

# Tesla

*Drive the Future*



-Lakshay Malhotra

# Rapid growth in technology and instability in economies are the most unpredictable factors for Tesla



## Societal

- The increasing awareness of climate change and popularity of low carbon lifestyles is a big factor in Tesla's business strategies for the future
- Improving wealth distribution and rise in a spending mindset affects whether people spend on premium renewable luxury products
- Public perception of Musk and his ideologies plays a big role in a polarized country



## Technological

- Technology is evolving at a rapid and unpredictable rate with advancements in AI, engines and renewable solutions**
- Rise in automation creates opportunities for Tesla to further automate its business process but also increases uncertainty in the future of existing technologies**
- Increasing popularity of mobile systems affects the feature level integration of Tesla cars**



## Environmental

- The rate and aggressiveness of Climate change will determine how quickly people and the government switch to EV / renewable energy
- Tesla can contribute to strengthening and expanding environmental programs to affect environmental policies
- Tesla can further expand their market by research into alternate energy solutions



## Economical

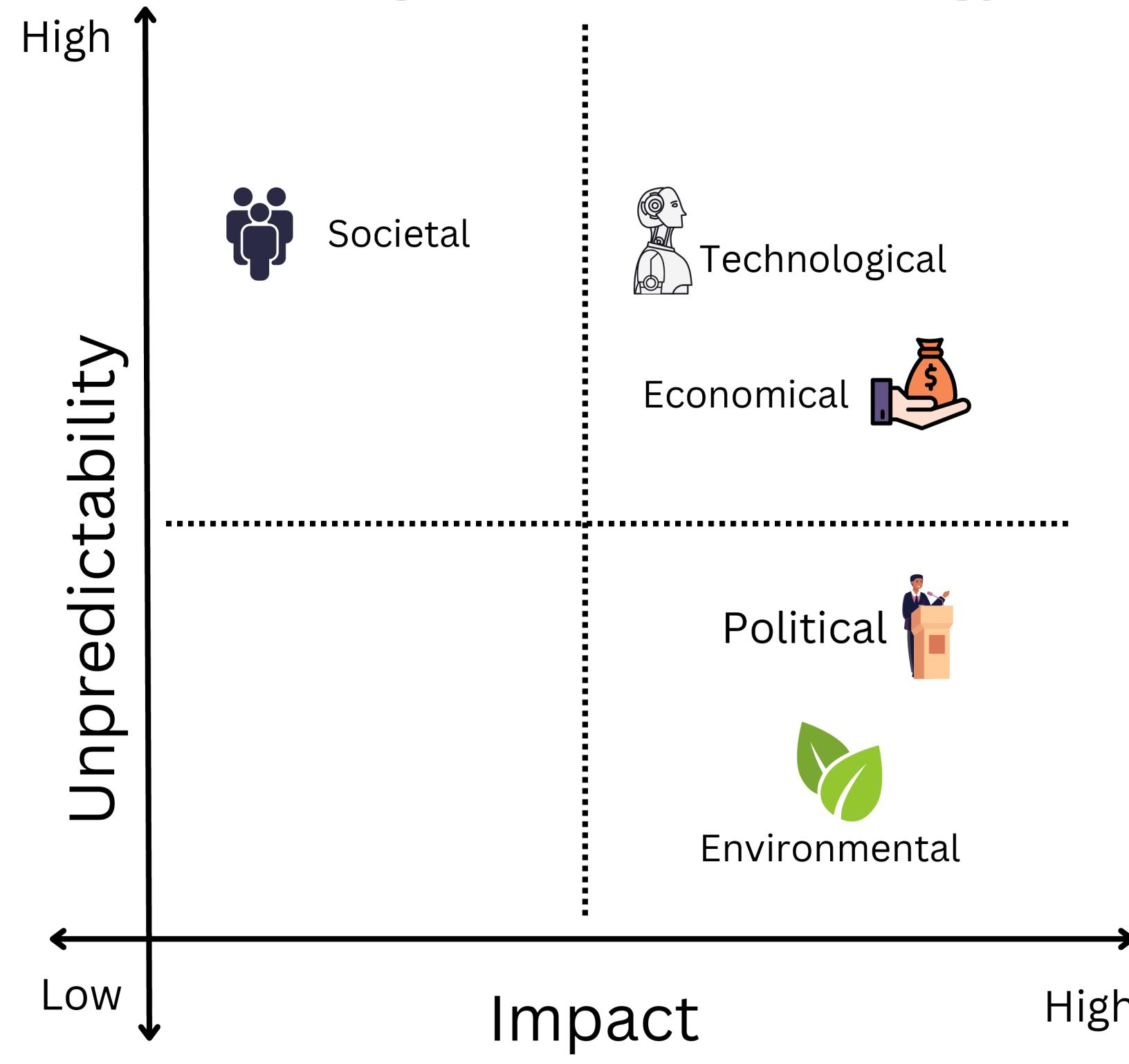
- The sale of luxury cars depends on the cost batteries which has been dropping over the years along with decreasing renewable energy costs**
- Financial stability is an uncertainty with interest rate fluctuations & economic instability in Europe**
- Rising raw material prices and trade barriers will increase production costs and supply chain finances**



