

# Evolve Automobile Innovation Index Fund

CARS invests primarily in equity securities of companies that directly or indirectly involved in developing electric drivetrains, autonomous driving or network connected services for automobiles.

TSX  
**CARS**

ETF TICKERS: CARS (HEDGED); CARS.B (UNHEDGED); CARS.U (USD)  
MUTUAL FUND FUNDSERV CODE: EVF140 (CLASS F); EVF141 (CLASS A)

## Investment Thesis: The car is becoming digital. Autonomous, Connected and Electric ('ACE')

### Electrification

- Technological advances
- Improved vehicle experiences
- EVs becoming cost competitive with ICE (Internal Combustion Engine) counterparts
- Government mandates on carbon
- Charging network build-out
- Re-charge times
- Battery capacities/range

### Autonomous Technology

- Smarter chips
- Better and cheaper sensors
- Smart infrastructure
- Government mandates for safety
- Only Level 2 (partial automation) is available today
- Advanced Driver Assist ('ADAS') in most cars
- Level 3 (conditional), 4 (high) and 5 (full) years away

## GENERAL INDUSTRY UPDATE



Source: Engadget.com Kevin Lamarque / reuters

Demand for electric vehicles remains resilient. Even with fears of an economic slowdown, car manufacturers are focusing on keeping production unchanged.

While Tesla Inc. recently cut its full-year growth forecast, the company brushed off worries of a recession and weakening demand. Instead, CEO Elon Musk said that Tesla expects to sell every car it makes and, regardless of whether or not a recession is on the horizon, they are not reducing their production.

Furthermore, Tesla's board could be pursuing a share buyback in 2023, worth between \$5 billion to \$10 billion.<sup>1</sup>

Rivian Automotive, Inc. is recalling more than 12,000 vehicles to double-check a fastener in the vehicles' steering assembly that was incorrectly tightened. According to the company, if the fastener isn't tight, it could impact the alignment of the front wheels and potentially cause vibration and noise, which could affect the

steering. In rare cases, the fastener could completely loosen, and could mean loss of steering control and possibly a crash.

The recall by the electric car maker includes all the Rivian R1T pickup trucks and R1S SUVs made through September 2021. About one percent of the company's EDV vans made for Amazon could also have the similar defect.

Rivian Automotive started production in the fall of 2021 and has built 15,300 vehicles since then. It has set a goal to produce 25,000 vehicles by the end of the year.<sup>2</sup>

Over the past year or so, automakers have struggled with production and deliveries of vehicles due to semiconductor chip shortages. There's some light at the end of the tunnel: the chip delivery times decreased by four days in September—signifying that supply shortages could be easing. The gap between when a chip is ordered and when it is delivered, referred to as lead time, averaged 26.3 weeks, according to research by Susquehanna Financial Group. This was down from 27 weeks in the previous month.<sup>3</sup>

While chip shortages were just one factor causing issues for electric vehicle makers, another problem manufacturers have encountered in recent months is the rising cost of basic materials needed to build cars and batteries.

In an attempt to ease the strain, the Biden administration is awarding \$2.8 billion in grants for projects to expand U.S. manufacturing of batteries for electric vehicles and domestic mineral production.

The grants will help manufacturing and processing companies in at least 12 states when it comes to extracting and processing more lithium, graphite, nickel, and other materials needed to make batteries. According to the Department of Energy, these projects will develop enough lithium to supply two million electric vehicles per year, enough graphite for about 1.2 electric vehicles per year, and enough nickel for approximately 400,000 electric vehicles per year.<sup>4</sup>

## COMPANY SPECIFIC UPDATES



Source: Microvast.com

### Microvast Holding Inc.

Microvast Holdings Inc., held by the fund and one of the largest contributors, recently said that it will build a separator facility with the ability to supply 19 gigawatt-hour (GWh) of electric vehicle batteries, in addition to its already existing two gigawatt-hour battery plant in Clarksville, Tennessee.

