Another Falling Knife That Could Cut Your Portfolio – Part 3

We counsel investors not to try and catch falling knives – stocks that have seen steep declines but still have further to fall. As the market rotates away from high-flying growth names to more stable cash generators, investors need reliable fundamental research, more than ever, to protect their portfolios from falling knives.

We continue to post an exceptional hit rate on spotting overvalued stocks. Currently, 62 out of our 65 Danger Zone stock picks are down from their 52-week highs by more than the S&P 500. Figure 1 lists the open Danger Zone picks that are down at least 40% from their 52-week highs. Our Focus List Stocks: Short Model Portfolio, the best-of-the-best of our Danger Zone picks, outperformed the S&P 500 as a short portfolio by 36% in 2021 with 29 out of our 31 picks outperforming the index.

This report highlights one particularly dangerous falling knife: Carvana (CVNA: $150/share). We highlight four other falling knives in other reports published today: Allbirds (BIRD: $12/share) here, Sweetgreen (SG: $31/share) here, Wayfair (W: $140/share) here, and Shake Shack (SHAK: $64/share) here. Each of these stocks have dropped at least 40% from all-time highs, yet still carry at least 40% additional downside risk.

Figure 1: Danger Zone Picks Down >40% From 52-Week High – Performance through 2/4/22

Company	Ticker	Off 52-Week High
Peloton Interactive Inc.	PTON	-84%
Robinhood Markets Inc.	HOOD	-82%
Koss Corp	KOSS	-80%
AMC Entertainment Holdings	AMC	-79%
Cronos Group Inc.	CRON	-77%
GameStop Corporation	GME	-71%
Pinterest Inc.	PINS	-70%
Beyond Meat Inc.	BYND	-68%
Allbirds Inc.	BIRD	-67%
Rivian Automotive	RIVN	-66%
Affirm Holdings Inc.	AFRM	-64%
LivePerson Inc.	LPSN	-63%
DoorDash, Inc.	DASH	-62%
Express Inc.	EXPR	-60%
Carvana Co.	CVNA	-60%
Wayfair, Inc.	W	-60%
Spotify Technology	SPOT	-55%
Coinbase Global Inc.	COIN	-55%
Snap Inc.	SNAP	-53%
Domo Inc.	DOMO	-52%
Sweetgreen Inc.	SG	-52%
Diebold Nixdorf, Inc.	DBD	-52%
Squarespace Inc.	SQSP	-51%
Shopify Inc.	SHOP	-50%
Shake Shack, Inc.	SHAK	-49%
Eventbrite Inc.	EB	-46%
Warby Parker Inc.	WRBY	-45%
LYFT Inc.	LYFT	-45%
PROS Holdings, Inc.	PRO	-42%
Uber Technologies Inc.	UBER	-42%
Netflix Inc.	NFLX	-41%
Zendesk, Inc.	ZEN	-41%

Sources: New Constructs, LLC

Falling Knife: Carvana Co (CVNA): Down 61% from 52-Wk High & 60%+ Downside Remaining

We put Carvana (CVNA) in the Danger Zone in August 2020 and the stock has outperformed the S&P 500 as a short by 58% since then. The drop from its 52-week high has been even larger, and the stock could fall another 60%. We detail Carvana's lack of profitability, cash burn, and significant competitive disadvantages in our report here.

Valuation Implies Carvana Generates More Sales than Two Largest Used Car Dealers Combined

We use our reverse discounted cash flow (DCF) model to analyze the future cash flow expectations baked into Carvana's current valuation. We find that, despite negative margins in a year that saw record used-car prices and larger, profitable competition, Carvana is priced as if it will grow revenues to levels higher than the combined revenues of CarMax (KMX) and AutoNation (AN).

To justify its current price of $150/share, Carvana must:

- immediately improve its NOPAT margin to 5%, which is equal to its peer group's[1] average TTM margin (compared to Carvana's -1% margin) and
- grow revenue by 36% compounded annually (6x projected industry growth over the next decade) for the next eight years.

In this scenario, Carvana's revenue in 2028 would reach $66 billion, which is 122% of the combined TTM revenue of CarMax (KMX) and AutoNation (AN), the two largest used car dealers by TTM revenue.

This scenario implies the firm would sell ~2.5 million retail and wholesale vehicles in 2028[2] versus just over the half million sold over the last twelve months. Such high sales would be 1.5x the vehicles sold over the TTM by the largest U.S. used car retailer, CarMax (KMX). In a mature market, which used cars surely are, that much growth requires taking significant market share away from leading competitors, which seems unlikely while also improving margins at rates implied by the expectations in Carvana's stock price.

Companies that grow revenue by anywhere near 20%+ compounded annually for such a long period are unbelievably rare, which make the expectations in Carvana's share price even more unrealistic.

21% Downside Even If Carvana Reaches 2 Million Vehicle Goal

Carvana's economic book value, or no growth value, is negative $31/share, which illustrates the overly optimistic expectations in its stock price.

Even if we assume Carvana meets its stated goal of selling 2 million vehicles per year, shares hold 21% downside from the current price.

If we assume Carvana's:

- NOPAT margin improves to 5% (equal to peer group average TTM margin) and
- revenue grows by 33% compounded annually over the next eight years, then

the stock is worth just $118/share today – a 21% downside to the current price. In this scenario, the firm grows revenue to $54 billion in 2028 and, assuming Carvana generates ~$27 thousand per vehicle sold (using same assumptions listed in prior scenario), the firm would sell 2 million vehicles in 2028.

