that younger VC firms take their portfolio companies public faster than older, more reputable VC firms.

In more mature and/or publicly listed companies, shareholders would generally disapprove of unethical or illegal behavior on the parts of management and prohibit, impede or punish such behavior through the typical checks and balances allowed by governance systems. However, these systems do not exist in startups and neither does the typical separation of shareholders as principals and founders/managers as agents.

3. Case studies

In the following, we introduce two brief cases of Unicorn frauds – WeWork and Zenefits – which illustrate the startup ethos, valuation considerations and the fallout from poor governance in startups and the "fake it till you make it" dynamic.

3.1 WeWork

WeWork (now known as "The We Company") was cofounded in 2010 in the SoHo neighborhood of Manhattan by Adam Neumann and Miguel McKevey. Neumann envisioned WeWork as a "physical social network" or "Kibbutz 2.0," where the educated, creative class would transform the workplace by renting communal working spaces leased by WeWork. WeWork was able to obtain angel and VC investment through Series A through G-1 and by 2015, the startup had reached Unicorn status. Table 1 shows the funding path for WeWork as well as the investors across funding rounds.

The investors in the 2013 Series C funding included VCs (Benchmark Capital, Harvard Management and Aleph). The only investment bank investor in the Series C was JP Morgan, who would be a counderwriter of the ultimately withdrawn IPO. Series D investors included Wellington Management, Benchmark Capital and Harvard Management; Goldman Sachs, JP Morgan's counderwriter in the IPO, also invested. In the 2015 Series E round, Glade Brook Capital joined Benchmark Capital and Wellington Management as VC funders; JP Morgan and Goldman Sachs increased their positions. In 2016, WeWork obtained additional equity capital through Series F funding from VC Legend Holdings and two Softbank affiliated entities: Shanghai Jin Jiang International Hotels and Hony Capital. An additional Series F Prime round was funded through equity from Legend Holdings and the Softbank affiliates.

Private Equity firms joined in 2017 as the firm began to plan its expansion in China. The Hong Kong listed financing vehicle for Chinese Greenland Group (Greenland Hong Kong Holdings Ltd.) and China Oceanwide (a banking conglomerate) took stakes, which was unusual as the typical investment profile of these firms is post-IPO equity. In November of

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JFC 29,4	Funding round	Date	Amount raised	Issue PPS	Valuation (premoney)	Selected investors
	Angel	01/2013	n/a	n/a	n/a	Y Combinator
	Seed	07/2013	\$2.1m	n/a	n/a	Venrock, Maverick Ventures, Wefunder, Titan Partners, HNWIs
1004	Series A	01/2014	\$15.0m	\$0.27	\$45m	Andreessen Horowitz, Venrock, Maverick Ventures
1204	Series B	05/2014	\$66.50m	\$2.20	\$650m	Andreessen Horowitz, SV Angel, Institutional Venture Partners, Hydrazine Capital, HNWIs
	Series C	04/2015	\$512.6m	\$14.90	\$4,000m	Fidelity, Sound Ventures, Panorama Point Partners, Khosla Ventures, insight Venture Partners, institutional Venture Partners, Founders Fund
	Adjusted Series C	06/2016	\$0m	n/a	\$2,000m	Same as Series C

Table 2.Notes: The table shows the funding rounds of Zenefits (legal name YourPeople, Inc.). We report date,
amount raised, price per share (PPS) and premoney valuation of each round, along with the names of
selected investors in each round

2017, the valuation of WeWork had risen to \$20bn. Despite the puzzling increase in valuation, Softbank was not deterred from providing debt financing to WeWork in 2018 and bought shares of WeWork stock from other Qualified Institutional Buyers in November of 2018 as well.

More relevant to the investing public's interests are mutual fund holdings of startup firms. Mutual funds brought their unwitting investors, including many through their 401k and individual retirement accounts, into the WeWork fray in 2014 in Series D, with T. Rowe Price, John Hancock and Vanguard, and continued on through Series F. Fidelity held WeWork Series E shares in their New Insights, Opportunistic Insights, Contrafund and OTC Portfolio funds. T. Rowe Price held WeWork shares through the New Horizons, Diversified Mid-Cap Growth, Price Growth Stock and Mid-Cap Growth Funds. Hartford placed WeWork shares in their Growth Opportunities Fund, Growth Opportunities HLS Fund, Capital Appreciation Fund and International Equity Fund. John Hancock invested through its Alpha Opportunities Fund and Mid Cap Stock Fund, and Vanguard invested through its US Growth Fund. Investors in any of these funds gained exposure to potential gains from the completion of the WeWork IPO but were also exposed to the risk that problems with valuation or fraud would lead to a withdrawal of the IPO.

Table 1 also indicates the lack of availability of information regarding the funding entities in a number of rounds, including later rounds (Series G and H), which would have impacted the valuation of WeWork for the previous investors in Series A through F. This information is not part of the statutory filing components of a startup firm.

