

# Analyst Report

# Tesla Inc

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By Nguyen Sy An

# Agenda



Investment strategy

Recommendations

Competitive forces model (abridged)

Financial assessment

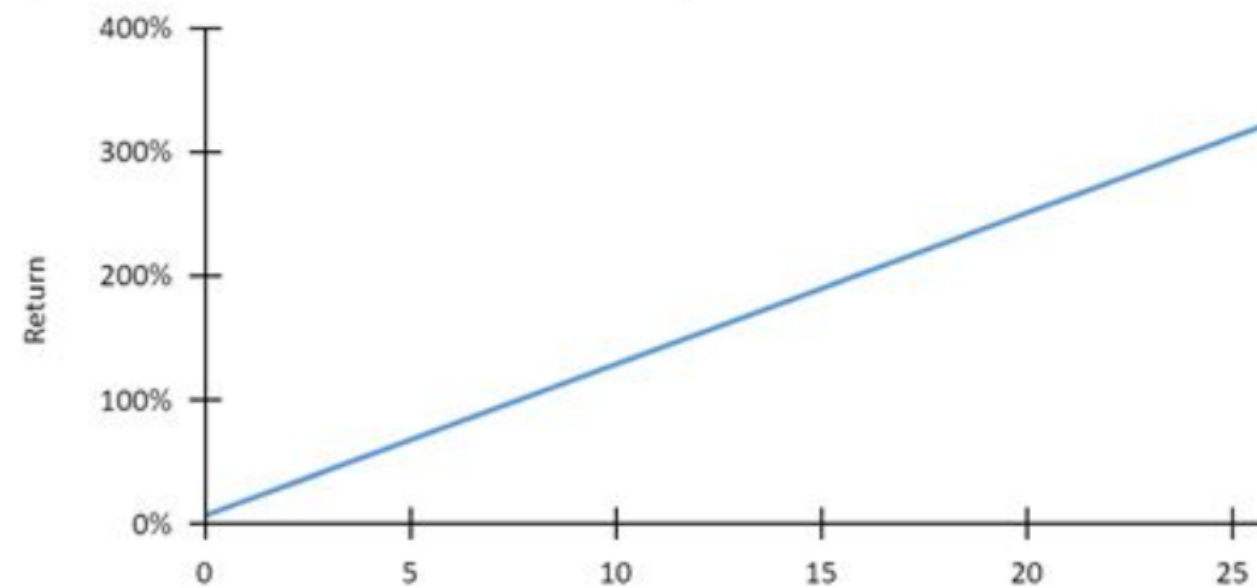
Risk assessment

Industry overview

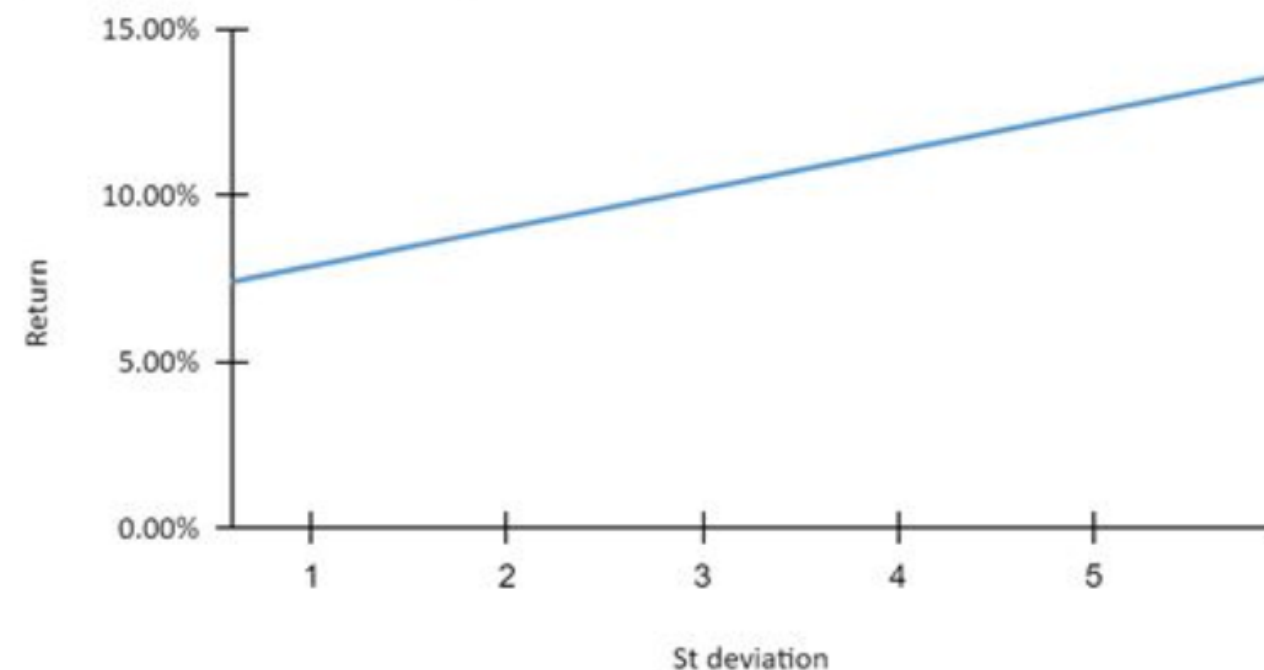
