

BlackBoxStocks, Inc. (BLBX - OTC Pink)
Strong Buy

BlackBoxStocks "BlackBox" is a rapidly-growing software as a service (SaaS) provider of high-end trading tools that include social and educational aspects. We believe its 2020 revenues are likely to exceed 2019 revenues by over 350%, with 2021 revenues growing over 300%.

Brian Connell, CFA

Senior Research Analyst

Jeffrey Hanson

Senior Research Analyst

Summary and Investment Opportunity

- BlackBox Has a Great Product in a Very Rapidly Growing SaaS Segment – Trading Tools**

Position-trading, day-trading, and swing-trading are now household terms for several million Americans, due to the skyrocketing number of part-time and full-time traders in the United States. As of this writing, the Stocktwits platform boasts a rapidly-growing current user base of two million U.S.-based traders, which we believe to represent approximately one-third of active or semi-active traders in this country. In 2018, Modern Trader Magazine estimated the number of active European traders at 3.1 million, and at 13.9 million on a global basis. This is a very large market, and one that is served by myriad trading-focused information platforms and training systems, including BlackBox's system.

- BLBX's Unique Technology, Social Networking, and Educational Platform is Rapidly Gaining User Adoption**

As reflected in its recent 10-Q and 10-K filings with the SEC, BLBX revenues over the first two quarters of 2020 increased 110.2% over revenues of the prior two quarters. Q2 '20 sales exceeded Q1 '20 sales by 94.8%, indicating a state of hypergrowth in the Company's user base and revenues. We attribute this to two primary factors: 1) over the past two years, the Company's product has matured in terms of reliability, usability, and feature-depth to finally comprise a comprehensive and highly valuable trading system, and 2) beginning in February of this year, BLBX finally gained access to enough capital to begin a bona fide, long-term digital marketing campaign. With the initial results of this marketing now looking so promising, we believe over the next few months the Company will have access to more than enough capital leading into its planned NasdaqCM listing and secondary offering in H1 '21. If correct, this will allow the Company to both complete its product with native iOS and Android apps, and further increase its marketing spend.

- BLBX's Platform Integrates Trading and Social Network Technology to Create a Bona Fide Trading Community**

While many other technical analysis systems offer trading tools like those of the Company, and many other educational sites offer training similar to that of the Company, no other system of which we are aware offers these things built around, as the Company calls it, "a lifestyle, a culture, and a community." What we call "social trading", the BLBX system allows voice-based and text-based interaction, both for sharing trading ideas and for helping community members learn from each other and, eventually, to become personal friends. We believe this combination of alerts and analytics, training and one-on-one mentoring, real-time idea exchange, and traditional educational programs is currently unique in the marketplace. We also believe it is the company's primary competitive advantage.

- We Believe "BlackBox" Has the Team, the Technology, the Approach, and The Capital to Thrive.**

The Company's highly-experienced leadership team has now led BLBX through its first several very difficult years to the point where it is now cash-flow positive, has an improving balance sheet, and (finally) access to the growth capital it needs. With subscriptions having nearly doubled in just three months, a real and growing community of traders, and likely continued hypergrowth over the coming four to six quarters, we believe BlackBox has finally gotten it all right. With a planned NasdaqCM uplisting and secondary stock offering just around the corner, which we believe will likely occur (barring a near-term market crash), we view the Company's shares as being extremely undervalued at current levels. **We therefore initiate coverage of BLBX with a Strong Buy rating, and a one-year price target matching our current value estimate of \$10.53 per share.**

Summary Profit and Loss Model

(In 000s, except per-share and per-user data)	FY/CY 2019	Q1 '20	Q2 '20	Q3 '20	Q4 '20	FY/CY 2020	FY/CY 2021	FY/CY 2022
Total users at end of period, estimated		1,800	3,500	4,799	7,865	7,865	27,486	41,186
<i>Total user sequential growth rates, year-over-year basis</i>			94.4%	37.1%	124.7%		249.5%	49.8%
Revenues	1,063	415	809	1,537	2,166	4,927	23,100	46,495
<i>Sequential growth rate</i>	53.3%	45.2%	94.8%	90.0%	40.9%	363.7%	368.9%	101.3%
Gross profit	326	207	511	1,270	1,771	3,759	19,535	39,772
<i>Gross margin</i>	30.7%	49.9%	63.2%	82.6%	81.8%	76.3%	84.6%	85.5%
Operating profit	-1,005	-231	47	539	879	1,234	11,638	24,534
<i>Operating margin</i>	-94.6%	-55.6%	5.8%	35.1%	40.6%	25.0%	50.4%	52.8%
Net income	-2,983	43	194	424	774	1,435	9,959	19,382
<i>Net margin</i>	-280.8%	10.3%	24.0%	27.6%	35.7%	29.1%	43.1%	41.7%
Earnings per share (EPS), fully-diluted	(0.233)	0.003	0.014	0.030	0.055	0.106	0.620	1.207
Shares outstanding, fully-diluted	12,783	12,943	13,450	14,189	14,189	13,570	16,064	16,064

Recent Price:	\$2.70
Market Capitalization (000s)	36,134
Enterprise Value (000s)	39,375
Institutional Ownership	N/A
Insider Ownership	74.3%
Basic Shares Outstanding (000s)	7,959
As Adjusted, Fully-Diluted Shrs. Outst. (000s)	13,450
Average Daily Trading Vol (000s)	0.285
Primary Trading Market	OTC Pink

Balance Sheet Data

Shareholders' Equity (as of Jun 30, 2020, in 000s)	(2,719)
Price/Book Value	N/A
Cash (000s)	159
Net Working Capital (000s)	(2,886)
Long-Term Debt (000s)	45.6
Debt to Equity Capital	N/A

Company Overview

BlackBoxStocks, Inc. develops and markets a trading and social media platform offering real-time proprietary analytics and news for stock and options traders of all levels. The Company's current system is available via Web browser for desktop and mobile and will soon be available as an app on both Apple and Google mobile devices.

The Company's key strengths include: integrated text and voice "social" features; institutional-caliber, proprietary trading analytics; and real-time mentoring for novice traders. The Company is based in Dallas, Texas, and trades on the over-the-counter Pink market under the symbol BLBX.

Company Contact Information

Gust Kepler

 Chairman & Chief Executive Officer
 info@blackboxstocks.com

BlackBoxStocks, Inc.

 5430 LBJ Freeway, Suite 1485
 Dallas, TX 75240
 (972) 726-9203
 www.blackboxstocks.com

Investor Relations Contact

 PCG Advisory
 Stephanie Prince, Managing Director
 (646) 762-4518
 sprince@pcgadvisory.com

Please see analyst certification and required disclosures on page 26 of this report.

Industry Background

Introduction

The United States has the most complex and well-developed capital markets system in the world. Its ultimate purpose is to maximize the growth and stability of our economy, and in general it has done that fairly well, although not perfectly at times. The focus of the BLBX and of this report pertains to the U.S. equity (stock) markets – both primary and derivative (options) – which simultaneously allow companies to access needed capital while also providing investors with superior investment returns over the long term. Primary equity markets, where shares of public companies are bought and sold, include the New York Stock Exchange (NYSE), Nasdaq (NasdaqCM, NasdaqGM, NasdaqGM), NYSE American, and the over-the-counter markets (OTCQX, OTCQB, and Pink). The option markets, which trade call and put contracts based on the share prices of underlying stocks, include the Chicago Board Options Exchange (CBOE), Nasdaq, the NYSE, and several other regional markets.

At least historically, investors in equity and options markets have operated with either an “**investor**” mentality, or a “**trader**” mentality, which are not mutually exclusive but are nevertheless quite different. The stereotypical “**investor**” has a long-term investment perspective and seeks to identify and invest in companies that are fundamentally undervalued relative to their peer group, or relative to the sale value of their net assets¹. The central theory to this form of investing – based on **fundamental analysis**² – is that savvy investors can discover companies whose shares are either undervalued or overvalued, invest in them (or borrow them and sell them short), and then wait for “the market” to figure out what they already know. If they are correct, then the market’s broad recognition of “true value” will push the stock’s value in their favor and generate at least most of their investment return³.

Traders, however, think entirely differently about their purchase and sale decisions; they typically do not conduct fundamental analysis, are unconcerned with “fundamental value,” and in many cases have a very short investment time-horizon. In fact, they do not even consider their positions to be “investments,” but rather just short term “trades” that in the aggregate they believe will also earn them a superior investment return over the long term. Unlike fundamental investors, who are often concerned with a company’s future sales, sales growth, scalability, and other such factors, traders are more focused on the interaction of trading volume and stock price, and how they can use it to predict and profit from future price action. The process of studying historical patterns in stock price/volume interactions to predict future price movements is known as technical analysis.

One of the most difficult problem faced by traders, especially short-term traders, is knowing exactly which stocks to focus on when these stocks’ price/volume interaction and history suggest a likely profitable trading opportunity. In the era that preceded personal computers, traders would laboriously study current stock charts in an effort to find price/volume patterns that they recognized from previous study, and would then make relatively long-term trades based on their analysis. However, once personal computers became ubiquitous during the late 1980s and early 1990s, traders began using technical analysis software to automatically apply more advanced analysis tools and to alert them to potentially profitable trading opportunities. These software systems became even more useful by the late 1990s due to Internet connectivity, which allowed them to download and use real-time trading data. Interestingly, this also created the opportunity for making trades of a much shorter duration than had previously been possible. The practitioners of this short-term trading strategy came to be known as “day

¹ Our discussion of “investors” is extremely abridged, as there are myriad schools of thought pertaining to “value.” We have drastically oversimplified this section to the greatest extent possible, given the business of Company.

² This report is an excellent example of a fundamental analysis of a specific company, in this case one we believe to be undervalued.

