

Initial Research Report

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

QuantaSing Group Limited

Rating: Speculative Buy

Howard Halpern

October 2, 2023

QSG \$2.35 — (NASDAQ)

	FY22 A	FY23 A	<i>FY24 E</i>	<i>FY25 E</i>
Revenues (in millions)	\$403.2	\$424.9	\$509.6	\$612.6
Earnings (loss) per share	(\$0.74)	(\$0.14)	\$0.01	\$0.04
52-Week range	\$28.99 – \$1.96		Fiscal year ends:	June
Shares outstanding a/o 6/30/23	165.6 million		Revenue/shares (ttm)	\$4.09
Approximate float	35.2 million		Price/Sales (ttm)	0.6X
Market Capitalization	\$389.2 million		Price/Sales (FY25) E	0.7X
Tangible Book value/shr	\$0.19		Price/Earnings (ttm)	NMF
Price/Book	12.4X		Price/Earnings (FY25) E	58.8X

All figures are in US dollars. Revenues have been translated into US dollars from the Chinese currency using US Federal Reserve and futures market data

QuantaSing Group Limited operates in mainland China as the largest service provider in China's online adult learning market. The company's mission is to improve people's quality of life and well-being by providing lifelong personal learning and development opportunities. QuantaSing offers easy-to-understand, affordable, and accessible online courses to adult learners under QiNiu, JiangZhen, and QianCh brands. In the summer of 2023, the company launched a live e-commerce division in order to monetize the company registered user base and leverage its technology infrastructure.

Key Investment Considerations:

Initiating QuantaSing Group with a Speculative Buy rating and 12-month price target of \$9.00 per share.

QuantaSing Group's mission, to provide adult online offerings in mainland China to improve people's quality of life and well-being by providing them lifelong personal learning and development opportunities, provides them with significant growth potential for its online adult learning brand portals - QiNiu, JiangZhen, and QianCh. Frost & Sullivan anticipates the Chinese online segment of the adult learning market to grow annually by 17.8% from 2022 through 2027, reaching RMB325 billion (or an estimated \$46 billion in 2027).

Supporting our growth forecast should be QSG's ability to successfully monetize its registered user base of over 94 million and over 400,000 paying learners on its technology portal brands. At June 30, 2023, registered users and paying learners grew 60.6% and 29.9% respectively, compared to June 30 2022.

To monetize its users, the company launched a live e-commerce segment that will initial sell Chinese liquor. In August 2023, this new segment generated RMB13.3 million in gross merchandise value (or approximately \$545,000). In a move to expand outside of China, the company acquired Hong Kong based Kelly's Education.

For FY24, we project EPS of \$0.01 on 19.9% revenue growth to \$509.6 million reflecting strong 2H24 growth from expansion of paid learners, sales from the company's live e-commerce liquor offering, and inclusion of the operations of Kelly's Education (acquired in September 2023).

For FY25, we project EPS of \$0.04 on 20.2% revenue growth to \$612.6 million reflecting increases in the number of paid learners, monetization of its registered users through expansion of its live e-commerce technology platform, and a full year contribution and expansion of the services provided by Kelly's Education. Our EPS forecast reflects gross margin remaining above 85% and operating expense margin improving to 84.4% from an estimated 86.4% in FY24 as QSG utilizes its technology to create operating efficiencies.

Please view our Disclosures on pages 18 – 20.

Appreciation Potential

Initiating Super League Gaming, Inc. with a Speculative Buy rating and 12-month price target of \$9.00 per share. Our rating and price target reflects the company’s ability to execute on its mission to provide adult online offerings in mainland China in order to improve people’s quality of life and well-being by providing them lifelong personal learning and development opportunities. We anticipate through the company online learning brand portals - QiNiu, JiangZhen, and QianCh and dedicated sales and marketing efforts to grow faster than the online adult learning market in China. In 3Q23, Frost & Sullivan published a report indicating that the Chinese online segment of the adult learning market to grow annually by 17.8% from 2022 through 2027, reaching RMB325 billion (or an estimated \$46 billion in 2027). The overall Chinese adult learning market (includes both on and offline learning) should grow annually by 12.6% through 2027, reaching over RMB 1 trillion (or an estimated \$137 billion).

Supporting our growth forecast should be QSG’s ability to successfully monetize its registered user base of over 94 million and over 400,000 paying learners on its technology portal brands. At June 30, 2023, registered users and paying learners grew 60.6% and 29.9% respectively, compared to June 30, 2022. To monetize its user base, the company launched a live e-commerce segment that initially started by selling Chinese liquor. In August 2023, this new segment generated RMB13.3 million in gross merchandise value (or approximately \$545,000). In a move to expand outside of China, the company acquired Hong Kong based Kelly’s Education.

Our 12-month price target of \$9.00 per share implies shares could increase nearly four-fold over the next twelve months. According to finviz.com, the average price-to-sales multiple for companies in the education and training services sector is 3.7X compared to QuantaSing’s trailing price-to-sales multiple of 0.5X. We anticipate investors are likely to accord QSG a multiple approaching the sectors trailing price-to-sales multiple due to projected sales growth of 20.2% in FY25. We applied a price-to-sales multiple of 3.2X to our FY25 sales per share forecast of \$3.49, discounted for execution risks that includes generating all of its revenue in mainland China, to obtain a year-ahead price target of approximately \$9.00 per share.

QSG’s valuation should improve as it reports revenue growth and operating profits. We forecast revenue growth of 20.2% to \$612.6 million in FY25 from an estimated \$509.6 million in FY24. We anticipate the company swinging to an operating profit of \$2.5 million in FY24 from a loss of \$10.5 million in FY23. We anticipate operating profits reaching \$8.5 million in FY25.

We believe QuantaSing Group Limited is most suitable for risk tolerant investors seeking exposure to an emerging growth company that operating in mainland China as a provider of online adult learning branded technology platforms for the growing older adult population in China and launch of a new live e-commerce segment to monetize its existing registered user customer base.

Overview

QuantaSing Group Limited operates in mainland China as the largest service provider in China’s online adult learning market. The company’s mission is to improve people’s quality of life and well-being by providing lifelong personal learning and development opportunities. QuantaSing offers easy-to-understand, affordable, and accessible online courses (see chart on the right – company presentation) to adult learners under QiNiu, JiangZhen, and QianCh brands. QSG also provides marketing and enterprise talent management services to enterprise customers within China.

During the summer of 2023, the company launched a live e-commerce division in order to monetize the company registered user base and leverage its technology infrastructure.

QuantaSing Group Limited

The company carry out its operations in China through Beijing Liangzizhige, its wholly foreign-owned enterprise, and their contractual arrangements with Beijing Feierlai a variable interest entity based in China, and its nominee shareholder.

At June 30, 2023, QuantaSing had over 94 million registered users and approximately 400,000 paying learners, which was a 60.6% and 29.9% growth respectively, compared to June 30, 2022. Revenues are driven by course fees charged to learners for individual online learning services.

In 2019, the financial literacy learning services offering was launched. In 2021, according to a Frost & Sullivan report QSG became the largest service provider in China's online financial learning market in terms of revenue. In 2021, the company expanded its offerings into other personal interest offerings in order to leverage the general public's gradual awakening to more diverse needs in pursuing personal development and lifelong learning.