# **Investment strategy**

# Investment strategy

\$TSLA and TBOND Portfolio Capital Allocation Line



\$SPY and TBOND Capital Allocation Line

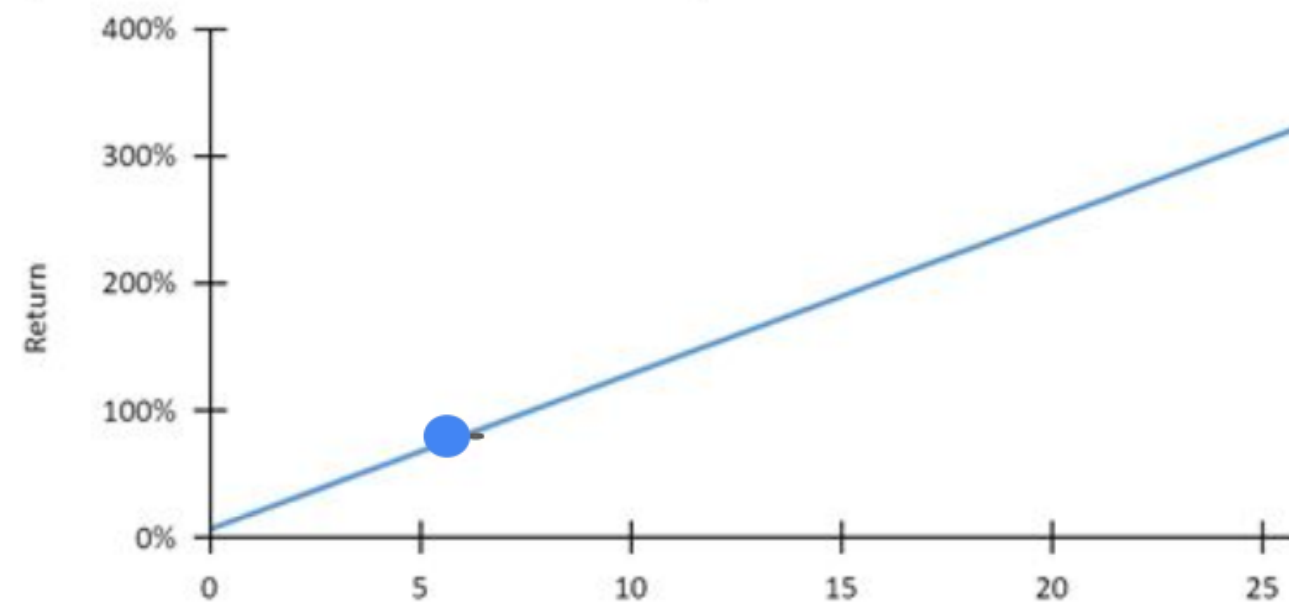


- Time in the market
- Use Capital Allocation Line to determine optimum portfolio
- 5 year horizon
- Return to deviation ratio suits client risk tolerance