## Political

- Election cycles are a key factor in determining the funding and back Tesla gets from the government
- Government policies also determine the taxes on non-renewable energy facilitating the shift to EVs
- Trade embargos and taxes determine stability in purchases and transportation

# A proactive approach can help Tesla plan for the unpredictable and rapid growth in technology and the instability in world and US economy



**Technological advancements in the field of automation and renewable energy could either boost EV production or add a hurdle to it - *Technological***

- Rapid growth in technology can be an opportunity for tesla to integrate mobile systems and better features in their cars. It can also help Tesla innovate more efficient solutions to dominate the market.
- On the other hand, advancement in technology can help competitors reach global markets faster with alternate solutions such as Hydrogen cars and hybrid cars. It can also make current technology used by tesla or other companies obsolete.

**Economic instability across Europe, Asia, and eventually the US can reduce purchasing power of the consumer and can negatively affect trade - *Economical***

- Tesla's second largest market is in China with over 650,000 unites sold annually followed by Germany and UK in its top 5. Hence any economic instability or hampered trade agreements will cause a significant dent in Tesla's market to add to uncertain interest rate fluctuations in the U.S.A
- On the other hand, if the economy strengthens and trade relations are better due to the rise in the value of dollar or financial agreements, Tesla can benefit hugely from this growth.

# The future of Tesla revolves around the technological and economic shape of the market in the coming 5 years

## Riding the Economic Wave: Tesla Amid Stagnant Innovation

- A strong economy would support EV sales, but Tesla's market share might stagnate without significant new innovations.
- Stagnant innovation and strong world economy would allow competitors such as BYD, Ford, Volkswagen to catch up eventually and cut into Tesla's market share.
- This would however allow investments into Tesla's energy division and foster expansion of their energy projects.
- It would come down to brand loyalty and Tesla's marketing strategy once the scales are even

Strengthens

↑  
World economy and trade relations

## Tesla's Dominance in a Booming Economy and Rapid Innovation

- A thriving global economy fosters healthy trade, investment, and consumer spending, while rapid advancements in technology accelerate innovation across industries.
- A strong technological growth would allow Tesla to expand its market in North America, China, and Europe.
- Healthy sales would allow Tesla to capture growing markets like India and expand into R&D for newer segments like Robo-taxis, AI, and robotics.
- Tesla would dominate the sustainable energy automotive market

Rapid  
Innovation

Stagnant  
Innovation

← Technological advancement in the

## Tesla's Legacy Under Threat in a Weak Economy

- In world with weak economic factors and limited technological advancement Tesla would struggle to innovate due to reduced R&D budgets, and consumers would be reluctant to spend on luxury EVs causing China to take over the market.
- This would cause a drop in sales and technological differentiators, allowing competitors to slowly catch up in battery tech and automation and Tesla having to rely on its legacy products