In 2020, QSG launched its marketing services to financial intermediary enterprises, allowing them to connect with its learners to enlarge their customer base. In 2022, the enterprise talent management services was launched to provide enterprise customers with online talent assessment, training, and learning services for internal employee management.

History and Structure

In February 2021, Witty Digital Technology Limited was incorporated in Hong Kong and in March 2021, Hundreds of Mountains Limited was incorporated in the British Virgin Islands. Witty Digital Technology Limited and Hundreds of Mountains Limited are the company's wholly-owned subsidiaries. In March 2021, the company's wholly foreign-owned enterprise was established in China as a new wholly-owned subsidiary of Witty Digital Technology Limited for the purpose of the restructuring of the organization. In February 2022, QuantaSing Group Limited was incorporated as a Cayman Islands holding company and listing entity for its initial public offering.

In March 2022, the 100% sale of the equity interest in Beijing ChangYou Star Network Technology Co., Ltd., and its subsidiary, Beijing Baichuan Insurance Brokerage Limited to Beijing Shanronghaina Network Technology Co., Ltd., an entity controlled by EW Technology. In May 2022, EW Technology transferred all its equity interests in its BVI subsidiary which held QuantaSing's wholly foreign-owned enterprise (WFOE) and consolidated the financial results of variable interest entity (a legal business structure where an investor has a controlling interest despite not having a majority of voting rights) and its subsidiaries to QuantaSing Group Limited, upon which QuantaSing acquired all the equity interests in its WFOE, and became the primary beneficiary of the variable interest entity (VIE) consolidating the financial results of the VIE and its subsidiaries. The restructuring and spin-off was completed in May 2022.

As a result of the company's direct ownership in its WFOE and the contractual arrangements with the VIE, QSG became the primary beneficiary of the VIE, and, therefore, have consolidated the financial results of the affiliated entities in its consolidated financial statements in accordance with US GAAP.

The company has effective contractual arrangements by and among its WFOE, the VIE and its shareholders through a voting rights proxy agreement, equity pledge agreement, and exclusive consultancy and service agreement along with an exclusive option agreement.

Offerings

The company mission is to provide adult online offerings to improve people's quality of life and well-being by providing them lifelong personal learning and development opportunities. To accomplish its mission QSG has developed individual online learning services that are designed for adult learners that are easy-to-understand, affordable, and accessible online through its platforms to address their diversified demands for personal development. The online courses are distributed via its platforms under the brands of QiNiu, JiangZhen, and QianChi.

Financial literacy courses are offered under the QiNiu brand. The online courses include introductory, intermediate, advanced, and signature premium learning for adult financial literacy learning.

The introductory financial literacy courses target novice learners, who wish to acquire basic financial and investment knowledge that encompass subjects ranging from the basic financial planning and investment concepts to commonly employed financial products, such as stocks, bonds, mutual funds, insurance, and other wealth management products. Intermediate-level courses expand on the topics and concepts covered in introductory courses, amplified with more detailed explanations and extensive application scenarios. These course are delivered over a consecutive nine-day module of one and a half to three hours per session in the evenings in order to cater to the lifestyle of adult learners, who are primarily middle-aged individuals with no readily available access to easy-to-grasp financial and investment knowledge.

Signature Courses	
	Personal Finance
	Wealth Management
	Financial Planning
	Investment Knowledge
	Financial Analysis



The company premium signature financial literacy courses are targeted at the adult learners that have completed its introductory courses and want to advance their financial and investment knowledge and skills. These premium signature financial literacy courses are delivered in online community-based training camp model. Learners may also purchase the premium signature course materials for self-study purposes. The chart above shows some of the broad courses offered but also include fund and stock investments, fixed income and insurance products, and financial report analysis. The company adjusts the course content and cadence by dividing them into intermediate and advanced levels. The advanced-level premium signature courses bring more in-depth aspects of the personal finance and wealth management that are important to the financial practice of the company’s adult learners. These premium courses are delivered over a four-week or five-week training schedule primarily comprising pre-recorded lectures and live lectures in the mid- and final term.

In August 2021, QSG expanded its course offerings by launching its JiangZhen brand. This brand provides a comprehensive upskilling personal growth technology portal. QuantaSing has taken a progressive approach to expand the course portfolio to other personal interest offerings based on in-depth research into the competitive landscape, market demand and learner aptitudes in order to ensure the quality and degree of acceptance of each course offered. Two of the most popular personal interest courses are short-video production and personal well-being.

The short-video production course targets freelancers or amateurs who create video content and intend to improve their skillsets by providing easy-to-grasp introduction on the major types of social media and their business models. The company supplements this offering with hands-on training sessions to practice their video and audio editing skills.

The personal well-being courses target individuals who care about the wellness of themselves and their families, by enabling them to acquire basic well-being and health management knowledge, understand common health conditions, and cultivate positive lifestyles and habits. The content is delivered through simplified narratives with illustrative examples, supplemented by easy-to-follow health tips to implement in daily life.

In June 2022, the company launched its QianChi brand which is an interest-based learning platform for retired (or silver) learners. The two most popular courses offered under the QianChi brand is shown in the chart of the right from the company’s 4Q23 presentation. The electronic keyboard course is comprised of basic music theory knowledge, skills, and techniques. The instructors deliver live lectures and the company’s tutors provide off-class, one-on-one training to help the paying learnings practice their keyboard skills. The Chinese calligraphy course offering provides these retired learners a way to relax while learning the stylized artistic writing style of Chinese characters, which unites the languages spoken in China. Calligraphy is considered supreme among the visual arts in China.

Signature Courses	
	Electronic Keyboard
	Calligraphy

Building upon its course infrastructure and relationships in paying learners the company launched in February 2020, its marketing services to enterprise customers. That was followed by the launch QSG’s enterprise talent management services in June 2022.

In the summer of 2023, the company launched a live e-commerce platform that initially is focused on selling Chinese liquor. This new revenue generating segment is intended to leverage the company’s registered and paying learners by providing them with relevant Chinese liquor content and value in purchasing items. In August 2023, this live e-commerce platform generated RMB13.3 million in gross merchandise value.

In September 2023, the company acquired Kelly's Education, an online language education platform headquartered in Hong Kong. The Kelly's Education provides personalized online language education for children aged 3-15, primarily in Hong Kong. It also should enable QuantaSing to tap into the global online learning and new language education sectors.

Customer Acquisition and Retention Process

QuantaSing’s customer acquisition process begins by offering free live streaming introductory courses to a large group of potential learners from its over 94 million registered users. During these large free live stream courses the company’s dual-instructor model enables tutors to interact with the learners in real-time that is intended to be converted into paying learners that move progressively through introductory, intermediate, advanced, and signature premium courses of interest. In 4Q23, the company increased its paid learners by 29.9% to over 400,000 compared to 4Q22. The chart on the right from the company’s 4Q23 presentations shows how its service-driven dual-instructor model is designed to provide high satisfaction to an individuals’ online learning experience. Once a learner has reached the company’s premium courses they will experience an online community-based training camp, live lectures, and one-on-one tutoring.



If successfully executed the course offerings and learning process through a supportive, interactive, and enriching environment should lead to a high retention and repurchase rate. In 4Q23, the company’s repurchase rate approached 20% of total revenue compared to 11% in 3Q23.

