

April 19, 2021

COOTEK INC. (NYSE: CTK)

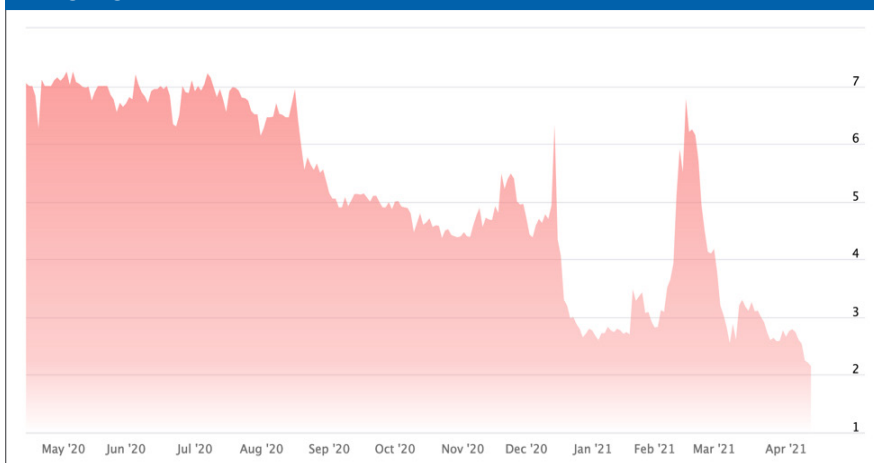
CooTek is a fast-growing internet company that offers mobile applications in three categories: online literature, scenario-based content, and casual games. CooTek aims to deliver its content seamlessly, and uses a data-driven approach to develop content that can attract both mobile internet users and advertisers.

COMPANY HIGHLIGHTS

- * CTK: A developer of user-focused and technology-driven mobile internet content
- * In our view, CooTek has developed a robust ecosystem for delivering mobile internet content that can generate substantial advertising revenue. Using its AI and big data capabilities, the company has built new online literature and gaming platforms over the past two years.
- * In 2020, CooTek invested to expand its user base, and significantly increased both daily and monthly active members. We expect customer acquisition costs to moderate going forward, which should position CooTek to achieve profitability for the full-year in 2022.
- * As of December 31, 2020, CooTek's cash, cash equivalents and restricted cash were \$49.6 million, down from \$60.0 million a year earlier. The company also has access to up to \$20 million in capital through an institutional equity purchase agreement. As such, we believe that it has sufficient capital to execute its business plan.
- * CTK ADSs rose briefly above \$7 in early 2021, but then fell back to their previous 52-week low amid weakness in small-cap technology stocks. CTK also remains well below its 2018 IPO price of \$12. We attribute this weakness in part to a soft advertising market and slightly slower user growth in the second half of 2020.
- * We believe that CTK's current market cap of approximately \$125 million, or just 0.3-times 2020 revenue, does not adequately reflect the company's success in building its content ecosystem, or its prospects for long-term revenue growth and near-term profitability. Based on our forward P/E analysis, we see a fair value estimate for CTK of \$9 per ADS, well above current levels.

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PRICE CHART



KEY STATISTICS

Key Stock Statistics

Recent price (4/16/21)	\$2.06
52 week high/low	\$7.45-\$1.96
Shares outstanding (M)	60.7
Market cap (M)	\$125.0
Dividend	Nil
Yield	Nil

Sector Overview

Sector	Information Technology
Sector % of S&P 500	26.6%

Financials (\$M)

Cash & Mkt Securities	49.6
Debt	11.0
Working Capital (\$M)	-42.0
Current Ratio	0.6
Total Debt/Equity (%)	NA
Payout ratio	NM
Revenue (M) TTM	441.6
Net Income (M) TTM	NM
Net Margin	NM

Risk

Beta	0.0
Inst. ownership	1%

Valuation

P/E forward EPS	NA
Price/Sales (TTM)	0.3
Price/Book (TTM)	NA

Top Holders

Alibaba Group Holding
SC China Holding
SIG China Investments

Management

Chairman	Mr. Karl Kan Zhang
CEO	Mr. Michael Jialiang Wang
CFO	Mr. Robert Yi Cui
Company website	www.cootech.com

COMPANY SPONSORED REPORT. SEE LAST PAGE FOR DISCLOSURES.

INVESTMENT THESIS

CooTek is a fast-growing internet company that offers a portfolio of content-rich mobile applications supported by big data analytics. The company leverages the insights gained from its users to deliver targeted advertisements through these applications. Most of its advertising revenue comes from the Chinese market.

The company has gained user insights from its legacy TouchPal Smart Input mobile app, an adaptive, multilingual tool that helps users to communicate more efficiently by offering next-word prediction, mistyping correction, and auto spelling correction on mobile devices, among other features. The app uses big data analytics to improve its language model continually, and provides users with a customized experience over time. The app, which was launched initially in 2010, has more than 125 million daily and 163 million monthly active users in more than 200 countries.

