RARITAN
RESEARCH GROUP

Aug 13, 2025 –Nakul Rao – Rutgers University

Carvana (NASDAQ: CVNA)

Overall Thesis: Buy
Estimated Fair Value: $548.06
Current Price: $349.87 (August 13, 25)
YTD Growth: 78.91%
LTM Low-High: $124.39 - $413.33

Company Overview

Carvana is a used car retailer that operates in the automotive retail industry, allowing customers to seamlessly buy, sell, and trade vehicles online. The company's competitive advantage stems from its emphasis on convenience and quality assurance. Carvana allows users to browse, compare, and purchase cars that are delivered to their front door, and then offers a 7-day money-back guarantee in case of dissatisfaction with the product. In addition to Carvana's used retail vehicle sales, it generates other income coming from its financing, wholesale vehicle sales, and ancillary products such as extended warranties. The company currently relies on its sizeable used car inventory, still on hand from enormous orders in 2020 and 2021. These orders resulted in the company nearly going bankrupt in 2022, with stock prices crashing to as low as $4. Since then, the company has seen a significant resurgence due to strategic shifts away from reckless infrastructure expansion and toward margin improvement, along with aggressive cost controls and improved inventory management. These operational changes are reflected in the company's recent earnings reports. In 2023, Carvana recognized a record high in annual revenue, as well as its first ever operating profit. In 2024, its gross profit per unit (GPU) increased by nearly $2000, from $5,511 to almost $7,500. However, Carvana faces headwinds from recent tariffs placed on the new-car imports. These tariffs, while not directly impacting used-car retailers, give rise to concerns surrounding inventory stability and have also led to an overall consumer reluctance to purchase vehicles.

Figure 1: **LTM Chart (Source: Yahoo Finance)**

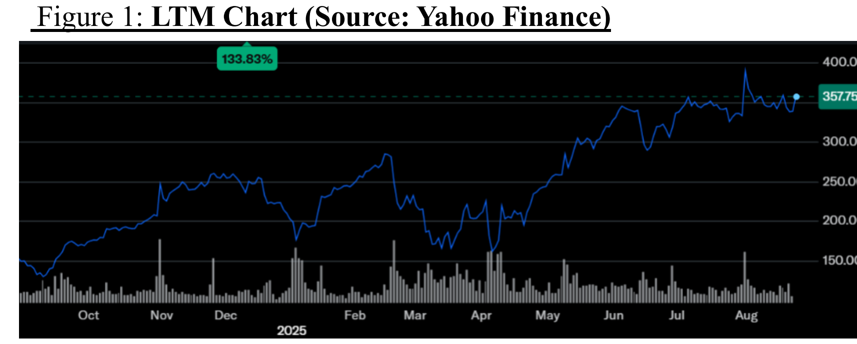


Figure 2: **Current** Trading Comparables

	P/E	EV/EBITDA	EV/REV
CVNA	89x	28.6x	3.3x
KMX	16.6x	14.5x	1.05x
VRM	0x	-	78.7x
CARG	27.5x	15.7x	3.65x
AN	13.83x	11.25x	0.64x
PAG	12.48x	11.62x	0.66x

High	27.5	15.7	78.7
75th	22.5	15.4	41.75
Median	**16.6**	**14.5**	**3.65**
25th	8.3	14.8	2.35
Low	0	14.5	1.05

Industry Overview

The U.S used car market is estimated to be valued around $600 billion, with a compound annual growth rate (CAGR) of 7.3% over the next ten years. While traditional dealerships still account for most sales, the industry remains fragmented, with no single player controlling more than a few percent of sales. CarMax is the largest dedicated used-car retailer, while Carvana holds a competitive advantage with its leadership in online used-car retailing. Online-exclusive platforms have grown in popularity since the pandemic, as consumers increasingly prefer to browse, finance, and purchase vehicles digitally. The 25% tariff on imported new cars in April priced many buyers out of the new-car market, pushing them toward used cars and driving up demand, competition, and prices. Since then, prices have eased, falling 2.3% in July, though they remain slightly elevated. Overall, the industry is cyclical, competitive, and sensitive to credit conditions and vehicle price fluctuations, with growth driven primarily by short-term shifts in consumer demand rather than structural expansion.