³ For larger, more established companies with strong cash flow, shareholder dividends can also be an important source of returns for investors.

traders.” As computers continued to increase in power, trading firms developed fully-automated trading systems that could open and close positions in seconds, and then in milliseconds. Traders employing this strategy came to be known as “**high-frequency traders**” because their systems operated far more quickly than humans ever could; many of these systems were (and are) quite sophisticated.

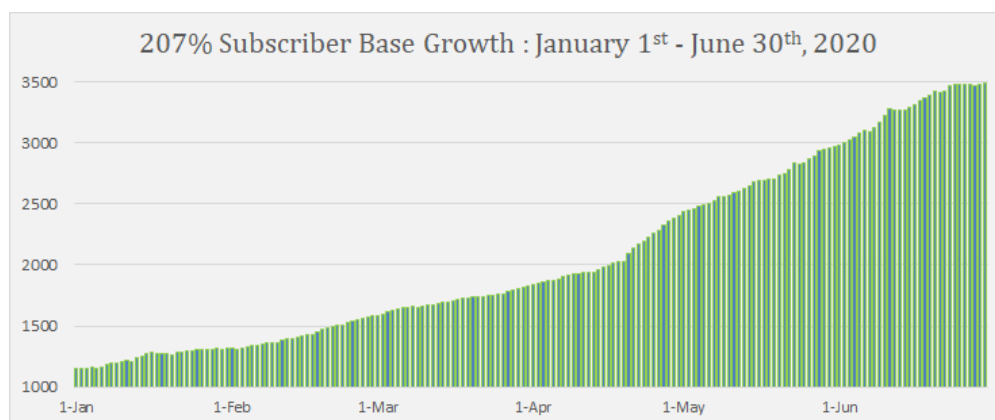
The final revolution to radically change trading systems and their traders’ mentality began shortly after the rise of major social networks such as Facebook, Twitter, and later, Instagram. Traders realized that they could post their trades, once established, to these social networks and other traders would also act upon them, thus making their trades more profitable more quickly, at least in thinly-traded markets.⁴ Some trading platforms and systems quickly took notice and incorporated certain aspects of social networks directly into their platforms.

Several Web-based “social” trading networks sprung up, including the very popular eToro⁵ network, which ranks traders over time, and allows the most successful traders to charge others for the privilege of following their trades. This is analogous to the professional money management industry, which consists of mutual funds, hedge funds, pension funds, endowment funds, and ultra-high net worth family funds, all of which are managed by paid investment professionals. Other systems, such as the BlackBox system, employ a social networking strategy that more closely emulates the traditional social networks, whereby traders can learn from each other and develop personal relationships with other traders. Like other social networks, these types of systems tend to be very “sticky” because a trader who leaves the network also leaves the social interaction it enables, and the feelings of connection and enjoyment that come with it.

Conclusion

Traders who focus on stocks and options traded in the U.S. number in the millions and operate both domestically and internationally. And despite the existence of myriad trading systems and software packages designed to make trading easy, it is in fact very difficult – at least trading profitably is. Successful trading requires experience, discipline, focus, and ideally, the tutelage of true experts who have a wealth of knowledge and a demonstrated track record of success. These individuals know how to ignore the noise and focus on what matters when it matters, which is a learned skill that takes time and diligent effort to master.

We believe that BlackBox’s trading system offers a unique and compelling blend of education, access to expert traders, and a rich feature set that helps novice and intermediate traders become more knowledgeable and more profitable over time, and helps all traders more quickly identify the best trading signals and opportunities.



⁴ Since BLBX focuses almost exclusively on extremely liquid markets, we do not think this factor is related to why BLBX users share their trading ideas with the BlackBox community.

⁵ <https://www.etoro.com/>

Company Analysis

Company Introduction

BlackBoxStocks, Inc. (“BlackBox”), is headquartered in Dallas Texas and trades on the OTC Pink market under the symbol BLBX. BlackBox develops and markets an advanced, Web-based software system designed to help day traders and swing traders become more successful. The Company offers its system under a typical software as a service (SaaS) pricing model, whereby users can pay either monthly or annually (at a 20% discount). The BLBX platform offers a seamlessly integrated mix of sophisticated real-time alerts, trade-analysis tools, educational resources (for less experienced traders), and a large network of frequently-available expert-trader “mentors” that help novices learn and grow as traders. We believe this combination of high-end trading analytics, education, and most importantly, personal mentoring and idea sharing via the BLBX social network is unique in the current market for such software⁶. BlackBox’s trading universe consists of stocks traded on the New York Stock Exchange (NYSE), NYSE American, Nasdaq, and over-the-counter (OTC) markets, and of options traded on the Chicago Board Options Exchange (CBOE), NYSE, Nasdaq, and all other significant U.S. options trading markets.

Key Value Propositions

The Company offers “opportunity identification and analysis” benefits to traders of all levels of sophistication, plus additional educational benefits geared towards novice and some intermediate traders. It also provides a bona fide “social” network, consisting of traders at all levels of sophistication, that we believe constitutes the Company’s single greatest benefit.

- **Novice Traders.** Novice traders are typically attracted to trading by the well-publicized successes of a few high-profile traders, and often underestimate just how difficult it can be to trade in a way that is consistently profitable. For them, in addition to the system’s ability to help them know where to focus and what to pay attention to, its key value is education and mentoring. However, the education they receive is not like that derived from a book or a classroom. These traders get online lessons in trading combined with real experience, and access to the real-time market guidance and from the support of a seasoned, successful trader. This mentoring relationship more than any other factor helps novice traders to persevere, despite the inevitable missteps and account balance drawdowns, which might otherwise cause them to give up trading rather than eventually becoming successful traders in their own right.
- **Intermediate and Advanced Traders.** While ongoing education and learning is still important to this group, they tend to benefit more from the system’s rich toolset, including the focus-enhancing real-time alerts, which allow them to develop trading insights and find trading opportunities that other trading systems might not. They also benefit from being able to piggyback on the trading ideas of those other traders on the system whose judgment they trust.
- **Moderator-Mentors.** Already expert and accomplished traders who are passionate about trading, members of the Company’s affiliate program gain the benefit of augmenting their trading income by referring other individuals to join and (hopefully) stay on as BlackBox members. Although compensated only \$250 for annual sign-ups and \$25 per month for monthly signups, this program gives traders who have influencer status the ability to earn real money, while doing their followers a favor by introducing them to the Company. However, notably, the only way that they can maintain their income stream from referred users is to spend time supporting and mentoring them,

⁶ To the best of our and management’s knowledge

so that they stick with the system over the long-term. This perfectly aligns the Moderator-Mentors' interests with those of the Company and has the side benefit of keeping the Company's support costs to a minimum versus what they would otherwise be.

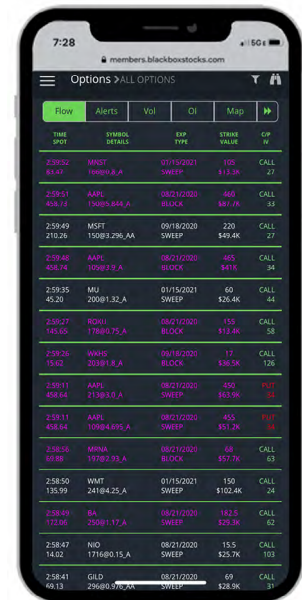
While each of these groups derives the most value from different aspects of the BlackBox system, all benefit from its primary areas of functionality: its educational content, its high quality trade analysis toolset, its intuitive design and real-time alerts that help traders tune out "the noise" and focus instead on what matters most, and perhaps most importantly, the presence of a real community of other like-minded traders with whom they can and do regularly interact.

The BlackBox Platform

The Company offers current and would-be traders a sophisticated, entirely browser-based trading platform that functions fairly well on mobile devices⁷ and extremely well on desktop and laptop computers. Informationally-dense systems such as BlackBox's pose a rather difficult challenge for user interface (UI) designers, who need to display a large amount of data without making the interface cluttered or confusing to users. This problem is far more severe for mobile app user interfaces, which need to display the same amount of data via much smaller screens than those of desktop/laptop computers. Quite candidly, we believe the Company has done a marvelous job on the design and functionality of its desktop apps. Despite the challenges inherent in mobile UI design, we expect the Company to achieve the same product-quality success with its mobile apps that it has already achieved with its current product. We expect to see an initial rollout of the Company's iOS and Android native apps sometime during the next two to three quarters.



BlackBox Desktop



Blackbox Mobile

⁷ There are a few key features, such as real-time alerts, that are very difficult to make work other than through a native iOS or Android app. The Company believes it will be able to make such apps available "soon" which we construe as during the next 2-4 quarters.

The Company's current product features include: pre-market and post-market tools that scan for unusual market activity; stock alerts that are triggered by significant changes in price and/or volume; real-time streaming news; advanced charting capabilities; integration with Stock Twits⁸; and an interactive trading room frequented by novice, intermediate, and expert traders. A separate interface designed for options provides traders with timely alerts regarding unusual options activity, and access to a specialized options trading room through Discord⁹.

Perhaps most importantly, the Company's platform is a true social network for stock and options traders. This aspect of the system is of crucial importance. It changes what would otherwise be just a trading and learning tool into a first-class trading and educational platform – and a place to make friends, get support, and share trading ideas. It also helps combine the power of computers with the insights of humans in a very powerful way.



Specific product features include:

- Fully automated, color-coded alert log
- Volatility Indicator, which help traders focus on potentially attractive trading opportunities
- Pre-set scanning tools that generate parameter-based, real-time stock and options alerts
- Social Media Features that create a true community of traders
- Real time quotes and streaming news
- Broadcast-enabled voice chat
- Institutional grade charts
- Volume Ratio Scanner
- Symbol specific Stock Twits feed

Based on our research, we believe BlackBox is the only system on the market that has integrated significant social networking features into a system that is also exceptional in terms of real-time proprietary analytics, toolset depth and usefulness, and educational resources / personal coaching.

