

Don't Listen to the Meme-Stock Hype: Koss Corp (KOSS)

"Do u have more than 1k on [Robinhood]? If so I recommend using margin." - featured in The Wall Street Journal's <u>Robinhood, Three Friends and the Fortune That Got Away</u>

As more investors willfully admit they are gambling on stocks, we feel compelled to offer an easy way to make more informed decisions, and, hopefully, save people lots of money. Over the past few weeks, we gave investors research that shows when meme stocks' valuations get crazy. See our prior reports on <u>GameStop</u> (GME), <u>AMC</u> <u>Entertainment</u> (AMC), <u>Express</u> (EXPR), and even <u>Netflix</u> (NFLX). This week, we focus on Koss Corp (KOSS: ~\$20/share) and put it in the <u>Danger Zone</u>.

Learn more about the best fundamental research

Why Investors Need Independent Research

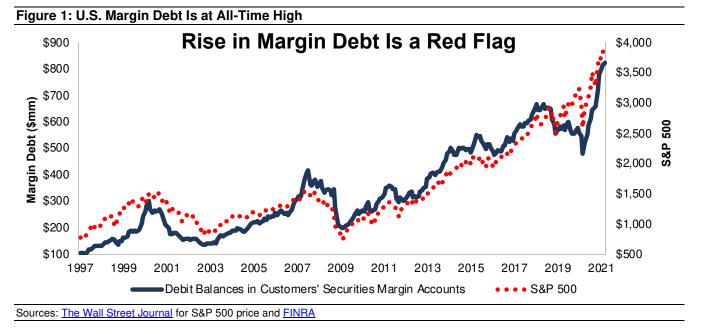
Wall Street isn't in the business of warning investors of the dangers in risky stocks because they make too much money from their trading volume and underwriting of debt and equity sales.

Only independent firms are free to provide unconflicted research and navigate <u>Wall Street conflicts</u> and <u>analyst</u> <u>biases</u>. With <u>new technology</u> to cut through the deluge of data in financial filings and <u>overcome the flaws</u> in Wall Street research, self-directed investors are better positioned than ever to make informed decisions.

Misinformation + Margin Debt = Red Flag

Crowdsourced information for stocks on forums like Reddit can lead investors to gamble by buying dangerous stocks and take on high levels of risk that they do not fully understand. Per Figure 1, debit balances in margin accounts, or the amount owed by a customer to a broker, soared in 2020 and early 2021 to the highest levels in U.S. history. This rise in margin debt corresponds with the rise in retail traders entering the market. According to E*Trade, the number of monthly <u>new retail trading accounts</u> jumped from ~43 thousand in February 2020 to ~260 thousand in March 2020.

Margin debt sports a 93% correlation with the price of the S&P 500. Inexperienced traders fueled by WallStreetBets are taking on ever increasing risk, especially if they are <u>levering up</u> to buy meme stocks.



Page 1 of 7 Important Disclosure Information is contained on the last page of this report. The recipient of this report is directed to read these disclosures.





Meme Stock #4: Koss Corp: Danger Zone Above \$3

KOSS is not worth owning at any price above \$3/share, and even that price assumes the company is able to reverse years of declining revenue and grow at industry growth rates. Nevertheless, the stock went on to climb as high as \$64/share before taking a roller coaster ride back to ~\$20/share.

Figure 2: Fundamental Research to Know When to Sell KOSS

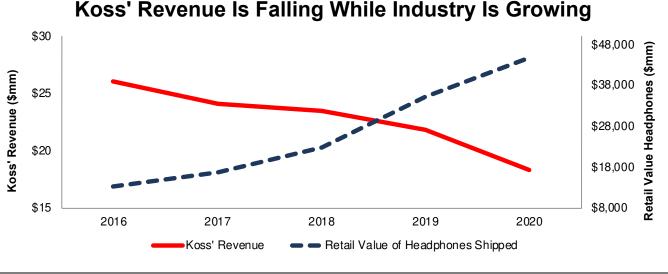
KOSS In the Danger Zone Anywhere Above \$3/share



Shrinking While The Industry Is Growing

The retail dollar value of global headphone shipments has grown by 35% (vs -8% for KOSS) compounded annually since 2016. In other words, Koss' revenue fell 30% while the retail dollar value of global headphone shipments rose 233% over the same time. Naturally, Koss' market share fell from 0.19% in 2016 to 0.04% in 2020. If Koss can't grow revenue in such a good environment, one must ask, "when will it?"