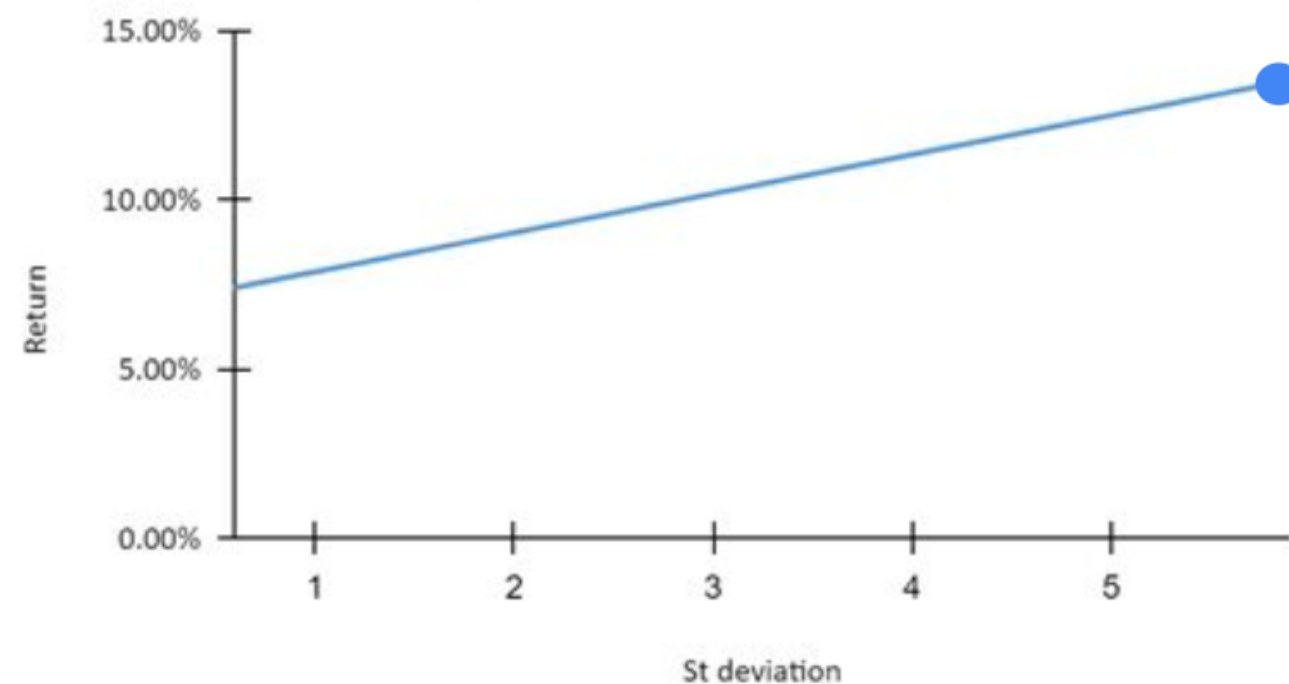
# Recommendations

# Recommendations

\$TSLA and TBOND Portfolio Capital Allocation Line



\$SPY and TBOND Capital Allocation Line



- Moderately conservative portfolio:
  - 75-70% fixed income securities
  - 25-30% equity
- 5 year expected returns: 86-101%
- St. deviation: 6-8
- Outperform \$SPY portfolio by 700%, with equal st. deviation (6)

