

Research Report – Update

Investors should consider this report as only a single factor in making their investment decision.

Phunware, Inc.

Rating: Speculative Buy

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September 7, 2021

PHUN \$1.12 — (NASDAQ)

	2018 A*	2019 A	2020 A**	2021 E***	2022 E
Revenue (in millions)	\$22.5	\$19.2	\$10.1	\$6.6	\$10.5
Earnings (loss) per share	(\$0.38)	(\$0.35)	(\$0.40)	(\$0.27)	(\$0.15)

52-Week range	\$3.34 – \$0.60	Fiscal year ends:	December
Shares outstanding a/o 08/10/21	74.9 million	Revenue/shares (ttm)	\$0.14
Approximate float	62.1 million	Price/Sales (ttm)	8.0X
Market Capitalization	\$83.9 million	Price/Sales (2022) E	8.0X
Tangible Book value/shr	(\$0.21)	Price/Earnings (ttm)	NMF
Price/Book	NMF	Price/Earnings (2022) E	NMF

*Excludes \$8.4 million in revenue from becoming publicly traded ** Excludes an (\$0.10) legal settlement charge *** Excludes (\$0.08) on net extinguishment of debt and impairment charge
Phunware Inc., headquartered in Austin, Texas, designed and developed the Multiscreen-as-a-Service (MaaS) platform, a fully integrated enterprise cloud platform for mobile to its customers. MaaS platform provides customers with the products, solutions, data and services needed to build, manage, and monetize their mobile application portfolios at scale. PHUN's MaaS technology platform includes its patented location based services technology and service offerings.

Key Investment Considerations:

Maintaining Speculative Buy rating but reducing our 12-month price target to \$1.65 per share from \$2.35 due primarily to a reduction in our 2022 sales forecast, partly offset by an increase in sector valuation.

Phunware has substantial growth potential for its Multiscreen-as-a-Service (MaaS) technology platform that includes its patented location based service technology and service offerings within markets such as healthcare, smart cities, and corporate campuses. Analysts project the mobile healthcare and smart cities markets could see 2020 revenue quadruple to \$214 billion in 2025 and \$464 billion in 2027, respectively.

In 2H21, we anticipate revenue and backlog (\$8 million in 2Q21, up from \$7.7 million in 1Q21) growth to accelerate as PHUN is expected to expand its go-to-market strategy with new indirect sales and channel partners, including its anchor distribution partner (Carrier Global Corporation) that was signed in 2Q21.

In 2Q21, PHUN launched its blockchain ecosystem, which should complement and supplement its core MaaS offerings by offering enterprise customers additional capabilities to identify and engage their target audiences.

PHUN reported (on 8-12-21) a 2Q21 loss of (\$0.12) per share on revenue of \$1.4 million. In 2Q20, the loss per share was (\$0.08) on revenue of \$2.2 million. We projected a (\$0.10) per share loss on revenue of \$1.8 million.

For 2021, we project a loss of (\$0.27*) per share (prior was (\$0.20) per share) on a 34.5% revenue decrease to \$6.6 million (prior was \$10.5 million). Our reduced forecasts reflect lower than anticipated 1H21 results.**

For 2022, we project a loss of (\$0.15) per share from our prior forecast of (\$0.07) per share on 60.3% revenue growth to \$10.5 million (prior was \$17 million). Our forecast reflects customer acceptance of PHUN's portfolio of MaaS offerings at a slower pace than previously anticipated.

Please view our Disclosures pages 15 – 17.

Appreciation Potential

Maintaining Speculative Buy rating but reducing 12-month price target to \$1.65 per share from \$2.35 due primarily to a reduction in our 2022 sales forecast, partly offset by an increase in sector valuation. Our price target should be supported by the company's growing customer base of higher margin recurring revenue to 2022. We anticipate revenue growth of 60.3% in 2022, up from an estimated 34.5% revenue decrease in 2021. We anticipate recurring quarterly revenues should approach \$3 million in 4Q22 (prior was \$5 million) compared to \$1.2 million in 2Q21.

Our rating reflects the company's MaaS technology offerings gaining enterprise customer acceptance. Starting in 4Q21, we anticipate sales and backlog growth should accelerate due to the engagement of new indirect sales and channel partners that include its anchor distribution partner (Carrier Global Corporation), along with other distribution partners announced in 3Q21 (HID Global and Cox Communications' business division). In 2Q21, the company launched its blockchain ecosystem that could potentially complement and supplement the company's core MaaS offerings by offering enterprise customers additional capabilities to identify and engage their target audiences.

Our 12-month price target of \$1.65 per share implies shares could appreciate approximately 50% over the next twelve months. According to finviz (a/o 8/31/21), the average trailing twelve-month price-to-sales multiple for companies in the Software – Application and Infrastructure sectors is 12.8X (prior was 11.7X). PHUN's trailing twelve-month price-to-sales multiple is 8X (prior was 7.6X). We anticipate investors are likely to accord PHUN a multiple approaching that of the sector given our forecasted sales growth of 60.3% for 2022. We applied a price-to-sales multiple of 12.3X (prior was 11.7X) to our 2022 sales per share forecast of \$0.14, discounted for execution risks, to obtain a year-ahead price target of approximately \$1.65 per share.

A higher valuation of Phunware is likely to be supported by quarterly sequential sales growth that should begin in 3Q21, a narrowing of operating losses, reduced cash burn, and an increase in its recurring revenue customer-base. In 2022, we forecast PHUN's operating losses narrowing to \$11.2 million from an estimated loss of \$14.8 million in 2021. PHUN's cash burn should narrow to \$5.8 million in 2022 from an estimated \$11.9 million in 2021 and \$14.3 million in 2020.

We believe Phunware, Inc. is most suitable for high-risk tolerant investors that seek exposure to a microcap company providing an integrated enterprise cloud MaaS technology platform for mobile to its customers.

Overview

Phunware Inc., headquartered in Austin, Texas, is a provider of the Multiscreen-as-a-Service (MaaS) platform, which is a fully integrated enterprise cloud platform for mobile infrastructures in order to provide companies the products, solutions, data, and services needed to build, manage, and monetize their mobile application portfolios at scale. PHUN's technology includes its patented location based service technology that provides real-time unique features that include indoor and offshore tracking (as well as outdoor and onshore tracking) on the ground, in large buildings, and in the air. The offering meets the needs of the hearing and visually impaired and people that are in wheelchairs.

The company's mission is to assist customers in defining their brands, as well as to create, launch, promote, monetize and scale their mobile identities as a means to anchor consumers brand interactions. PHUN's MaaS technology platform of service offerings provides the entire mobile lifecycle of applications, media and data in one login through one procurement relationship at scale. Phunware is striving to become an integral part of the cloud-based big data mobile apps infrastructure. Over time, the company aims to dominate the intersection of mobile, cloud, and big data, enabling consumers to take control over how their data is used, shared and monetized.

Recent Developments

August 2021

The company announced it officially launch PhunCoin, a security token seeking to empower consumers to take control of and be compensated fairly for their data.

PHUN signed a letter of intent to acquire a US-based company in order to accelerate its new direct-to-consumer, go-to-market channel for Phunwallet, Phuntoken, and Phuncoin. The company intends to provide details of the transaction after a definitive agreement is signed. If the transaction is concluded, the company anticipates it could add nearly \$1 million per month in profitable transaction revenues to its core MaaS software licensing and services.