The company’s introductory courses are designed to be live sessions in a large-class dual-instructor setting to easily scale the learner base with a balanced level of attention to learners’ needs. QSG staffs each course session with one or two in-class instructors to deliver the live lectures and a number of off-class tutors (called sidekick instructors) to provide learners with one-on-one guidance and support in the same class. The picture on the right (source: January 2023 prospectus) provides an illustrative look at a learners computer screen under the company’s dual-instructor model.



Once a customer becomes a paid learner, the company aims prove such a positive experience that they become a repeat customer moving through the progression of learning to premium courses which are live lectures, one-on-one tutoring, and tailored strictly to the nature of the content taught.

Growth Strategy

QuantaSing Group's growth is aimed at growing its registered users that through its sales and introductory course activities should lead to conversion into paid learners. Entering 1Q24, the company had in excess of 400,000 paid learners from over 94 million registered users. Through its customer base the company intends to employ a multi-branded online platform strategy for curriculum design, customer acquisition, advertisement campaigns, and potential international expansion via the September 2023 acquisition of Hong Kong based Kelly's Education, as well as development and gradual expansion of its new live e-commerce operating segment. From its customer base the company believes it can monetize its newly introduced live e-commerce offering to methodically growth this segment through the sale of Chinese liquor and eventually other product offerings.

The company goal is to attract new paid learners by deploying marketing campaigns by refining its data-driven sales strategies and branding efforts across online and offline channels. In order to drive learner engagement growth and retention of paid learners it will continually seek to improve course quality and offering more interactive and personalized learning experiences. QSG will spend time and money to enrich its current course offerings and curriculums and develop new course subjects based on customer interest, through market research efforts that includes market survey's, customer interviews, and market competitor analysis. New offerings will be developed and designed to capture a wider audience with high demand in order to achieve operational efficiencies. Overall the company will be focused on new curriculum designs in order to up-sell customers to paid premium courses.

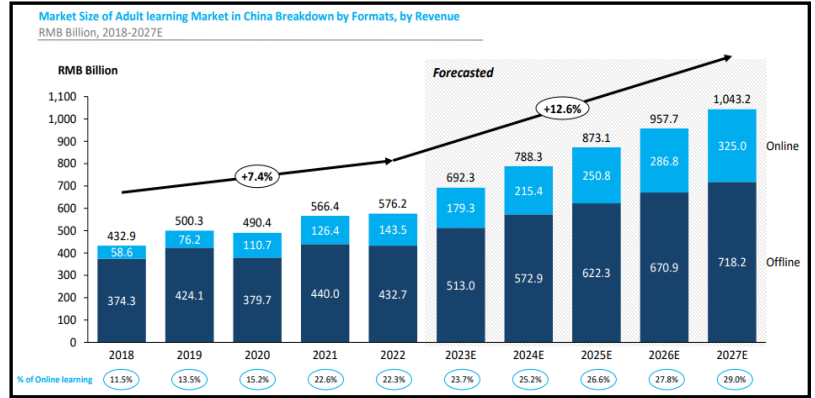
An additional strategic growth area is to expand its recurring revenue model for enterprise service customers. Enterprise service offerings should provide the company opportunities to cross-sell add-on services. The company is leveraging its proprietary technology and systems that underlie its online learning platforms by launching a recurring revenue learning segment to this customer segment. In 2022, QSG launched its enterprise talent management services offering that will have an integrated talent assessment, training and management functions for enterprise customers. This offering includes an intelligent online platform that integrates the functions of talent assessment, training and management to provide enterprises digital, integrated internal employee training, and management systems. This technology learning platform provides customized, systematic online courses and evaluation mechanisms to address enterprise customers' needs for internal talent management and optimize their relevant procedures. Enterprise customers can receive automatically generated reports about the learning progress and assessment performance of the enrolled employees, which allows them to timely adjust their talent strategy. Overall enterprise customer revenue more than doubled in 4Q23 to \$14.2 million from 4Q22.

In order to continue building the company's technology based branded platforms (QiNiu, JiangZhen, and QianChi), as well as its enterprise service offerings and e-commerce segments, strategic investments will be made to enhance its technology and data analytics and bring aboard and train more qualified instructors. The company can track a number of data points throughout a learners' journey with QSG in order to facilitate product development and live streaming developments of interactive features to further enhance a learners' experience.

The company's technology plan intends to leverage data analytics capability to promote system security so as to ensure that its platforms are reliable and can support rapid expansion. QSG intends to use its resources to attract additional qualified instructors in adult online learning markets through the lateral hiring of experienced instructors and the systematic training of emerging teaching talents.

Chinese Adult Learning Market

In September 2023, Frost & Sullivan published a report indicating that the market size of China’s adult learning industry grew annually by 5.9% from RMB432.9 billion in 2018 to RMB576.2 billion in 2022. The chart on the right is a breakdown of the online and offline markets and overall annualized growth rate of 12.6% through 2027 from 2022. The aggregate market size in RMBs anticipates a market that can generate total revenue of over 1 trillion. The company’s offerings reside in the Chinese online segment of the adult learning market, which is forecast to grow annually by 17.8% from 2022 through 2027, reaching RMB325 billion (or an estimated \$46 billion in 2027). The Frost & Sullivan report showed that China’s online individual adult learning market growth should be driven by the overall development of the country’s macro economy, improved living qualities, enhanced literacy rates, and adults having increased rates of internet and mobile connections.



The Frost & Sullivan report showed that China’s online individual adult learning market growth should be driven by the overall development of the country’s macro economy, improved living qualities, enhanced literacy rates, and adults having increased rates of internet and mobile connections.

The report projected that the senior adult learning market in China should grow annually by 34% reaching RMB120.9 billion in 2027 from RMB28 billion in 2022. Growth in China’s adult online learning and senior segments of the market should occur based on increasing disposable income and a growing need for personal development of Chinese adults especially people over 60 years of age.

An article published on a financial new site called FinSMEs, indicated that China has one of the fastest-growing aging populations in the world. At the end of 2022, there were approximately 280 million people aged 60+ in China (or 19.8% of the entire population). By 2025, the people in China aged 60+ is anticipated to reach 300 million with growth to over 400 million by 2035. This demographic population growth along with the Chinese government seeking to encourage senior learning should support growth in China’s adult learning market as it seeks to increase the level of social participation among people over 60 years of age. National and local governmental policies will include boosting the supply of education resources and raising the quality of cultural and sporting services. China has integrated education for older adults into its comprehensive lifelong learning system that seeks to stimulate the growth of tailored educational resources by supporting organization the operating adult learning platforms including online learning services.

The September 2023 Frost & Sullivan report anticipates the enterprise professional training market in China to grow annually by 10.9% to RMB250.3 billion from RMB148.9 billion in 2022. Supporting growth for this market segment is the trend of paying for systematic and well-designed enterprise professional training courses by organizations in China. Companies in China have begun to realize a sustainable way to enhance work efficiency for new and experienced employees is to build comprehensive training systems that are well-designed and with high-quality. This is where QSG’s enterprise offerings should provide a platform for sustainable revenue growth through our forecast period.