# Competitive forces model (abridged)

**Industry rivalry**



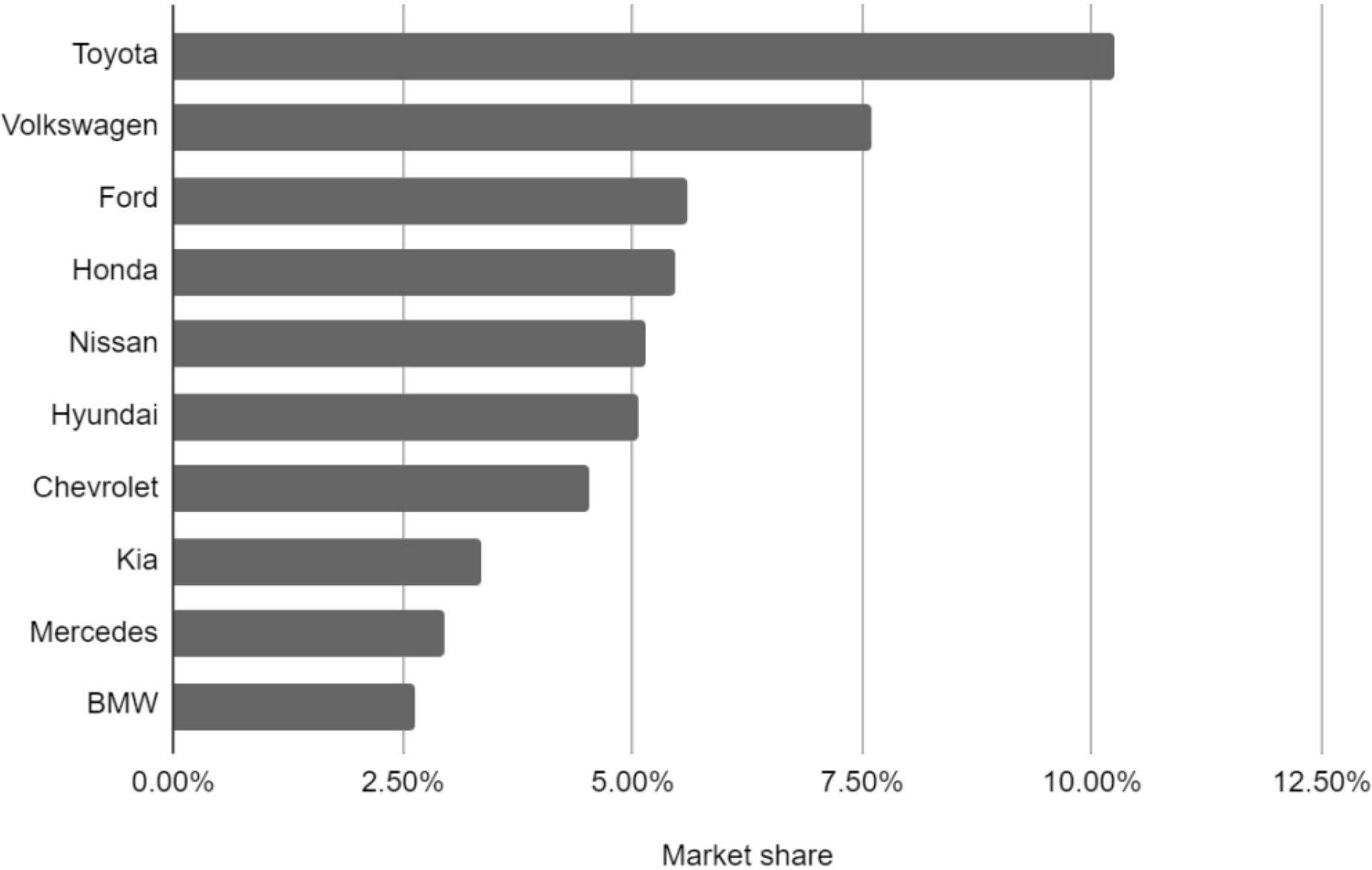
# Tesla is in a highly competitive market