By 2019, WeWork operated 500 spaces in 29 countries and had reached a valuation of \$47bn and showed operating losses of \$1.87bn (BBC, 2019). Neumann explained away the unusually high valuation of WeWork relative to comparable companies, including those showing an operating profit, with a vague rhetorical grotesquerie: "Our valuation and size today are much more based on our energy and spirituality than it is on a multiple of revenue." This type of rhetoric did not deter Softbank, a large Japanese investment company, from investing in WeWork in 2017 thought its VC arm, Vision Fund and telling Neumann "I need you to go crazier, faster, bigger and more [12]." Softbank ultimately put \$17bn into the company. Nor did the ostentatious behavior and "debauched culture" of the founder deter the various sovereign wealth funds from investing through Vision Fund.

Investors were satisfied by the exponential growth exhibited by WeWork despite a number of anomalous activities by Neumann, who decided to expand into business sectors unrelated to coworking spaces but which had captured his interest, including wave pools and the "WeGrow" educational initiative meant to "unleash every human's superpowers."

WeWork released its IPO prospectus in August 2019, certified by its public accountant, Ernst and Young [13]. The release of the prospectus marked the first time the general and investing public could review WeWork's audited financial statements, governance, capital structure as well as an evaluation of the company's past, present and future in WeWork's own words. Some aspects of deficient governance were apparent in the prospectus. For instance, as of 2018, Neumann was on his own compensation committee, although this was not disclosed in the document, and the September revision of the prospectus contained significant deviations in financial information from the August submission to the SEC (Wall Street Journal, 2019). Another peculiarity was the inclusion of a special member of the management team referred to as a "growth officer."

The S-1 filing also revealed a cleverly arranged and complex organizational structure called an umbrella partnership corporation (Up-C), in which "The We Company" parented WeWork (structured as an LLC) and other affiliated entities, including ARK Capital Advisors, a real estate acquisition company controlled by Neumann and his wife, and foreign subsidiaries. This arrangement was done for the purpose of lowering the tax liabilities of the Neumann family. Further, the structure seemed to ensure that losses from foreign operations such as China were separable from "The We Company."

The S-1 furthermore specified that there were three classes of common stock: Class A, B and C. Class A common stock, which would be bought by retail investors in the IPO, was subordinated to and had 1/20 of the voting rights of Classes B and C, which were held by Softbank, other institutions as well as Neumann and his wife. This arrangement gave Neumann extraordinary control over the firm and extremely strong shareholder rights, compounded by his dual role as CEO and chairman of the board and his wife's position as "chief brand and impact officer." In addition, Goldman Sachs, a Series D and E preferred equity holder, was one of the underwriters of the IPO, which, along with JP Morgan, a Series C investor, made \$122m in fees for handling the issue. JP Morgan also sold a significant amount of its stake in WeWork shortly before the S-1 filing was released.

Further, the S-1 demonstrated significant conflicts of interest in that board committee members – including audit committee members identified upon subsequent investigation, albeit not mentioned directly in this section of the S-1 – were involved in related party transactions with Neumann: "WeWork has also entered into leases where other members of its board of directors have a significant ownership interest." Other notable governance issues include conflicts of interest between Neumann and investors arising from Neumann leasing his own property to WeWork, trademarking the word "We" for his own personal use and requiring the company to pay fees amounting to \$5.9m for usage of the term, making substantial loans to executives of the firm and buying a private Gulfstream jet for \$60m.

Also notable is the "magical thinking" evident in the prospectus. The second statement in the S-1 filing reads: "Our mission is to elevate the world's consciousness." Further, it states: "We dedicate this to the power of We — greater than any one of us, but inside each of us," and it claims "we have disrupted the largest asset class in the world—real estate." The prospectus also hints at a cult of personality related to Neumann, stating: "He has proven he can simultaneously wear the hats of visionary, operator and innovator, while thriving as a community and culture creator" (CNBC, 2019; The We Company S-1 Filing, 2019).

Financially, the prospectus revealed that the firm had only about a month of liquidity before it would have to begin laying off employees, with losses amounting to \$2.7bn,

Fraud in startups

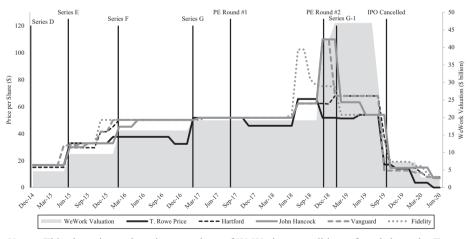
significant long-term lease obligations and \$700m in founder stock sales (Camones, 2019). Cash burn amounted to between \$150 and \$200m per month and a fatal cash flow duration mismatch between assets and liabilities was apparent, in that WeWork rented space short-term to members but had enormous long-term lease liabilities (CNBC, 2019). In addition, they heavily used non-generally accepted accounting principles KPIs, such as:

- a "community adjusted EBITDA" which was designed to classify rent, utilities, some staff salaries and "building amenities" in such a way that these expenses did not reduce income;
- "adjusted EBITDA before growth investments"; and
- an "annual average membership and service revenue per physical member" measure.

This use of creative accounting signaled a continued willingness of the management team to use misleading metrics to obfuscate the valuation fundamentals.

By September 2019, the IPO was delayed because of questions about the valuation after the company had been reassessed to be worth about \$7bn, down from \$47bn. The IPO was withdrawn in October of 2019 and the great dream of a profitable exit vaporized for Softbank. In its wake, T. Rowe Price, Fidelity, John Hancock and Vanguard were forced to write down the value of their investments. Neumann, however, exited profitably, despite being fired as CEO. Between management consultant fees charged to Softbank and the shares that Softbank purchased to buy out his controlling interest in the firm, Neumann made nearly \$1bn in the process of "failing up" (New York Times, 2019a). In 2020, Softbank withdrew a tender offer they had made at the time the IPO failed to buy \$3bn worth of additional shares, primarily from Neumann and Benchmark Capital, triggering litigation from WeWork (Crunchbase, 2020).

