



Stephen Lew Fund Manager

## **Highlights**

- We are witnessing a megatrend in the global electric vehicle market with Emerging markets in Asia at the center of the electric vehicle revolution.
- China will likely become the largest electric vehicle market in the world and critical companies involved in the supply chain of electric vehicles will be based out of Asia.

# September 2021

# **Emerging Markets Discoveries**

Trends and Innovations

The JOHCM Emerging Markets Small Mid Cap strategy focuses on identifying companies in emerging industries, with pioneering business models, or with innovative technologies that are disrupting the status quo. Through the strategy's process-centric approach, the team seeks to deliver to investors long-term market-beating performance over equity cycles.

### **Electric Vehicle Hyperdrive**

Liuzhou is a place most of us here in the US have not heard of before. It is a mid-tier city located in southern China with a population of four million, which is similar to the population size of Los Angeles. However, the similarity between the two cities ends there. Unlike Los Angeles where sales volume of electric vehicles ("EV") may be just an asterisk on car dealerships' monthly sales reports, almost 30% of the cars sold in Liuzhou in 2020 were electric.<sup>1</sup>



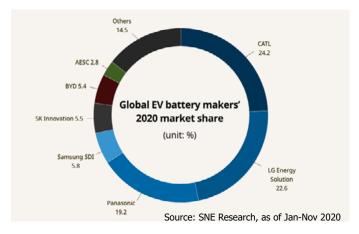
Image Source: Bloomberg

In a way, the example of Liuzhou is a megatrend that we are witnessing in the global EV market: Emerging Markets ("EM") Asia is at the center of the EV revolution. Not only will China likely become the largest EV market in the world, most of the critical companies involved in the supply chain may also be based out of Asia. In terms of sales, by 2025, almost 35% of all cars sold in China will be EVs.² From a supply chain perspective, the picture is even more compelling. As of 2020, EM Asian suppliers control over 60% by units of EV batteries, arguably one of the most critical components of EV manufacturing.³ Even in the software area, EM Asian companies are likely to be primary beneficiaries of outsourcing. Boeing's 787 Dreamliner requires about 6.5 million lines of software code to operate its avionics and onboard support systems.⁴ Tomorrow's automated and electrified vehicles will require between 300 and 500 million lines of code.⁵ We believe Indian IT software services companies are likely to repeat their prior dominance in IT software in the EV era by writing the majority of the codes on an outsourcing basis for global EV makers.

# **Portfolio Holding Case Study**

### **Identifying the Paradigm Shift**

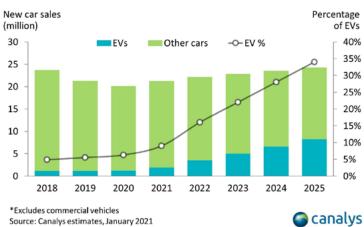
We believe that the advent of EVs is a paradigm shifting event with significant outperformance potential in the EM space, particularly in Asia. Due to fundamental differences in design and production between EVs and internal combustion engine vehicles, EM Asia now has the capacity to leapfrog the US and Europe in EV technology. From hardware technologies like electric batteries to software development like code writing, we believe EM Asian corporates in the space are well positioned to create and compound significant shareholder value.



### The Investment Case

One of our holdings is a manufacturer of nickel-rich cathode materials that go into the production of lithium-ion batteries, arguably the most important component in an EV. As one would expect, EV penetration is projected to increase significantly in the coming years. EV penetration in the US alone is likely to increase from low-single digit percentage to almost 30% by 2030.<sup>6</sup> In order to achieve that level of penetration, the driving range of future EVs must be long enough for the consumers to overcome their "range anxiety". Therefore, having the right material in the battery allowing for long-distance driving is critical in the market reaching the projected rate of EV penetration. We believe this company provides a critical ingredient in the development of longer-range EV batteries.

The company supplies high-nickel cathode materials for EV applications and specializes in NCM811 (nickel, cobalt, and manganese with an 80%, 10%, and 10% mix) and NCA (nickel, cobalt, and aluminum) with approximately 90% mix of nickel. High-nickel cathode materials with 80%+ nickel content provide a longer driving range with higher energy density and lower cost. The company is the only cathode material supplier globally that has a joint venture with a key EV battery maker and supplies exclusively into approximately 10% of the global EV batteries market.



#### Sources:

- "China's Electric Car Capital Has Lessons for the Rest of World." Bloomberg News, Bloomberg L.P., www.bloomberg.com/news/features/2021-06-26/ china-s-electric-car-capital-has-lessons-for-the-rest-of-world.
- 2. "China's electric vehicle sales to grow by more than 50% in 2021 after modest 2020." China Electric Vehicles Sales 2021, Canalysis, www.canalys. com/newsroom/china-electric-vehicles-2021.
- Choe, Man-Su. "Korea's EV battery trio among world's top 5; seen gaining further ground." The Korea Economic Daily Global Edition, KED Global News Network, www.kedglobal.com/newsView/ked202101040006.
- 4. Charette, Robert N. "This Car Runs on Code." IEEE Spectrum, IEEE, www.spectrum.ieee.org/this-car-runs-on-code.
- 5. "Bosch: Did You Know." Automotive World, www.automotiveworld.com/news-releases/bosch-did-you-know.
- 6. "EV Sales Forecasts." EVAdoption LLC, www.evadoption.com/ev-sales/ev-sales-forecasts.

An investor should consider the Fund's investment objectives, risks, and charges and expenses carefully before investing or sending any money. This and other important information about the Fund can be found in the Fund's prospectus or summary prospectus, which can be obtained at <a href="https://www.johcm.com">www.johcm.com</a> or by calling 866-260-9549 or 312-557-5913. Please read the prospectus or summary prospectus carefully before investing. The JOHCM Funds are advised by JOHCM (USA) Inc. and distributed through JOHCM Funds Distributors, LLC, member FINRA. The JOHCM Funds are not FDIC-insured, may lose value, and have no bank guarantee.

Past performance is no guarantee of future results.

#### RISK CONSIDERATIONS:

Investors should note that investments in foreign securities involve additional risks due to currency fluctuations, economic and political conditions, and differences in financial reporting standards. Smaller company stocks are more volatile and less liquid than larger, more established company securities. The small and mid-cap companies the Fund may invest in may be more vulnerable to adverse business or economic events than larger companies and may be more volatile; the price movements of the Fund's shares may reflect that volatility. Fixed income securities will increase or decrease in value based on changes in interest rates. If rates increase, the value of the Fund's fixed income securities generally declines. Other risks may include and not limited to hedging strategies, derivatives and commodities.

The views expressed are those of the portfolio manager as of September 2021, are subject to change, and may differ from the views of other portfolio managers or the firm as a whole. These opinions are not intended to be a forecast of future events, a guarantee of future results, or investment advice.