Technology Platform

PHUN's technologies have evolved into its Multiscreen-as-a-Service (MaaS) cloud-based technology platform and service offerings, which are designed for the licensing and creation of category-defining mobile experiences for brands and their application users worldwide at scale. Phunware is transitioning its technology and service offering to generate a stream of recurring revenue (a Software-as-a-Service model) through the licensing of its technology platforms and service offerings. The higher margin recurring revenue subscription model is offered to customers typically on one, three, or five year contracts. The MaaS cloud-based platform, which operates at scale for its customers is comprised of software development kits, vertical solutions, a mobile application framework, data products, and location-based services. The cloud-based offering provide customers pre-integrated operating systems (iOS and Android) for its mobile application portfolio within the healthcare, media, retail, real estate, hospitality, sports, and aviation sectors. The company's MaaS offering is designed to enhance the end-user experience.

Software Development Kits (SDKs)

SDKs are a collection of software development tools in one installable package and ease the creation of applications. Phunware offers SDKs for organizations developing their own applications via customized development services and prepackaged solutions. The company's MaaS platform is built on technological components that include SDKs, application programming interfaces, scripts, portals, integrations, interfaces and other software tools, solutions and services in order to address and provide application use and engagement analytics. The company's MaaS platform and service offerings include a marketing automation tool that enables a customer to send messages (based on consumers location) as well as monitor workflow within an enterprise. The platform can also allow for location-based advertising within an app.

Mobile Application Framework and Data

PHUN's mobile application framework and data products offer real-time mobile audience targeting, reach, engagement, and monetization for insights and interactions globally at scale, as well as pre-integration of all the company's software technology modules for use within mobile application portfolios, solutions, and services. A long-term goal of Phunware is to empower and enable consumers or end users of mobile applications to own, control and be rewarded for the use of their personal data and information. That long-term goal took its first step in 2Q21 with the announcement in May 2021 that the company launched its PhunToken purchase portal that began selling PhunToken to consumers, developers and brands. This step begins the process of creating the company's blockchain-enabled mobile loyalty ecosystem that should drive engagements by unlocking the features and capabilities of Phunware's Multiscreen-as-a-Service platform.

Location-based Services

A critical element for the company's future deployments and customer growth is its location-based services technology and service offerings. This module includes mapping, navigation, wayfinding, workflow, asset management and policy enforcement. A key differentiator of Phunware's location-based services is the ability to track (a mobile device) indoors and offshore within a hospital, buildings, stadiums/arenas, cruise ships, and airplane. The company's real-time blue-dot position uses Bluetooth Low Energy beacons, or Wi-Fi, GPS and/or Li-Fi (wireless communication utilizing light to transmit data and position between devices). Its location-based services comply with the Americans with Disability Act (i.e., for the wheelchair bound and visually impaired).

Facility-wide navigation enables users to navigate to, from, and throughout a large facility that includes dynamic points of interest, has customizable mapping elements and landmark based routing with intuitive, natural language. The offering allows for the leveraging of a users' location to enable step-by-step navigation with a routing experience that starts outside of a facility and continues indoors, between floor levels and throughout buildings.

The company anticipates being able to leverage its location-based service module within its MaaS technology platform to provide smart campuses for corporations and higher educational customers since this technology has the capability to potentially improve internal workflows and increase operational efficiency. It can make such improvements by taking advantage of location awareness to track employees, equipment and assets, as well as trigger customer workflows based on proximity alerts and gather valuable data on traffic patterns and more.

The COVID-19 pandemic brought to the forefront the need for location-based services, which are likely to be used by corporations and cities to assist in maintaining social distancing, tracking and identifying where medical equipment and people are located. Cities and private and public entities will be able to use the company's technology offering as it relates to the handling of real-time emergency response scenarios on mobile devices.

Growth Strategy

Technology and services offerings

The company is taking advantage of their investments in research and development since its founding in 2009 in order to continually extend the technology within and functionality of its service offerings. A key to future growth was the expansion of technological capabilities to include location-based services, which was solidified in April 2019, when a patent award was granted for a component of the technology. Phunware's patented location-based services software and management solution technology should provide it with a competitive market differentiator for customers deploying its MaaS platform. This technology should enable the company to obtain new customers in the healthcare industry, corporations looking to develop smart campuses to manage workers and workflow in the current and post COVID-19 environment, as well as cities and municipalities looking to develop smart city applications.

Customer Base

The company aims to grow its customer base through an expansion of its go-to-market strategy with indirect sales and channel partners, including its anchor distribution partner (Carrier Global Corporation), along with other distribution partners announced in 3Q21 (HID Global and Cox Communications' business division). It is anticipated that PHUN's MaaS technology offerings will be sold by those distribution partners to their already established customer bases. A growing customer base should drive backlog and deferred revenue growth that stood at \$8 million (up from \$7.7 million 1Q21) at the end of 2Q21.

Partnerships

By expanding its number of partnerships and achievements, the company should be able to have its MaaS technology platform service offering marketed to a broad base of potential new customers. The company's partners should be able to use and leverage the mobile expertise Phunware's support professionals have developed over the last ten years. In addition to 4Q20 announced partnerships with GAIN Innovation for government contract bids in Texas and Vizza Technologies that should enable PHUN to expand its mobile digital front door healthcare offering, PHUN announced in 1Q21 that it partnered with Infinite Leap to continue the process of enhancing its digital front door technology offering on mobile devices.

Healthcare

We anticipate the mobile and virtual healthcare market is likely to be a key growth vertical for the company. In 3Q20, the company announced four new MaaS platform contract deployments for hospitals in Florida and Baltimore, as well as a leading pediatric hospital in the US. In 4Q20, the company was selected by Dignity Health Yavapoa Regional Medical Center for the deployment of its location based services software, as well as the doubling of the square footage covered by this solution from an existing customer (Baptist Health South Florida). Also, Virginia Hospital Center selected PHUN's comprehensive mobile healthcare solution for deployment. In 3Q21, the company announced it delivered the digital front door on mobile for that Virginia Hospital Center that covers more than 850,000 square-feet of indoor medical space.

Technology

The company's technology portfolio and associated applications supports its growth initiatives. Phunware has a portfolio of intellectual property that includes 17 US issued patents and 4 non-provisional patent applications. In August 2020, the USPTO issued a US Patent Covering – Systems and Methods for Enterprise Branded Application

Frameworks for Mobile and Other Environments. The new patent allowance should support, expand, and protect its core patent portfolio underlying its Multiscreen-as-a-Service (MaaS) platform. The company's fully integrated services platform enables brands to engage, manage and monetize users on mobile.

Projections

Basis of Forecast

We anticipate PHUN's 2022 revenue growth should be driven primarily by new higher margin recurring platform subscriptions and services revenue customers for its MaaS technology platform and service offerings. We anticipate recurring quarterly revenues could approach \$3 million in 4Q22, compared to \$1.5 million in 1Q21 driven by customer acceptance and accelerated sales growth starting in 2H22 due to the engagement of indirect sales, channel partners, and partnerships. While slower than previously anticipated, new customer engagements should begin to impact revenues in 2H22 (prior was by 4Q21).

