SBT FINTECH MONTHLY NEWSLETTER

Editor's Note

BY DR. ABENA PRIMO

Dear Reader,

Do you know what the commonality is between unicorns, finance, and technology? This article, that features the work of both student and faculty from Huston Tillotson's University's School of Business and Technology, will enlighten you on this topic.

There are many firsts associated with this article:

- This is the first article to features a student author for this newsletter.
- This is the first article written by Dr. Kellogg for this newsletter.
- And, moreover, this is the first article that talks about unicorns!

I hope you enjoy reading this article as much as I did.

Sincerely,
Dr. Abena Primo
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SBT

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A NOTE ON VALUING UNICORNS

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A Note on Valuing Unicorns

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ABSTRACT:
In 2013, Aileen Lee coined the noun "unicorn" as a financial concept. Her definition was "U.S.-based software companies started since 2003 and valued at over $1 billion by public or private market investors."[1]This note focuses on two facets of the market for unicorns: valuation methods for determining unicorn status and the reliability of unicorn valuations.

SBT accounting faculty and students recognize that theirs is a vocation that requires caution and risk assessment. While economics is labelled the "dismal science", accounting may be labelled the "dismal profession." Thus, we see our role as that of moderating the exuberance and fascination that "Fintech" elicits. The flashy name, the association with the mysterious Blockchain, and the outrageous fortunes made by "unicorn" entrepreneurs, understandably draw sighs of admiration. Accountant objectivity says, "Hold on, here."

Brevity of preparation time and the necessary narrowing of the breadth of analysis limit our discussion to a summary of the market for unicorns, and consideration of the reliability (or unreliability) of unicorn valuations accompanied by empirical evidence presented in academic research. Also, as this is an informal note, not a scholarly document, references are provided in the text and in footnotes based on perceived reader interest.

THE MARKET FOR UNICORNS:
Since Aileen Lee coined the noun "unicorn" to apply to "U.S.-based software companies started since 2003 and valued at over $1 billion by public or private market investors," the term has become incorporated into business vocabulary.[2] Fintech Labs (FL) periodically lists Fintech unicorns at https://fintechlabs.com/fintech-unicorns-of-the-21st-century/. On March 8, 2022, Fintech Labs listed 283 companies with market values in excess of $1 billion. Although unicorns roam the earth, they are native to, and most prolific in the U.S. 159 unicorns are incorporated in the U.S while the U.K. ranks second with 24, followed by India with 15 and China with 14. Whatever the country of origin, the key factor in a venture's earning its spiral horn is attaining a $billion valuation. The combined market value of U.S. unicorns is $932 billion, which is four times that of those based in China, the country with the second highest combined valuation according to Fintech Labs. But, as accounting members of SBT well know, valuation in the corporate

[1] https://techcrunch.com/2013/11/02/welcome-to-the-unicorn-club/?guccounter=1

[2] https://www.dictionary.com/browse/unicorn

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world is a tricky business that has dominated accounting standard-setting for decades.

Given the structure of the market for unicorns, Fintech Labs bases "unicornhood" on three different valuation models – exit, private, and public. FL values 24 unicorns by what was paid for them by acquiring established firms - their "exit values." The largest number of FL valuations (215) are "private valuations" each determined by the amount paid by investors (commonly venture capital firms) in return for an equity stake in the unicorn. 54 companies in the FL listing have completed initial public offerings and are valued by their publicly traded share prices (public valuation).
These three Fintech Labs valuation models can be translated into three valuation "levels" described by the Financial Accounting Standards Board (FASB) in ASC 820-10-25.

FINTECH LABS VALUATIONS AND ACCOUNTING VALUATION STANDARDS:
A 2019 PWC accounting guide describes the FASB's three valuation levels as a hierarchy determined by the inputs that are relied on to generate a valuation:

- *Level 1: observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets*
- *Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability either directly or indirectly*
- *Level 3: unobservable inputs (e.g., a reporting entity's or other entity's own data)[3]*

To increase consistency and comparability in reporting fair value measurements, the fair value standards establish the fair value hierarchy to prioritize the inputs used in valuation techniques. There are three levels to the fair value hierarchy (Level 1 is the highest priority and Level 3 is the lowest priority). Each of the three unicorn valuations calculated by Fintech Labs is best represented as based upon different level inputs within the FASB hierarchy.