Projections

Basis of Forecast

Our forecast reflects the growth trends within the adult learning market in China and the significant opportunity to convert registered users of free learning classes into paying learners on the company’s three education-related technology branded portals (QiNiu, JiangZhen, and QianCh brands). Entering FY24, the company had over 400,000 paying learners engaged on its education-related technology branded portals with over 94 million registered users. Both categories should continue to experience organic growth through social media and direct marketing campaigns. Over our forecast period, revenue contributions should occur from the company’s FY24 launch of its live e-commerce division with the first offering being Chinese liquor and the September 2023 acquisition of Hong Kong

based Kelly's Education, an online language education platform that could provide global growth opportunities, as well as new learning offerings to its domestic user base.

We are only forecasting the income statement and providing actual reported figures for the company's balance sheet and cash flow statement. All historic financial information and financial forecasts have been converted into US dollars from the Chinese currency using data from the Federal Reserve and future markets.

Economy

In July 2023, the International Monetary Fund (IMF) left unchanged its growth estimates for China. The IMF projects GDP growth of 5.2% for 2023 and 4.5% for 2024. While unchanged from its April 2023 forecast, the IMF anticipates a change in composition to its forecast with consumption growth remaining in-line with its prior forecast along with stronger-than-expected net exports that will likely be offset by lower net investments due to the ongoing real estate downturn. It should be noted that stronger policy support by the government in China, particularly through means-tested transfers to households could further sustain recovery and generate positive global spillovers. However, such developments, would likely increase inflation pressure and necessitate tighter monetary policies.

Operations FY24 (ending June 30, 2024)

We project revenues to grow by 19.9% to \$509.6 million from \$424.9 million in FY23, reflecting strong 2H24 growth from expansion of paid learners, sales from the company's live e-commerce offering, and inclusion of the operations of Kelly's Education (acquired in September 2023).

We forecast gross profit increasing 19.3% to \$442.7 million from \$371 million last year due primarily to revenue growth, partly offset by gross margin narrowing to 86.9% from 87.3% in FY23.

We expect operating expenses increasing 13.9% to \$440.2 million from \$386.6 million in FY23. The increase in operating expenses should support revenue growth. The company's increased spending will be used to increase and retain paid learners on its education platforms and launch its live e-commerce division, as well as support growth opportunities for the operations of Kelly's Education. We anticipate selling and marketing expense increasing 15.4% to \$383.3 million from \$332.1 million last year. We anticipate G&A and R&D expenses increasing to \$26.1 million and \$30.9 million, respectively, from \$24.2 million and \$30.3 million last year.

We project the company should swing to an operating profit of \$2.5 million from an operating loss of \$15.7 million in FY23. Our operating income forecast reflects revenue growth and operating expense margin improving to 86.4% from 91% in FY23. Also, we anticipate share based compensation expense decreasing by \$6 million to \$20.4 million from \$26.4 million last year.

We anticipate non-operating income of \$1.5 million compared to income of \$3.8 million last year. The current period includes interest income of \$1.5 million. We are not forecasting other income or loss and will only include what QSG reports each quarter. In the year-ago period interest income was \$735,000 and other income was \$2.9 million.

We project net income of \$1.8 million or \$0.01 per share on 175.8 million average shares outstanding, after applying an income tax expense of \$2.4 million and adding back a non-controlling interest loss of \$200,000.

Finances

While we are not providing a cash flow statement forecast, we anticipate adjusted earnings before interest taxes depreciation and amortization (adjusted EBITDA) of approximately \$22.8 million from \$10.8 million in FY23.

Operations – FY25 (ending June 30, 2025)

We project 20.2% revenue growth to \$612.6 million reflecting increases in the number of paid learners on the company's three education platforms, monetization of its registered users through the launch of the live e-commerce technology platform that should add additional products to be sold from its initial launch of Chinese liquor, and a full year contribution and expansion of the services provided by Kelly's Education that was acquired in September 2023.

Also, contributing to our revenue growth forecast is a slight improvement in the exchange rate from the Chinese currency to the US dollar (7.05 forecasted for June 2025 verses 7.16 forecasted for June 2024).

We forecast gross profit increasing 18.6% to \$525.1 million from an estimated \$442.7 million in FY24 due primarily to revenue growth, partly offset by a narrowing of gross margin to 85.7% from an estimated 86.9% in FY24. The narrowing of gross margin should occur as the company expands its revenue contribution from its live e-commerce division and operations of Kelly's Education.

We anticipate operating expenses increasing 17.5% to \$517.1 million from an estimated \$440.2 million FY24. The increase in operating expenses should support revenue growth from the company's core adult learning platforms and expansion of its live e-commerce and Kelly's Education operations. We anticipate selling and marketing expense increasing 18.9% to \$455.5 million from an estimated \$383.3 million in FY24. We project G&A and R&D expenses increasing to \$29.6 million and \$32 million, respectively, from \$26.1 million and \$30.9 million estimated for FY24.

We project the company's operating profit increasing to \$8.1 million from an operating profit of \$2.5 million in FY24. Our operating income forecast reflects revenue growth and operating expense margin improving to 84.4% from an estimated 86.4% in FY24. Also, we anticipate share based compensation expense decreasing by \$5.4 million to \$15 million from an estimated \$20.4 million last year.

We anticipate non-operating income of \$1.4 million compared to income of \$1.5 million last year.

We project net income of \$7.3 million or \$0.04 per share on 175.8 million average shares outstanding, after applying an income tax expense of \$2.4 million and adding back a non-controlling interest loss of \$200,000.

Finances

While we are not providing a cash flow statement forecast, we anticipate adjusted earnings before interest taxes depreciation and amortization (adjusted EBITDA) of approximately \$23.1 million compared to an estimated \$22.8 million in FY24. Our adjusted EBITDA forecast reflects an approximately \$5.4 million decrease in stock-based compensation expense.

Unaudited FY23 Financial Results (ending June 30, 2023)

FY23

QSG reported revenue increased 5.4% to \$424.9 million from \$403.2 million in FY22 due to increases in individual online learning and enterprise services. Additionally, since the company's revenue is generated in China, the change in exchange rates restrained overall US denominated revenue growth. In FY23, the exchange rate was 7.2513 compared to 6.6981 in FY22.

Revenue from individual online learning services increased 7.6% to \$377.2 million from \$350.6 million last year reflecting a \$91.9 million increase in other personal interest courses, partially offset a reduction in revenue from financial literacy courses of \$58.7 million. Also, enterprise services revenue increased to \$47 million from approximately \$26.1 million in FY22 due primarily to higher revenue from the company's marketing services provided to a related party, as well as to new customers. Other services reported a small revenue decrease stemming from reduced activity related to insurance brokerage services reflecting ceasing and disposal of that operation to an affiliate.

Gross profit increased 7.3% to nearly \$371 million from \$345.7 million in the year-ago period due primarily to revenue growth and gross margin expanding to 87.3% from 85.7% in FY22. The improvement in gross margin reflects reductions in labor outsourcing and staff costs resulting from improved operating efficiency, partially offset by an increase in third-party service costs.