To provide context for the pricing pattern of WeWork, Figure 3 shows the evolution of pricing of preferred stock held by mutual funds – T. Rowe Price, Vanguard, Fidelity and John Hancock – from when they initially took positions until after the IPO imploded.



Notes: This chart shows the prices per share of WeWork convertible preferred shares by T. Rowe Price, Hartford, John Hancock, Vanguard and Fidelity. The pricing data is based on proprietary research, taken from publicly available SEC N-CSR, N-CSRS and N-Q filings. On the secondary y-axis we report the total valuation of WeWork. Vertical bars show time stamps of WeWork funding rounds and its IPO cancelation in September 2019

Figure 3. WeWork pricing path

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Notable is that with each additional round of funding, mutual funds from earlier rounds (without the contractual guarantees to investors in later rounds) increase their valuation of their shares based on the contractual claims of investors in later rounds. In addition, upon the release of the WeWork S-1 filing in the fourth quarter of 2019, there is a sharp decline in the value of the preferred stock by all investors. As of May 2020, T. Rowe Price had written down the value of their holdings to \$0.00 from a high of \$65.74. This dramatic shift in perceived value occurred despite the purportedly extensive experience and vetting process by the mutual fund investors, underwriters of the IPO, Ernst and Young's (EY's) assurances that the financial statements were free of material error and the presence of VC, which the literature indicates offers a certification effect of quality, as mentioned in Section 2.

The gratuitous absurdity of WeWork is not over. As of 18 May 2021, WeWork has issued a new investment prospectus in a second attempt to go public, and on 21 October 2021, it commenced trading on the NASDAQ. This time, rather than an IPO, it conducted a reverse merger with a special purpose acquisition company called BowX Acquisition. Unsurprisingly, reverse mergers require substantially less oversight and disclosure than an IPO, can be completed in less than six months and are empirically linked to fraud and litigation (Gleason et al., 2005). The new investment filing demonstrates the damage that poor quality governance can cause in startups; one of the reasons that WeWork hemorrhaged cash under Neumann's leadership was a frenzy of nonsensical, value destructive, acquisitions in unrelated product markets including design, facilities management and smartphone authentication businesses, conducted to misrepresent growth and scalability. The 2021 prospectus documents write-downs of \$1.4bn, most of which are related to Neumann's acquisition rampage (Bloomberg, 2021). The valuation at the time of the reverse merger was approximately \$9bn, versus the highs from the Softback valuation of \$47bn. Given that the SEC is currently investigating fraudulent practices that inflated its 2019 valuation, it appears that the work for forensic accountants related to WeWork will continue.

3.2 Zenefits case

Another case exemplifying the relationship between aggressive culture and fraudulent behavior in startups is "Zenefits" (legal name "YourPeople, Inc."). Founded out of famed Silicon Valley-based startup accelerator "Y Combinator" in late 2013 by serial entrepreneur Parker Conrad, Zenefits provided a software to facilitate certain administrative human resources (HR) tasks in small- and medium-sized businesses, such as the setting up of employee health care, payroll or 401(k) plans – "office drudgery," as the company called it at the time.

A particular focus was placed on the facilitation of employee health insurance. Typically, this process would require corporate staff to approach various insurance brokers to provide them with employees' medical information and health-care requirements, then collect information on insurance plans and quotes, sign up for plans and subsequently manage those plans. Any interaction with the brokers would be tedious and lengthy, and communications would oftentimes be done via manually completed pdf forms, exchanged through fax. Zenefits aimed at facilitating this process by positioning itself as the go-to middleman between businesses and insurance firms. Its software thereby acted as a one-stop shop for any type of employee health-care management, saving particularly small businesses without designated HR staff or appropriate resources valuable time and money. The software itself was free of charge, and Zenefits earned a commission from the insurance firms if any of their plans were purchased through Zenefits' software.

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Just over a year into its operations, Zenefits was well on its way to becoming VC's latest billion-dollar success story. By June 2014, the company had collected almost \$85m in funding, both Series A and B rounds were led by elite VC firm Andreessen Horowitz (at the time, partner in charge of the deal Lars Dalgaard labeled it "the hottest deal in Silicon Valley [14]"). Its Series B reached a valuation of \$650m, and Forbes ranked it as the #1 hottest startup of the year, ahead of Silicon Valley heavyweights Uber, Lyft or Airbnb. A mere 18 months after its launch, Zenefits had 470 employees and announced plans to hire another 1,300 full timers over the subsequent three years.

In May 2015, around two years into its operations and at a time it had around 14,000 corporate clients with an aim to reach \$100m in annual recurring revenue at year end, the company joined the Unicorn club by raising a \$500m Series C round at a \$4bn premoney valuation. Andreesen Horowitz invested for a third time, along with mutual fund Fidelity, private equity firm Texas Pacific Group's venture arm "TPG Growth" and a variety of leading VC firms. The success was unprecedented at the time and marked the fastest growth of a software as a service startup ever.