In early 2019, CooTek launched CooTek Ads, an internally developed advertising platform, supported by big data capabilities, serving advertising customers directly or through ad agencies. This system allows advertisers to create and manage advertising campaigns and budgets, and to place advertisements into CooTek's portfolio applications.

CooTek launched online literature and gaming products in 2019, which helped to boost revenue by 259% in 2019 and 148% in 2020. In 2020, online literature accounted for 38% of advertising revenue, games for 37%, and scenario-based content apps for 24%. Going forward, we expect online literature to account for most of total revenue.

As of December 31, 2020, the company had 27.8 million daily active users (DAUs) for its portfolio products, excluding TouchPal, up 13% from the end of 2019. Monthly active users (MAUs) were 85.8 million, up 15% from the end of 2019. Average revenue per user (ARPU) peaked in the first quarter of 2020, as users spent more time at home and on mobile devices during the pandemic.

CooTek's online literature app is Fengdu Novel, which provides users with a large library of free online novels in a range of genres. Users can search this library using keywords to find titles that match their interests. Fengdu Novel has multiple collaboration agreements with Chinese publishers, and had 2,000 authors in its "ecosystem" as of October 2020.

Fengdu Novel includes a data feedback loop that can help authors better understand readers' preferences, while also improving engagement and generating enhanced ad activity. In turn, readers receive new book recommendations based on their ratings and feedback.

CooTek has maintained favorable user retention and engagement rates for Fengdu Novel, underscoring its potential as a flagship product. DAUs for the app more than doubled in 2020, to 10.2 million, and MAUs rose 53%, to 29.5 million. Average daily reading time, as of December 31, 2020, matched the record 130 minutes achieved in the previous quarter. The app also ranked third in MAUs among free online literature sites in China, according to business intelligence services provider Quest Mobile. Fengdu Novel closed out 2020 in strong fashion, with 28% sequential growth in 4Q revenue and 22% growth in ARPU, providing operating momentum entering 2021.

We see additional areas of potential growth for Fengdu Novel as it expands its library with different media formats, including audio, film, and live streaming. Management is also planning to expand Fengdu Novel

internationally, with a focus on English-speaking countries, and notes that it has been able to attract U.S. writers and build a community of interest. We expect this expansion to be successful given that U.S. websites typically generate higher ARPU and consumer engagement than comparable sites in China. We also believe that an international launch will require less upfront spending than that required to establish proof-of-concept in China.

On the negative side, the company is facing pressure from weakness in the online advertising market, both in China and overseas. The Chinese internet advertising market contracted in 2020, according to Quest Mobile. Global advertising also declined from 2019, according to technology research firm Omdia. However, we believe that the market is beginning to recover, and that CooTek apps, particularly Fengdu Novel, will benefit from strong demand for advertising over time.

CooTek launched its first internally developed mobile game in the second half of 2019, and has since introduced a series of casual games, including simulation games Farm Hero and Idle Land King Tycoon and puzzle game Crazy Painting. The company is working to introduce games with longer life cycles, as well as those more likely to attract users of Fengdu Novel. To that end, CooTek realigned its gaming offerings in the second half of 2020, which temporarily impacted average revenue per user. It is also using advanced analytics to measure the ROI of its games. As such, we expect the gaming segment to complement the online literature segment and contribute to CooTek's growth in 2021 and subsequent years.

CooTek is also driving growth through scenario-based mobile apps, including apps for sports, health, and fitness. Within this category, users can watch videos from professional fitness trainers, follow workout programs and customize workout schedules, and track progress toward their fitness goals. Other apps count steps when walking or jogging, or remind users to drink enough water. Despite relatively slow growth, the scenario-based apps provide stable revenue and have been profitable in recent years, supporting the company's investments in other areas.

In our view, CooTek is well positioned to maintain a strong market presence by developing its data-driven technology. More than half of the company's employees are software engineers and product designers. The company also has an active IP strategy, with a growing number of patents, trademarks, copyrights and website domains, both in and outside China.

RECENT DEVELOPMENTS

In 2020, CTK shares fell 44%, compared to a 16% gain for the S&P 500. Year-to-date in 2021, the shares have declined by 26%, compared to a 12% gain for the S&P 500.

In March 2021, CooTek reported 2020 results. Revenue rose 148% to \$442 million, and the net loss widened to \$0.77 per ADS from a net loss per ADS of \$0.58 in 2019.

In January 2021, CooTek announced collaboration agreements between Fengdu Novel and several well-known online publishers in China, including Tadu Literature, Heiyan.com, and Bo YiChuangWei, that should help to expand its online offerings. In January, the company also added short videos and audiobooks to Fengdu Novel in response to growing demand.