- ASC 820-10-20 defines an active market as one "in which transactions for the asset or liability being measured take place with sufficient frequency and volume to provide pricing information on an ongoing basis." Only Fintech Labs' 54 public valuations satisfy this element of "Level 1" – the highest priority valuation.
- The 215 private valuations, which FL derives from infusions of cash into start-ups, are likely to be viewed by a public accountant as, at most, "Level 2," although the extent to which venture capitalists use "observable inputs" is unclear, so that these private valuations could be regarded as "Level 3" valuations.
- Finally, the 24 unicorns taken over by other firms and assigned "exit values" by FL are very unlikely to have been valued without significant use of "unobservable" inputs, especially the acquiring companies' own data related to the specific reasons for the acquisition.

[3] https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/fair_value_measureme/fair_value_measureme__9_US/chapter_4_concepts_u_US/45_inputs_to_fair_va_US.html

A Note on Valuing Unicorns Continued

Since only 54 unicorns are likely to have been valued by Fintech Labs using "Level 1" inputs, we, as accountants, find it reasonable to conclude that valuations of fintech unicorns are likely to be of limited reliability. However, an SBT mantra can be translated into the idiom "The proof is in the pudding." Our pudding is data and the empirical evidence derived therefrom.

EMPIRICAL EVIDENCE OF UNICORN VALUATION RELIABILITY:
Given the relatively recent proliferation of fintech ventures, evidence of fintech valuation reliability is limited. This note relies on a 2020 Journal of Financial Economics article by Gornall and Strebulaev (G&S) titled "Squaring venture capital valuations with reality."[4] The article has already been cited in over 100 subsequent scholarly articles.

Due to the complexity of unicorns' financial structures, G&S describe unicorn valuation as a "black box." G&S find unicorn financial structures and their valuation implications to be confusing and grossly misunderstood by even sophisticated investors. They ascribe this to the frequency with which unicorns create new classes of equity shares; the 135 unicorns analyzed by G&S had issued, on average, 8 different classes of equity shares owned variously by founders, venture capitalists, employees, mutual funds, and others. Each equity class offers dramatically different payoffs in what G&S label "downside scenarios:"

"Each class has a different guaranteed return, and those returns are ordered into a seniority ranking, with common shares (typically held by founders and employees, either as shares or stock options, being junior to preferred shares, and with preferred shares that were issued early frequently junior to preferred shares issued more recently." (page 3)[5]

Unicorns that are not publicly traded are typically assigned, by both professionals and the finance media, a "post-money" valuation, described by G&S as follows:
"This post-money valuation is calculated by multiplying the per-share price of the most recent round by the fully diluted number of common shares (with convertible preferred shares and both issued and unissued stock options counted bases on the number of common shares they convert into)."(page 3) But, as G&S emphasize, using the price obtained for the most recent class of shares issued, those that have senior downside protection, to value the unicorn, must necessarily result in overvaluation.

G&S test this by comparing post-money valuations with valuations developed using a "contingent claims" model that considers the contractual terms of different equity classes. Their overvaluation hypothesis is supported by their results:

"The post-money valuation metric overvalues all unicorns in our sample, but the degree of over valuation varies dramatically. The average unicorn in our sample is overvalued by 48%. A large variation exists in the degree of overvaluation.

[4]Gornall, W., & Strebulaev, I. A. (2020). Squaring venture capital valuations with reality. Journal of Financial Economics, 135(1), 120-143.

[5] Page numbers are from the SSRN document Gornall, W., & Strebulaev, I. A. (2019). Squaring Venture Capital Valuations with Reality. Journal of Financial Economics (JFE), Forthcoming.

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While the ten least overvalued companies are overvalued on average only by 13%, the ten most overvalued companies are on average overvalued by 145%."(page 41)

Significantly, 65 five of G&S's 135 unicorns lose their unicorn status when equity class variations are considered.

CONCLUSION:
When valuation issues, which are a primary concern in accounting, are considered, there is reason for caution when considering investing in fintech companies, especially those valued on the basis of privately established prices. A prominent quotation in the G&S paper indicates that the downside risk may be magnified by regulatory developments:

"The Securities and Exchange Commission (SEC) has similar concerns about unicorn valuations. As Mary Jo White, then chair of the SEC, stated on March 31, 2016: 'In the unicorn context, there is a worry that the tail may wag the horn, so to speak, on valuation disclosures. The concern is whether the prestige associated with reaching a sky high valuation fast drives companies to try to appear more valuable than they actually are.'"(page 38)

Although G&S's pudding (data) indicate that unicorn valuations are likely to be fairly unreliable, there are, of course, baby unicorns out there waiting to be captured. As another G&S wrote, "Life's a pudding full of plums."[6]

[6] Gilbert & Sullivan, The Gondoliers, Act 1