Operations – 2021

We project revenue decreasing 34.5% to \$6.5 million (prior was \$10.5 million) due primarily to 2Q21 results that showed a slower than anticipated recognition of revenues from customers as COVID-19 pandemic conditions have and might continue to delay delivery of its MaaS technology offering to customers. Gross profit is likely to decrease \$3.6 to \$3.1 million due to a reduction in revenue and gross margin contraction to 47.2%, down from 66.4% in 2020. Gross margin contraction reflects timing issues for expenses recognized on completed projects that have yet to be delivered and accepted by customers.

We project an operating loss of \$14.8 million compared to \$13 million in 2020 (excludes a \$4.5 million legal settlement charge) as operating expense margin increases to 273% from 196% in 2020 (excludes settlement charge). We anticipate operating expenses decreasing to \$17.9 million from \$19.7 million in 2020 (which excludes the \$4.5 million legal settlement charge in 2020). We anticipate G&A expense decreasing to \$11.9 million from \$15.4 million as the company continues to control costs through reduced headcount and lower professional fees. We project a 58.5% increase in sales and marketing expense to \$2.6 million to support marketing initiatives to increase the company's customer base and R&D expense of \$3.4 million compared to \$2.6 million in 2020.

We project non-operating interest expense increasing to \$4.2 million compared to \$3.4 million due to the 1H21 impact of accelerating amortization of debt issuance and discount costs stemming from the elimination of debt obligations. We estimate a \$5.1 million (net) loss on extinguishment of debt compared to \$2.2 million in 2020. We project a net loss of \$25.1 million or (\$0.35) per share on average shares outstanding of 71.5 million. We previously projected a net loss of \$24 million or (\$0.34) per share on average shares outstanding of nearly 69.9 million. Excluding the loss on extinguishment of debt and impairment charge, we anticipate the loss per share should approximate (\$0.27).

Finances – 2021

We project cash burn of \$11.9 million and an increase in working capital of \$4.3 million. The increase in working capital is due primarily to an increase in prepaid expenses and decreases in payables and accruals. Proceeds of \$31.4 million from the issuance of common stock is unlikely to cover cash used in operations of \$16.2 million and repayment of debt. Cash should decrease by nearly \$1.9 million to \$2.2 million at December 31, 2021.

Operations – 2022

We project revenue increasing 60.3% to \$10.5 million (prior was \$17 million) due primarily to the company's recurring revenue customers for its MaaS technology platform and service offerings expanding within the healthcare, smart cities, and corporate campus sectors, as well as a return of hospitality and real estate customers. The decrease in our aggregate revenue forecast from our prior forecast reflects a slower pace of revenue recognition from new customers than previously anticipated (2H22 from 4Q21). Gross profit should more than double to \$6.9 million from \$3.1 million due to sales growth and gross margin improving to 65.6% compared to an estimated 47.2% in 2021. Gross margin improvement should be due primarily to sustained recurring revenue customer growth.

We project the operating loss narrowing to \$11.2 million compared to an estimated loss of \$14.8 million in 2021 as operating expense margin improves to 173% from an estimated 273% in 2021. We anticipate operating expenses increasing 1.2% to \$18.1 million. We project a 3.8% increase in G&A expense to \$12.3 million to support customer growth. Sales and marketing expense should increase 20.2% to nearly \$3.2 million to support marketing initiatives to increase the company's customer base. We anticipate R&D expenses decreasing to \$2.7 million from an estimated \$3.4 million in 2021.

We project interest expense of \$40,000 compared to \$4.2 million due to a significantly reduced debt balance. We project a net loss of \$11.3 million or (\$0.15) per share on average shares outstanding of 74.9 million. We previously projected a net loss of \$5 million or (\$0.07) per share on average shares outstanding of 71.7 million. The increase in our loss forecast reflects the lower than anticipated aggregate revenue level compared to of prior forecast.

Finances – 2022

We project cash burn of \$5.8 million and a decrease in working capital of \$4.2 million. The decrease in working capital is due primarily to increases in deferred revenue, payables, and accruals. Cash used in operations of \$1.5 million, partly offset by the exercise of stock options, should result in cash decreasing by \$1.4 million to \$753,000 at December 31, 2022.

2Q21 and 1H20 Results

2Q21

Revenue decreased 35.1% to \$1.4 million compared to \$2.2 million, reflecting \$843,000 in lower platform subscriptions and services sales stemming from a single customer that accounted for 36% of total revenue in the year-ago period compared to no revenue from this customer in 1Q21. Application transaction revenue increased \$66,000 to \$256,000 due primarily to PhunToken sales.

Gross profit was \$312,000 compared to \$1.4 million reflecting lower sales and gross margin contraction to 21.7% from 65.3% in the year-ago period. The gross margin decrease reflects approximately \$500,000 in labor costs during the current period related to a customer project that was not delivered in the period but is scheduled for delivery in 3Q21. Operating expenses increased to \$4.5 million from \$4.4 million in 2Q20 due primarily to increased R&D and sales marketing expenses, partly offset by lower G&A expense. The overall increase reflects increased headcount and compensation expense primarily related to R&D activities.

Non-operating expense increased to nearly \$4.1 million from \$541,000 in 2Q20. The increase was due to higher interest expense to \$1.8 million compared to \$460,000 in the year-ago period reflecting higher debt balances, as well as a loss of nearly \$2.2 million on the extinguishment of debt compared to \$81,000 in 2Q20. The current period includes a \$706,000 gain related to a change in fair value of warrant liability and other expense, none of which occurred in the year-ago period. The company recorded a \$776,000 impairment charge related to digital currencies.

The net loss was \$8.3 million or (\$0.12) per share on 71.6 million outstanding average shares, compared to a net loss of \$3.5 million or (\$0.08) per share on 41.9 million outstanding average shares. Excluding one-time items, we estimate the net loss was \$6 million or (\$0.08) in 2Q21. We forecast a net loss of \$7.5 million or (\$0.10) per share on revenue of \$1.8 million.

1H21

Revenue decreased 36.5% to \$3.1 million compared to \$4.9 million, reflecting \$1.7 million in lower platform subscriptions and services sales stemming from reduced customer activity due to the persistence of COVID-19 pandemic conditions. Application transaction revenue decreased \$58,000 to \$381,000, primarily due to a decrease in app store sales, partly offset by initial PhunToken sales.

Gross profit was \$1.3 million compared to \$3 million reflecting lower revenue and gross margin contraction to 41.1% from 61.7% in the year-ago period. Operating expenses decreased to \$8.9 million from \$9.8 million in 1H20 due primarily to reduced headcount, compensation, and legal fees, as well as recovery of bad debt, partly offset by an increase in stock-based compensation.

Non-operating expense increased to nearly \$13.1 million from \$642,000 in 1Q20. The increase was due to higher interest expense to \$4.1 million compared to \$561,000 in the year-ago period reflecting higher debt balances, as well as a loss of nearly \$8 million on the extinguishment of debt compared to \$81,000 in 1H20. The current period includes a \$262,000 loss related to a change in fair value of warrant liability and other expense, as well as a \$776,000 impairment of digital currencies, none of which occurred in the year-ago period.

The net loss was \$20.7 million or (\$0.30) per share on 68.1 million outstanding average shares, compared to a net loss of \$7.5 million or (\$0.18) per share on 41 million outstanding average shares. Excluding one-time items, we estimate the net loss was \$11.7 million or (\$0.17) in 1H21.