Separators are a key item in traditional, advanced, and next-gen Li-ion batteries and are an essential component for the advancement of electric vehicle batteries.<sup>5</sup>



Source: CTS Corporation Piezoelectric Ceramic Plant Tour Albuquerque, New Mexico

### CTS Corp.

CTS Corp., a new addition to the fund, is a manufacturer and seller of sensors, actuators, and connectivity components in North America, Europe, and Asia. Recently, the company reported strong financial performance for the third quarter—revenue increased by 24%.

Regarding the company's financial performance, the CEO of the company, Kieran O'Sullivan, said that its diversification in the non-transportation end markets is helping the company keep financial performance strong in the current economic environment.

CTS also provided a rosy outlook for 2022 and, thanks to its recent acquisition of Ferroperm, the company expects sales to be between \$585 million and \$595 million, updated from a forecast of between \$570 million and \$600 million.<sup>6</sup>

## PORTFOLIO STRATEGY AND ACTIVITY

For the month, Microvast Holdings Inc. made the largest contribution to the Fund, followed by Ses Ai Corp and Visteon Corp. The largest detractors to performance for the month were Li Auto Inc., followed by Nio Inc. and Energy Vault Holdings Inc. On last rebalance, these securities were added to the portfolio: CTS Corp. By weight, the Fund's largest geographic exposure was to the United States, followed by Germany and China.

## PERFORMANCE (%)

TOTAL RETURNS*	1 MTH	YTD	1 YR	2 YR	3 YR	4 YR	5 YR	SI**
CARS (HEDGED)	-3.62	-44.95	-48.68	-6.91	9.80	10.75	5.61	7.10
CARS.B (UNHEDGED)	-4.72	-42.36	-45.22	-6.54	11.89	12.38	7.13	9.42
CARS.U (USD)	-3.39	-46.48	-50.23	-7.59	10.63	11.41	5.92	5.93

Source: Bloomberg, as at October 31, 2022.

\*\* Performance since inception of CARS and CARS.B on September 27, 2017.  
Performance since inception of CARS.U on November 1, 2017.

### Sources:

1. Elliott, R., "Tesla Cuts 2022 Vehicle-Delivery Target, but CEO Musk Says Demand Remains Strong," Wall Street Journal, October 20, 2022; <https://www.wsj.com/articles/tesla-tsla-q3-earnings-report-2022-11666139620>.
2. Rosevear, J., "Rivian shares slumped after the company announced a big recall," CNBC, October 10, 2022; <https://www.cnbc.com/2022/10/10/rivian-shares-after-the-company-announced-a-big-recall.html>.
3. Turner, N., "Chip Delivery Times Shrink in Sign That Supply Crunch Is Easing," BNN Bloomberg, October 17, 2022; <https://www.bnnbloomberg.ca/chip-delivery-times-shrink-in-sign-that-supply-crunch-is-easing-1.1833667>.
4. Newburger, E., "Biden awards \$2.8 billion for projects to boost electric vehicle battery manufacturing," CNBC, October 19, 2022; <https://www.cnbc.com/2022/10/19/biden-awards-2point8-billion-for-electric-vehicle-battery-manufacturing-.html>.
5. Khederian, H., "Why Microvast Shares Are Exploding Higher Today," Benzinga, October 19, 2022; <https://www.benzinga.com/markets/penny-stocks/22/10/29330497/why-microvast-shares-are-exploding-higher-today>.
6. "CTS Announces Third Quarter 2022 Results," CTS Corp., October 26, 2022; <https://investors.ctscorp.com/news-events/news/news-details/2022/CTS-Announces-Third-Quarter-2022-Results/default.aspx>.

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\*The indicated rates of return are the historical annual compound total returns net of fees (except for figures of one year or less, which are simple total returns) including changes in per unit value and reinvestment of all dividends or distributions and do not take into account sales, redemption, distribution or optional charges or income taxes payable by any securityholder that would have reduced returns. The rates of return shown in the table are not intended to reflect future values of the ETF or returns on investment in the ETF. ETFs are not guaranteed, their values change frequently, and past performance may not be repeated.

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