⁸ Stocktwits is a social media platform designed for sharing ideas between investors, traders, and entrepreneurs. The company was founded in 2009 and is based in New York, NY. www.stocktwits.com

⁹ Discord is a real-time chat platform that has become the default place where influencers, YouTubers, Instagram meme accounts, and anyone with an audience can connect with their community (<https://discord.com/>).

Total Available Market Size

According to Modern Trader magazine, there were 1.6 million active day traders and swing traders in North America in 2018, and another 3.1 million in Europe, representing less than one-half of the global total of 13.9 million active traders. These numbers indicate a 45% increase from the previous year, in the aggregate, and we believe that this robust growth continued through 2019 and the first half of this year, and will continue to some extent for the foreseeable future.

Although unexpected and devastating for people and economies around the world, the current COVID-19 pandemic seems to have caused additional growth in the number of active traders, both domestically and abroad, probably due to a combination of high stock market volatility and the fact that far more people now work from home than ever before. Based on anecdotal evidence and the fact that Stocktwits now has over two million active users, we believe that the total active trader market now consists of over 20 million traders on a global basis.

Since we estimate that the Company only had approximately 3,500 users as of the end of June, we believe that for all intents and purposes, the available market for BlackBox's system can be considered limitless, at least for the next several years, and hence not a potential constraint to the Company's ability to extend its current hypergrowth well into the future. Based on Stocktwits' current membership of two million active users – who would obviously not be using a trading-based social network unless they were traders – we can set an absolute minimum total available market of two million potential users, although we believe it is probably two to three times that large on a global basis, if not larger. This large market size also bodes well for the Company's ability to expand its digital marketing spend by 10 times or even 20 times from current levels without raising its average cost per customer acquisition much above the \$140 - \$160 range.

That said, we would agree that the system is highly specialized and therefore might only appeal to a small fraction of the total trading community. But even if we were to suggest an ultra-conservative 10% number for the directly addressable slice of the total traders market, when applied to a market size two to four million traders, this would still give the Company the ability to grow its total user base by more than 25x (to approx. 85,000 users) and still have only less than 5% as many users as Stocktwits has as of today. Notably, the Company has users in 42 countries around the world, although 94% of its users are in the U.S. or Canada.

In conclusion, this is an exceptionally large, highly fragmented market from the perspective of BLBX. Given its improving capital resources and a digital marketing program that entails per-user costs of less than 20% of the each user's lifetime value to the Company, we believe that BLBX is likely to continue on its current growth trajectory for at least the next four to six quarters, after which time we foresee its growth slowing during 2022 and 2023 to "only" approximately 40% per year thereafter.

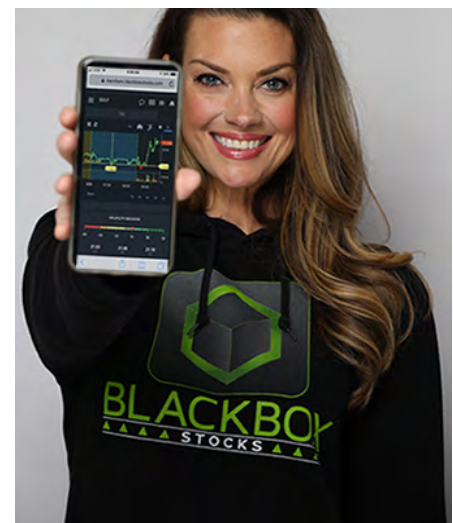
Sales & Marketing

BlackBox uses a variety of methods to attract new users to its growing user base, such as affiliate/influencer marketing, multi-platform digital marketing, and (soon) television-based / radio-based marketing.

Affiliate Marketing

The Company offers a generous incentive to affiliate marketers of 25% of revenues from each client they bring to BlackBox, which equates to \$25 per month per user for monthly subscribers, and \$250 per year per user for annual subscribers, which account for about 10% of all users. However, the Company is very picky about which affiliate marketers it works with, approving only those who complete its training program and refrain from using any overstated or misleading claims in marketing messages. Unlike BlackBox, many “trading systems” that market to the Company’s target market are either partial or complete scams, often charging exorbitant fees for what amounts to giving users access to a single “guru’s” trades after said guru has established his or her position. Because of this, the Company goes to great lengths to differentiate itself from these unscrupulous organizations, and in our opinion has been successful in this regard.

Before early 2020, affiliate marketers and word of mouth were almost the Company’s only source of new customers, as it has historically been very capital constrained and hence unable to fund more than sporadic and short-lived digital marketing campaigns. Although that is no longer the case, BLBX’s affiliates/influencers continue to be an important source of new customers for the Company.



Digital Marketing

Beginning in early 2020, the Company was finally able to secure enough capital to cover its ongoing operating costs and fund a real digital marketing campaign. Architected and executed by its own marketing team, the Company currently markets digitally on several social media systems, such as Stocktwits, Facebook, Twitter, Google, YouTube, and Instagram. As one might expect, Stocktwits by far generates the most “new customer” revenue for each marketing dollar spent, as its members are almost perfectly matched with the Company’s core value proposition. However, although quite a bit more expensive in terms of customer acquisition costs (CACs), Twitter and Facebook are also very effective marketing channels for the Company and Instagram has shown promise as a marketing platform as well. Furthermore, and very importantly, both Twitter and Facebook are extremely “deep” social networks, meaning that on these platforms the Company can dramatically scale up its marketing spend with very little adverse effect on its CACs.

As of this writing, the Company's digital marketing campaigns had average CACs well below \$100 per new user, each of which on average generates \$700 to \$800 in revenues. However, this statistic is somewhat misleading, in that new users garnered through digital marketing do not typically stay on the system for seven or eight months and then leave; but instead either cancel within the first one to three months, or stay for the long term. The short-term users sign up and typically pay for the first month or two of service, but for whatever reason fail to follow through and actually use the system, and naturally after a month or two decide to cancel their subscription. The long-term users, on the other hand, tend to dig in and make maximum use of the system's educational resources, its feature-rich toolset, and also begin to form new relationships with other traders via the platform's social networking functionality. A healthy percentage of this latter group will often upgrade to an annual subscription during their first couple of months, which gives them a 20% reduction in membership costs. These long-term subscribers often become product champions for the Company, as they share their trading successes and images of their trading-enabled lifestyle with both current and prospective users.

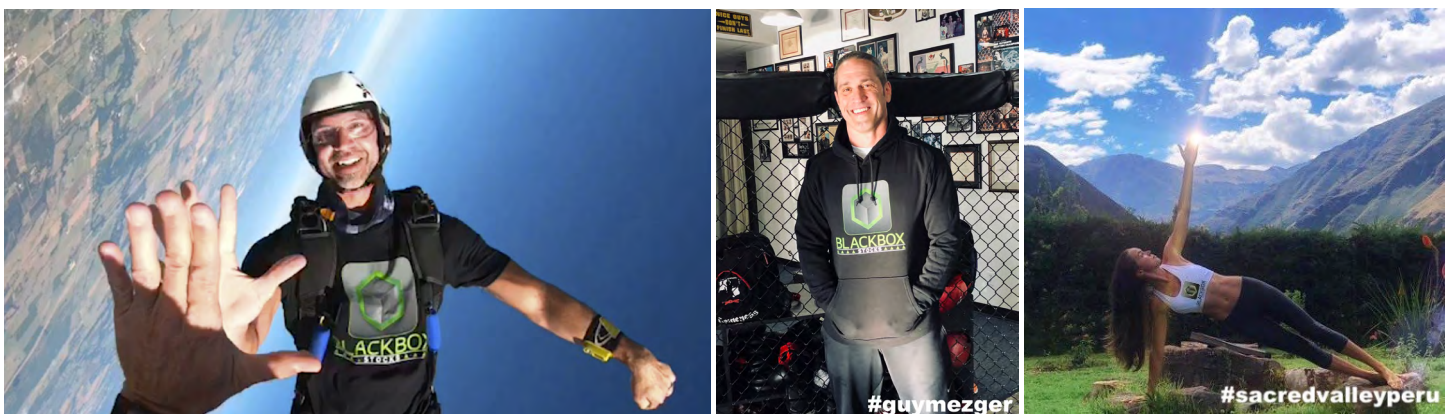
Due to this user-attrition "barbell¹⁰" dynamic, we expect that long-term users will continue to accumulate over time, thus having a positive effect on the Company's average marketing cost per user going forward, all other things being equal.

Industry Relationships

We find it worthy of note that the Company has referral relationships in place with TD Ameritrade, eTrade, and Tasty Trade, as well as a relationship with the Options Industry Council. While none of these relationships is economically meaningful to the Company at this time, all of them lend credence to our belief that BLBX is the "real deal."

Branded Wearables Marketing

The Company makes substantial use of user photos that depict the user wearing Company-branded products (e.g. shirts, hats, etc.), often in exotic and desirable locations. Since these photos are sent in voluntarily by actual users, they can have a powerful positive effect on prospective users who are attracted to the affluent trader-lifestyle these photos convey.



¹⁰ In finance theory, especially modern portfolio theory as applied to debt portfolios, a barbell strategy entails holding mostly very short-term and very-long term bonds, with very few medium-term bonds in the portfolio. This is analogous to the Company's user attrition behavior; most either cancel within just one to three months, or remain for over a year, with few in between.