However, it was not long after the Series C success that things began to go awry for Zenefits. In November 2015, news broke that Zenefits was under investigation by regulators for breaching insurance brokerage laws. Repeatedly and methodologically, Zenefits had knowingly failed to enforce – and actively circumvented – legal requirements that health insurance policy sales can only be conducted through a licensed agent. Instead, Zenefits allowed unlicensed sales staff to conduct health insurance sales to the company's clients, a felony in most US states. Additionally, Zenefits developed an in-house software allowing sales staff to falsify completion of an online training necessary to obtain the insurance brokerage license. Investigations by state regulators found that the company had been engaging in this conduct from the onset of its operations, in some states selling over 80% of its insurance policies illegally.

In early February 2016, the company took the first steps toward managing the fallout from the scandal. Parker Conrad resigned as CEO and board member, ceding control to then COO David Sacks. The company also self-reported all illegal conduct to all state insurance regulatory agencies, appointed a Chief Compliance Officer and invited Peter Thiel of Founders Fund, Bill McGlashan of TPG Growth and Antonio Gracias of Valor Equity Partners to join its board of directors – all three juggernaut startup investors and Silicon Valley royalty. In his first staff memo after taking over as CEO, Mr Sacks acknowledged that "[...] many of our internal processes, controls, and actions around compliance have been inadequate, and some decisions have just been plain wrong." To rectify the issues, Zenefits initiated an in-house investigation by a third-party accounting firm and later made the findings of the investigation available to state regulators, investors and eventually the SEC. Besides the procedural misconduct, the internal investigation also uncovered various flaws in Zenefits' office culture, such as excessive drinking and inappropriate relationships between employees at the workplace during work hours, the former of which was found to have been strongly encouraged by Conrad Parker himself.

Zenefits' self-policing and personnel changes were not sufficient to appease its investors, however. In June 2016, roughly a half year after the scandal broke, Zenefits announced the reevaluation of its Series C round, ex post increasing investors' ownership stake from 11% to 25% and thereby effectively reducing the round's valuation from \$4bn to \$2bn. Series A and B investors also received share compensation to offset dilutions caused by the misvalued Series C round and subsequent adjustments. As part of the agreement, all investors signed a release of claims against the company. This unprecedented ex post adjustment of funding round terms was triggered by Series C investors, notably TPG

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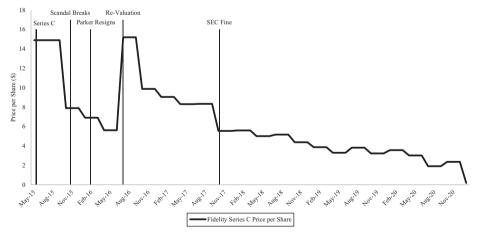
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Growth and Fidelity, threatening to sue the company for nondisclosure of fraudulent business conducts which were mainly responsible for the inflated \$4bn Series C valuation.

The SEC confirmed Zenefits' materially false and misleading statements and omissions to investors in October 2017 and fined the company \$980,000 – an unusual show of force against an unregulated, privately held company and its institutional investors and its first move against a Silicon Valley tech Unicorn. This fine signified the resolution of settlements with state insurance regulators, costing the company \$11m in fees and fines. By that time, the company had gone through yet another CEO change and laid off half of the staff it had by year end 2016. The company had not raised any additional capital through venture funding since then.

Figure 4 shows the events through Fidelity's valuation of its Zenefits Series C convertible preferred stock holdings. When the scandal broke, Fidelity reduced Zenefits' valuation almost by half, from \$14.90 to \$7.90 per share. After a further price reduction to \$5.62, following Parker Conrad's resignation, Fidelity revalued the company at its original price after the revaluation of Series C terms in which Zenefits adjusted the valuation from \$4bn to \$2bn. However, Fidelity did not stick with the valuation for too long, gradually reducing it until it reached \$0.19 in January 2021. The pricing path shows that the company never managed to recover from the scandal and even though it is still operational in the year 2021, Fidelity apparently considers it worthless.

Albeit on a smaller scale than WeWork, the Zenefits scandal is arguably the most prominent example of a startup engaging in questionable, unethical or fraudulent behavior to benefit from aggressive growth. Zenefits knowingly and willingly embedded illegal activities in its core operational procedures, with one clear goal in mind: to speed up sales processes and thereby acquire a large number of customers more rapidly. Around the time of the company's Series C round, Parker Conrad noted that aggressive growth was part of the company's strategy: "We want to go extremely fast at an extremely high speed [15]." Circumventing the sales staffs' licensing process clearly benefited this desire for extreme growth.



Notes: This chart shows the price per share of Zenefits convertible preferred Series C shares by Fidelity. The pricing data is based on proprietary research, taken from publicly available SEC N-CSR, N-CSRS and N-Q filings. Vertical bars are time stamps of Zenefits' Series C funding round and the subsequent events surrounding the scandal

Figure 4. Zenefits pricing path

As explained in our description of "fake it till you make it" strategies, stratospheric growth is the primary goal in any startup and very much demanded by venture investors. Startups are therefore known to either exploit legal loopholes and ethical grey areas or bend existing rules in their favor. Being firmly embedded in this environment and run by serial entrepreneurs with seasoned VC backers who were all too familiar with this culture, Zenefits took it one step further in its search for growth.