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PEER COMPARISON

Company	Ticker	Recent Price (\$)	52-Week High (\$)	52-Week Low (\$)	Mkt. Cap (\$MIL)	1-yr Price Change (%)	1-yr Rev Growth (%)	1 YR EPS Growth (%)	P/E Ratio	Beta	Yield (%)
COOTEK	CTK	2.06	7.45	1.96	125	-71	148	NA	NA	0.04	NA
Cheetah Mobile	CMCM	2.06	5.00	1.64	289	6	-57	NA	4.5	1.26	NA
Phoenix New Media	FENG	1.58	2.83	1.12	115	12	-21	-43	2.0	2.05	NA
LAIX, Inc.	LAIX	1.95	11.65	1.36	96	-37	-5	NA	NA	0.90	NA

EARNINGS & GROWTH ANALYSIS

In 2020, revenues increased 148% to \$442 million, despite weakness in the global advertising industry due to the pandemic. CooTek benefited from an increase in its user base as lockdowns led to more time spent at home and on mobile devices. Although we expect average customer usage to be volatile as restrictions on movement and travel ease, we are encouraged by the company's strong user retention and potential for increasing usage and profitability over time.

We forecast 2021 revenue of \$505 million, implying 14% growth from 2020, and 2022 revenue of \$657 million, up 30% from our 2021 estimate. We expect the online literature segment to be the key growth driver in both years and to contribute more than 50% of revenue, up from 38% in 2020. Further, we anticipate investments in ecosystem content in 2021 to drive accelerating revenue growth in 2022 and beyond, and project an annualized revenue run rate near \$1 billion by the end of 2023.

We forecast gross margins of 86% for 2021 and 84% in 2022, below the 94% in 2020, as CooTek invests in the development of revenue-generating content across its mobile app ecosystem. Conversely, we project a decline in sales and marketing expenses (the company's largest expense) as a percentage of revenues, to 80% in 2021 and 73% in 2022, down from 98% in 2020. This reflects lower customer-acquisition costs and increased user retention as CooTek expands its offerings on Fengdu Novel and introduces new casual games. In 2022, we forecast operating margin of 3%, and longer-term, we project operating margins to expand to 5%-10% of revenues.

We project an adjusted net loss of \$0.14 per ADS in 2021 and adjusted earnings of \$0.32 per ADS in 2022. We anticipate CooTek will achieve profitability on a quarterly basis, excluding non-cash stock-based compensation expense, during the second half of 2021.

FINANCIAL STRENGTH & DIVIDEND

Our financial strength rating on CooTek is Medium. As of December 31, 2020, the company's cash, cash equivalents and restricted cash were \$49.6 million, down from \$60 million at the end of 2019. In January 2021, CooTek entered into a combined financing package with Yorkville Advisor Global, consisting of a security purchase agreement, whereby CooTek can sell, at its request, up to \$20 million of its ADSs to Yorkville over a 36-month period. In addition, CooTek issued and sold to Yorkville a \$10 million convertible note.

In May 2020, the company authorized the repurchase of up to \$20 million of its ADSs through May 2021. The repurchases will be funded with existing cash. As of December 31, 2020, CooTek had purchased 0.9 million ADSs for \$4.7 million.

In 2020, the net cash outflow from operating activities was \$0.9 million, compared to a net outflow of \$15.7 million in 2019. The net cash outflow from investing activities in 2020 was \$2.6 million, compared to \$5.3 million in 2019. The net cash outflow from financing activities was \$8.5 million, compared to \$3.8 million in 2019.

CooTek does not pay a dividend, and we do not expect it to pay one in the near term as it invests in the business and repurchases stock.

MANAGEMENT & RISKS

Karl Kan Zhang co-founded the company in 2008, and has served as chairman since 2012 and chief technology officer since 2020. Mr. Zhang also served as chief architect from 2008 to 2020. Prior to founding CooTek, Mr. Zhang was a research and development manager at the Microsoft Advanced Technology Center and a software engineer at Intel China. He received his bachelor's degree in mechanical and electronic engineering from Shanghai University in 2002.

Michael Jialing Wang is the company's other co-founder and has served as CEO since its inception. He was previously a product manager at Microsoft R&D Group in China. Mr. Wang received his bachelor's and master's degrees in electronic engineering from Shanghai Jiao Tong University in 2002 and 2005, respectively.

As of December 31, 2020, CooTek's board had eight directors. Independent directors lead both the Audit and Compensation committees, and are also members of the Nominating and Corporate Governance committee.

Risks include CooTek's classification as a "controlled company" by the New York Stock Exchange due to Chairman Zhang's 68% voting power. The company also faces customer concentration risk, in our view, as four advertising customers each accounted for more than 10% of 2020 revenue. In addition, the mobile app software industry is intensely competitive, and CooTek will need to retain advertisers and expand consumer usage to reach sustainable profitability.