Operating expenses increased by 2.1% to \$386.6 million from \$378.8 million in FY23. Sales and marketing expenses increased to \$332.1 million from \$316.9 million last year due primarily to higher marketing and promotional activities to support sales growth. G&A expenses increased to \$24.2 million from \$23.4 million in

QuantaSing Group Limited

FY22 due primarily to higher share-based compensation. Partly offsetting the increase in operating expenses was a decrease in R&D expenses to \$30.3 million from \$38.4 million last year stemming from reduced share-based compensation expenses for personnel developing the company's technology and course infrastructure.

The company's operating loss narrowed to \$15.7 million compared to a loss of \$33.1 million last year. The improvement reflects revenue growth, gross margin expansion, and operating margin expense improving to 91% from 94% in FY22.

Non-operating income was \$3.7 million compared to income of \$2.9 in FY22. The current period includes interest income of \$735,000 and other income of \$2.9 million.

Net loss attributable to QuantaSing Group Limited was \$15 million or (\$0.14) per share, after an income tax expense of nearly \$3 million on 103.9 million average shares compared to a net loss attributable to QuantaSing Group Limited of \$32.8 million or (\$0.74) per share, after an income tax expense of \$2.6 million on 44.3 million average shares in the year-ago period.

Finances

While the company did not provide a cash flow statement for FY23, we estimate adjusted EBIDTA of nearly \$10.8 million compared to \$10.4 million last year.

Capital Structure

At June 30, 2023, QSG had no outstanding debt, contract liabilities of \$71.3 million, accrued expenses of \$23.6 million, and shareholders' equity of \$31.1 million. Cash and short-term investments was \$105.4 million and \$22.9 million, respectively, at June 30, 2023.

The company announced that its board of directors authorized a share repurchase program under which QSG may repurchase up to \$20 million of its Class A ordinary shares in the form of American depositary shares during a twelve-month period commencing on June 9, 2023. Repurchases under the program may be made from time-to-time through open market transactions at prevailing market prices, in privately negotiated transactions, in block trades and/or through other legally permissible means.

Competitive Landscape

QuantaSing's revenues are primarily derived from its operations within the adult learning market in China, which is fragmented with a large number of market participants. It is estimated that the top five organizations in the Chinese adult learning market accounts for less than 5% of total market revenues. While QSG is an online provider of adult learning in China, it also must compete with organizations that provide offline adult learning in China. While highly fragmented, the company believes it is the largest service provider in China's adult learning market for personal interest courses and online financial learning.

The Chinese online adult learning market is highly competitive with competition in this sector to persist and intensify. The company's competition for its service offerings include individual organization that may provide online learning and enterprise services. Competitors may have longer operating history, greater brand recognition, or greater financial, technical, and marketing resources.

The competition within this market goes beyond the quest for obtaining paying learners. Industry participants compete for high-quality instructors, technology infrastructure, and data analytics capabilities. Other competitive factors include the quality of services offered, the overall learning experience, brand awareness, and the scope of course offerings. Competitors to QSG could adopt similar curriculums and marketing approaches, with different pricing and service packages that may have greater appeal to learners.

Management

Peng Li – Chief Executive Officer and Chairman of the Board. He is the founder of QuantaSing Group and has served as its chairman of and our CEO since inception. Mr. Li previously founded and served as the CEO of Beijing Renjuren Network Technology Co., Ltd. and was the co-founder and served as the VP of Qianpin Online Network Technology (Beijing) Co., Ltd. Previously served as the head of commercial operation center of Beijing UCWEB Internet Technology Co., Ltd. and also as strategic cooperation manager of Baidu.com, Inc. He began his career by serving as the marketing manager of Beijing Jingyeda Technology Co., Ltd. Earned a bachelor's degree in computer science and technology from Hebei Agricultural University in Baoding China.

Jinshan Li – Chief Technology Officer and Director. Mr. Li has been a director of the company since May 2022 and chief technology officer since April 2018. Prior to joining QuantaSing, he served as the chief technology officer of Ailv Network Technology Co., Ltd. He also served as general manager of carpooling business of Beijing Five Car World Technology Co., Ltd. and as senior manager of technology officer for Renren Inc., as well as product manager at the advertising department of Youdao Inc. Earned a bachelor's degree in computer science and technology from Beijing Information Technology Institute and master's degree in computer application from Institute of Computing Technology, Chinese Academy of Sciences.

Dong Xie – Chief Financial Officer since January 2021 and as a director since June 2022. Prior to joining the company, Mr. Xie served as the partner of capital market services at PGadvisory. He previously served as CFO at Renmai Technology Group and CFO and secretary of Finup Financial Technology Group. Mr. Xie also served as a vice president at CCB International (China) Co., Ltd. and as associate director at the merger and acquisition transaction service department of Deloitte China. Mr. Xie is a Chinese Certified Public Accountant, Certified Internal Auditor, and Certified Tax Agent and holds the China Legal Professional Qualification. Earned a bachelor's degree in economics and master's degree in global economics from Nankai University. He serves as an independent director and chairman of the audit committee for China BlueChemical Ltd.

Risks

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

Doing Business in China

The People's Republic of China (PRC) government has the authority influence operations of an offshore holding company and offerings conducted overseas and foreign investments in China-based issuers. QSG's operations and nearly all of its assets are located in China. The company's results of operations and financial conditions may be influenced significantly by the PRC political, economic, and social conditions. The PRC government may intervene or influence operations at any time, which could result in a material change in operations and/or the significantly reduce the valuation of its securities that are traded on the NASDAQ market.

Corporate Structure in China

QuantaSing Group Limited is a Cayman Islands holding company with no substantive operations. Beijing Liangzizhige (a wholly foreign-owned enterprise (WFOE)) is its wholly-owned PRC subsidiary and a foreign-invested enterprise under Chinese law. The company's WFOE is not eligible to engage in businesses that are subject to foreign ownership restriction under the PRC laws, therefore business in China is conducted through the contractual arrangements entered into by QSG's WFOE with the Variable Interest Entity (VIE) based in China. Investors in the company's shares are purchasing the equity securities of QuantaSing Group Limited, the Cayman Islands holding company, rather than the equity securities of the VIE or its subsidiaries.

The WFOE has entered into a series of contractual arrangements with the VIE and its shareholder, which enable QSG to be considered as the primary beneficiary of the VIE for accounting purposes, receive substantially all of the economic benefits of the affiliated entities, have the pledge right over the equity interests in the VIE as the pledgee, and have an exclusive option to purchase all or part of the equity interests in the VIE when and to the extent permitted by PRC law. The company has been and expects to continue to be dependent on the affiliated entities to

operate its business in China. As a result of these contractual arrangements, QuantaSing is the primary beneficiary of the VIE and consolidate the financial results of the affiliated entities under US GAAP accounting.

If the PRC government deems QSG's contractual arrangements with its variable interest entity do not comply with the governments regulatory restrictions on foreign investment in the relevant industries, or if these regulations or the interpretation of existing regulations change in the future, the company may decline in value or become worthless if it is unable to assert the contractual control rights over the assets of the affiliated entities that conduct substantially all of the revenue-generating operations.

Limited Operating History

In July 2019, the company began offering its financial literacy learning services, which was followed by the launch of additional courses for other personal interests in August 2021. The limited history under QSG's current business model may not serve as an adequate basis for evaluating future prospect especially converting registered users to paying learners. The ability to execute on its adult learning and enterprise services operations in China will determine if the company has the ability to growth within China and expand to a global footprint. If execution fall short operations and future growth opportunities are likely to diminish.

