EVALUESERVE

Private Equity and Venture Capital Bullishness on EV Industry

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Introduction

As the world transitions towards a more sustainable future, there has been a surge in demand for Electric Vehicles (EVs) and associated technologies. Private Equity and Venture Capital interest has been growing in various sub-segments of the EV industry since 2017, encompassing not only EV manufacturers but also battery technology, charging infrastructure, electric mobility solutions, and software platforms. This sector represents a promising avenue for growth amid discussions of technology disruption and environmental concerns surrounding fossil fuel vehicles. According to an S&P article, PE and VC investments in the EV industry witnessed a significant leap in 2017 and have reached a staggering \$9.45 billion with 151 deals in the first 10 months of 2022

Private Equity and Venture Capital Investment (\$ bn) in the EV Sector (2016 – 2022'10M)



Top 10 transactions in the EV industry done by PE / VC firms since 2020¹

#	Date	Target	Sub-sector	Target HQ	Lead Investor(s)	Amount (\$ bn)
1	Feb'21	BYD	ia. []	*)	Hillhouse Capital	3.90
2	Jul'20	CATL		*1	Hillhouse Capital	2.80
3	Jan'21	\diamond rivian	ĭ ~~ ₀		T.RowePrice	2.65
4	Ocť22		Ĭ,	*3	PICC	2.52
5	Jul'20	\odot RIVIAN	t er		T.RowePrice	2.50
6	Jul'21	RIVIAN	Ĭ,		DI CAPITAL PARTNERS	2.50
7	Feb'21	LUCID	ĭæ⊳		BlackRock	2.50
8	Jun'23	LUCID	^t con			1.80
9	Jul'21	S √ OLT		*2	中銀集團扶資有限公司 MAKE OF CREAL GROUP AND STATED MAKE OF CREAL GROUP AND STATED MAKE OF CREAL GROUP AND STATED	1.58
10	Aug'22	SK on	Ĭ,	*1	EASTBRIDGE EASTBRIDGE PARTNERS	1.50

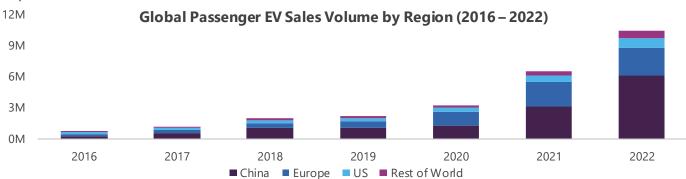
Source: S&P, Capital IQ, Pitchbook, Web search; Note (1): In cases where no lead investor was named, we have taken first two investor mentioned



Let's look deeper into the driving factors behind this bullishness of PE and VC firms:

Surging Electric Vehicle demand that is reshaping automotive landscape

The year 2022 witnessed a significant milestone in the transition to a more sustainable future, with global sales of more than 10 million passenger EVs. It is expected that this number will grow by 35% in 2023, reaching 14 million vehicles. Similarly, the penetration level of EVs is projected to increase from 14% in 2022 to 18% in 2023. The majority of this growth is driven by China, followed by the US and Europe. Emerging countries, such as India, Thailand, and Indonesia, are also catching up as they experience robust growth in electric car sales, which tripled to 80,000 units

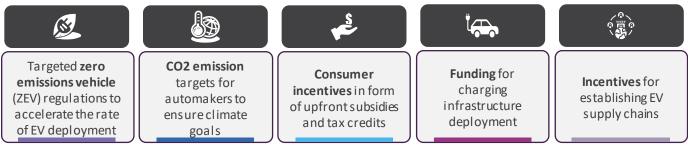


ESG-Driven Investments can unlock value in the EV Industry

According to an EEA report, GHG emissions from EVs are ~17-30% lower than those from petrol and diesel cars. It is projected that by 2025, EVs could reduce emissions by 1.5 gigatons per year, which is equivalent to the carbon output of more than 300 million cars. This demonstrates that the EV sector can contribute to achieving sustainable development goals. By 2026, asset managers are expected to have \$33.9 trillion in ESG-related Assets under Management (AuM), up from \$18.4 trillion in 2021. ESG-oriented AuM is poised to grow at a much faster rate than the overall market, as these investments generate higher yields. By investing in EVs and contributing to sustainability, PE firms can create greater value for their investors