What stands out about this behavior is that Zenefits did not necessarily need to engage in illegal behavior to grow. The whole VC ecosystem is built around the premise that startups need a substantial ramp-up period before they can generate revenues and that profits will occur much later. During this period, it is the VC backers who fund startups' expenses for product development, talent acquisition, overhead and marketing. Any "classic" tech startups would use this ecosystem to do just that: develop a product and give it away for free to acquire as many customers/users in as short a time as possible. Once this user base is established, product monetization for revenue creation is being considered. However, Zenefits created stable annual recurring revenues nearly from inception. For every insurance contract sold to a customer, Zenefits collected a commission from the insurance company. Hypergrowth to achieve fast monetization was therefore not as necessary as for a startup without immediate monetization. Yet, the whole culture within Zenefits was built around aggressive growth and its investors supported it, without seeking any assurance regarding legality or the quality of internal controls.

As Bloomberg reported about a 2014 executive meeting, Andreessen Horowitz partner Lars Dalgaard requested the company double its revenue target for the year from \$10 to \$20m and "hire 100 sales reps to make it happen [16]." Founder, senior staff and investors were therefore all complicit in their quest for aggressive growth and the use of illegal procedures to make that happen.

4. Evaluation of WeWork and Zenefits using the Fraud Triangle

The Fraud Triangle, as first laid out by Cressey (1971), describes the necessary and sufficient conditions for fraud to occur:

- a nonshareable incentive/pressure to commit fraud;
- the presence of an opportunity; and
- a rationalization on behalf of the party committing fraud.

Incentive is the nonshareable pressure that motivates the crime; the pressure generates the need for resolution requiring secrecy and illicit activity. Opportunity refers to the access a fraudster has that enables them to commit the illicit activity, and rationalization is an available justification to offset the cognitive dissonance arising from the violation of established social norms, bonds and controls required to resolve the pressure. We argue that the unique aspects of startups relate to each of these.

4.1 Incentive/pressure

A number of features of startup valuation generate incentives by the startup to commit fraud. First, the recent fixation by VCs and the media on startups achieving Unicorn status as quickly as possible for the purposes of enhancing the visibility of the startup and the reputational capital of the VC. This dynamic may generate incentives/pressures by the startup firm to "chase" valuation. Second, the founders' investment stake in the startup generates an incentive to commit fraud. The founder may be enticed to portray continuous

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growth to allure investors throughout all funding rounds in hopes of achieving IPO status, ultimately enhancing the founders' personal financial and reputational capital.

Third, the competition for funds early in the life of a startup is cutthroat, thus attributing to an added level of firm incentive and pressure to commit fraud. As explained in Section 2, startups are known for making the most favorable revenue growth assumptions or "faking" growth in an effort to create the perception of high growth opportunities, thus enhancing their chances of receiving greater funds. In itself, "fake it till you make it" is not necessarily fraudulent. But the compilation of intense competition for equity capital and strong desire by the firm to both achieve Unicorn status and transition, ideally, to a publicly traded company enhances the firm's incentives and pressures to portray inflated or artificial expectations of positive growth projections to be able to compete for funds.

Fourth, investors may subject the startup to an added pressure to overstate performance expectations, given their personal stake in the startups and the startups' need for continuous funding. In Zenefits, it was the lead investor Andreessen Horowitz asking the company to double its sales target for the year. In WeWork, the Softbank CEO told Adam Neumann, "I need you to go crazier, faster, bigger and more." The added pressure from investors could also be attributed to the minimum guaranteed exit prices embedded in the convertible preferred shares, as discussed in Subsection 2.3. These downside protections with an unlimited upside are consistent with stock options and might provide an incentive for VCs to pressure startup managers and founders to misrepresent the true performance and future potential of the firm until they achieve enormous gains from overvalued IPOs and then exit. This structure could incentivize VCs to also participate in overstating firm expectations.

4.2 Opportunity

The proprietary nature of the technology characterizing the intangible assets of many startups yields a culture of secrecy, typically enforced by nondisclosure and noncompete agreements required for employment, thus discouraging whistleblowing practices and in turn creating an opportunity to commit fraud. Further, the lack of independent monitoring and weak internal controls throughout the funding phases of the startup culminate in an abundance of opportunities to commit fraud. In addition, employees often buy into the grand vision of the founder and may assume that there is greater oversight of the founder's activities, without verification. As one WeWork employee later stated:

There was always this assumption that, behind Adam, there was someone intelligent – a group of people – who were watching and making the practical, financial decisions [...] that someone was taking care of it. (The New Yorker, 2019)

Additionally, there might be a variety of further specific Fraud Triangle opportunity flags. First, an aggressive culture driven by the tone at the top and the priority of "fake it till you make it," as exemplified by Zenefits. The founder and CEO's own statement on running the company like "driving a car at high speed" is testament to the aggressive culture within the company, and the company's internal processes designed to actively circumvent laws to acquire customers at higher rates are testament to the pursuit of "fake it till you make it" at all cost.