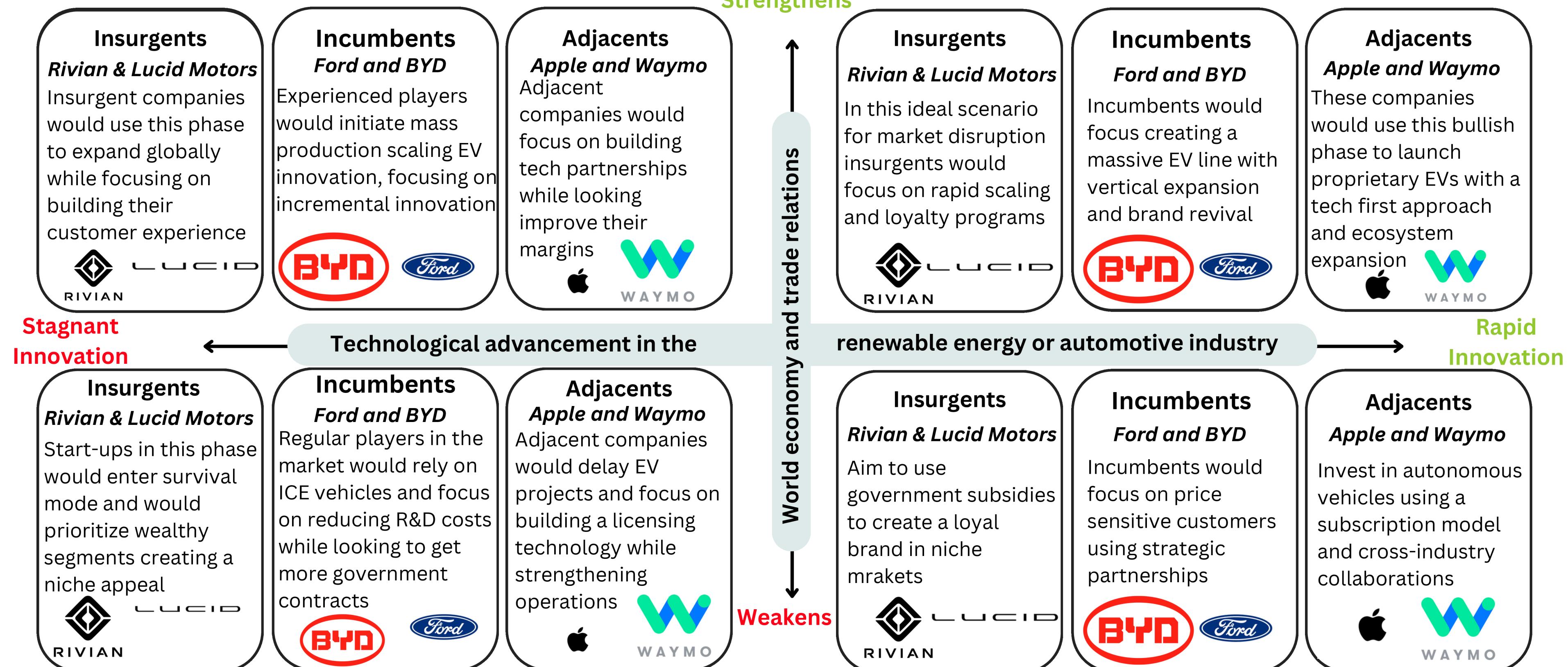
Weakens

renewable energy or automotive industry

## Tesla's Vision Amid Rising Costs and Green Tech Booms

- Economic downturns would see higher interest rates or supply chain disruptions increasing Tesla's production costs, making it harder to maintain competitive pricing, while rapid advancements in renewable energy and automation would drive the adoption of cutting-edge technologies.
- Tesla's investments in battery technology and autonomous driving could pay off as industries demand efficient automation and renewable energy solutions.
- Governments incentivizing clean energy during economic slowdowns might bolster Tesla's energy storage and solar divisions.

# Sustainable Innovation, pricing strategy, and collaborations will play a key role in framing the competitive landscape



**Tesla should leverage technological advancements in autonomous driving and energy solutions, while capitalizing on global demand for sustainable energy, to maintain leadership in electric vehicles and energy storage against increasing competition and regulatory challenges.**

## Drivers

- Technological drivers for Tesla are the rapid advancements in AI and sensor technology that can differentiate Tesla from its competitors. On the other hand, advancements in hydrogen fuel cell technology by competitors can disrupt the market, if they achieve the same before Tesla plans to do it in 2027
- Economic drivers for Tesla include global investments in EV technology and renewable energy. Growing demand with falling battery costs can help Tesla dominate the market. However, growing inflation and increasing raw material costs lead to competitive pricing and loss of market share.

## Opportunities

- Opportunities for Tesla in Technology:
- Expansion of AI and Autonomous Driving
  - EV Battery Innovations
  - Growth in renewable energy solutions within Tesla's R&D
  - Revolutionization in mobile systems

### Opportunities for Tesla in Economics:

- Growth in global EV market
- Benefit from subsidies and tax credits promoting EV and renewable energy in key markets like the U.S., Europe, and China.
- Enter emerging markets with growing middle-class populations

## Threats

- Technological threats for Tesla:
- Technological Obsolescence with the emergence of Hydrogen fuel cells and solid state batteries by competitors.
  - Supply chain disruptions due to reliance on lithium-ion batteries and semiconductors.
  - Strong competition from China and domestic insurgents

### Economical threats for Tesla:

- Raw material cost volatility combined with unpredictable European market is a threat to Tesla's 5 year plan
- On the other hand improving markets in China could challenge Tesla's market share with aggressive pricing strategies.

## Strategy

- Tesla should aim to maintain its technological leadership by investing heavily in R&D for advanced battery technology, autonomous driving capabilities, and scalable energy solutions. Moreover, investing in research in hydrogen technology or solid state batteries for the long term will help them stay ahead of the Curve.
- Tesla's economic strategy should focus on cutting production costs through economies of scale and vertical integration. Expanding into emerging markets with localized production and affordable EV models. Also capitalize on government subsidies and incentives for EVs while diversifying revenue streams through energy solutions,

# **Appendix**

# Executive summary

- Rapid growth in technology and instability in economies are the most unpredictable factors for Tesla
- A proactive approach can help Tesla plan for the unpredictable and rapid growth in technology and the instability in world and US economy
- The future of Tesla revolves around the technological and economic shape of the market in the coming 5 years
- Sustainable Innovation, pricing strategy, and collaborations will play a key role in framing the competitive landscape
- Tesla should leverage technological advancements in autonomous driving and energy solutions, while capitalizing on global demand for sustainable energy, to maintain leadership in electric vehicles and energy storage against increasing competition and regulatory challenges.