Figure 3: Koss and Industry Revenue 2016 - 2020



Koss' Revenue Is Falling While Industry Is Growing

Sources: New Constructs, LLC and Statista



Fundamentals Were Only Positive During the Pandemic

Koss' revenue has been deteriorating for many years, which underscores how little the stock's recent rise is related to fundamentals. With the exception of the TTM period, Koss' return on invested capital (<u>ROIC</u>) and NOPAT margin have been negative every year since 2016. Although Koss' fundamentals improved slightly in a very favorable environment for headphones over the TTM, this improvement is unlikely to last as the pandemic wanes. Figure 4 compares Koss' fundamentals to its peers.

Figure 4: Profitability Metrics: Express vs. Peers: TTM

Company	Ticker	NOPAT Margin	Invested Capital Turns	ROIC
Apple Inc.	AAPL	23%	7.4	173%
Sonos, Inc.	SONO	4%	8.0	32%
Turtle Beach Corp	HEAR	12%	2.0	25%
Universal Electronics	UEIC	3%	1.5	5%
Sony Group Corp	SONY	9%	0.5	5%
VOXX International	VOXX	4%	0.8	3%
Koss Corp	KOSS	2%	1.4	3%
GoPro Inc	GPRO	1%	2.2	2%
IntriCon Corp	IIN	0%	1.1	0%

Sources: New Constructs, LLC and company filings

Poor fundamentals and declining market share, however, didn't stop Koss' stock from soaring during the memestock frenzy. To give a sense of just how crazy-overvalued the stock was at its peak, we do the math and show how the business would have to perform to justify \$64/share.

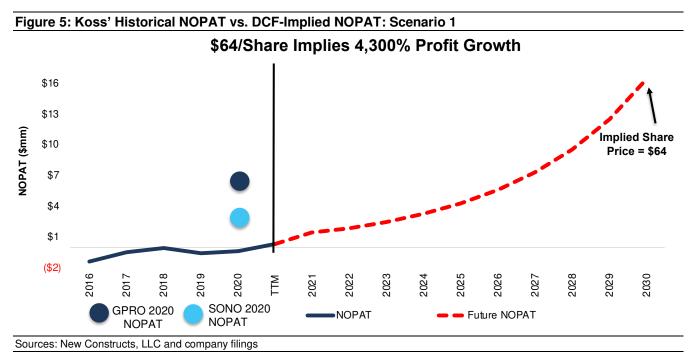
"Crazy" at \$64 Explained: Implies More Profit Than GoPro

Our <u>reverse discounted cash flow (DCF) model</u> is an excellent research tool for analyzing the expectations implied by stock prices. To justify \$64/share, it shows that Koss must:

- immediately improve its profit margin to 6% (3x its highest ever margin of 2% TTM vs. a 5-year average margin of -3%) and
- grow revenue by 31% compounded annually through 2030 (which is nearly 3x the projected industry growth through 2026, vs. Koss' -6% CAGR over the past five years)

In this <u>scenario</u>, Koss earns \$16.4 million in net operating profit after-tax (<u>NOPAT</u>) in 2030, which is more than 43x its TTM NOPAT, nearly 5x the 2020 NOPAT of speaker manufacturer Sonos, Inc. (SONO), and nearly 2.5X the 2020 NOPAT of consumer electronics provider GoPro Inc. (GPRO). See Figure 5 for details.





Still Crazy At ~\$20/share

We run the same analysis to show what the company must do to justify the current price, ~\$20/share:

- improve its profit margin to 4% (equal to Sonos' TTM margin vs. Koss' 2% TTM margin) and
- grow revenue by 22% compounded annually through 2030 (which is 2x the <u>projected industry growth</u> through 2026)

In this <u>scenario</u>, Koss earns over \$5 million in NOPAT in 2030, which is 147% of Sonos' 2020 NOPAT and just 17% below GoPro's 2020 NOPAT. See Figure 6 for details.

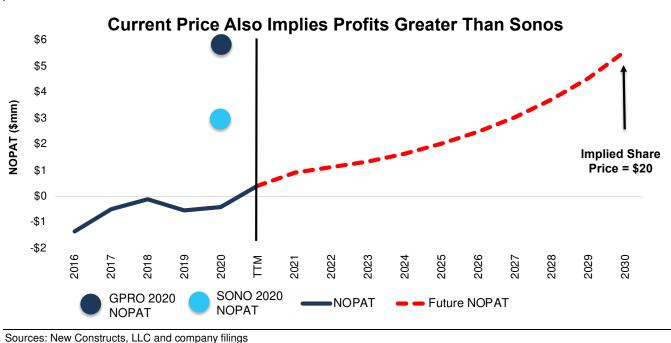


Figure 6: Koss Historical NOPAT vs. DCF-Implied NOPAT: Scenario 2

Good Reason for High Short Interest

Since short interest in the stock recently reclaimed the January levels (27%) that made it a target and precipitated the last squeeze that drove up the stock, another squeeze could be on the way.