Future Marketing Plans

According to the Company, its digital marketing initiatives over the coming quarters will be very similar to those of the last two quarters, with a couple of notable exceptions. First of all, given the Company's currently superb ratio of marketing spend to lifetime customer value, we expect weekly marketing spend to steadily and significantly increase for the next few quarters, at a minimum, and probably for quite a bit longer than that. However, an ever-larger percentage of this marketing spend will need to be directed to the large social networks (e.g. Twitter, Facebook) since on these networks there are literally millions of prospects to be reached. Because these social networks' users are not (on average) as likely to be interested in using a platform such as the Company's as they are on network such as Stocktwits, we expect average customer acquisition costs (CACs) to trend consistently higher, at some point possibly reaching 4x or even 5x current levels. Notably, however, even if CACs reach 5x current levels, according to our estimates the Company will still on average generate \$3 in sales for each \$1 invested in digital marketing, which is still very attractive return on marketing investment.

The other major change that the Company is planning is the supplementation of its historical digital marketing programs with targeted radio and television advertising. While the marginal cost/benefit of these forms of advertising remains to be seen, management is confident that they will reach a largely new audience of traders and hence should demonstrate an excellent return on investment.

Lastly, it is noteworthy that the Company currently focuses solely on marketing to traders based in United States and Canada, although by our estimates at least as many traders of U.S. stocks and options reside in other countries. While the Company has not explicitly shared with us the timing of any non-domestic digital marketing initiatives – or even if they will embark on them at all – we believe that it is only a matter of time (and perhaps additional capital) before management decides to further accelerate growth by digitally marketing to select international locales, such as the U.K., the E.U., Australia, Canada, and wealthy Asian nations such as Singapore, Taiwan, and even mainland China. If and when the Company begins marketing to countries where English is not spoken as a first language, it could entail the concomitant release of the BlackBox system in other languages, such as German, French, or Mandarin (Chinese). Also, note that the Company has in the past done small-scale test marketing in the U.K. and in the Indian market, with positive initial results in the U.K.

User Retention

At least as important as acquiring new users is the retention of existing ones, and the Company accomplishes this mainly by the efficacy of its system, and by leveraging the helpfulness of its trader community and the personal relationships users form with other users. While this is already fairly effective for the Company, management would like to do better and so surveys each cancelling user to learn about their primary reason for leaving. Interestingly, well over 50% of those cancelling their memberships after having maintained them for more than one month indicate that the shortcomings of the Company's system when accessed by mobile browsers – specifically its current inability to push crucial real-time alerts to mobile browsers – is the reason they decided to cancel. This comes as no surprise to us, as the world has gone increasingly mobile, and most users now expect a system's full functionality to be available through any method of access, namely both desktop and mobile.

As previously mentioned, one of the Company's top product development priorities is the development and deployment of native apps for both iOS (Apple) and Android devices, which we believe it will likely accomplish within the next three to four months. The rollout of these "native apps" will clearly have a positive effect both on user retention and on the attractiveness of the Company's system to prospective new users, as long as they function well and have an intuitive user interface, which we expect they will. In any event, native mobile apps will not suffer the problem with alerts that current mobile users experience when accessing the system via mobile Web browsers.

Conclusion

Now with at least some capital consistently deployed for digital marketing, the Company has for the last six months experienced extremely high growth in its user base and the revenues derived therefrom. In the last two quarters of 2019 BLBX had total sales revenues of approximately \$582,000, vs. sales of approximately \$415,000 in Q1 and \$809,000 in Q2 of this year (\$1,213,000 total), a six-month growth rate of over 110%. Just this year, Q2 sales were 94.8% higher than sales in Q1, which if annualized would imply a compound annual growth rate (CAGR) of 1,340%. While this exceptional annual growth rate will likely be unsustainable for long, the first half of 2020 has without a doubt been an inflection point for the Company and its expected future size and value.

Going forward, we expect that the Company will deploy ever-greater resources to marketing its system, both domestically and, at some point soon, internationally. Given the short 30-day average cash cycle of digital marketing spend to users' first month's payment, and given that the Company now has positive operating cash flow, we believe it will soon have the additional capital to rapidly increase its digital marketing spend and thus its growth in total users and total revenues. Although we do expect significantly higher marginal customer acquisition costs (CACs) as market spend likely increases by 500% or more in the coming quarters, we do not expect it will ever account for more than 30% of the average lifetime customer value – at least not during our current financial forecasting time horizon.

Competition

After a thorough review of systems that at least in part compete with BlackBox, we have concluded that competition is not a real threat to our BLBX investment thesis at this time. That said, myriad other trading tools do exist, each of which tends to focus on only one, or at most two, of the Company's system's three key functions.

Technical Analysis “Toolset” Providers

Some of the Company's competitors in this segment include Market Gear, Trade Alert, Trade Ideas, Tradier, Factset, ThinkorSwim (TD Ameritrade), e-Signal, MetaStock, Ninja Trader, Slope of Hope, Stock Charts, TC2000, TickerTocker, Trading View, Trend Spider, Money.Net, and Bloomberg. These companies provide various products and capabilities such as stock screeners, charting, drawing, and data visualization tools, plus custom filters, stock and option watch lists, and market data on demand. Most are individual-oriented (with the notable exception of Bloomberg and Factset) and focus on options and equity markets, but a few also cover other markets such as currency markets, commodities markets, and and/or cryptocurrency markets.

Trader-Education Providers

There are many trader-education options available on the market, and most allow customers to learn from home. Prices for these programs can run from hundreds to several thousand dollars or more. Two better-known trader educational companies are Warrior Trading and Online Trading Academy, which can end up costing a user several thousand dollars in total. Also, the general perception of this segment has been tarnished by so-called “gurus” who promise would-be customers “high returns” through use of their systems, but invariably fail to do so while also aggressively (and unscrupulously) upselling additional and expensive ancillary products. Earlier this year, the FTC sued Online Trading Academy for running an illegal investment training scheme, and nearly 4,000 customers were affected¹¹.

Conclusion, Competition

We do not believe that any of the current competitors in either the toolset niche or the education niche currently pose a real threat to the growth and profitability of the Company. We hold this view because:

- None of the systems we reviewed (after a fairly exhaustive search) were built around a true community of traders in the way that the Company's system was, and
- The Company's system appears to perform as well or better than most other systems we reviewed on the basis of toolset richness and usefulness, interface intuitiveness, and where relevant, educational approach

These factors should make competitive threats all but irrelevant for at least the next four to six calendar quarters, although there is always a slight risk that an unknown category killer, based on innovative and advanced technologies, could come to market. We view this risk event as extremely unlikely to occur, however.

Product Development

The Company has thus far built its product by employing the services of contract engineers and interface designers, and we believe will continue to do so at least for the next quarter or two. However, the Company does to plan to bring on a full-time Chief Technology Officer in the near future, as its growing capital resources and positive operating cash flow will soon allow it to do. That said, in the future we would expect the Company to continue to make heavy use of outside specialist-experts as its continues to evolve and improve its current platform while developing its native apps for Apple (iOS) and Android mobile devices. Note that all of BlackBox's core technology, proprietary analytics, and user interface are wholly owned assets of the Company.

Product Development Roadmap

The Company has a clearly defined, largely user-driven product development roadmap through early 2021, at which point it is less clearly defined, although management indicates that it is already considering several potentially high-value development projects that would complete its 2021 development plan. At this point the Company has specific plans to launch the following additions to its offering:

- **Equity and Options Market Simulator.** When released, this system addition will allow traders to test out various trading strategies using "play money." Although the investments will be done only in software, everything else will function exactly as it would if traders were deploying real money in their trades, it will account for trading results in a mock account that includes standard investment performance reporting and trading-strategy validation functionality. Additionally, the Company may gamify this system extension, allowing members of the BlackBox community to participate in contests and, presumably, to win "digital" prizes such as "achievement awards" similar to those awarded to users by general education systems such as Lynda.com. We believe gamification is an excellent idea that will (on the margin) improve community engagement and user retention, but it remains to be seen if the Company will dedicate the resources to make this aspect of the market simulator a reality.
- **Native Mobile Apps for both Apple (iOS) and Android smartphones.** Definitely management's highest development priority at this point (as far as we know), the development of native mobile apps will fill what we see as a major gap in BlackBox's current product offering. Our conversations with management

¹¹ See: <https://www.ftc.gov/news-events/press-releases/2020/02/ftc-sues-online-trading-academy-running-investment-training> and <https://www.prnewswire.com/news-releases/nearly-4-000-online-trading-academy-students-file-in-federal-court-seeking-intervention-in-the-ftc-v-ota-lawsuit--claiming-federal-trade-commission-is-violating-students-constitutional-rights-301063923.html>

suggest that their interface designers have at this point mostly solved the challenge of building an informationally dense application for a small-screen mobile device, and that the development team has already overcome most if not all technical challenges involved in making real-time alerts work over mobile.

In our view, having fully-functioning and fully-featured native mobile apps will become very important as the stay-at-home restrictions related to the COVID-19 pandemic continue to ease. Since late March of this year, many traders who also have full-time jobs have been free to (or even forced to) stay at home, and to the extent possible, work from home. We believe this has benefitted the Company to a significant degree, both in terms of gaining new users at a high rate, and in terms of making its lack of native mobile apps less detrimental to user acquisition and retention. However, the lack of native mobile apps has had a negative effect on the Company at least to some degree, as management informs us that over 50% of users that cancel their subscription cite their inability to receive BlackBox mobile alerts via their mobile browser to be their primary reason for leaving. On the positive side, the deployment of its mobile apps should give the Company a chance to take another bite out of the apple, by re-marketing previous users. However, on the negative side, we believe that not having these apps available as the world returns to more normal work and personal travel habits could pose a significant risk to the Company's growth and user-retention rates going forward, especially if they remained unavailable going into mid-2021.