Second, a lack of independent verification of firm disclosures (e.g. estimates related to performance, growth rates, customer bases, product success) being requested by investors during the pre-IPO funding stage. As argued in Subsection 2.2, the VCs themselves, as agents of monitoring and governance, may have more incentives to act as owners and agree with exaggerated projections to enhance their personal wealth than to voice their objections to overstatement figures because of their equity stakes. This lack of oversight creates an

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opportunity for the entrepreneurs to commit fraud [17]. In Zenefits, the scandal broke a mere seven months after the closing of the Series C funding round. At the time the round was closed, Zenefits had been engaging in fraudulent behavior in plain sight for over a year, and everyone within the company was aware of the practices. A detailed due diligence during the Series C funding process would have likely uncovered the misconduct; however, investors were either unwilling to examine the company in that degree of detail or willingly disregarded it to participate in the round.

Third, the opaque and subjective nature of valuation and the complexity of pricing different share classes with different share rights relative to each other creates an opportunity to misvalue the firm. Fourth, a lack of independence within internal governance committees or the absence of such committees. Neumann was on his own compensation committee, as well as serving in the dual role of CEO and chairman of the board. Fifth, the creation of complex organizational structures (Up-C) to evade personal taxes and manipulate operating performance. Sixth, the extraordinary control structure allowed to the owner and a select few (Class B and C common owners) relative to Class A common owners with 1/20 voting rights, as in WeWork. Seventh, the presence of many related party transactions (as eventually disclosed in the S-1 filing) between the WeWork founder, audit committee members and the firm. Eight, and finally, at the time of the IPO, the startup is required to have its financial statements audited externally and a lack of auditor independence (at least in appearance) is potentially another fraud opportunity factor. A lack of independence of Ernst and Young and members of the WeWork board of directors may explain their seeming disinterest in exhibiting sufficient professional skepticism with regards to the S-1 filing. As noted by a former SEC chief accountant, Lynn Turner, EY practices "lowballing" startup clients to capture their business later, setting audit fees "exceedingly competitively low to attract these companies with the hope that when they go public, they will make up for the initial discounts of audit fees" (Wall Street Journal, 2020). Given that the two board members were ex-EY partners with long careers with EY, questions regarding auditor independence had surfaced. The WeWork scandal adds to the luminaries in EY's portfolio of fraudulent clients for which it is presently (as of December 2021) facing lawsuits, including Wirecard, NMC Health and Luckin Coffee.

4.3 Rationalization

The founder's genuine belief in the vision of the firm, even at the expense of "real science," generates a willingness to do anything to attract investors' attention. For example, this could be demonstrating the ability to engage in creative disruption, creating the illusion of great change using "circus tricks," making solutions to problems unnecessarily complex just to include new technology, creating a culture of secrecy and the proprietary nature of the technology itself. What does this mean for startups? Given the "fake it till you make it" ethos and the desire to persuade investors to fund the venture, fraudulent activity could range from the conscious misrepresentation of growth rates used in valuation models to knowingly falsifying product quality claims. Tech startup employees are encouraged by founders to "move fast and break things," in the words of Facebook founder Mark Zuckerberg (Business Insider, 2015).

Furthermore, entrepreneurs may rationalize providing misleading information because of the amount of money entrusted to them by investors from the past. In other words, a rationalization of continuous deceiving can be attributed to entrepreneurs' worries that if the failures of the firm are to be exposed now, then all the funding and all the investors will lose out on everything they contributed to reaching the dream of an IPO and a profit on their investments. Many corporate frauds were committed under the flag of "we only did it to keep peoples" jobs and protect their pensions. This logic could justify entrepreneurial deception. Startup founders, managers and even early investors may also rationalize falsifying information about the future prospects of the startup as they feel that they are entitled to higher returns, relative to later stage investors because "we did all the heavy lifting and dedicated much more to the firm for much longer."

As argued in Section 2, venture capitalists may be complicit in their rationalization of agreeing to misstated firm information. They may be willing to justify promoting unrealistic future projections, or withhold voicing disagreements with these projections, for the sake of protecting their own company's reputation, jobs and profits.

5. Solution: auditors as stewards of stakeholder interests

The governing body of audits for private companies after the enactment of the Sarbanes Oxley Act (SOX) of 2002 in the USA is the Association of International Certified Professional Accountants (AICPA). The AICPA established standards that audit firms must comply with in their audits. In the USA, private firms are neither required to engage an audit firm nor are they required to issue audited financial reports – unless requested by stakeholders or a specific size threshold is met – and thus the provision of audited financial statements and an audit opinion regarding the firms' system of internal controls are voluntary.

Startups, however, do not currently engage in voluntary audits. In contrast, startups only provide unaudited corporate disclosures and reports to outsiders, which are used throughout funding and valuation processes. These disclosures typically do not contain reporting on the effectiveness of the firm's internal controls and are often not – or poorly – validated. We therefore argue that auditors can play an essential role in the corporate governance system of startups, particularly if supplied voluntarily, to signal transparency to the market and to lower information asymmetries by supplying verified information on the startup's inner workings to share and stakeholders. These voluntary audits should provide assurance on the quality of financial reporting and their complementary disclosures, as well as assessing the system of internal controls.