Finances

In 1H21, cash burn of \$6.4 million and an \$8 million increase in working capital resulted in cash used in operations of \$14.4 million. The increase in working capital was due primarily to decreases in accruals and deferred revenue. Borrowings of nearly \$10 million and \$29.7 million in proceeds from the issuance of common stock did not cover cash used in operations, the purchase of digital currency, and repayment of convertible debt. Total cash and restricted cash combined decreased \$1.2 million to \$2.8 million at June 30, 2021. On the balance sheet, non-current restricted cash was \$91,000.

Capital Structure

At June 30, 2021 the company had total outstanding debt of \$4 million, of which \$3.9 million is long-term (a combination of convertible debt of approximately \$1 million, paycheck protection program (PPP) loan of nearly \$2.9 million, and related party promissory notes of \$195,000) and \$83,000 is short-term. The company also has \$1.2 million PhunCoin rights listed as short-term deposits on its balance sheet. The company applied for forgiveness of its PPP loan that is allowable under SBA guidelines. On August 16, 2021, PHUN received notification that its application for forgiveness was approved. That forgiveness of the PPP loan will be recognized as income in 3Q21.

In February 2021, the company completed a common stock offering through the issuance of nearly 11.8 million common share for net proceeds of approximately \$24.7 million. In January 2021, the company issued nearly 2.7 million shares for net proceeds of approximately \$5 million from its at-the-market offering and sales agreement with Ascendant Capital. On March 18, 2021, PHUN delivered a written notice to Ascendant Capital that it elected to terminate the previously announced at-the-market issuance sales agreement effective March 28, 2021. The company did not incur any material early termination penalties in connection with the termination of the sales agreement.

On April 7, 2021, PHUN entered into an at the market issuance sales agreement with B. Riley Securities, Inc. for up to \$25 million with a commission of 3% to B. Riley based on gross proceed sales. The company has available approximately \$50 million of open shelf space on its \$100 million registration statement that will allow for financial flexibility to support organic or inorganic growth opportunities.

	in \$ thousands		
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Total Revenue	\$ 3,082	\$ 4,853	(36.5%)
Total Cost of Sales	1,816	1,859	(2.3%)
Gross Profit	\$ 1,266	\$ 2,994	(57.7%)
Total Operating Expenses	8,872	9,826	(9.7%)
Operating Income	(7,606)	(6,832)	11.3%
Total Other Income (Expense)	(13,050)	(642)	NMF
Pre-Tax Income	(20,656)	(7,474)	176.4%
Income tax expense	-	-	
Net Income (loss)	<u>\$(20,656)</u>	<u>\$(7,474)</u>	39.9%
Earnings (loss) per share	(\$0.30)	(\$0.18)	
Avg Shares Outstanding	68,103	40,982	
Margins			
Gross margin - combined	41.1%	61.7%	
Operating Margin	(246.8%)	(140.8%)	
Pre-Tax Margins	(670.2%)	(154.0%)	
Tax Rate	0.0%	0.0%	
Source: company reports			

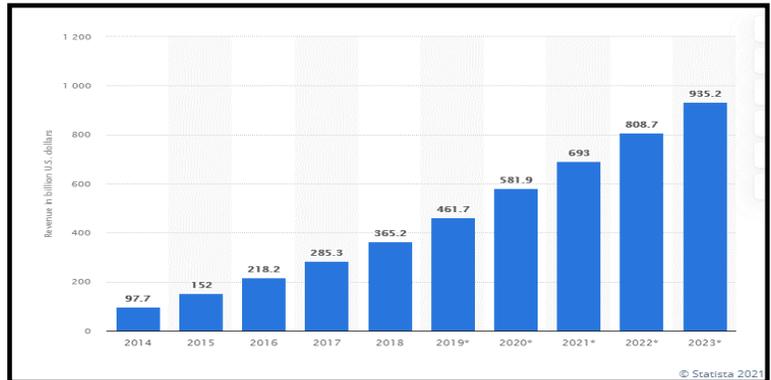
From July 1, 2021 to August 13, 2021, the company sold nearly 1.7 million shares of its common stock pursuant to the terms of the at-the-market offering with B. Riley. Aggregate net cash proceeds were approximately \$1.8 million.

Mobile Markets

Mobile Applications Market

In November 2020, Comscore issued a report that indicated that US consumers spent 79% of their time online on a mobile device and that total time spent viewing videos on a mobile device increased 65% from August 2017 to August 2020. Some of the key verticals Phunware's technology and service offerings seek to penetrate are at 77% mobile for healthcare, 63% for corporations, and 28% and 23% for government and education, respectively.

The chart on the right (source: Statista July 2021) shows that the mobile apps market could reach \$935 billion in 2023, up from \$365 billion in 2018 for annualized growth of approximately 20.7%. Growth is driven by increased paid downloads and in-app advertising.



Location-based Services

In March 2020, ResearchAndMarkets.com published a report projecting the global location-based services market to reach \$126.4 billion in 2025, up from \$36.2 billion in 2019 for annualized growth of 23.2%. Primary drivers are expected to be increased smartphone usage as the United Nations reported that approximately 41.5% of the total world population used a smartphone in 2019. As technology advances, industries seem to be willing to adopt new systems, primarily to improve their efficiency. Driving location-based services growth should be increased usage within the healthcare sector.

We anticipate location-based services are likely to expand into mobile and virtual healthcare, aid in government's smart cities technology initiatives, and mobile corporate campus technology infrastructure due primarily to the COVID-19 pandemic.

Healthcare

In February 2020, MarketsandMarkets published a report indicating that the mHealth (mobile) Solutions Market could grow annually by 33% reaching \$213.6 billion by 2025 from an estimated \$50.8 billion in 2020. The mHealth market should be driven by the increases in the adoption of smartphones, penetration of 3G/4G networks, utilization of connected devices, and mHealth apps for the management of chronic diseases, as well as a rising focus on cost containment in healthcare delivery. North America should dominate the mHealth solutions market, followed by Europe and the Asia Pacific region.

Smart Cities

In September 2020, MarketsandMarkets published a report indicating that the global smart cities market could reach nearly \$821 billion in 2025, up from an estimated \$411 billion in 2020 for annualized growth of 14.8%. The report anticipates global smart cities market growth should be driven by the increasing demand for public safety, rising urban population, and growing government initiatives. This should fit well with Phunware's technology platform and services that includes its patented location-based services offering. The company's smart cities service offering, which is based on its MaaS platform, addresses a diverse set of problems, such as efficient transportation, smart and enhanced buildings and homes, optimization of energy utilization, as well as providing state and local government agencies with tools to improve administrative services such as healthcare given COVID-19 pandemic conditions.

Competitive Landscape

The mobile applications technology and solutions market is highly competitive and fragmented. The introduction of new technologies and the potential entry of new competitors into the market would result in increased competition.

PHUN competes primarily with companies offering cloud-based software solutions for location-based services, mobile marketing automation, content management, analytics and audience monetization, as well as data and advocacy solution offerings for audience building and engagement used for political or other types of rallies. Also, competition includes in-house mobile teams and products developed by software providers that allow customers to build and scale new mobile applications. Primary publicly trading competitors include Adobe and Oracle, along with private companies such as Urban Airship, Chaotic Moon, and Adroll.

Phunware's competitors are likely to have the ability to devote greater resources to the development, promotion and sale of their products and services. To be competitive in the mobile applications technology market a company needs to have established marketing relationships, access to large customer bases, and major distribution agreements with consultants, system integrators and resellers. The major competitive factors in this market include product features and functionality, location accuracy, customer satisfaction, deployment options and hardware flexibility, functionality, implementation services and customer support, as well as total cost of ownership.