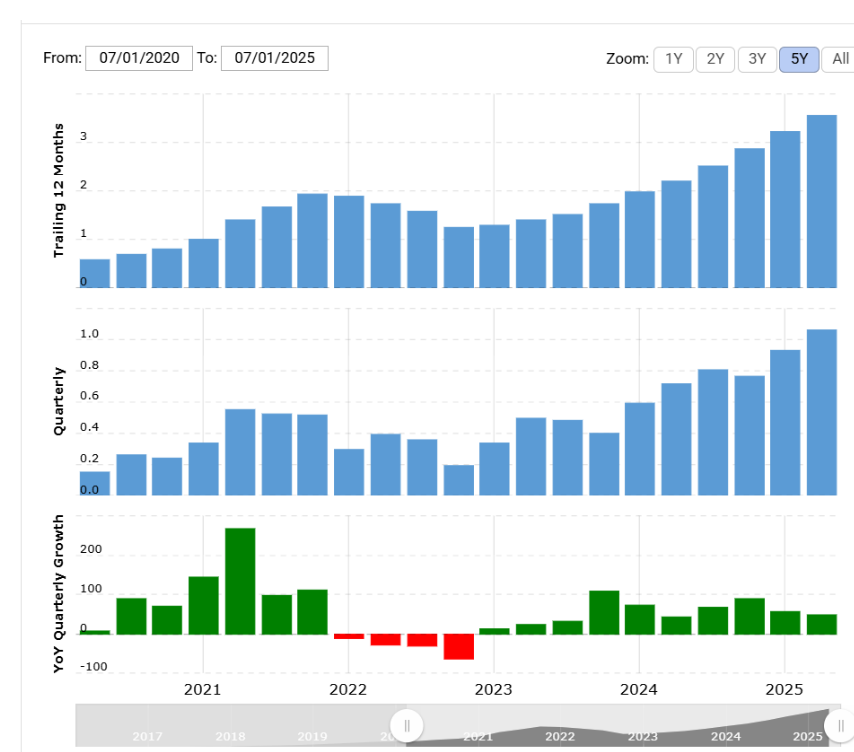
Catalysts and Risks

Carvana is susceptible to several risk factors coming from a softening car market, high debt load, and increasing competition. At the same time, there is meaningful upside potential from Carvana's recent surges in operational efficiency and improved unit economics, as well as a growing consumer shift toward online car buying.

- Car Market: After experiencing heightened car sales, particularly new vehicles, as buyers rushed to beat the April tariff, the car market has slowed and is expected to return to more normalized growth rates by 2026. Car prices are once again declining, which could pressure Carvana's gross profit per unit. Additionally, a slower market poses an obstacle to Carvana's plans for sustained volume growth and limits its ability to fully capitalize on recent efficiency gains.
- High Debt Load: Facing near bankruptcy, Carvana took on debt in the billions to finance itself afloat. At the start of 2025, this debt was valued at nearly $5 billion, with most of it being junk-rated. This raises concerns regarding the company's ability to service its obligations, maintain liquidity under softer market conditions, and fund growth initiatives in the future.
- Competition: The used-car industry remains controlled by franchise dealerships, which account for more than 70% of sales. In the online segment, the growing digital presence of competitors such as CarMax, Vroom, and CarGurus, along with the recent entry of Amazon Autos through its partnership with Hertz, poses a direct challenge to Carvana's efforts to expand its market share and strengthen its position.

While these risks are real and likely to influence the stock price, there are also broader catalysts that position Carvana as a compelling investment opportunity.

Figure 3: GPU Quarterly (Source: Macrotrends.net)



- Shifting Preferences: Since the pandemic, consumer preference has steadily shifted toward purchasing vehicles online rather than through traditional dealerships. Carvana is well positioned to capture this trend through its fully digital platform, which offers virtual 360-degree vehicle tours, transparent upfront pricing, and a 7-day money-back guarantee. These features enhance trust and convenience, supporting sustained sales and revenue growth.
- Strategy Shift: Post near-bankruptcy in 2022, Carvana's operational strategy shifted from aggressively investing in inventory and infrastructure and hoping to make profits via bulk to focusing on unit economics and GPU margins. Currently, Carvana's GPU margins outperform its nearest competitor by more than 100% and continues to increase yearly and its capital expenditures steadily decrease year-over-year, in line with the company's long-term strategy.
- Industry Position: In conjunction with consumers shifting increasingly towards online car-buying as opposed to in-person, current trends indicate that a higher percentage of people are buying used cars. For example, there was a 9% increase in used cars sold between June and July of 2025. Carvana's impressive market share in the online, used car market gives it a favorable position in two rising markets.