This scenario also implies Carvana grows NOPAT from -$82 million over the TTM to $2.6 billion (double CarMax's TTM NOPAT) in 2028, which is more than 2x CarMax's TTM NOPAT.

Should Carvana fail to grow over 5x as fast as the used car industry, the downside is even larger, as we show below.

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[1] Peer group includes America's Car-Mart (CRMT), Asbury Automotive Group (ABG), AutoNation (AN), CarMax (KMX), Cars.com (CARS), Group 1 Automotive (GPI), KAR Auction Services (KAR), Lithia Motors (LAD), Penske Automotive Group (PAG), Sonic Automotive (SAH), and TrueCar, Inc. (TRUE).

[2] Calculated by taking the implied revenue divided by the implied revenue per vehicle. Over the TTM, Carvana generated a total of $10.9 billion in revenue and sold 529 thousand combined retail and wholesale vehicles, which equates to ~$20.6 thousand in revenue per unit sold. Assuming inflation of 3.5% per year, revenue per unit sold in 2028 would be ~$27.1 thousand.

60% Downside Even If Carvana Grows 4x Industry Rate

We review an additional DCF scenario to highlight the downside risk even if Carvana's revenue grows four times as fast as the used car industry.

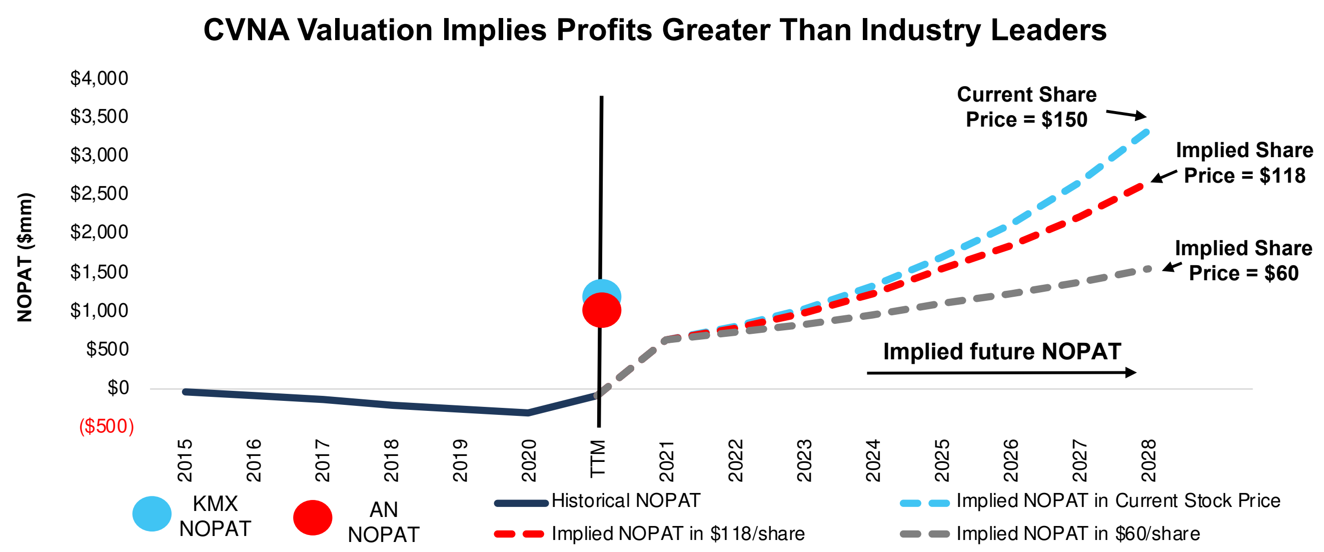
If we assume Carvana's:

- NOPAT margin improves to 5% and
- revenue grows by 24% compounded annually over the next eight years, then

the stock is worth just $60/share today – a 60% downside to the current price. This scenario implies Carvana grows NOPAT from -$82 million over the TTM to $1.5 billion in 2028, which is 120% of CarMax's TTM NOPAT.

Figure 2 compares Carvana's implied future NOPAT in these three scenarios to its historical NOPAT. We also include the TTM NOPAT for CarMax and AutoNation for reference.

Figure 2: Carvana's Historical and Implied NOPAT: DCF Valuation Scenarios



Sources: New Constructs, LLC and company filings.

Each of the above scenarios also assumes Carvana grows revenue, NOPAT, and FCF without increasing working capital or fixed assets. This assumption is highly unlikely but allows us to create best-case scenarios that demonstrate the expectations embedded in the current valuation. For reference, Carvana's invested capital grew 77% compounded annually from 2015 through 2020 and TTM invested capital is 93% higher than the prior TTM period. If we assume Carvana's invested capital increases at a similar rate in DCF scenarios 2 and 3 above, the downside risk is even larger.

Fundamental Research Provides Clarity in Frothy Markets

2022 has quickly shown investors that fundamentals matter and stocks don't only go up. With a better grasp on fundamentals, investors have a better sense of what and when to buy and sell – and – know how much risk they take when they own a stock at certain levels. Without reliable fundamental research, investors have no reliable way of knowing whether a stock is expensive or cheap.

As shown above, disciplined, reliable fundamental research shows that even after plummeting, Allbirds, Sweetgreen, Carvana, Wayfair, and Shake Shack still hold significant downside.

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

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

Best Fundamental Data in the World

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

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 Getting ROIC Right. See the Appendix 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 paper from Indiana's Kelley School of Business. Bloomberg features the paper here.

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.

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