Risks

In our view, these are the principal risks underlying the stock.

Operating Losses

Phunware Inc. has yet to generate an operating profit. At June 30, 2021, the company's accumulated deficit was approximately \$166 million, up from \$102 million in 2017. Losses are likely to continue but diminish through our forecast period. The lack of operating profits could result in the company's inability to execute its growth strategy and diminish its operations. However, 1Q21 common stock offerings provided proceeds of approximately \$29.7 that should allow for the company to execute its growth strategy during our forecast period.

Customer Concentration

In 1H21, PHUN had four customers accounting for 43% of net sales compared to three customers accounting for 55% of net sales in the year-ago period. In 2Q21, three customers accounted for 38% of receivables compared to three customers accounting for 45% in 2Q20.

COVID-19 Global Pandemic

A potential disruption of US economic conditions lies in the global spread of COVID-19 that is likely to cause supply chain and demand issues which could adversely impact corporate operating results.

Legal Settlement

On October 9, 2020, PHUN entered into a legal settlement agreement and mutual general release with Uber and certain other parties and other parties within a cross-complaint. Phunware and its insurance carriers will pay \$6 million to Uber. The company will pay \$4.5 million with its insurance carrier paying \$1.5 million. The court will retain jurisdiction over the case until the terms of the settlement agreement have been fully satisfied. The court has set a dismissal review hearing for November 16, 2021.

On September 29, 2020, PHUN signed a settlement agreement and general release with Ellenoff Grossman & Schole (EGS) under which the company will pay \$600,000 to EGS in a series of installments beginning by October 15, 2020, and ending no later than October 15, 2023.

Legal Proceedings

On December 17, 2019, certain stockholders filed a lawsuit against Phunware. The plaintiffs invested in various early rounds of financing while the company was private and claim Phunware should not have subjected their shares to a 180-day lock up period. On June 23, 2021, PHUN filed a motion to dismiss the petition based on the mandatory forum-selection clause in Phunware's Articles of Incorporation

On March 30, 2021, PHUN filed an action (a single cause of action for negligence) against its former counsel Wilson Sonsini Goodrich & Rosati, PC. PHUN is seeking compensatory and consequential damages, attorney's fees and

costs, interest and other relief the court deems just and proper. Both cases are in the early stages of litigation and the outcomes are uncertain.

In April 2020, Sha-Poppin Gourmet Popcorn, individually and on behalf of a class of similarly situated parties filed a lawsuit against certain defendants, including PHUN. The Popcorn Company alleges PHUN was unjustly enriched by JPMorgan Chase for a loan made pursuant to the CARES Act. PHUN filed a motion to dismiss the single claim against it and disputes the court's jurisdiction and the basis of the claim. The company intends to defend the matter vigorously, but there can be no guarantees that a favorable resolution will be successful.

Intellectual Property

The company protects its intellectual property through trade secrets law, patents, copyrights, trademarks and contracts, as well as the establishment of business procedures designed to maintain the confidentiality of proprietary information such as the use of its licenses with customers and use of confidentiality agreements and intellectual property assignment agreements with employees, consultants, business partners, etc.

In the US, PHUN has 17 patents issued and 4 non-provisional patent applications that expire between 2027 and 2036.

Third parties may infringe on or misappropriate IP rights, or otherwise independently develop substantially equivalent products and/or services. The loss of intellectual property protection or the inability to secure or enforce intellectual property protection could harm its business and/or ability to compete.

Cyber Security

PHUN operates large and complex technology networks and systems to process, transmit and securely store electronic information and to communicate among locations and customers that contain significant amounts of client data. Unauthorized third parties could attempt to gain entry to its computer systems for the purpose of stealing data or disrupting the systems. The company believes appropriate measures are in place to protect client data from intrusion, and will constantly work to improve and enhance its computer systems. However, if its systems prove not to be secure, the company could suffer significant harm since client contracts typically contain provisions that require their data to remain confidential.

Shareholder Control

Executive officers and directors combined, own 8.1% of the outstanding voting stock (April 2021) with three large investors owning a combined total of 16.2% of the company's outstanding voting stock. All of these owners could greatly influence the outcome of matters requiring stockholder approval, which decisions may or may not be in the best interests of the other shareholders.

Miscellaneous Risk

The company's financial results and equity values are subject to other risks and uncertainties, including competition, operations, financial markets, regulatory risk, and/or other events. These risks may cause actual results to differ from expected results.

Trading Volume

Based on our calculations, the average daily-volume in 2019 was 503,800 shares, which increased to 3.4 million in 2020. During the three months to September 3, 2021, volume increased to 2 million. The company has a float of 62.1 million shares and shares outstanding of 74.9 million.

Phunware, Inc.
Consolidated Balance Sheets
FY2018 – FY2022E
(in thousands)

	FY18A	FY19A	FY20A	2Q21A	FY21E	FY22E
ASSETS						
Current assets:						
Cash	\$ 844	\$ 276	\$ 3,940	\$ 2,714	\$ 2,176	\$ 753
Accounts receivable, net	3,606	1,671	664	659	637	583
Digital currencies	-	-	-	773	773	773
Prepaid expenses and other current assets	272	368	304	1,586	1,310	1,050
Total current assets	<u>4,722</u>	<u>2,315</u>	<u>4,908</u>	<u>5,732</u>	<u>4,897</u>	<u>3,159</u>
Property and equipment, net	66	24	13	-	-	-
Goodwill	25,821	25,857	25,900	25,915	25,915	23,915
Intangible assets, net	521	253	111	54	50	45
Deferred tax asset - long term	64	241	537	537	537	537
Restricted cash	5,500	86	91	91	91	91
Right-of-use asset	-	-	-	1,606	1,606	1,606
Other assets	187	276	276	276	281	316
Total assets	<u>\$ 36,881</u>	<u>\$ 29,052</u>	<u>\$ 31,836</u>	<u>\$ 34,211</u>	<u>\$ 33,377</u>	<u>\$ 29,669</u>
LIABILITIES AND STOCKHOLDERS' EQUITY						
Current liabilities:						
Accounts payable	9,890	10,159	8,462	7,039	7,691	8,022
Accrued expenses	3,028	4,035	5,353	1,972	3,604	4,200
Accrued legal settlement	-	-	3,000	1,500	-	-
Lease liability	-	-	-	516	516	516
Deferred revenue	2,629	3,360	2,397	2,010	3,000	4,250
PhunCoin deposits	-	1,202	1,202	1,202	1,202	1,202
Factored receivables payable	2,434	1,077	-	-	-	-
Current portion of long-term debt, net	1,993	-	4,435	83	870	-
Warrant liability	-	-	1,614	1,836	2,603	2,603
Total current liabilities	<u>19,974</u>	<u>19,833</u>	<u>26,463</u>	<u>16,158</u>	<u>19,486</u>	<u>20,793</u>
Debt	-	910	3,762	3,720	-	-
Debt - related party	-	195	195	195	195	195
Deferred tax liabilities	64	241	537	537	537	537
Deferred revenue	5,622	3,764	2,678	1,779	3,250	5,000
Deferred rent	17	83	180	-	-	-
Lease liability	-	-	-	1,343	1,343	1,343
Redeemable convertible preferred stock, \$0.0001	5,377	-	-	-	-	-
Stockholders' equity:						
Common stock, \$0.0001 par value; authorized 1,00,000,000 shares;	3	4	6	7	7	7
Additional paid-in capital	118,062	128,008	144,156	177,254	179,801	184,301
Accumulated other comprehensive income	(418)	(382)	(338)	(323)	(323)	(323)
Retained earnings (accumulated deficit)	(111,820)	(123,604)	(145,803)	(166,459)	(170,919)	(182,184)
Total stockholders' equity	<u>5,827</u>	<u>4,026</u>	<u>(1,979)</u>	<u>10,479</u>	<u>8,566</u>	<u>1,801</u>
Total liabilities and stockholders' equity	<u>\$ 36,881</u>	<u>\$ 29,052</u>	<u>\$ 31,836</u>	<u>\$ 34,211</u>	<u>\$ 33,377</u>	<u>\$ 29,669</u>
SHARES OUT	27,253	39,818	56,380	72,743	74,900	71,800