Thesis

Carvana's user-friendly, stress-free buying experience in a used car market that still runs on the haggles of using traditional dealerships poise it to capture significant market share over the next few years. Additionally, Carvana is in position to capitalize on increased post-tariff demand for used cars and has observed significant appreciation of its inventory as well. Despite past net operating losses (NOLs) and a high interest burden, Carvana's recent turnaround, marked by improving margins, decreased inventory spending, and sustained revenue stabilization, suggests a more sustainable business model and reduces the risk of another collapse. Additionally, the company has been observing economies of scale because of its shift towards individual marketing over ordering and selling in bulk. These economies of scale reflect in the company's recent record GPU margins in early 2025. Finally, the industry backdrop, including a growing used-car market and an increasing consumer preference for online transactions, further supports the company as a compelling investment opportunity.

DCF Overview

In line with analyst expectations, Carvana's top-line growth is projected to remain robust in the near term, with revenue forecasted to grow from $18.6 billion in 2025 to $40.4 billion by 2029. Forecasts for the company's year-over-year growth are on the higher side, resulting from Carvana's recent financial turnaround from near bankruptcy to reporting its first operating profit in less than two years. These forecasts taper down toward the low 20s to high teens as the company matures and stabilizes. Margin expansion is expected to follow a similar trajectory, with EBITDA projected to rise meaningfully as economies of scale and unit economics will keep costs per unit decreasing and profits per unit increasing. Capital expenditures steadily decline over the forecast horizon, reflecting Carvana's operational and strategic shift from stockpiling inventory for volume sales to creating more value from targeted sales. As a result, depreciation and amortization are expected to trend lower as a percentage of sales, in line with lowered capital expenditures on tangible assets. The model employs a weighted average cost of capital (WACC) of 8.13%, reflecting Carvana's high proportion of junk-rated debt, stock volatility, and elevated beta, and assumes a terminal growth rate of 3%, in line with long-term U.S. economic growth expectations. Discounting forecasted cash flows under these assumptions yields an intrinsic enterprise value of $82.8 billion and an implied equity value of $78.9 billion. This corresponds to an implied share price of $548.06, versus a current trading price of approximately $349.87, suggesting potential upside of around 56%. While these projections highlight the significant upside potential embedded in Carvana's improving fundamentals, risks remain tied to debt servicing, competition, and cyclicality in used-car demand.

Figure 4: Long-term Debt (billions), (Source: Macrotrends)