COMPANY DESCRIPTION

CooTek is a fast-growing internet company that offers mobile applications in three categories: online literature, scenario-based content, and casual games. CooTek aims to deliver its content seamlessly, and uses a data-driven approach to develop content that can attract both mobile internet users and advertisers.

VALUATION

In our view, CooTek's current valuation does not fully reflect the strength of its mobile applications or prospects for reaching sustainable profitability in the coming years. Although the company more than doubled revenue in 2020, the stock declined 44% last year, and it well below its \$12 IPO price from September 2018. It has also declined so far in 2021, despite a temporary spike in mid-February, amid broad weakness among small-cap technology companies. We also attribute this weakness, in part, to a soft advertising market and slightly slower user growth in the second half of 2020. However, as noted above, the company posted solid full-year growth in both daily and monthly active users. It also has strong international expansion opportunities as it leverages the technology that has already achieved proof-of-concept in China.

As such, we expect CooTek to achieve profitability on a quarterly basis during the second half of 2021, excluding non-cash stock-compensation expense, and for the full-year in 2022, where we project adjusted earnings of \$0.32 per ADS. We believe that a P/E of 35 is appropriate for high-growth technology companies. Applying this multiple to our 2022 earnings forecast, and discounting back one period at 20%, we arrive at a fair value estimate for CTK of \$9 per ADS.

Steve Silver, Analyst

INCOME STATEMENT

Growth Analysis (\$MIL)	2016	2017	2018	2019	2020	Q1 2021E	Q2 2021E	Q3 2021E	Q4 2021E	2021E	2022E
Revenue	11.0	37.3	134.1	177.9	441.5	81.0	124.0	144.0	156.0	505.0	657.0
Gross Profit	-9.1	17.2	119.2	162.6	417.4					433.0	548.6
SG&A	13.3	28.5	91.5	173.3	433.3					405.0	479.0
R&D	8.7	12.9	19.3	26.9	29.7					36.0	49.0
Operating Income	-30.5	-24.0	10.0	-36.8	-47.8					-7.9	20.4
Interest Expense	NA	NA	NA	NA	NA					0.9	1.0
Pretax Income	-30.7	-23.7	10.1	-36.8	-47.4					-8.8	19.4
Tax Rate (%)	NA	NA	NA	NA	NA					NA	NA
Net income	-30.7	-23.7	10.1	-36.8	-47.4					-8.8	19.4
Diluted Shares	18.3	18.0	29.3	63.1	61.6					60.0	60.0
EPS	-1.68	-1.50	0.15	-0.58	-0.77	-0.17	-0.01	0.01	0.03	-0.14	0.32
Dividend	NA	NA	NA	NA	NA					NA	NA
Growth Rates (%)											
Revenue	NA	239	260	33	148					14	30
Operating Income	NA	NA	NA	NA	NM					NA	NA
Net Income	NA	NA	NA	NA	NM					NA	NA
EPS	NA	NA	NA	NA	NM					NA	NA
Valuation Analysis											
Price (\$): High	NA	NA	11.58	13.30	7.45					NA	NA
Price (\$): Low	NA	NA	5.40	4.55	2.61					NA	NA
PE: High	NA	NA	NA	88.7	NA					NA	NA
PE: Low	NA	NA	NA	30.3	NA					NA	NA
PS: High	NA	NA	9.1	6.3	2.6					NA	NA
PS: Low	NA	NA	4.2	2.1	0.9					NA	NA
Yield: High	NA	NA	NA	NA	NA					NA	NA
Yield: Low	NA	NA	NA	NA	NA					NA	NA
Financial & Risk Analysis (\$MIL)											
Cash/Restricted Cash	41.3	27.0	84.9	60.5	49.6					NA	NA
Working Capital	37.6	28.9	80.0	33.3	-42.0					NA	NA
Current Ratio	4.7	3.0	3.4	1.5	0.6					NA	NA
LTDebt/Equity (%)	NA	NA	NA	NA	NA					NA	NA
Total Debt/Equity (%)	NA	NA	NA	NA	NA					NA	NA
Ratio Analysis											
Gross Profit Margin	NA	46%	89%	91%	95%					86%	84%
Operating Margin	NA	NA	7%	NA	NA					NA	3%
Net Margin	NA	NA	8%	NA	NA					NA	3%
Return on Assets (%)	NA	NA	8	NA	NA					NA	NA
Return on Equity (%)	NA	NA	18	NA	NA					NA	NA
Op Inc/Int Exp	NA	NA	NA	NA	NA					NA	NA
Div Payout	NA	NA	NA	NA	NA					NA	NA

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