Generally speaking, the literature suggests both internal and external benefits from voluntarily engaging an auditor, including the provision of guidance on application of accounting rules and advice on internal controls and general business matters (Beattie *et al.*, 2000). Specific benefits identified in the literature of voluntarily engaging an auditor include lower interest rates on loans (Blackwell *et al.*, 1998) and greater access to credit (Allee and Yohn, 2009). Lennox and Pittman (2011) find evidence to suggest that firms receive a credit rating upgrade after they elect to be audited after a regime change which allows them to opt out of an audit, whereas firms that elect to opt out voluntarily receive a downgrade, suggesting a signaling role of the audit. Kausar *et al.* (2016) similarly find evidence that private firms which voluntarily retain an auditor are able to access more debt at a lower cost than those that do not [18]. Even though debt-related benefits are not of primary importance for startups because of their equity-heavy funding structure, the transparency-enhancing effects of voluntary audits have risk-decreasing effects benefitting the startup and its equity holders, as a whole.

Despite these advantages and given that startups are not required to provide independent verification on the effectiveness of their internal controls or accuracy of financial statements by external auditors until the startup is close to starting the process of going public or some other form of exit, startups tend to not engage an auditor. One primary reason might be expenses: while many large audit firms have "emerging growth" or "Seed to Series C" divisions that specialize in auditing startups, such engagements are often too costly for the notoriously cash-constrained startups (Kruze, 2020). It may also be the case

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that some of these activities are provided through VC firms up to the time of the IPO. Accordingly, while perhaps advisable if the company has sufficient cash, many investors do not require an external audit [19].

Finally, we argue that engaging an auditor during the earlier funding phases may work to the advantage of the entrepreneurs, especially if the auditor verifies managerial assumptions, disclosures and projections. As opposed to VCs, auditors should be independent of management and follow auditing standards in their assessment of management assertions. They should verify information relying on their own expertise and external independent expertise, thus potentially identifying more realistic growth and performance projections. The need for auditors is exacerbated by the nature of aggressive earnings management in private firms (Burgstahler et al., 2006) and less timely fashion in which these firms disclose losses relative to publicly traded firms (Ball and Shivakumar, 2005). If this is the case, the benefits to suppliers, employees, customers and investors from requesting audits of startups could be significant. In addition, because the startup culture values the ability to exaggerate growth rates, entrepreneurs and VCs may be more disinclined to produce audited financial statements voluntarily; stakeholders will likely need to recognize the value of the audit and ask for one. However, short of a significant shift in startup valuation culture or regulation, it is not likely that startups will voluntarily furnish accurate information regarding the future prospects of the firm.

6. Conclusions and suggestions for practice and research

In this paper, we describe the features of culture, governance, valuation and funding in startups, using the examples of WeWork and Zenefits to relate these characteristics to Fraud Triangle factors. We document a number of risk factors relevant to startup stakeholders, including a culture of secrecy and poor governance, a variety of issues related to startups' valuation processes, an ethos of "fake it till you make it" and independence issues arising from the association of external auditors with the startup at the time of the IPO. While VC firms may be positioned to take highly risky and illiquid equity stakes with the intent of one day reaching a successful exit, employees – who are often paid with stock options – creditors and mutual fund investors do not have a similar appreciation for risk and may be less informed regarding startup fraud risk factors. We offer suggestions for the mitigation of startup fraud risk which extends to three categories: the stakeholders, such as employees, creditors and the public, the AICPA and Public Company Accounting Oversight Board (PCAOB) and the overarching regulatory system.

6.1 Stakeholders

Stakeholders should be informed regarding the financing structure of startups prior to an IPO. Correspondingly, they should request an audit of the internal controls of the company and an assessment of the validity and justification of managerial assumptions pertaining to growth rates at each stage of funding prior to the IPO. Stakeholders should also request the generation of financial reports and an assessment of the quality of financial reports and disclosures, as well as a revision of startup valuations to identify overpricing before reaching the IPO stage.

6.2 Association of International Certified Professional Accountants and Public Company Accounting Oversight Board

Startups that receive funding across multiple rounds could be considered a hybrid between private (under the requirements of the AICPA) and public (under the requirements of the PCAOB). Changes in the auditor role and the application of more rigid independence rules

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for auditors and other governance bodies might therefore be necessary. Although most audit firms have developed programs for startup and IPO audits, it would be useful to establish more direct auditing guidelines on how auditors assess startup valuations, risks and disclosures across the funding phases and further elaborate on how the auditors' role evolves across startup phases and during the transition to the IPO phase. Furthermore, a joint identification of the role of the auditors for startups, especially if there is an intention to pursue IPO statues, by both the AICPA and PCAOB may serve in enhancing the transparency of the role and allow for a more efficient transition from private to public regulations and requirements. It also may clearly identify and circumvent any auditor independence concerns throughout the life of the startup and after going public. From a regulatory perspective, we propose that the AICPA requires startups to obtain audit assurances regarding the reliability of managers' plans and performance projections upon reaching growth- and scale-up stages. At this time in a startup's lifecycle, a broader investor base provides the startup with more and more capital, the startup's growth exposes it to more and more stakeholders, and the pathway toward an IPO becomes more and more likely; verifying the startup's workings through external auditing is therefore becoming a necessity.

We also propose that audit regulators require auditors of startups to inquire with earlystage investors and assess the terms of the engagement and potential related party transactions that may arise because of this close alignment of interests and also seek external consultants and experts on complex business models and technologies. This would position the auditors to have a better understanding of whether management assertions are realistic.