Source: Company reports and Taglich Brothers estimates

Phunware, Inc.
Annual Income Statement
FY2018 – FY2022E
(in thousands)

	<u>FY18 A*</u>	<u>FY19 A</u>	<u>FY20 A</u>	<u>FY21 E</u>	<u>FY22 E</u>
Net revenues	\$ 30,883	\$ 19,150	\$ 10,001	\$ 6,552	\$ 10,500
Cost of sales	<u>11,802</u>	<u>9,020</u>	<u>3,357</u>	<u>3,461</u>	<u>3,610</u>
Gross Profit	<u>19,081</u>	<u>10,130</u>	<u>6,644</u>	<u>3,091</u>	<u>6,890</u>
Operating Expenses:					
Sales and marketing	5,417	2,706	1,653	2,620	3,150
General and administrative	13,562	15,403	15,361	11,864	12,315
Research and development	6,965	4,333	2,628	3,423	2,650
Legal settlement	-	-	4,500	-	-
Total Operating Expenses	<u>25,944</u>	<u>22,442</u>	<u>24,142</u>	<u>17,907</u>	<u>18,115</u>
Operating Income (loss)	(6,863)	(12,312)	(17,498)	(14,816)	(11,225)
Interest (expense) income	(724)	(581)	(3,413)	(4,164)	(40)
Gain (loss) on extinguishment of debt	-	-	(2,158)	(5,102)	-
Fair value adjustment for warrant liabilities	(54)	-	872	(222)	-
Impairment of digital currencies	(334)	-	-	(776)	-
Other income (expense)	<u>(2,202)</u>	<u>27</u>	<u>-</u>	<u>(36)</u>	<u>-</u>
Total Other Income (expense)	<u>(3,314)</u>	<u>(554)</u>	<u>(4,699)</u>	<u>(10,300)</u>	<u>(40)</u>
Pre-Tax Income (loss)	(10,177)	(12,866)	(22,197)	(25,116)	(11,265)
Income Tax Expense (Benefit)	<u>(374)</u>	<u>5</u>	<u>2</u>	<u>-</u>	<u>-</u>
Net income (loss)	<u>(9,803)</u>	<u>(12,871)</u>	<u>(22,199)</u>	<u>(25,116)</u>	<u>(11,265)</u>
Earning (loss) per share	<u>\$ (0.38)</u>	<u>\$ (0.35)</u>	<u>\$ (0.50)</u>	<u>\$ (0.35)</u>	<u>\$ (0.15)</u>
Avg Shares Outstanding	25,556	36,879	44,269	71,504	74,935
Adjusted EBITDA	\$ (5,978)	\$ (10,201)	\$ (8,353)	\$ (9,406)	\$ (7,225)
Margin Analysis					
Gross margin	61.8%	52.9%	66.4%	47.2%	65.6%
Sales and marketing	17.5%	14.1%	16.5%	40.0%	30.0%
General and administrative	43.9%	80.4%	153.6%	181.1%	117.3%
Research and development	22.6%	22.6%	26.3%	52.2%	25.2%
Operating margin	(22.2%)	(64.3%)	(175.0%)	(226.1%)	(106.9%)
Pre-tax margin	(33.0%)	(67.2%)	(221.9%)	(383.3%)	(107.3%)
Tax rate	3.7%	(0.0%)	(0.0%)	0.0%	0.0%
YEAR / YEAR GROWTH					
Total Revenues	15.6%	(61.3%)	(47.8%)	(34.5%)	60.3%

*Includes \$8.4 million in one-time revenue stemming from the company becoming publicly traded in 2018.

Source: Company reports and Taglich Brothers estimates

Taglich Brothers, Inc.

Phunware, Inc.
Income Statement Model
Quarters FY2020A – 2022E
(in thousands)