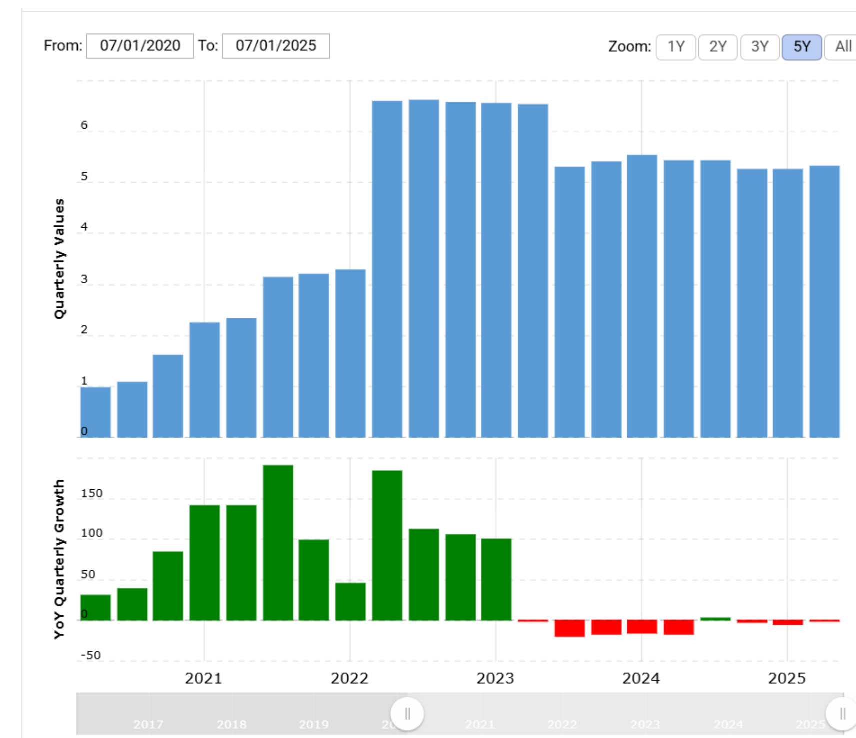


Figure 5: Sensitivity Analysis

$548.06	7.25%	7.45%	8.13%	8.45%	9.25%
2.50%	$609.56	$581.64	$501.67	$470.42	$405.39
2.75%	$641.84	$611.08	$523.73	$489.89	$420.00
3.00%	$677.93	$643.85	**$548.06**	$511.14	$435.78
3.25%	$718.52	$680.49	$574.61	$534.43	$452.87
3.50%	$764.53	$721.78	$604.17	$560.07	$471.45

Figure 6: Discount Rate Calculations

WACC	
Beta	0.66
Risk Free Rate	4.3%
Market Risk Premium	5.5%
Cost of Equity	7.9%
Market Cap	75,320
Total Debt	5,565
Total Debt + Equity	80.885
Percentage of Equity	93%
Cost of Equity	7.9%
Percentage of Debt	6.9%
Cost of Debt	11%
WACC	8.13%

Carvana

Ticker	CVNA	Implied Share Price	$548.06		
Date	8/13/2025	Today's Share Price	$349.87	Upside (Downside)	56.6%

Assumptions

Valuation Assumptions

WACC	8.13%
TGR	3.0%

						1	2	3	4	5
DCF	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Revenue (in millions)	5,587	12,814	13,604	10,771	13,673	18,820	23,510	28,682	34,419	40,614
% growth		*129.4%*	*6.2%*	*-20.8%*	*26.9%*	*37.6%*	*24.9%*	*22.0%*	*20.0%*	*18.0%*
EBIT	-332	-104	-1,447	-80	990	1,737	2,351	3,155	4,130	5,483
% margin	*-5.94%*	*-0.81%*	*-10.64%*	*-0.74%*	*7.24%*	*9.23%*	*10.00%*	*11.00%*	*12.00%*	*13.50%*
Taxes	0	1	1	25	-4	0	12	95	289	548
% of EBIT	*0.0%*	*1.0%*	*0.1%*	*31.3%*	*-0.4%*	*0.0%*	*0.5%*	*3.0%*	*7.0%*	*10.0%*
EBIAT						**1,737**	**2,339**	**3,060**	**3,841**	**4,935**
D&A	74	105	261	352	305	376	423	430	482	528
% of sales	*1.3%*	*0.8%*	*1.9%*	*3.3%*	*2.2%*	*2.0%*	*1.8%*	*1.5%*	*1.4%*	*1.3%*
CapEx	360	557	512	87	91	132	141	143	172	203
% of sales	*6.4%*	*4.3%*	*3.8%*	*0.8%*	*0.7%*	*0.7%*	*0.6%*	*0.5%*	*0.5%*	*0.5%*
Change in NWC	206	2,088	(401)	(1,106)	1	753	705	574	344	0
% of sales	*3.7%*	*16.3%*	*-2.9%*	*-10.3%*	*0.0%*	*4.0%*	*3.0%*	*2.0%*	*1.0%*	*0.0%*
Unlevered FCF						**1,229**	**1,916**	**2,774**	**3,807**	**5,260**
Present Value of FCF						**1,137**	**1,639**	**2,194**	**2,785**	**3,558**

Terminal Value Calculations	105,623
Present Value of Terminal Value	71,458
Enterprise Value	**82,770**
+ Cash	1,716
- Debt	5,565
Equity Value	**78,921**
Shares	144
Share Price	**$548.06**