

## **Global Thematic Investing - Electric and Autonomous Vehicles**



#### What are thematic funds?

Thematic funds are equity mutual fund schemes which invest in stocks tied to a particular theme. These schemes try to identify themes which have the potential of outperforming the broader market over long investment horizons. Examples of some popular investment themes in India are consumption, Multi National Companies, Public Sector Units etc.

#### How are thematic funds different from market cap and sector funds?

- Market cap funds invest in specific market cap segment(s) i.e. large cap (100 largest companies by market capitalization), midcap (101st to 250th companies) and small cap (251st and smaller companies). Market cap based funds may invest in one or more market cap segments (subject to SEBI categorisation circular dated October 06, 2017). Market cap funds can invest across industry sectors.
- Sector funds invest in a particular sector like Banking, FMCG, infrastructure, pharma etc. These funds are usually market cap agnostic i.e. they can invest across market cap segments. Sector funds can be cyclical e.g. banking, infrastructure etc or defensive e.g. FMCG, pharma etc.
- Thematic funds are more broad-based (diversified) compared to sector funds. While a sector fund invests in a particular sector, a thematic fund may invest in multiple sectors tied to the theme. For example, a FMCG sector fund will only invest in consumer staples stocks, a consumption based thematic fund may invest in multiple sectors related to consumption e.g. consumer staples, consumer durables, automobiles, cement etc.

## Thematic funds are growing popular globally

The last decade has shown the tremendous potential of new age technology. As a result there is rising awareness among investors about themes or trends that can lead to significant disruption and transformation in the future. In developed markets, we can see shift towards thematic investing from the traditional diversified equity funds trying to create alpha through active stock selection. Awareness of Environmental Social Governance factors in investments is another driving factor in the shift towards thematic investing. More thematic funds are being launched in different markets (both developed and emerging) every year. According to Morningstar global database (source: Morningstar, as on 31st December 2021), in the trailing three years to the end of 2021, Assets Under Management (AUM) in thematic funds grew nearly three-fold to \$806 Billion from \$255 Billion worldwide. While a very large portion of thematic AUM is from Europe and the United States, it is also gaining popularity in emerging markets like China and India.

## **Popular global themes**

Energy transition	Resource management
Digital economy	<b>Robotics and Automation</b>
Life Sciences	Future Mobility
Artificial Intelligence	Cyber Security
Fintech	Next Gen Communications
Battery technology	Cloud computing
Food	Logistics and transportation

You can see that most the popular global themes are from the technology domain. Technology related thematic funds account for 66% of the global thematic AUM (source: Morningstar, as on 31st December 2021). A majority of thematic funds launched in the last 3 years were from the tech domain. The Indian equity market is still dominated by old economy stocks e.g. oil and gas, banking, metals, cement, engineering, pharma, IT outsourcing etc. You can get exposure to emerging themes by investing in the global thematic funds. Electrification of transportation or electric vehicles is the buzzword of the automobile industry all over the world, including here in India. It is also one of the most popular investment themes globally. **Electric Vehicles** can be an exciting global theme for Indian investors.

#### What are Electric Vehicles?

An Electric Vehicle (EV) is a battery powered vehicle, which runs on an electric motor instead of an Internal Combustion Engine (ICE) used by traditional vehicles. The energy sources of ICE vehicles are petrol or diesel. By burning (combustion) petrol or diesel, ICE generates power for the vehicle. EVs on the other hand are powered by a battery which drives the motor to propel the vehicle. Just like we go to petrol pumps to refuel our petrol or diesel vehicles, an EV will have to go to a charging station to recharge its battery.

## Why are countries pushing for Electric Vehicles?

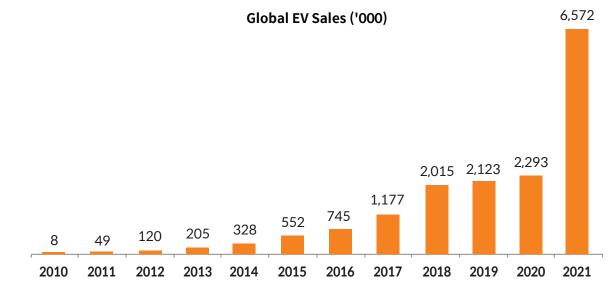
Pollution caused by greenhouse gases (carbon dioxide) is one of the burning environmental concern in this age. Carbon emissions by road vehicles (e.g. cars, two-wheelers, buses, trucks etc) is on of the biggest reason of pollution. The Glasgow **UN Climate Change Conference** attended by 120 world leaders in 2021 targeted carbon neutrality (i.e. zero net carbon emissions) by 2050. India is also committed to achieving carbon neutrality (net zero emissions) by 2070. Electric Vehicles may be the key in achieving zero emission targets. For major oil importers like India and China, EVs will also reduce reliance on crude oil imports which might improve balance of trade.