	Q1 20 A	Q2 20 A	Q3 20 A	Q4 20 A	FY20 A	Q1 21 A	Q2 21 A	Q3 21 E	Q4 21 E	FY21 E	Q1 22 E	Q2 22 E	Q3 22 E	Q4 22 E	FY22 E
Net revenues	\$ 2,640	\$ 2,213	\$ 3,130	\$ 2,018	\$ 10,001	\$ 1,646	\$ 1,436	\$ 1,645	\$ 1,825	\$ 6,552	\$ 2,100	\$ 2,300	\$ 3,000	\$ 3,100	\$ 10,500
Cost of sales	1,091	768	898	600	3,357	692	1,124	820	825	3,461	865	885	925	935	3,610
Gross Profit	1,549	1,445	2,232	1,418	6,644	954	312	825	1,000	3,091	1,235	1,415	2,075	2,165	6,890
Operating Expenses:															
Sales and marketing	605	277	383	388	1,653	556	639	700	725	2,620	750	775	800	825	3,150
General and administrative	3,945	3,760	4,276	3,380	15,361	2,758	3,021	3,035	3,050	11,864	3,055	3,075	3,085	3,100	12,315
Research and development	861	378	572	817	2,628	1,052	846	775	750	3,423	700	675	650	625	2,650
Legal settlement	-	-	4,500	-	4,500	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	5,411	4,415	9,731	4,585	24,142	4,366	4,506	4,510	4,525	17,907	4,505	4,525	4,535	4,550	18,115
Operating Income (loss)	(3,862)	(2,970)	(7,499)	(3,167)	(17,498)	(3,412)	(4,194)	(3,685)	(3,525)	(14,816)	(3,270)	(3,110)	(2,460)	(2,385)	(11,225)
Interest (expense) income	(101)	(460)	(1,362)	(1,490)	(3,413)	(2,219)	(1,845)	(50)	(50)	(4,164)	(10)	(10)	(10)	(10)	(40)
Gain (loss) on extinguishment of debt	-	(81)	(950)	(1,127)	(2,158)	(5,768)	(2,184)	2,850	-	(5,102)	-	-	-	-	-
Fair value adjustment for warrant liabilities	-	-	1,244	(372)	872	(885)	663	-	-	(222)	-	-	-	-	-
Impairment of digital currencies	-	-	-	-	-	-	(776)	-	-	(776)	-	-	-	-	-
Other income (expense)	-	-	-	-	-	(79)	43	-	-	(36)	-	-	-	-	-
Total Other Income (expense)	(101)	(541)	(1,068)	(2,989)	(4,699)	(8,951)	(4,099)	2,800	(50)	(10,300)	(10)	(10)	(10)	(10)	(40)
Pre-Tax Income (loss)	(3,963)	(3,511)	(8,567)	(6,156)	(22,197)	(12,363)	(8,293)	(885)	(3,575)	(25,116)	(3,280)	(3,120)	(2,470)	(2,395)	(11,265)
Income Tax Expense (Benefit)	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-
Net income (loss)	(3,963)	(3,511)	(8,567)	(6,158)	(22,199)	(12,363)	(8,293)	(885)	(3,575)	(25,116)	(3,280)	(3,120)	(2,470)	(2,395)	(11,265)
Earning (loss) per share	\$ (0.10)	\$ (0.08)	\$ (0.19)	\$ (0.12)	\$ (0.50)	\$ (0.19)	\$ (0.12)	\$ (0.01)	\$ (0.05)	\$ (0.35)	\$ (0.04)	\$ (0.04)	\$ (0.03)	\$ (0.03)	\$ (0.15)
Avg Shares Outstanding	40,095	41,869	44,304	50,809	44,269	64,587	71,620	74,900	74,910	71,504	74,920	74,930	74,940	74,950	74,935
Adjusted EBITDA	\$ (3,178)	\$ (1,817)	\$ (1,258)	\$ (2,100)	\$ (8,353)	\$ (2,403)	\$ (2,743)	\$ (2,210)	\$ (2,050)	\$ (9,406)	\$ (2,270)	\$ (2,110)	\$ (1,460)	\$ (1,385)	\$ (7,225)
Margin Analysis															
Gross margin	58.7%	65.3%	71.3%	70.3%	66.4%	58.0%	21.7%	50.2%	54.8%	47.2%	58.8%	61.5%	69.2%	69.8%	65.6%
Sales and marketing	22.9%	12.5%	12.2%	19.2%	16.5%	33.8%	44.5%	42.6%	39.7%	40.0%	35.7%	33.7%	26.7%	26.6%	30.0%
General and administrative	149.4%	169.9%	136.6%	167.5%	153.6%	167.6%	210.4%	184.5%	167.1%	181.1%	145.5%	133.7%	102.8%	100.0%	117.3%
Research and development	32.6%	17.1%	18.3%	40.5%	26.3%	63.9%	58.9%	47.1%	41.1%	52.2%	33.3%	29.3%	21.7%	20.2%	25.2%
Operating margin	(146.3%)	(134.2%)	(239.6%)	(156.9%)	(175.0%)	(207.3%)	(292.1%)	(224.0%)	(193.2%)	(226.1%)	(155.7%)	(135.2%)	(82.0%)	(76.9%)	(106.9%)
Pre-tax margin	(150.1%)	(158.7%)	(273.7%)	(305.1%)	(221.9%)	(751.1%)	(577.5%)	(53.8%)	(195.9%)	(383.3%)	(156.2%)	(135.7%)	(82.3%)	(77.3%)	(107.3%)
Tax rate	0.0%	0.0%	0.0%	(0.0%)	(0.0%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
YEAR / YEAR GROWTH															
Total Revenues	(50.3%)	(59.8%)	(44.5%)	(24.9%)	(47.8%)	(37.7%)	(35.1%)	(47.4%)	(9.6%)	(34.5%)	27.6%	60.2%	82.4%	69.9%	60.3%

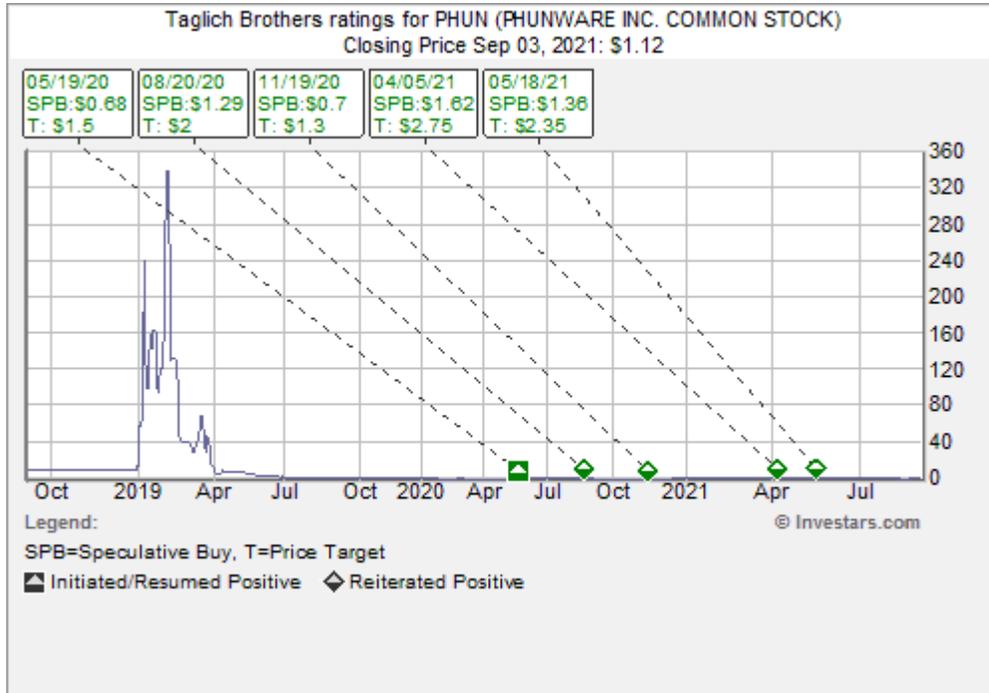
Source: Company reports and Taglich Brothers estimates

Phunware, Inc.
Cash Flow Statement
FY2018 – FY2022E
(in thousands)