680

HHI index

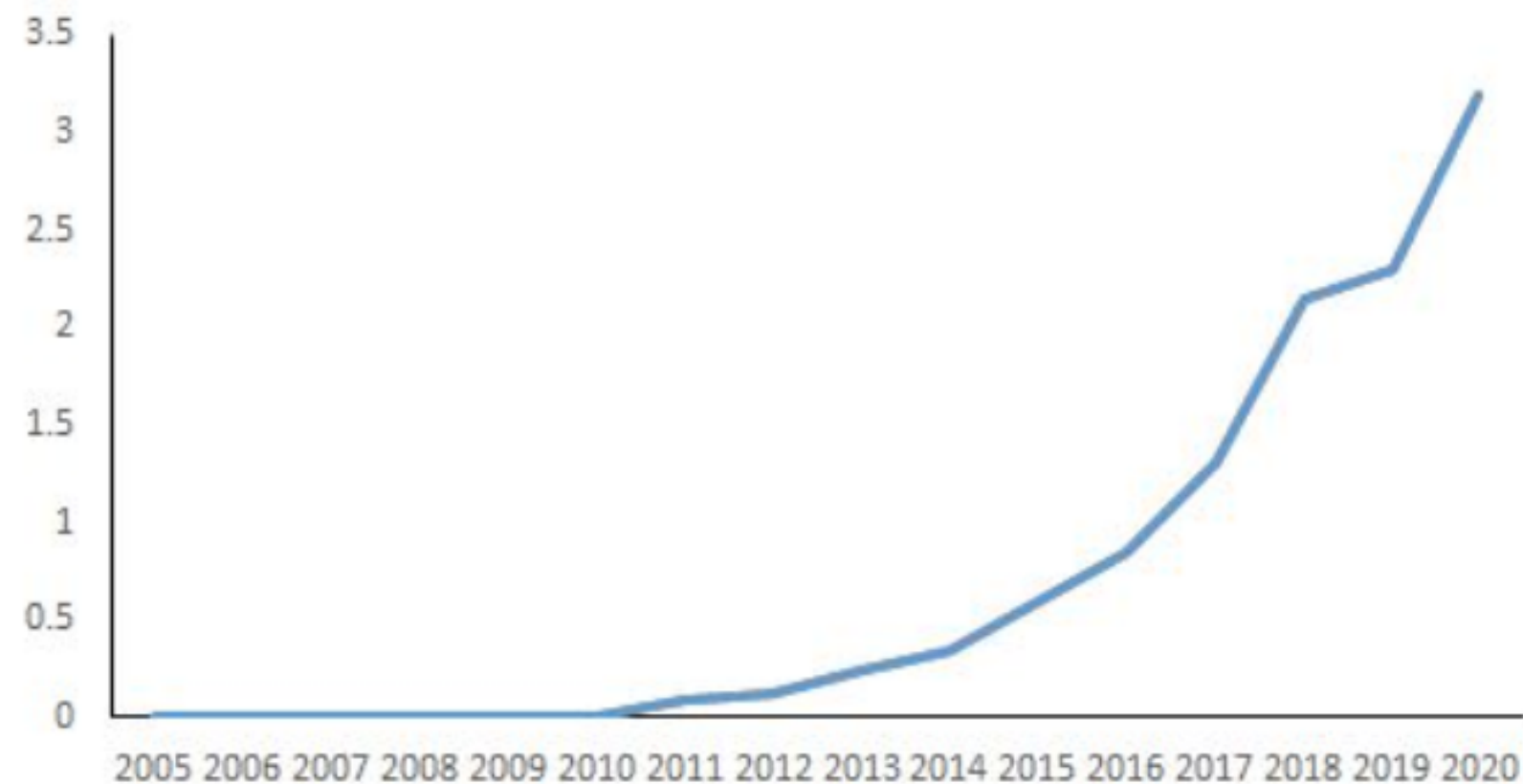
Numerous top competitors have  
similar market share