6.3 Regulators

This paper also yields implications for regulators. In the pre-IPO phase, the role of the SEC is limited. However, given that the typical intention of startups is to achieve IPO status, the SEC may need to take a more active role, especially when a significant amount of funding is raised, making their goal of an IPO achievable. As noted by Coffee (2019), the SEC should act to require greater disclosure regarding the nature of investor rights across funding rounds prior to the IPO to limit potential moral hazard problems. Also, regulatory intervention identifying/restricting specific audit services during a prespecified time period after the IPO may help mitigate auditor independence concerns. Furthermore, audits conducted over the two or three years prior to a planned IPO, rather than simply requiring three years of audited financial statements at the time of the IPO, may be more informative to later stage funding parties and potential IPO investors.

Also, the SEC in collaboration with the AICPA may need to address potential auditor independence issues arising from auditor engagement with startup firms pre-IPO. Audit partner rotation and restriction of certain nonaudit services prior to the IPO should be investigated to determine whether it improves audit quality, reduces IPO overvaluation and enhances market trust in the process. Additional considerations consistent with SOX include the establishment of governance bodies (audit committees, compensation committees, governance committees), the establishment of a system of internal controls that is assessed by management and independently verified by external parties and the presence of financial experts involved in the preparation and oversight of financial reports.

In addition, this paper provides insight into startup culture, governance and valuation. This insight could prove useful for future research which could further analyze auditor training and auditor independence of startups as well as the interactive role of auditors and other governance bodies on the quality of the audit of startups and on startup valuation. Lastly, future research could try and identify the measurement of auditor "lowballing" for IPO firms and examine whether lowballing results in lower audit quality.

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29,4	1. The two most widely cited studies on this subject were conducted by Harvard Business School in 2011 and venture capital data service provider CB Insights in 2018.
	2. Unless an investor or supplier demands audited financial statements, they will not have access to financial data because this is not required under the law until the firm goes public.
1216	3. Data based on National Venture Capital Association (NVCA) 2021 Yearbook, using Pitchbook data.
	4. Venture capitalist Aileen Lee of Cowboy Ventures coined the term in a 2013 TechCrunch article available at: https://techcrunch.com/2013/11/02/welcome-to-the-unicorn-club/
	5. www.cbinsights.com/research-unicorn-companies
	6. We further believe – even though we will not argue this point in the paper for reasons of brevity and focus – that this argument is further supported by the body of literature showing that VC investors gravitate towards entrepreneurs which are, based on a variety of factors, similar to them (e.g. Franke <i>et al.</i> , 2006). An argument could be made that this "similarity bias," either consciously or unconsciously, forms VC-entrepreneur teams which agree and collude on fraud more easily.
	7. A detailed discussion of when bank debt might be the optimal choice for a startup is given by Ueda (2004), Winton and Yerramilli (2008), Hochberg <i>et al.</i> (2018) and Yang and Zeng (2019).
	8. For example, so-called "drag-along" rights can allow a (majority) VC investor to force a (minority) founder to vote in their favor, particularly when it comes to exit/sale decisions.
	9. As a matter of fact, banks have been subjecting themselves to a major conflict of interest by being both late-round investor and (lead) IPO underwriter in the same startup.
	10. This problem is particularly prevalent in downside scenarios if the total economic value of the startup drops beneath the minimum guaranteed exit price of some share classes. In this case, these share classes might not reflect the (pro rata) true and fair economic value of the company, but instead leave their valuations at the minimum guaranteed exit price, as shown in Figure 2.
	11. At the time of the writing of this paper, December 2021, Ms Holmes was on trial for wire fraud and conspiracy charges brought by the Securities and Exchange Commission (SEC) for her role in the Theranos fraud scandal surrounding her "faking" of the existence of Theranos' core product and using it to raise billions of dollars in investments for the company.
	12. Softbank has been linked to other potentially fraudulent activity (New York Times, 2019b).
	13. Ernst and Young failed to note irregularities at several other startups in 2019, including Wirecard, Luckin Coffee, Finablr and NMC Health (MarketWatch, 2020).
	14. www.vox.com/2014/6/3/11627584/zenefits-lands-66-5-million-series-b-from-andreessen-and-ivp
	15. https://techcrunch.com/2015/05/06/zenefits-rising-hrs-hottest-startup-just-raised-500-million-at-a-4-5-billion-valuation/
	16. www.bloomberg.com/features/2016-zenefits/
	17. Case in point was Enron. Management constantly indicated in press releases that the business model is a black box and therefore many analysts trusted this unverified information. Furthermore, many parties involved in governance were receiving substantial retainer payments or revenue for their dealings with Enron and thus never voiced concerns, and this includes Enron auditors, lawyers and investment bankers.
	18. The literature finds that startups are more likely to voluntarily engage an auditor when startup owners have accounting experience (Cassar and Ittner, 2009), are bigger in size, have greater levels of fixed assets, have a complicated incorporation status, a more dispersed ownership and

greater levels of debt. In contrast, startups are less likely to voluntarily engage an auditor the older and more profitable they are (Minnis, 2011 and Lisowski and Minnis, 2020). Lisowski *et al.* (2017) find that economic growth is another influential factor to voluntarily appoint an auditor, as more verification by banks is needed in periods of financial contraction.

19. This is especially true for investors in earlier funding rounds. Later-stage investors are more likely to request audits (Posell, 2020).

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