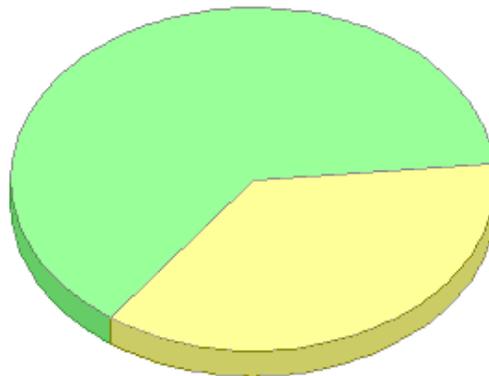
	<u>FY2018A</u>	<u>FY2019A</u>	<u>FY2020A</u>	<u>6 Mos21A</u>	<u>FY2021E</u>	<u>FY2022E</u>
<i>Cash Flows from Operating Activities</i>						
Net Income (loss)	\$ (9,803)	\$ (12,871)	\$ (22,199)	\$ (20,656)	\$ (25,116)	\$ (11,265)
Depreciation and amortization	62	59	11	-	-	-
Loss on sale of digital currencies	21	4	-	-	-	-
Bad debt expense (recovery)	167	114	205	-	-	-
Amortization of intangibles and right-of-use asset	372	268	142	142	142	-
Amortization of debt discount and deferred financing costs	-	-	2,185	2,770	2,770	1,000
Loss on extinguishment of debt	-	-	2,158	7,952	5,102	-
Non-cash interest expense	-	-	55	-	-	-
Change in fair value of warrants	1,329	-	(872)	222	222	-
Impairment of digital currencies and right-of-use asset	334	-	-	776	776	-
Settlement of accounts payable	-	-	(453)	-	-	-
Stock-based compensation	450	1,784	4,492	2,438	4,200	4,500
Deferred income taxes	(387)	-	-	-	-	-
Cash earnings (burn)	<u>(7,455)</u>	<u>(10,642)</u>	<u>(14,276)</u>	<u>(6,356)</u>	<u>(11,904)</u>	<u>(5,765)</u>
<i>Changes In:</i>						
Accounts receivable	2,439	1,817	796	237	27	54
Prepaid expenses and other assets	15	184	65	(416)	(1,006)	260
Accounts payable	4,156	740	427	(1,282)	(771)	331
Accrued expenses	(5,789)	1,133	1,064	(3,334)	(1,749)	596
Accrued legal settlement	-	-	3,000	(1,500)	(1,500)	-
Lease liability	-	-	-	(434)	(434)	-
Deferred revenue	42	581	(2,049)	(1,286)	1,175	3,000
(Increase)/decrease in Working Capital	<u>863</u>	<u>4,455</u>	<u>3,303</u>	<u>(8,015)</u>	<u>(4,259)</u>	<u>4,242</u>
Net cash provided (used in) Operations	<u>(6,592)</u>	<u>(6,187)</u>	<u>(10,973)</u>	<u>(14,371)</u>	<u>(16,163)</u>	<u>(1,523)</u>
<i>Cash Flows from Investing Activities</i>						
Proceeds received from sale of digital currencies	913	88	-	-	-	-
Purchase of digital currencies	-	-	-	(1,497)	(1,497)	-
Payments for note receivable	(536)	-	-	-	-	-
Capital expenditures	-	(18)	-	-	-	-
Cash flow provided (used in) Investing Activities	<u>377</u>	<u>70</u>	<u>-</u>	<u>(1,497)</u>	<u>(1,497)</u>	<u>-</u>
<i>Cash Flows from Financing Activities</i>						
Net proceeds (payment) from factoring agreement	618	(1,357)	(1,077)	-	-	-
Proceeds (payment) on debt net	-	1,105	14,815	9,981	9,981	-
Bridge loans - related parties	-	-	560	-	-	-
Payments on senior convertible note	-	-	(8,418)	(25,095)	(25,737)	-
Payments on related party notes	-	-	(560)	-	-	-
Proceeds from PhunCoin deposits	-	212	-	-	-	-
Proceeds from common stock, net of issuance costs	-	-	-	29,670	31,445	-
Proceeds from common stock subscriptions, net of issuance costs	5,448	-	9,177	-	-	-
Proceeds from warrant exercise	-	6,092	-	-	-	-
Proceeds from exercise of options to purchase common stock	152	287	99	70	100	100
Issuances of and redemptions/dividend payments Series A preferred stock	6,000	(6,240)	-	-	-	-
Proceeds from Business combination	98	-	-	-	-	-
Net cash provided (used) by Financing	<u>12,316</u>	<u>99</u>	<u>14,596</u>	<u>14,626</u>	<u>15,789</u>	<u>100</u>
Effect of exchange rates	(65)	36	46	16	16	-
Net change in Cash and restricted cash	6,036	(5,982)	3,669	(1,226)	(1,855)	(1,423)
Cash and restricted cash Beginning of Period	<u>308</u>	<u>6,344</u>	<u>362</u>	<u>4,031</u>	<u>4,031</u>	<u>2,176</u>
Cash (and restricted) End of Period	<u>\$ 6,344</u>	<u>\$ 362</u>	<u>\$ 4,031</u>	<u>\$ 2,805</u>	<u>\$ 2,176</u>	<u>\$ 753</u>

Source: Company reports and Taglich Brothers estimates

Price Chart



Taglich Brothers Current Ratings Distribution



63.64 % Buy | 36.36 % Hold

Investment Banking Services for Companies Covered in the Past 12 Months		
<u>Rating</u>	<u>#</u>	<u>%</u>
Buy	2	11
Hold		
Sell		
Not Rated		

Important Disclosures

As of the date of this report, we, our affiliates, any officer, director or stockholder, or any member of their families do not have a position in the stock of the company mentioned in this report. Taglich Brothers, Inc. does not currently have an Investment Banking relationship with the company mentioned in this report and was not a manager or co-manager of any offering for the company with in the last three years.

All research issued by Taglich Brothers, Inc. is based on public information. In April 2020, the company paid Taglich Brothers a monetary fee of \$4,500 (USD) representing payment for the creation and dissemination of research reports for three months. In September 2020, the company began paying Taglich Brothers a monthly monetary fee of \$1,500 (USD) for the creation and dissemination of research reports.

General Disclosures

The information and statistical data contained herein have been obtained from sources, which we believe to be reliable but in no way are warranted by us as to accuracy or completeness. We do not undertake to advise you as to changes in figures or our views. This is not a solicitation of any order to buy or sell. Taglich Brothers, Inc. is fully disclosed with its clearing firm, Pershing, LLC, is not a market maker and does not sell to or buy from customers on a principal basis. The above statement is the opinion of Taglich Brothers, Inc. and is not a guarantee that the target price for the stock will be met or that predicted business results for the company will occur. There may be instances when fundamental, technical and quantitative opinions contained in this report are not in concert. We, our affiliates, any officer, director or stockholder or any member of their families may from time to time purchase or sell any of the above-mentioned or related securities. Analysts and members of the Research Department are prohibited from buying or selling securities issued by the companies that Taglich Brothers, Inc. has a research relationship with, except if ownership of such securities was prior to the start of such relationship, then an Analyst or member of the Research Department may sell such securities after obtaining expressed written permission from Compliance.

Analyst Certification

I, Howard Halpern, the research analyst of this report, hereby certify that the views expressed in this report accurately reflect my personal views about the subject securities and issuers; and that no part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this report.

Public Companies mentioned in this report:

Adobe, Inc.

(NASDAQ: ADBE)

CISCO Systems, Inc.

(NASDAQ: CSCO)

Meaning of Ratings

Buy – The growth prospects, degree of investment risk, and valuation make the stock attractive relative to the general market or comparable stocks.

Speculative Buy – Long-term prospects of the company are promising but investment risk is significantly higher than it is in our BUY-rated stocks. Risk-reward considerations justify purchase mainly by high risk-tolerant accounts. In the short run, the stock may be subject to high volatility and could continue to trade at a discount to its market.

Neutral – Based on our outlook the stock is adequately valued. If investment risks are within acceptable parameters, this equity could remain a holding if already owned.

Sell – Based on our outlook the stock is significantly overvalued. A weak company or sector outlook and a high degree of investment risk make it likely that the stock will underperform relative to the general market.

Discontinued – Research coverage discontinued due to the acquisition of the company, termination of research services (includes non-payment for such services), diminished investor interest, or departure of the analyst.

Some notable Risks within the Microcap Market

Stocks in the Microcap segment of the market have many risks that are not as prevalent in Large-cap, Blue Chips or even Small-cap stocks. Often it is these risks that cause Microcap stocks to trade at discounts to their peers. The most common of these risks is liquidity risk, which is typically caused by small trading floats and very low trading volume which can lead to large spreads and high volatility in stock price. In addition, Microcaps tend to have significant company-specific risks that contribute to lower valuations. Investors need to be aware of the higher probability of financial default and higher degree of financial distress inherent in the microcap segment of the market.

From time to time our analysts may choose to withhold or suspend a rating on a company. We continue to publish informational reports on such companies; however, they have no ratings or price targets. In general, we will not rate any company that has too much business or financial uncertainty for our analysts to form an investment conclusion, or that is currently in the process of being acquired.