Global automotive market share in 2019, by brand



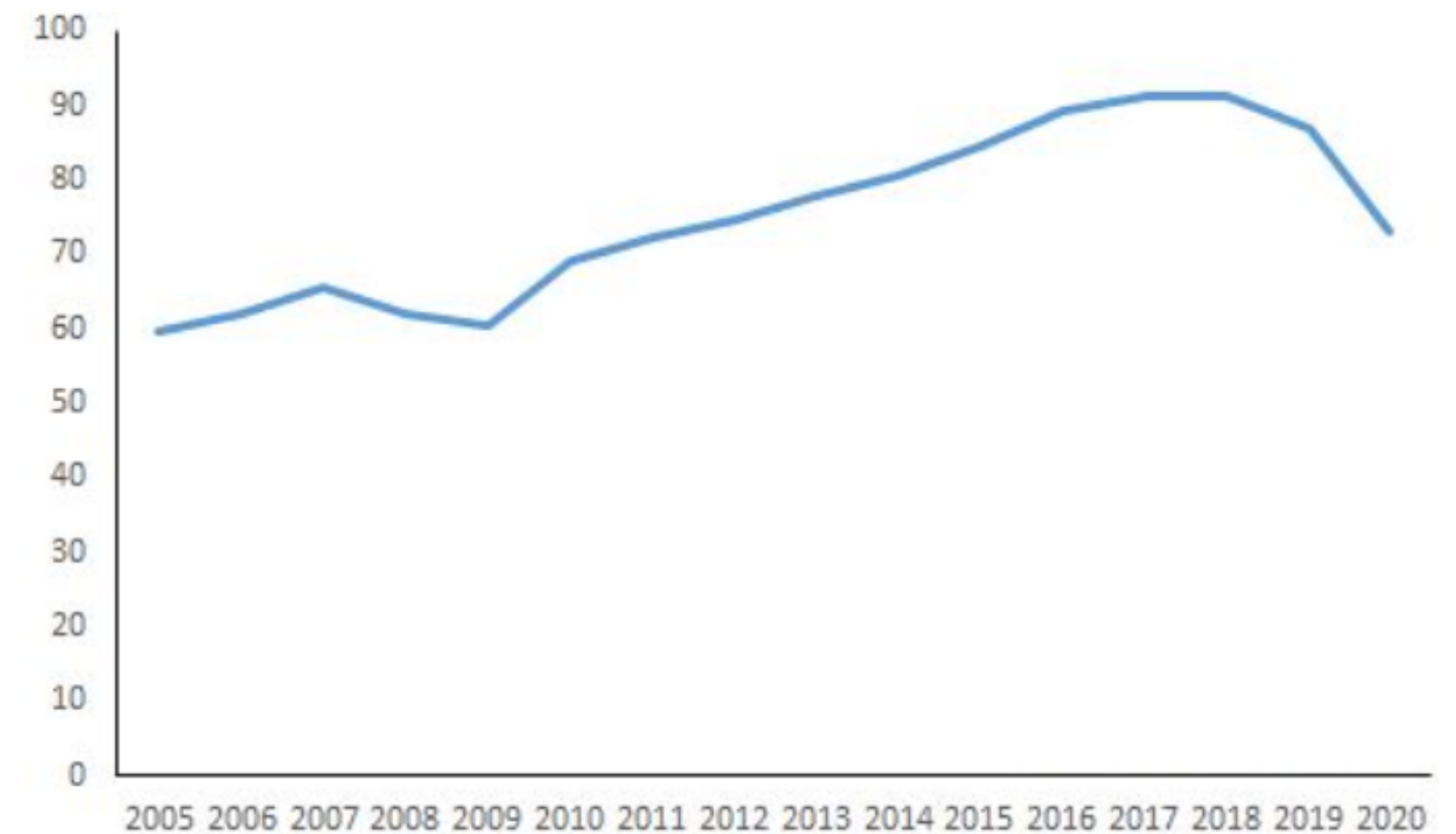
# EV sales sees high growth compared to stagnating autos

Global EV sales (millions)



High growth over the period

Global automotive sales (millions)