Other than these two development initiatives, others could be in the works of which we are unaware. But assuming that is not the case, then once the Company completes and rolls out these two product extensions, we would expect the Company's development resources to then be focused on as-of-yet unannounced projects. The Company does closely monitor other participants in its market niche and is always on the lookout for new and innovative features that seem to be gaining traction with users of other systems. Management has stated that it will be quick to incorporate any new such functionality into the Company's system as the opportunity to do so arises. Also, management is evaluating the potential of adding select additional markets to BlackBox, of which (in our view) the futures markets - especially the ultra-liquid currency markets - would be a relatively obvious choice. Another reasonable choice that would be based on securities more similar to those currently covered would be the addition of foreign equity and (possibly) equity-based options markets, which might also necessitate the development of foreign-language versions of the system.



The Team

Gust Kepler, *Co-Founder and Chief Executive Officer*

Mr. Kepler is a firm believer in the adage “simplicity sells”. His mission as the founder and developer of the company’s technology is to offer the general public a comprehensive financial technology tool in a simple and user-friendly format. In addition to overseeing all aspects of product development, Kepler is responsible for strategic planning, marketing and corporate financial decisions.

Mr. Kepler previously served as the President of G2 International, Inc. G2 is a consulting firm with expertise in investment banking founded by Mr. Kepler in 2002. G2’s primary focus is taking private companies public and providing advice with regard to capitalization, strategic planning and investor relations.

Prior to founding G2, Mr. Kepler founded Parallax Entertainment, Inc. in 1996. Parallax was an independent record label, online promotional vehicle and e-commerce solution for musicians. Prior to Parallax, Kepler was the founder and President of Glance Toys, a toy and junior sporting goods company. Over its 10 year span, Glance sold its brand of products in dozens of major retail chains including Wal-Mart, Target, The Sports Authority and 7-Eleven.

Eric Pharis, *Co-Founder*

Eric Pharis has been working in quantitative finance for 20 years. Pharis earned his bachelor of in Mechanical Engineering from The University of Texas Austin in 1998 and his master’s degree in Operations Research from Cornell University with a certificate in Financial Engineering in 1999. While studying at UT, Pharis also worked for IBM and developed financial models to assist in output optimization.

After graduating Cornell, Pharis moved to Wall Street and began proprietary trading at Daytek Securities, the founders of INET, a pioneer in the area of electronic and algo trading.

In 2004, Pharis joined forces with David Kyle and founded Karma Blackbox. Karma Blackbox focused on developing algorithms for high frequency trading. In 2005 Pharis and Kyle launched the Karma Blackbox trading platform. Karma Blackbox has been profitable every month since its inception generating only 15 days of net trading losses in its first 650 days of trading. This original strategy is still in production and profitable. Karma Blackbox subsequently expanded trading operations to London, Tokyo and commodities markets.

In 2012, Pharis and Kyle launched quantBrasil – a fully quantitative, computer driven hedge fund in Brazil. This fund is built on the Karma Blackbox trading platform with headquarters in Miami and Rio de Janeiro. Pharis is in charge of the proprietary algorithm development and the associated trading strategies for the BBS platform. He also manages all historical data and acts as the lead data analyst for BBS.

David Kyle, Co-Founder

David Kyle has been working in software development for 21 years. Kyle earned his Bachelor of Science in Electrical Engineering from the University of Texas at Austin in 1996. While at UT, Kyle worked for Microsoft supporting the launch of Windows 95.

After graduating from the University of Texas in 1996, Kyle returned to Dallas and began working in quality assurance and support at J. Driscoll & Associates, who specialized in account reconciliation software for retailers. Kyle left Driscoll to develop software for Globeset from 2000. In 2002 he advanced to Trintech as a Senior Software Developer.

In 2004, Kyle joined forces with Eric Pharis and founded Karma Blackbox, focusing on developing computer driven algorithms for high frequency trading. In 2005 Kyle and Pharis launched the Karma Blackbox trading platform. Karma Blackbox has been profitable every month since its inception generating only 15 days of net trading losses in its first 650 days of trading. This original strategy is still in production and profitable. Karma Blackbox subsequently expanded trading operations to London, Tokyo, and the commodities markets.

In 2012, Pharis and Kyle launched quantBrasil – a fully quantitative, computer driven hedge fund in Brazil. This fund is built on the Karma Blackbox trading platform and has headquarters in Miami and Rio de Janeiro. Kyle is in charge of software engineering, database management, tick feed processing and all aspects of system development for the BlackBox platform.

David McKay, Director of Marketing

David McKay was one of the first subscribers to BlackBox after the platform went live. Shortly thereafter, he became a profitable trader and active member in the BlackBox community. His success as a trader and affinity for the product lead him to lobby the company to hire him. In September of 2016, McKay became Director of Marketing & Business Development in September of 2016.

Before joining BlackBox, McKay spent 9 years as the Marketing and Promotions Manager for the luxury spirits company, Moet Hennessy. He specialized in marketing strategies and brand development.

McKay also began a very successful career as a model and actor at the age of 18. His list of clients and campaigns includes Giorgio Armani, Calvin Klein, Neiman Marcus, and many other high-profile names in the fashion industry. He also worked as an actor in television and film for clients including the CBS network and Paramount Studios. His experience in this field made him a natural spokesperson and brand ambassador for BlackBox.

McKay oversees brand management, all content development for digital and traditional marketing, social media, as well as acting a liaison with ad agencies and PR firms.

Brandon Smith, Chief Technology Officer

Brandon serves as the Acting Chief Technology Officer for the company through his consulting firm Cyfeon Solutions. Brandon serves as the lead architect and developer for BlackBox real-time web application.

Cyfeon is a Financial Services vertical focused on operational and regulatory compliance. Financial Institutions such as Schwab, HSBC, Cowen, and more use Cyfeon's purpose-built solutions to federate and analyze large and disparate sources of data.

Prior to co-founding Cyfeon, he managed the Telecom & Network Outsourcing vertical for S3. His responsibilities included business development and delivery oversight of companies such as British Telecom, Hewlett Packard, and Proctor and Gamble.

Prior to S3, Brandon managed Lavastorm's Professional Services unit. He was responsible for managing a team of 50 full time employees worldwide as well as ensuring the delivery of enterprise grade solutions to those global customers.

Brandon holds an MBA from Southern Methodist University, a BBA in CIS from Texas State University and served four years in the United States Marine Corps.

Brad Swearington, Software Development

Brad Swearington has been in the Information Technology industry for more than 25 years and in the Financial Services industry since 1996. In 1996, Swearington cofounded CyberCorp and became the Chief Technology Officer. CyberCorp was one of the first companies to develop a direct market access system. Swearington managed the software development, quality assurance, and product development teams as well as programming the CyberTrader line of products.

CyberTrader was purchased by Charles Schwab in March of 2000. At that time, Swearington was employed with Charles Schwab & Co. as a Senior Vice President of Technology. In addition, he held the title of CIO and Executive Vice President. Swearington's professional leadership highlights while working at Charles Schwab and CyberTrader included managing a multi-million-dollar budget and workforce of over 200 employees and contractors domestic and offshore. The areas of responsibility included product development, product management, software development, training, and quality assurance. Mr. Swearington oversaw much of the technology integration between CyberTrader and Schwab including the addition of streaming quotes for Schwab's Velocity clients, the introduction of StreetSmart Pro to 250,000 active trader clients.

In 2015, Swearington joined forces with Rod Taylor and co-founded Switchback Partners, which focuses on financial consulting and software development. Switchback Partners works closely with the BlackBox management team to provide development, quality assurance, as well as product recommendations for BlackBox products.

Swearington earned his Bachelor of Computer Science in 1989 from Missouri Southern State University. In addition, he attended graduate school at the University of Missouri Rolla concentrating on predictive technology and artificial intelligence.

Rod Taylor, *Product Manager*

Rod Taylor has been in the Financial Services industry for +20 years. He was a designated principal at CyberTrader, which was acquired by Charles Schwab in 2000. After the acquisition, Rod ran the company's Brokerage/Operations & Brokerage Technology, Risk Management, and Order Flow Management. Rod also managed the Market Data team which built Schwab's ticker plant powering every Schwab trading application with quotes, executions, news, etc.

Rod left Schwab in 2005 to build a Financial Services vertical for S3, a best execution product company for banks, bulge bracket firms, and capital markets.

In 2011, Rod joined with Brandon Smith at Cyfeon and launched a Financial Services vertical focused on operational and regulatory compliance. Customers such as Schwab, HSBC, Cowen, and more use Cyfeon's purpose-built solutions to federate and analyze large and disparate sources of data.

Rod is in charge of project management and budgeting for web and UI and UX development for BlackBox, Inc.

Keller Reid, *Business Development Liaison*

Keller Reid is a fintech veteran with 15 years of experience in all aspects of the financial services industry. He has advised fintech startups and serves on multiple boards in addition to his work in the wealth management space.

Keller earned his BS in Social and Decision Sciences from Carnegie Mellon University, and is a graduate of the Securities Industry Institute at Wharton. He speaks regularly at industry events, sits on a variety of industry committees and is a Director and former Secretary of the Dallas Securities Traders Association. He holds his series 4, 7, 24, 55 and 63 licenses, and is studying for the CFA Institute's CIPM exam in April.

Keller began his Wall Street career as an engineer at Schwab Capital Markets (now UBS) in 2001. In 2002 Keller began managing technology for Jefferies, the largest market making desk in Dallas. In 2005 Keller started Penson's Execution Services division. The system he designed for Penson is still regarded as the most sophisticated retail router on the street. By 2009 his division was generating \$20mm+/year in revenue and 15% of all stock traded in the US used his products. Keller served as COO for Penson Execution Services from 2010-2012, where he implemented a sophisticated dark pool trading system.