Operating Losses

Since inception the company has recorded operating losses. In fiscal years 2021, 2022, and 2023, operating losses reported by the company were \$51.2 million, \$33.1 million, and \$15.6 million, respectively. While operating losses were significant, they have narrowed. We anticipate the company generating an operating profit through our forecast period. However, if losses were to continue is might require the company to reduce operating expenses, which could restrain or diminish revenue growth prospects.

Internal Controls

At June 20, 2022 (latest public SEC filing) the company identified material weaknesses related to the lack of personnel with appropriate knowledge of US GAAP accounting and reporting requirements. During the IPO process QSG and its independent registered public accounting firm identified one material weakness in its internal control over financial reporting. The material weakness, if not remediated timely, may lead to material misstatements in the company financial statements. The company and its independent registered public accounting firm had not undertaken an assessment of internal control under the Sarbanes-Oxley Act; however, if it had performed a formal assessment of internal controls additional deficiencies may have been identified. To remedy the material weaknesses QSG has begun to and will continue to implement measures to fully address the issues identified over financial reporting. However, those measures may not be sufficient and future financial statements may be produced even though internal controls maybe ineffective.

Online Learning in China

The company has built a technology infrastructure for the integration of technology and online learning services to provide an engaging and immersive online learning experience. However, adult personal interest learning is a relatively new concept in China. Potential learners of QSG's offerings may not recognize and accept the concept of learning through digital platforms, even with the expansion of the internet and mobile devices within China. Many potential users may still be inclined to choose traditional and face-to-face lessons and paper materials over pre-recorded videos, live streaming and online content, as they could find the traditional method more reliable. If the company's offerings become less appealing to learners in the future its operations and financial condition could be materially and adversely impacted.

Intellectual Property

Copyrights, trademarks and other intellectual property are likely to be an essential part of the company achieving its growth potential. The company relies primarily on copyrights, trademarks, trade secrets and other contractual restrictions for the protection of the intellectual property used to generate revenue from its operations. However, these provide only limited protection and the actions taken to protect the company's intellectual property rights may not be adequate as third parties may pirate course materials and infringe upon or misappropriate other intellectual property and trade secrets may become known or be independently discovered by competitors. While the company

has taken steps to protect its proprietary rights, such steps may not be adequate to prevent the infringement or misappropriation of its intellectual property, which could diminish future operations.

Cyber Security

Maintaining data security and protecting personal information are critical the company's operations, since it processes a large amount of data and information related to its registered users and paid learners. The information maintained includes mobile phone numbers, social media account information, mailing addresses, and bank account information, which are vulnerable to cyber-attacks, computer viruses, physical or electronic break-ins. To ensure the confidentiality and integrity of the data and information QSG must maintain and continually implement comprehensive and rigorous data security policies and measures to safeguard against unauthorized data access and disclosure to effectively address concerns related to privacy and data sharing. However, failure to prevent, mitigate, or respond to security breaches could result in interruptions to the company's technology online learning platforms and legal and financial exposure, as well as diminishment of customer confidence that could reduce future operations.

Shareholder Control

According to the January 2023 SEC filing, QSG is considered a controlled company as defined under the Nasdaq Stock Market Listing Rules because its founder, chairman, and CEO, Mr. Peng Li, holds 30.2% of total issued and outstanding ordinary shares and may be able to exercise 81.2% of the total voting power after the IPO. This assumes that the underwriters do not exercise their option to purchase additional ADSs, or 29.9% of QSG's total issued and outstanding ordinary shares and 81% of the total voting power of its issued and outstanding share capital. This ownership could potentially greatly influence the outcome of matters requiring stockholder approval. These decisions may or may not be in the best interests of the other shareholders.

Other Risk Factors

Investors should be aware of additional risk factors that should be considered. **Licensing requirements** are needed for online learning and live streaming operations since they are highly regulated by the Chinese government. **Customer acquisition** in the online adult learning market in China is a process that requires substantial resources and careful planning as acquiring new learners occurs primarily through certain limited marketing channels, including live streaming mobile apps and social media outlets such as Douyin, Weixin and Kuaishou. **Instructors and content development staff** are critical to operations and the ability to attract and retain them will be important to future growth opportunities since losing such staffers would negatively impact results. **Maintaining and expanding relationships with enterprise customers** is critical to growing a new revenue segment. **PRC laws and regulations in China** are continually evolving and subject to change and uncertain interpretation all of which could result in claims, changes to business practices, monetary penalties, increased cost of operations, or declines in learner growth or engagement. **Reliance on third-party online payment channels** in China and bank transfers from its customers. **The legal system in the Peoples Republic of China** could have a material adverse effect on operations, financial condition, and future prospects, and cause its US shares to significantly decline in value or become worthless. **The dual-class structure of the company's ordinary shares may adversely affect the trading market for its shares.** All these other factors could negatively impact the company's operations that could diminish growth initiatives and financial results.

Miscellaneous Risk

The company's financial results and equity values are subject to other risks and uncertainties, including third party, competition, economic conditions in China and globally, operations, financial markets, regulatory, legislative, status as an emerging growth company, online adult learning activities, and/or other events. These risks may cause actual results to differ from expected results.

Trading Volume

Over the last three month ending September 29, 2023 was approximately 23,700. We estimate QSG has a float of approximately 35.2 million shares and outstanding shares of approximately 165.6 million.

QuantaSing Group Limited
Consolidated Balance Sheets
FY21A – FY23A
(in thousands)

	<u>FY2021A</u>	<u>FY2022A</u>	<u>FY2023A</u>
ASSETS			
Current assets:			
Cash and cash equivalents	\$ 3,888	\$ 37,454	\$ 105,399
Short-term investments	4,589	18,645	22,934
Accounts receivable, net	15,353	272	1,689
Amounts due from related parties	379	6,663	4,015
Prepayments and other current assets	<u>18,366</u>	<u>16,245</u>	<u>18,851</u>
Total current assets	42,575	79,279	152,888
Property and equipment, net	736	727	1,022
Intangible assets, net	5,162	-	-
Operating lease right-of-use assets	1,447	3,362	11,585
Other non-current assets - includes deferred tax assets	<u>1,226</u>	<u>1,466</u>	<u>3,224</u>
Total assets	<u>\$ 51,145</u>	<u>\$ 84,834</u>	<u>\$ 168,719</u>
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable	11,533	6,351	8,563
Accrued expenses and other current liabilities	10,670	15,266	23,604
Amounts due to related parties	3,027	-	-
Income tax payable	357	1,026	1,213
Contract liabilities	41,466	54,084	71,327
Advance from customers	20,630	21,240	19,913
Operating lease liabilities	<u>1,104</u>	<u>2,296</u>	<u>5,667</u>
Total current liabilities	88,787	100,263	130,287
Contract liabilities	4,082	1,247	1
Operating lease liabilities	301	923	7,287
Deferred tax liabilities	1,265	-	-
Mezzanine Equity - convertible redeemable preferred shares A-E	-	93,366	-
Stockholders' equity:			
Parent company investment deficit	(43,290)	-	-
Class A ordinary shares	-	-	11
Class B ordinary shares	-	4	5
Additional paid-in capital	-	9,832	161,501
Accumulated other comprehensive	-	258	3,059
Retained earnings (accumulated deficit)	<u>-</u>	<u>(121,059)</u>	<u>(133,726)</u>
Total QSG invested/shareholders' equity (deficit)	<u>(43,290)</u>	<u>(17,599)</u>	<u>30,850</u>
Non-controlling interest	-	-	294
Total shareholders' equity (deficit)	<u>(43,290)</u>	<u>(17,599)</u>	<u>31,144</u>
Total liabilities and invested/shareholders' equity (deficit)	<u>\$ 51,145</u>	<u>\$ 84,834</u>	<u>\$ 168,719</u>
SHARES OUT	N/A	54,643	165,618