More Reliable Fundamental Research on other Meme Stocks

With a better grasp on fundamentals¹, investors have a better sense of when to buy and sell – and – know how much risk they take when they own a stock at certain levels.

We've already illustrated the extreme risk investors are taking buying <u>GameStop</u> and <u>AMC Entertainment</u>, <u>Express</u>, and <u>Netflix</u>. In the coming weeks, we will continue to perform this same analysis on other meme stocks: Blackberry (BB), Genius Brands (GNUS), Naked Brands Group (NAKD), and Nokia (NOK). Each of these stocks were on Robinhood's <u>restricted stocks list</u> and each saw a major rise and fall in late January.

We will also feature other meme stocks that trade at levels entirely disconnected from fundamental reality, such as Tesla (TSLA).

Figure 7: Meme Stocks Disconnected From Fundamental Reality

Company	Ticker		
AMC Entertainment	AMC		
Blackberry, Ltd.	BB		
Express Inc.	EXPR		
GameStop	GME		
Genius Brands	GNUS		
Koss Corporation	KOSS		
Naked Brands Group	NAKD		
Netflix	NFLX		
Nokia Corporation	NOK		
Tesla	TSLA		

Sources: New Constructs, LLC and company filings

Check out this week's Danger Zone interview with Chuck Jaffe of Money Life.

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Disclosure: David Trainer, Kyle Guske II, Alex Sword, and Matt Shuler receive no compensation to write about any specific stock, style, or theme.

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¹ Only Core Earnings enable investors to overcome the inaccuracies, omissions and biases in legacy fundamental data and research, as proven in <u>Core Earnings: New Data & Evidence</u>, a forthcoming paper in <u>The Journal of Financial Economics</u> written by professors at Harvard Business School (HBS) & MIT Sloan.



It's Official: We Offer the Best Fundamental Data in the World

Many firms claim their research is superior, but none of them can prove it with independent studies from highlyrespected institutions as we can. Three different papers from both the public and private sectors show:

- 1. Legacy fundamental datasets suffer from significant inaccuracies, omissions and biases.
- 2. Only our "novel database" enables investors to overcome these flaws and apply <u>reliable</u> fundamental data in their research.
- 3. Our proprietary measures of <u>Core Earnings</u> and <u>Earnings Distortion</u> materially improve stock picking and forecasting of profits.

Best Fundamental Data in the World

Forthcoming in <u>The Journal of Financial Economics</u>, a top peer-reviewed journal, <u>Core Earnings: New Data &</u> <u>Evidence</u> proves our Robo-Analyst technology overcomes material shortcomings in legacy firms' data collection processes to provide superior <u>fundamental data</u>, <u>earnings</u> models, and <u>research</u>. More <u>details</u>.

Key quotes from the paper:

- "[New Constructs'] Total Adjustments differs significantly from the items identified and excluded from Compustat's adjusted earnings measures. For example... 50% to 70% of the variation in Total Adjustments is not explained by S&P Global's (SPGI) Adjustments individually." – pp. 14, 1st para.
- "A final source of differences [between New Constructs' and S&P Global's data] is due to data collection oversights...we identified cases where Compustat did not collect information relating to firms' income that is useful in assessing core earnings." – pp. 16, 2nd para.

Superior Models

A top accounting firm features the superiority of our ROIC, NOPAT and Invested Capital research to Capital IQ & Bloomberg's in <u>Getting ROIC Right</u>. See the <u>Appendix</u> for direct comparison details.

Key quotes from the paper:

- "...an accurate calculation of ROIC requires more diligence than often occurs in some of the common, off-the-shelf ROIC calculations. Only by scouring the footnotes and the MD&A [as New Constructs does] can investors get an accurate calculation of ROIC." – pp. 8, 5th para.
- "The majority of the difference...comes from New Constructs' machine learning approach, which leverages technology to calculate ROIC by applying accounting adjustments that may be buried deeply in the footnotes across thousands of companies." – pp. 4, 2nd para.

Superior Stock Ratings

Robo-Analysts' stock ratings outperform those from human analysts as shown in this <u>paper</u> from Indiana's Kelley School of Business. Bloomberg features the paper <u>here</u>.

Key quotes from the paper:

- "the portfolios formed following the buy recommendations of Robo-Analysts earn abnormal returns that are statistically and economically significant." – pp. 6, 3rd para.
- "Our results ultimately suggest that Robo-Analysts are a valuable, alternative information intermediary to traditional sell-side analysts." pp. 20, 3rd para.

Our mission is to provide the best fundamental analysis of public and private businesses in the world and make it affordable for all investors, not just Wall Street insiders.

We believe every investor deserves to know the whole truth about the profitability and valuation of any company they consider for investment. More details on our cutting-edge technology and how we use it are <u>here</u>.





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