Regulatory Support

Governments across the globe are promoting the use of EVs with targets of 100% electric vehicle share between 2020-2050, to achieve this various policy measures are being taken such as

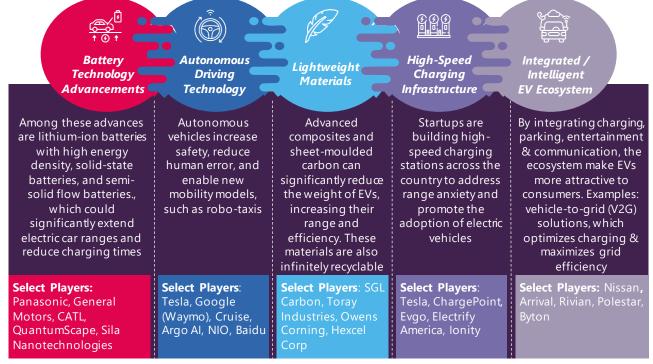


Sources: Bloomberg, International Energy Agency, PwC, European Environment Agency, Web search



Evolving Technological Landscape of Electric Vehicles

The electric vehicle industry is currently witnessing innovative technological breakthroughs, fueled by advancements in battery technology, automation, lightweight materials, and high-speed charging infrastructure. These advancements are driving increased efficiency and further enhancing the penetration of EVs. Within each category of technological advancement, there are multiple emerging players that are reshaping the industry landscape



Other Reasons

In addition to the factors mentioned earlier, there are other key drivers such as:

- IPO success of prominent players such as Lucid Motors, and Tesla in recent past which are trading at high EV/sales multiples (*CY23E: 12.3x, 8.8x respectively*) shows that early investors can grab great exits for their investment
- Reduction in price of electric vehicles particularly smaller EVs over time due to policy measures, lithium prices and battery technology improvement
- EV infrastructure which is a critical factor in driving EV demand. Both state and non-state stakeholders are actively promoting the development of EV infrastructure

Key Challenges in the EV space

• Lagging Charging Infrastructure: Most of the EV charging happens at home or workplaces as the development of charging infrastructure is in early stages. The slow pace is partially due to a global shortage of essential EV charger components and precious metals, such as lithium

Sources: TT Consultants, EV Magazine, Reuters, FactSet, Web search



- **High Upfront Cost of Electric Vehicles:** While EVs are generally more affordable than ICE vehicles, they are often priced higher than the same model in the ICE version. The primary reason for this is the high cost of the battery, as the raw materials used in the battery and the battery production process are expensive
- **EV range Anxiety:** One of the primary concerns when embarking on a long-distance ride in an EV is how far one can travel before finding a charging station. While an EV's range is largely determined by its battery pack and motor efficiency, it is also influenced by factors such as weather conditions, driving speed, and traffic.

Outlook Ahead

As governments across the world strive towards Net Zero goals, there will be an increasing focus on sustainable development, which will act as a key driving factor for the growth and advancement of the EV industry. Governments are already pushing for the growth of EV infrastructure through various policy measures. Additionally, technological advancements in battery technology and the improvement of charging infrastructure, are gradually expected to accelerate

Conclusion

Private equity firms are displaying strong bullishness on the EV sector, driven by multiple factors as we discussed before. The most significant factor is the surge in EV demand amidst the energy transition and sustainability discussions. The expertise of PE professionals, combined with their networks, will greatly benefit partner companies and the sector as a whole, ultimately leading to a deeper penetration of Electric Vehicles

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Source: EV Magzine, WEF, Web search

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About the Authors:





Senior Analyst Private Equity Solution

- Aarti has 2+ years of experience working with investment banking and private equity teams
- Aarti.Agrawal@evalueserve.com