In 2012 Apex acquired Penson. Apex is a leading provider of clearing and execution solutions to the financial services industry. Among Keller's clients at Apex were Wealthfront, Betterment, Personal Capital, TradeKing, OptionsHouse, Zecco, FirstTrade and ThinkorSwim.

Keller leverages his vast experience and strong relationships in the financial industry to assist the company in forming strategic partnerships. He also serves as a liaison, sourcing, communicating and collaborating with key vendors for the company.

Risks

To varying degrees, the occurrence of any of the risk events discussed in this section would likely reduce the Company's revenue and earnings growth and/or depress the price of the its shares, or at a minimum reduce the degree to which its shares would appreciate, given the occurrence of the risk event.

Non-Favorable Stock Market Risk

Most traders would agree that high levels of volatility in the stock market works to their advantage, and for many calendar quarters now the market has indeed been quite volatile. However, there is some risk that this could change in the future, thus reducing the effectiveness and the value of the Company's platform. This would be particularly true in regard to a protracted bear market characterized by low price volatility, such as that of 1973-1974.

Uplisting / Secondary Offering Risks

The planned NasdaqCM uplisting and secondary stock offering, if successful, would likely benefit existing shareholders by increasing the profile of the Company and dramatically improving the liquidity of its shares. That said, it may be difficult for the Company to complete a secondary offering as planned, a variety of reasons, including a non-trending or down-trending stock market. Therefore, our model does not factor in the probable positive effects from either the cash infusion or improved profile and trading liquidity that would come from a NasdaqCM uplisting and concomitant secondary stock offering. It does, however, factor in the likely dilution created by the planned 2021 secondary offering.

Economic Risk

COVID-19 has caused an unprecedentedly severe decline in U.S. economic output that may have unknown and unforeseeable long-term effects, both on the domestic and global economies, and on the business and valuation of the Company.

Financial Forecasting Risk

In early 2020, for the first time in its operating history, the Company secured enough capital to execute a bona fide digital marketing initiative, which resulted in extremely rapid growth in its total users during the first half of 2020. Furthermore, the Company was able to achieve this growth at a very low expense-to-value ratio. Based on the number of members using the social media platforms the Company is targeting (Twitter, Facebook, etc.) and size of the Company's total available market, we believe the it can spend many multiples of its current marketing spend while still maintaining high marginal profit for each new subscriber. Despite this belief (and the strong evidence to support it), we have conservatively modeled an initially aggressive but then declining marginal growth rate over next 2.5 years. However, since the future is inherently unpredictable, our assumptions may turn out to have been somewhat optimistic, despite the conservatism of our approach.

Competitive Risk

We believe that Blackbox has the most attractive product offering in its niche, and as a result is this niche's current market leader, which includes systems that offer social trading, sophisticated analytics, and a variety of training resources. However, it is impossible to foresee all future competitive developments that could potentially reduce the current competitive advantages of the Company's system. While we view serious direct competition as being extremely unlikely, if it were to occur, it would likely have a negative impact on the Company's business and share price.

Product Development Risk

While we believe the Company will likely be successful in developing high-quality mobile apps for both iOS and Android devices in the near future, this may not prove to be the case. If it cannot develop such apps within the next few quarters, we would revise our growth assumptions downward to at least a moderate degree.

Other Risks

As is typical with smaller, high-growth companies, myriad other risks do exist. These include loss of key personnel, substantial future dilution, geopolitical risks, and risks related to natural disasters. These risks are typical of every company at this stage of its development.

Financial Analysis

Like many smaller technology-based companies, BlackBox has had periods of undercapitalization and risk of outright failure, and it survived these early crises by borrowing money from what in the securities business we call “lenders of last resort.” These types of lending institutions typically issue convertible debt securities that have various provisions that protect the lenders and, if triggered, can be damaging or even lethal to the borrowing entity, due to the added expense and sometimes extreme dilution they entail. The convertible debt instruments through which these lenders provide capital are often called “toxic” because they are often convertible into common stock at an unknown future conversion prices that are based on the Company’s trailing stock price history. This sort of instrument sometimes allows the lender to push the share price down to much lower levels – possibly by introducing some negative rumors in the market – and then convert their debt into common stock at exceptionally low per-share prices. While sometimes not entirely legal, this sort of eventuality is not all that uncommon, and in the past this scenario constituted a very large risk to BLBX shareholders.

However, in this particular case, and in no small part due to the experience of the CEO and management team, the Company was recently able to renegotiate the terms of its toxic debt so that the per-share conversion price was fixed, making the debt non-toxic. This was a huge win for the Company, as without it an uplisting to the NasdaqCM and the completion of the planned secondary offering would have been all but impossible.

Capital Structure

Based on the information contained in the Company’s most recently filed 10-Q, we believe that the Company’s now-simplified capital structure is relatively easy to understand, as follows:

The Company has 5,000,000 million shares of Series A Preferred Convertible Shares outstanding, held entirely by Gust Kepler, the Company’s CEO. Each share of this Preferred is convertible into one share of common stock and is like common stock in all other respects, with the one exception that each share of the Series A Convertible Preferred entitles the holder to 100 votes. The effectively gives Mr. Kepler absolute control of the Company, and for all intents and purposes he will retain that control no matter how many more shares the Company issues in the future. While many investors would view this as a negative, we tend to see it as a positive, in that (in our experience) no one benefits when the founders, leaders, and primary drivers of a company’s success become preoccupied with the idea that they could be ousted from their own Company.

The Company is planning to begin raising additional capital via a private placement almost immediately, in which it plans to sell approximately 700,000 common shares at \$1.95 per share. If the Company’s future financing proceeds according to plan, then before it uplists and completes its secondary offering on the NasdaqCM, its capital structure should appear as follows:

<i>Security</i>	<i>Terms</i>	<i>Relevant Details</i>
5,000,000 shares of Series A Convertible Preferred Shares	1:1 conversion to common stock	Each share has 100 votes; 100% owned by CEO Gust Kepler
8,124,903 of Common Stock	Standard common stock, par value \$0.001	
\$100,000 of Convertible notes	Convertible at \$1.95 per share, interest to be paid in arrears at a rate of 52% per annum.	Convertibility re-negotiated from \$0.60 to \$1.95 in March, in return for issuance of 115,385 penny warrants, which were converted into 115,385 shares of common stock on July 10, 2020 at \$0.01 per share.
Two notes 8% convertible notes issued to same lender in the face amounts of \$385,000 and \$165,000.	Company agrees to pay all principal and interest due beginning on July 20th, 2020 in 13 equal payments.	Convertible into common stock at \$1.95 per share. Previously toxic notes, but no longer.
360,000 warrants, strike price of \$1.00 per share, issued to holders of 8% convertible notes (see preceding row) for note terms.	Exercisable beginning January 10, 2021 and expiring on July 10, 2025	Issued in conjunction with toxic notes re-negotiation in July of 2020 (see notes explained in preceding row).
New common share issuance of 25,641 shares and 12,821 warrants	Sold for \$1.95/share; five-year warrants, exercise price of \$1.95/shr.	
Another issuance of 25,641 shares and 12,821 warrants	Sold for \$1.95/share; five-year warrants, exercise price of \$1.95/shr.	Not included in total shares as of second-quarter 10-Q filing
Planned sale of 700,000 shares of common stock at \$1.95 per share	Straight common-stock; Company may choose to sell a portion of these shares with warrants attached.	No additional info.

Assuming that the Company successfully completes its planned private placement of approximately 700,000 shares, and assuming that there are no additional warrants attached, the Company will have approximately 8,835,000 shares of common stock issued and outstanding. The Company has convertible debt with an outstanding principal balance of \$732,500 that is convertible into 476,348 shares of common stock, and has outstanding warrants that are exercisable into 375,642 shares at an average exercise price of \$1.23 per share. The approximate total number of common shares that would be outstanding assuming the conversion of all convertibles and the exercise of all warrants would be approximately 14,700,000 shares.

Valuation Analysis

Our Financial Forecast Model

We built our forecast model from the ground up, beginning with our estimates of the Company's current customer acquisition costs (CACs), implied attrition rate, its current pricing and affiliate marketing payout structure, and likely weekly sequential growth in memberships and revenues based on current (but growing) marketing-expenditure levels. We also accounted for likely rising CACs as the Company is forced to work a little harder for each new customer, which we forecast to triple by the end of 2021 to over \$150 per customer (still over a 5:1 value-to-cost

ratio, based on our attrition estimates and the current lifetime value of a new customer, which should increase over time as the system improves further). We also estimated gross costs such as exchange data feeds on a weekly basis, based on their published pricing schemes, and finally aggregated all of our weekly estimates in 13-week quarters that almost exactly match calendar quarters.

Looking beyond the next six quarters, we steadily reduced sequential growth rates across the board, arriving at a “terminal” annual sales growth rate of just 39.9% by the end of 2022. In terms of earnings per share, investors should focus on our fully-diluted estimates, which assume conversion of all outstanding preferred shares and the exercise of all outstanding warrants, all of which are currently in the money.

We believe that all of our growth assumptions and cost parameters map very well to real-world dynamics, and are most certainly consistent with the Company’s growth performance over the last six months. However, given the uncertainty inherent in financial forecasting, especially as it pertains to high-growth companies, we believe there is both significant upside and significant downside risk to our numbers, the magnitude of which increases in lockstep with the duration of time between this writing and the forecasted reporting period. While we our internal models are built through CY 2023, we have included only through 2022, as in our view there is simply too much uncertainty in 2023 to provide any real value in forecasting this year’s future results.