All figures are in US dollars and translated from the Chinese currency using US Federal Reserve data

Source: Company reports and Taglich Brothers estimates

QuantaSing Group Limited
Annual Income Statement
FY21A – FY25E
(in thousands)

	<u>FY2021 A</u>	<u>FY22 A</u>	<u>FY23 A</u>	<u>FY24 E</u>	<u>FY25 E</u>
Revenues	\$ 272,580	\$ 403,173	\$ 424,942	\$ 509,555	\$ 612,596
Cost of sales	<u>27,712</u>	<u>57,462</u>	<u>53,990</u>	<u>66,845</u>	<u>87,490</u>
Gross Profit	<u>244,868</u>	<u>345,711</u>	<u>370,952</u>	<u>442,710</u>	<u>525,106</u>
Operating Expenses:					
Sales and marketing	262,513	316,927	332,142	383,250	455,500
Research and development	18,007	38,446	30,309	30,850	32,000
General and administrative	15,541	23,427	24,168	26,100	29,550
Total Operating Expenses	<u>296,061</u>	<u>378,800</u>	<u>386,619</u>	<u>440,200</u>	<u>517,050</u>
Operating Income (loss)	(51,193)	(33,089)	(15,667)	2,510	8,056
Interest (expense) income	68	54	735	1,500	1,400
Other income (expense)	<u>2,338</u>	<u>2,799</u>	<u>2,939</u>	-	-
Total Other Income (expense)	<u>2,406</u>	<u>2,853</u>	<u>3,674</u>	<u>1,500</u>	<u>1,400</u>
Pre-Tax Income (loss)	(48,787)	(30,236)	(11,993)	4,010	9,456
Income Tax Expense (Benefit)	<u>161</u>	<u>2,580</u>	<u>2,990</u>	<u>2,435</u>	<u>2,370</u>
Net loss attributable to noncontrolling interests	-	-	16	200	200
Net income (loss) attributable to QSG	<u>(48,948)</u>	<u>(32,816)</u>	<u>(14,967)</u>	<u>1,775</u>	<u>7,286</u>
Earning (loss) per share attributable to QSG	<u>\$ (2.00)</u>	<u>\$ (0.74)</u>	<u>\$ (0.14)</u>	<u>\$ 0.01</u>	<u>\$ 0.04</u>
Avg Shares Outstanding	24,518	44,346	103,948	175,768	175,788
Adjusted EBITDA	NA	\$ 10,420	\$ 10,761	\$ 22,810	\$ 23,056
RMB Exchange Rate - H.10 Federal Reserve at period end	6.4566	6.6981	7.2513		
RMB Exchange Rate - Futures market estimates				7.1623	7.0467
Margin Analysis					
Gross margin	89.8%	85.7%	87.3%	86.9%	85.7%
Sales and marketing	96.3%	78.6%	78.2%	75.2%	74.4%
Research and development	6.6%	9.5%	7.1%	6.1%	5.2%
General and administrative	5.7%	5.8%	5.7%	5.1%	4.8%
Operating margin	(18.8%)	(8.2%)	(3.7%)	0.5%	1.3%
Pre-tax margin	(17.9%)	(7.5%)	(2.8%)	0.8%	1.5%
Tax rate	(0.3%)	(8.5%)	(24.9%)	60.7%	25.1%
YEAR / YEAR GROWTH					
Total Revenues	N/A	32.4%	5.4%	19.9%	20.2%

All figures are in US dollars. Revenues have been translated into US dollars from the Chinese currency using US Federal Reserve and futures market data

Source: Company reports and Taglich Brothers estimates

QuantaSing Group Limited
Income Statement Model
Quarters FY23A – FY25E
(in thousands)

	Q1 23 A	Q2 23 A	Q3 23 A	Q4 23 A	FY23 A	Q1 24 E	Q2 24 E	Q3 24 E	Q4 24 E	FY24 E	Q1 25 E	Q2 25 E	Q3 25 E	Q4 25 E	FY25 E
Revenues	\$ 95,599	\$ 114,021	\$ 117,544	\$ 114,234	\$ 424,942	\$ 109,287	\$ 129,982	\$ 137,284	\$ 133,002	\$ 509,555	\$ 133,923	\$ 152,288	\$ 174,304	\$ 152,082	\$ 612,596
Cost of sales	10,883	14,390	14,715	16,015	53,990	14,205	17,545	16,475	18,620	66,845	18,080	21,320	25,275	22,815	87,490
Gross Profit	84,716	99,631	102,829	98,219	370,952	95,082	112,437	120,809	114,382	442,710	115,843	130,968	149,029	129,267	525,106
Operating Expenses:															
Sales and marketing	84,260	90,312	91,936	79,024	332,142	92,000	95,000	98,750	97,500	383,250	99,000	113,500	130,000	113,000	455,500
Research and development	7,583	9,318	7,222	7,393	30,309	7,600	7,700	7,800	7,750	30,850	8,000	8,000	8,000	8,000	32,000
General and administrative	6,436	6,456	7,034	5,243	24,168	6,000	6,500	6,600	7,000	26,100	7,200	7,300	7,600	7,450	29,550
Total Operating Expenses	98,279	106,086	106,192	91,660	386,619	105,600	109,200	113,150	112,250	440,200	114,200	128,800	145,600	128,450	517,050
Operating Income (loss)	(13,563)	(6,455)	(3,363)	6,559	(15,667)	(10,518)	3,237	7,659	2,132	2,510	1,643	2,168	3,429	817	8,056
Interest (expense) income	28	95	264	368	735	375	375	375	375	1,500	350	350	350	350	1,400
Other income (expense)	935	508	758	849	2,939	-	-	-	-	-	-	-	-	-	-
Total Other Income (expense)	963	603	1,022	1,217	3,674	375	375	375	375	1,500	350	350	350	350	1,400
Pre-Tax Income (loss)	(12,600)	(5,852)	(2,341)	7,776	(11,993)	(10,143)	3,612	8,034	2,507	4,010	1,993	2,518	3,779	1,167	9,456
Income Tax Expense (Benefit)	1,504	150	958	510	2,990	1,015	365	805	250	2,435	500	630	945	295	2,370
Net loss attributable to noncontrolling interests	-	-	-	16	16	50	50	50	50	200	50	50	50	50	200
Net income (loss) attributable to QSG	(14,104)	(6,002)	(3,299)	7,282	(14,967)	(11,108)	3,297	7,279	2,307	1,775	1,543	1,938	2,884	922	7,286
Earning (loss) per share attributable to QSG	\$ (0.26)	\$ (0.10)	\$ (0.02)	\$ 0.04	\$ (0.14)	\$ (0.06)	\$ 0.02	\$ 0.04	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.02	\$ 0.01	\$ 0.04
Avg Shares Outstanding	54,540	57,839	135,769	175,755	103,948	175,760	175,765	175,770	175,775	175,768	175,780	175,785	175,790	175,795	175,788
Adjusted EBITDA	\$ (6,841)	\$ 2,703	\$ 3,097	\$ 11,762	\$ 10,761	\$ (5,368)	\$ 8,337	\$ 12,709	\$ 7,132	\$ 22,810	\$ 5,393	\$ 5,918	\$ 7,179	\$ 4,567	\$ 23,056
RMB Exchange Rate - H.10 Federal Reserve at period end	7.1135	6.8972	6.8676	7.2513	7.2513										
RMB Exchange Rate - Futures market estimates						7.2744	7.2301	7.2031	7.1623	7.1623	7.1235	7.0967	7.0916	7.0467	7.0467
Margin Analysis															
Gross margin	88.6%	87.4%	87.5%	86.0%	87.3%	87.0%	86.5%	88.0%	86.0%	86.9%	86.5%	86.0%	85.5%	85.0%	85.7%
Sales and marketing	88.1%	79.2%	78.2%	69.2%	78.2%	84.2%	73.1%	71.9%	73.3%	75.2%	73.9%	74.5%	74.6%	74.3%	74.4%
Research and development	7.9%	8.2%	6.1%	6.5%	7.1%	7.0%	5.9%	5.7%	5.8%	6.1%	6.0%	5.3%	4.6%	5.3%	5.2%
General and administrative	6.7%	5.7%	6.0%	4.6%	5.7%	5.5%	5.0%	4.8%	5.3%	5.1%	5.4%	4.8%	4.4%	4.9%	4.8%
Operating margin	(14.2%)	(5.7%)	(2.9%)	5.7%	(3.7%)	(9.6%)	2.5%	5.6%	1.6%	0.5%	1.2%	1.4%	2.0%	0.5%	1.3%
Pre-tax margin	(13.2%)	(5.1%)	(2.0%)	6.8%	(2.8%)	(9.3%)	2.8%	5.9%	1.9%	0.8%	1.5%	1.7%	2.2%	0.8%	1.5%
Tax rate	(11.9%)	(2.6%)	(40.9%)	6.6%	(24.9%)	(10.0%)	10.1%	10.0%	10.0%	60.7%	25.1%	25.0%	25.0%	25.3%	25.1%
YEAR / YEAR GROWTH															
Total Revenues	N/A	N/A	N/A	N/A	5.4%	14.3%	14.0%	16.8%	16.4%	19.9%	22.5%	17.2%	27.0%	14.3%	20.2%