## **Electric and Autonomous Vehicles – the future of automobile industry**

- There is growing awareness around the world including India, about the pollution caused by petrol and diesel cars. Air Quality Index in large Indian cities has been deteriorating for many years. The primary reason of air pollution is motor vehicle exhaust.
- Though the Electric V ehicles (EV) segment is still in its infancy in India, electric vehicle adoption is rising fast in other parts of world, especially developed economies. Global stock of Electric Vehicle stood at 17.7 million in 2021.
- Government incentives and subsidies are a major factor in the push towards electric. The Indian Government offers a lower GST rate on sale of electric vehicles. Several State Governments e.g. Maharashtra, Gujarat, Delhi, Telengana etc are providing road tax and registration incentives for electric vehicles.
- While Governments are pushing for "electric", EV is rapidly shifting from being a "push" to "pull" product. Government share of total spending on electric car globally has reduced from 22% in 2015 to 10% in 2021.
- Cost economics favours EVs over ICE vehicles. The average lifetime fuel consumption of an ICE car is around 30,000
  litres translates into a cost of around Rs 30 lakhs, while the lifetime electricity consumption of an EV is around is 70
  MWH which translates into a cost of Rs 4.2 lakhs. You can see that over the vehicle's life, the cost advantage of EVs is
  tremendous. Rising crude prices globally can push the cost advantage even further.
- Along with electric vehicles, autonomous vehicles may be a way of the future in the automotive industry. Features of automotive vehicles can range from driving / parking assistance to self driven cars.

#### **Growth potential of EVs**

 Sale of electric vehicles globally has been growing at a CAGR of nearly 50% over the last 10 years ending 31<sup>st</sup> December 2021.



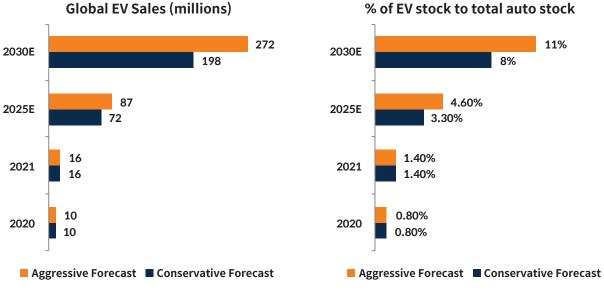
Source: Global EV Outlook 2022, International Energy Agency, Data as on December 31, 2021.

Electric vehicles share is rapidly growing across the globe. In 2021, 6.5 million electric cars were sold around the world, comprising 8.6% of all the cars sold. China is an early adopter of EVs, but EV adoptions rates are highest in Northern European countries (e.g. Germany, Netherlands, Scandinavian countries). EVs account for 20 – 50%+ of overall car sales in these countries.

- Many automobile manufacturers have committed themselves to making electric vehicles a large percentage (40 100%) of their vehicle production by 2030. Global stock of electric vehicle is expected to jump around 12 times from current level.
- While autonomous vehicles may seem too futuristic, many cars are using parking assistance, a feature of autonomous vehicles. Some of these cars are available in India, albeit in the higher price ranges.
- Research has shown that vehicles with autonomous driving features improves driving experience and also reduces accidents.
- Vehicles with autonomous driving features are expected to account 64% of total automobile sales by 2030 (Source: McKinsey, as on Dec 2020).

## **Global EV Growth Forecast**

Global market size of EV is expected to grow at a CAGR of 35% to 39% from 2020 to 2030 in terms of number of cars sold. EVs are expected to comprise 8 – 11% of total auto stock by 2030.



Source: Source: Global EV Outlook 2022, International Energy Agency.

#### Why invest in Global EV and autonomous vehicle theme?

Indian investors have traditionally favoured thematic and sector funds investing in domestic (Indian companies). However, there is a strong case for Indian investors to consider global thematic investments.

- You can diversify country risks e.g. geopolitical risks, risks arising out of government policies, regulations, weather / climate related risks etc by investing in global funds.
- There is low correlation of returns of different markets. Global investing can reduce volatility and provide stability to your portfolio,
- Global EV and autonomous thematic funds can provide you exposure to the tremendous global growth potential of EV and autonomous vehicles.
- You can benefit for INR depreciation by investing in the global thematic funds.

Exchange rate of FBIL are used for conversion of index value from USD to INR. IF INR appreciates against the currency in which investments are made then the value of foreign asset declines as a result of which the fund investing in such foreign asset will also bear the impact of it.

#### What are risks associated with thematic investments? Who should invest?

Thematic funds have more unsystematic risks compared to diversified equity funds. Their performance can be impacted by short term factors. Investors should remember that global mega-trends are long term in nature. Investors should have long investment horizons and be prepared for short term volatility. Investors should have high to very high risk appetites and long investment horizons (minimum 5 years) for thematic funds.

# How should investor create portfolio using thematic products? What should be the allocation?

Investors should always invest according to their risk appetites and financial goals. Personal finance experts advise investors to have core and satellite model of portfolio allocation. The core portion of your equity portfolio i.e. 75 – 80% of your portfolio should comprise of diversified equity funds. You can have 20 – 25% allocation to thematic funds. Investors should consult with their financial advisors if global thematic funds are suitable for their investment needs.

#### Notes:

- 1. Source: Global EV Outlook 2022, International Energy Agency, Data as on December 31, 2021. The global stock of EVs consists of electric car, electric buses and electric truck.
- 2. Source: Centre for Energy Finance, carandbike.com as on 28th February 2022.
- 3. Source: Goldman Sachs Investment Research EV Report 2022, Tesla Impact Report 2021; Global Petrol Prices.com 2021 Data: 1 KwH = 6.01 INR ; Cost of Fuel is assumed 100 INR.

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