BLBX Peer Group

Candidly, we struggled a bit to find appropriate comparables for BLBX, but ultimately settled on a group of much larger companies that employ SaaS business models, or similar subscription models (e.g. online education memberships), albeit mostly with much lower trailing and forecast growth rates. Of this group of eight big-board comparables, we focused our analysis on the three with the highest forecast growth rates, namely Chegg (CHGG – NYSE), Shopify (SHOP – NYSE), and Twilio (TWLO – NYSE).

BlackBoxStocks Peer Group - Major Membership-based Enterprises - SaaS & EDUaaS

Company	Trading Symbol	Trading Market	Prices as of the Close, Sep 11 '20	Mkt Cap (mln)	Enterprise Value (mln)**	TTM P/E Ratio	Forward P/E Ratio	TTM P/S Ratio	PEG Ratio***	PEG CAGR on fP/E	Operating Margin*	YoY Earnings Growth
Adobe	ADBE	NasdaqGS	471.35	228,450	228,800	62.83	42.92	19.30	2.86	15.00	31.36%	15.00%
Chegg	CHGG	NYSE	65.65	9,410	9,652	6,555.00	43.67	16.46	1.75	25.00	7.61%	25.00%
Factset	FDS	NYSE	327.04	12,425	12,830	33.48	30.40	8.52	4.84	6.28	30.69%	6.28%
Hubspot	HUBS	NYSE	279.51	13,531	13,164	N/A	250.00	16.18		20.00	-6.48%	20.00%
Netflix	NLFX	NasdaqGS	482.03	223,536	234,096	81.19	55.25	9.61	1.30	42.40	16.59%	42.40%
Shopify	SHOP	NYSE	914.50	110,364	106,517	N/A	400.00	53.11	3.69	108.30	-4.27%	108.30%
Salesforce	CRM	NYSE	243.10	230,971	227,881	99.12	82.64	11.66	4.24	19.48	0.55%	19.48%
Twilio	TWLO	NYSE	231.17	32,121	30,916	N/A	1,110.00	23.06		20.50	-26.44%	20.50%
Average Values, Peers			376.79	107,601	107,982	1,366.32	50.98	19.74	3.11	32.12	6.20%	32.12%
Average Values, Best 3 based on Sales CAGR			403.77	50,632	49,029	6,555.00	517.89	30.88	2.720	51.267	-7.70%	51.27%
BlackBoxStocks	BLBX	OTC Pink	2.70	36,431	39.4	N/A	7.77	20.17	0.061	127.073	50.40%	104.68%

* BLBX Operating Margin based on our 2021 estimates

Valuation Methodology

Since we lack the data to perform a forward-looking discounted cash flow analysis of each comparable, we settled on three valuation measures: **price to trailing sales (ttm P/S)** ratio, **price to forward earnings (fwd P/E)** ratio, and price to forward earnings ratio divided by forecast revenues' 5-year compound annual growth rate (CAGR-5), also known as a **PEG ratio**¹² - written mathematically: (P/E)/G.

Key Valuation Comparison Metrics			
	ttm P/S	fwd P/E	PEG
"Best" Peers, Averages	30.9	517.9	2.7
All Peers, Averages	19.7	51.0	3.1
BlackBoxStocks (BLBX)	20.2	7.8	0.06

Notably, if we remove the two forward P/E outliers (SHOP: 400 and TWLO: 1,100) from the data, the full peer group average forward P/E is only 50.98, a far more reasonable number than 517.89 in our opinion. That said, BLBX seems roughly in line with its peer group on a ttm P/S basis, but 85% undervalued vs. even the corrected full peer group on a forward P/E basis, and extremely undervalued based on a PEG basis.

However, an important counter-view to this analysis is that in the case of these large and well-established companies, investors can have fairly high confidence in their concomitant 5-year growth forecasts. However, in the case of BLBX, despite the fact that our forecasts are soundly constructed with reasonable parameter values based on the Company's recent historical growth, investors cannot and should not have the same high confidence interval in our forecasts. It is simply impossible to forecast the futures of younger and less mature companies with the same confidence that forecasts pertaining to large, proven companies can be made.

Conclusion, Valuation Analysis

Because of the significantly higher risks inherent in our financial forecasts vs. analyst forecasts of companies in our comparable group, we must heavily discount the current values suggested by the three measures we have considered. We have done just that, in two ways. First of all, we have computed values for these three models based on the "full" peer group's numbers, and we also removed the two aforementioned (high-valuation) outliers from the fwd P/S average. Secondly, we reduced the valuation suggested by our blended metrics by a full 80%, to account for the relatively high risk in our financial forecasts. However, despite these downward adjustments, versus the full peer group, **BLBX still appears to be very undervalued, with the blended measure yielding a current fair value estimate of \$10.53 per share.** Note that had we not reduced these numbers by 80% and instead treated the Company as an established enterprise of the same ilk as our those in comparable group, then based on our sound logic and data-driven forecast model, our fair value estimate would have been five times higher. Needless to say, this leaves a great deal of room for the Company to outperform our price target over the next 12 months, even if it significantly underperforms our model in terms of the sales and earnings we have forecast through 2022.

¹² PEG ratio is a favorite among sophisticated investors because it takes long-term forecasted growth into account, whereas most other measures do not. Given a certain forward P/E ratio, the higher the growth rate, the lower the PEG ratio. For example, if Company A is forecast to have 5-year annual growth of 20% and its current forward P/E is 40, its PEG value would be 2.0; if Company B is forecast to grow equivalently, but its forward P/E is only 10, its PEG value would be 0.5. In general, a PEG of 1.0 or lower is considered very positive from a valuation standpoint, although in the current market environment even PEGs below 2.0 are difficult to find.

Note that because compound growth is geometric whereas simple division is linear, PEGs underestimate values of companies with very high growth rates; the higher the growth rate, the more severe the PEG value underestimation.

Conclusion and Investment Thesis

BlackBox seems to have finally gotten everything right. Its past product development and improvement, and recent investment in digital marketing, generated sales during the first six months of this year that exceeded the prior six months' sales by 110.2%. It has so far only scratched the surface of a market that is extremely large both domestically and internationally, leading us to believe that it can continue growing at very high annual rates for at least the next five to seven years, not considering its possible expansion into new financial markets such as international equities and domestic futures markets, nor new offerings it may successfully develop and launch during this time period. Members of its leadership team have proven their tenacity, leadership ability, and perseverance through a financially difficult initial few years, and as a result the Company is now cash-flow positive and growing extremely rapidly. This gives us every reason to believe that the Company will be able to secure the additional capital it seeks and most likely obtain the NasdaqCM listing it plans to achieve, all during the next three to four calendar quarters.

Therefore, we rate the shares of BLBX a Strong Buy, and set our 12-month price target at \$10.53 per share. We would recommend an investment in these shares at current levels for all risk-tolerant, growth-oriented investors who understand the risks micro-cap investments entail.



The BlackBox Option Flow Scanner is fully automated, and tracks large block trades in the options market, allowing users to follow the institutional investors or “smart money” in real-time. This system also generates proprietary alerts, featuring some of the largest most aggressive trades as they are occurring. Used primarily by directional traders, this technology is designed to summarize the daunting quantity of options and/or dark pool trade data, and corresponding news, in an easy to understand, user-friendly dashboard.

Harbinger Research BlackBoxStocks Profit and Loss Model

(In 000s, except per-share and per-user data)	FY/CY 2019	Q1 '20	Q2 '20	Q3 '20	Q4 '20	FY/CY 2020	Q1 '21	Q2 '21	Q3 '21	Q4 '21	FY/CY 2021	FY/CY 2022
Total users at end of period, estimated		1,800	3,500	4,799	7,865	7,865	11,910	16,863	22,276	27,486	27,486	41,186
<i>Total user sequential growth rates, year-over-year basis</i>			94.4%	37.1%	124.7%		51.4%	41.6%	32.1%	23.4%	249.5%	49.8%
Revenues	1,063	415	809	1,537	2,166	4,927	3,306	4,834	6,584	8,376	23,100	46,495
<i>Sequential growth rate</i>	53.3%	45.2%	94.8%	90.0%	40.9%	363.7%	52.6%	46.2%	36.2%	27.2%	368.9%	101.3%
Gross costs	737	208	298	267	395	1,168	551	766	1,000	1,247	3,565	6,723
Gross profit	326	207	511	1,270	1,771	3,759	2,754	4,068	5,584	7,129	19,535	39,772
<i>Gross margin</i>	30.7%	49.9%	63.2%	82.6%	81.8%	76.3%	83%	84%	85%	85%	84.6%	85.5%
Operating expenses												
Research and development	131	34	58	83	83	257	110	125	170	217	622	1,202
Sales and marketing	671	0	0	222	399	941	685	1,093	1,587	2,070	5,435	11,876
General and administrative	1,200	404	407	427	410	1,647	430	450	470	490	1,840	2,160
Total operating expenses	1,331	438	465	731	892	2,526	1,225	1,668	2,227	2,776	7,897	15,238
Operating profit	-1,005	-231	47	539	879	1,234	1,529	2,399	3,357	4,353	11,638	24,534
<i>Operating margin</i>	-94.6%	-55.6%	5.8%	35.1%	40.6%	25.0%	46.3%	49.6%	51.0%	52.0%	50.4%	52.8%
Total other expenses	1,978	-274	-147	115	105	-202	85	0	0	0	85	0
Pre-tax income	-2,983	43	194	424	774	1,435	1,444	2,399	3,357	4,353	11,554	24,534
Taxes paid	0	0	0	0	0	0	0	-24	705	914	1,595	5,152
Net income	-2,983	43	194	424	774	1,435	1,444	2,424	2,652	3,439	9,959	19,382
<i>Net margin</i>	-280.8%	10.3%	24.0%	27.6%	35.7%	29.1%	43.7%	50.1%	40.3%	41.1%	43.1%	41.7%
Earnings per share (EPS), fully-diluted	(0.233)	0.003	0.014	0.030	0.055	0.106	0.090	0.151	0.165	0.214	0.620	1.207
Shares outstanding, fully-diluted	12,783	12,943	13,450	14,189	14,189	13,570	16,064	16,064	16,064	16,064	16,064	16,064