All figures are in US dollars. Revenues have been translated into US dollars from the Chinese currency using US Federal Reserve and futures market data

Source: Company reports and Taglich Brothers estimates

QuantaSing Group Limited
Cash Flow Statement
FY21A – FY22A
(in thousands)

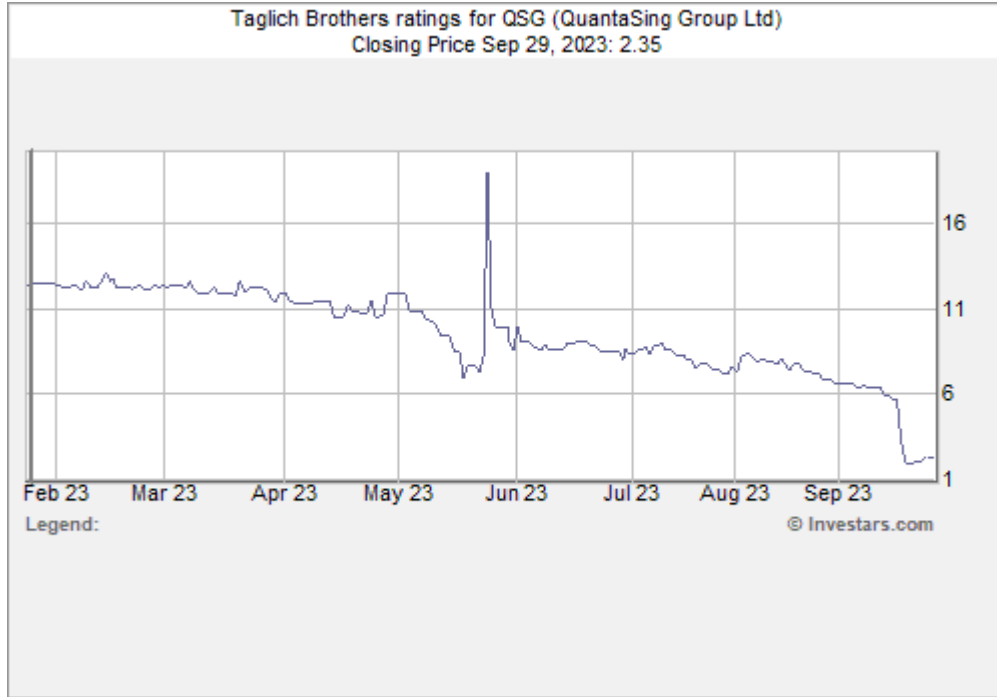
	<u>FY2021A</u>	<u>FY2022A</u>
Net cash provided (used in) Operations	<u>12,301</u>	<u>38,325</u>
Cash flow provided (used in) Investing Activities	<u>(9,657)</u>	<u>(15,263)</u>
Net cash provided (used) by Financing	<u>(3,267)</u>	<u>10,070</u>
Effect of exchange rates	-	793
Net change in Cash and restricted cash	(623)	33,925
Cash and restricted cash Beginning of Period	<u>4,152</u>	<u>3,529</u>
Cash (and restricted) End of Period	<u>\$ 3,529</u>	<u>\$ 37,454</u>

* Details in operating activity or changes in assets and liabilities are not publicly available

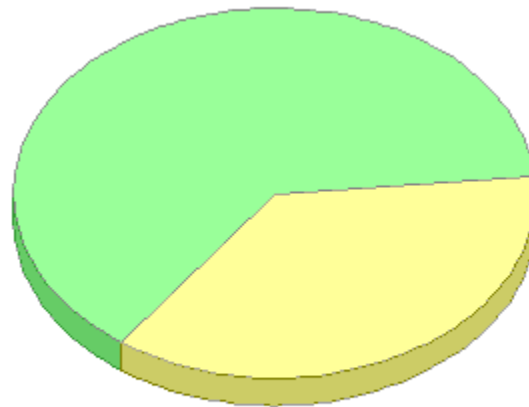
All figures are in US dollars and translated from the Chinese currency using US Federal Reserve data

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 August 2023, the company paid Taglich Brothers a monetary fee of \$12,000 (USD) representing payment for the creation and dissemination of research reports for three months. Three-months after publication of the initial report (January 2024), the company will begin paying Taglich Brothers a monthly monetary fee of \$4,000 (USD) for the creation and dissemination of research reports for a minimum of twelve months after the date the initiation report is first published.

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, Axos Clearing, 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:

None

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.