BlackBoxStocks Peer Group - Major Membership-based Enterprises - SaaS & EDUaaS

Company	Trading Symbol	Trading Market	Prices as of the Close, Sep 11 '20	Mkt Cap (mln)	Enterprise Value (mln)**	TTM P/E Ratio	Forward P/E Ratio	TTM P/S Ratio	PEG Ratio***	PEG CAGR on fP/E	Operating Margin*	YoY Earnings Growth
Adobe	ADBE	NasdaqGS	471.35	228,450	228,800	62.83	42.92	19.30	2.86	15.00	31.36%	15.00%
Chegg	CHGG	NYSE	65.65	9,410	9,652	6,555.00	43.67	16.46	1.75	25.00	7.61%	25.00%
Factset	FDS	NYSE	327.04	12,425	12,830	33.48	30.40	8.52	4.84	6.28	30.69%	6.28%
Hubspot	HUBS	NYSE	279.51	13,531	13,164	N/A	250.00	16.18		20.00	-6.48%	20.00%
Netflix	NLFX	NasdaqGS	482.03	223,536	234,096	81.19	55.25	9.61	1.30	42.40	16.59%	42.40%
Shopify	SHOP	NYSE	914.50	110,364	106,517	N/A	400.00	53.11	3.69	108.30	-4.27%	108.30%
Salesforce	CRM	NYSE	243.10	230,971	227,881	99.12	82.64	11.66	4.24	19.48	0.55%	19.48%
Twilio	TWLO	NYSE	231.17	32,121	30,916	N/A	1,110.00	23.06		20.50	-26.44%	20.50%
Average Values, Peers			376.79	107,601	107,982	1,366.32	50.98	19.74	3.11	32.12	6.20%	32.12%
Average Values, Best 3 based on Sales CAGR			403.77	50,632	49,029	6,555.00	517.89	30.88	2.720	51.267	-7.70%	51.27%
BlackBoxStocks	BLBX	OTC Pink	2.70	36,431	39.4	N/A	7.77	20.17	0.061	127.073	50.40%	104.68%

* BLBX Operating Margin based on our 2021 estimates

About Harbinger Research, LLC

Harbinger Research, LLC is one of a new breed of issuer-sponsored research boutiques, providing unbiased equity research coverage to smaller issuers that cannot attract research coverage from traditional brokerage firms' research departments. Our mission is to help both investors and public issuers by improving the availability of issuer information and by providing sound, unbiased analysis of our issuer-clients' businesses, industries, and current market valuations.

The policies of Harbinger Research, LLC require that all personnel strictly adhere to the CFA Institute's Code of Ethics and Standards of Professional Conduct, and its Best Practice Guidelines Governing Analyst / Corporate Issuer Relations. Please see www.cfainstitute.org for more information.

Our Rating System

We rate enrolled companies based on the appreciation potential we believe their shares represent. The performance of those companies rated "Speculative Buy" or "Strong Speculative Buy" are often highly dependent on some future event, such as FDA drug approval or the development of a new key technology.

Explanation of Ratings Issued by Harbinger Research

STRONG BUY	We believe the enrolled company will appreciate more than 50% relative to the general market for U.S. equities during the next 12 to 24 months.
BUY	We believe the enrolled company will appreciate more than 30% relative to the general market for U.S. equities during the next 12 to 24 months.
STRONG SPECULATIVE BUY	We believe the enrolled company could appreciate more than 50% relative to the general market for U.S. equities during the next 12 to 24 months, if certain assumptions about the future prove to be correct.
SPECULATIVE BUY	We believe the enrolled company could appreciate more than 30% relative to the general market for U.S. equities during the next 12 to 24 months, if certain assumptions about the future prove to be correct.
NEUTRAL	We expect the enrolled company to trade between -10% and +10% relative to the general market for U.S. equities during the following 12 to 24 months.
SELL	We expect the enrolled company to underperform the general market for U.S. equities by more than 10% during the following 12 to 24 months.

Analyst Certification

I, Brian R. Connell, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the recommendations or views expressed in this research report.

Analyst Highlight

Brian Connell, CFA, Senior Research Analyst

Mr. Connell has over 20 years' experience in the securities industry, as an equity analyst and portfolio manager, and as the founder and CEO of StreetFusion (acquired by CCBN/StreetEvents), a software company serving the institutional investment community. On the sell-side, Mr. Connell served as the technology analyst for Neovest, an Atlanta-based boutique, and as a Senior Analyst - Internet for Preferred Capital Markets, an investment bank based in San Francisco. Mr. Connell has also held the position of Executive Director of Marquis Capital Management, a technology-focused investment management organization.

Mr. Connell holds degrees in Economics and Psychology from Duke University, and is a CFA Charterholder.

Jeffrey Hanson, Senior Research Analyst

Mr. Hanson is a seasoned international investment professional. His finance and business background spans three continents and a variety of key roles such as Head of Equity Research for Credit Suisse in Taipei; Research Analyst for City of London Investment Group in London; Research Assistant for Prudential Portfolio Management in Hong Kong, and Managing Partner for Belmont Oaks in Illinois.

For hobby and to earn passive income, he has accumulated a portfolio of rental condos and is an active HOA Board Member in Metro Manila. He was also a profitable currency investor for several years.

Jeffrey is highly fluent in Mandarin Chinese, earned a Finance MBA at the London Business School and a B.S. in Engineering at the University of Illinois.

Disclaimer

This report was prepared for informational purposes only. Harbinger Research, LLC (“Harbinger”) was paid \$10,000 by BlackBoxStocks, Inc. (“BlackBox” or the “Company”) for the preparation and distribution of this research report. All information contained in this report was provided by the Company. To ensure complete independence and editorial control over its research, Harbinger has developed various compliance procedures and business practices including but not limited to the following: (1) Fees from covered companies are due and payable prior to the commencement of research; (2) Harbinger, as a contractual right, retains complete editorial control over the research; (3) Analysts are compensated on a per-company basis and not on the basis of his/her recommendations; (4) Analysts are not permitted to accept fees or other consideration from the companies they cover for Harbinger except for the payments they receive from Harbinger; (5) Harbinger will not conduct investment banking or other financial advisory, consulting or merchant banking services for the covered companies.

Harbinger did not make an independent investigation or inquiry as to the accuracy of any information provided by the Company and is relying solely upon information provided by the Company for the accuracy and completeness of all such information. The information provided in the Report may become inaccurate upon the occurrence of material changes, which affect the Company and its business. Neither the Company nor Harbinger is under any obligation to update this report or ensure the ongoing accuracy of the information contained herein. This report does not constitute a recommendation or a solicitation to purchase or sell any security, nor does it constitute investment advice. This report does not take into account the investment objectives, financial situation or particular needs of any particular person. This report does not provide all information material to an investor’s decision about whether or not to make any investment. Any discussion of risks in this presentation is not a disclosure of all risks or a complete discussion of the risks mentioned. Information about past performance of an investment is not necessarily a guide to, indicator of, or assurance of, future performance. Harbinger cannot and does not assess, verify or guarantee the adequacy, accuracy, or completeness of any information, the suitability or profitability of any particular investment, or the potential value of any investment or informational source. Harbinger and its clients, affiliates and employees, may, from time to time, have long or short positions in, buy or sell, and provide investment advice with respect to, the securities and derivatives (including options) thereof, of companies mentioned in this report and may increase or decrease those positions or change such investment advice at any time. Harbinger is not registered as a securities broker-dealer or an investment adviser either with the U.S. Securities and Exchange Commission or with any state securities regulatory authority.

ALL INFORMATION IN THIS REPORT IS PROVIDED “AS IS” WITHOUT WARRANTIES, EXPRESSED OR IMPLIED, OR REPRESENTATIONS OF ANY KIND. TO THE FULLEST EXTENT PERMISSIBLE UNDER APPLICABLE LAW, HARBINGER EQUITY RESEARCH, LLC WILL NOT BE LIABLE FOR THE QUALITY, ACCURACY, COMPLETENESS, RELIABILITY OR TIMELINESS OF THIS INFORMATION, OR FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES THAT MAY ARISE OUT OF THE USE OF THIS INFORMATION BY YOU OR ANYONE ELSE (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOSS OF OPPORTUNITIES, TRADING LOSSES, AND DAMAGES THAT MAY RESULT FROM ANY INACCURACY OR INCOMPLETENESS OF THIS INFORMATION). TO THE FULLEST EXTENT PERMITTED BY LAW, HARBINGER EQUITY RESEARCH, LLC WILL NOT BE LIABLE TO YOU OR ANYONE ELSE UNDER ANY TORT, CONTRACT, NEGLIGENCE, STRICT LIABILITY, PRODUCTS LIABILITY, OR OTHER THEORY WITH RESPECT TO THIS PRESENTATION OF INFORMATION.

Harbinger Research is an independent equity research firm with a focus on providing coverage to small-cap companies. Our mission is to help our clients achieve fairer market valuations, an expanded shareholder base, improved liquidity, and easier access to capital markets. We do this by providing insightful, in-depth research reports and by making sure those reports are widely distributed and made available to both institutional and individual investors. We strive to deliver superior research coverage and the result is compelling – consistent coverage from industry-expert analysts that is well written and consists of insightful analysis, cogent arguments, and in-depth financial models. To learn more about Harbinger Research and view our research reports, we invite you to visit our website located at www.harbingerresearch.com.