3 consecutive years of negative growth  
--> higher rivalry

# EV industry projects high future growth

Strong future prospects

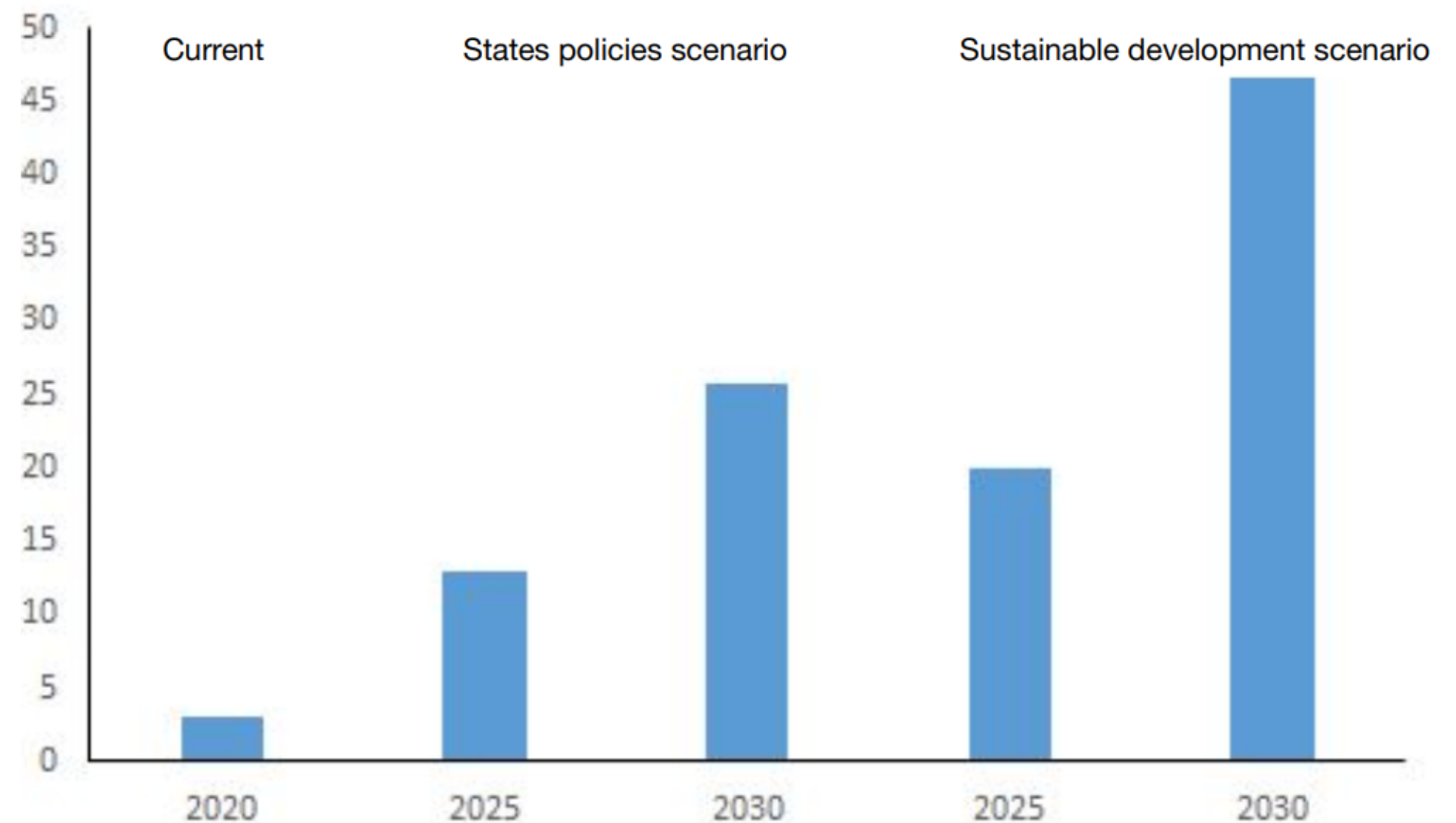
14x

increase in ideal scenario

9x

increase with current policies

Global EV sales projection by scenario



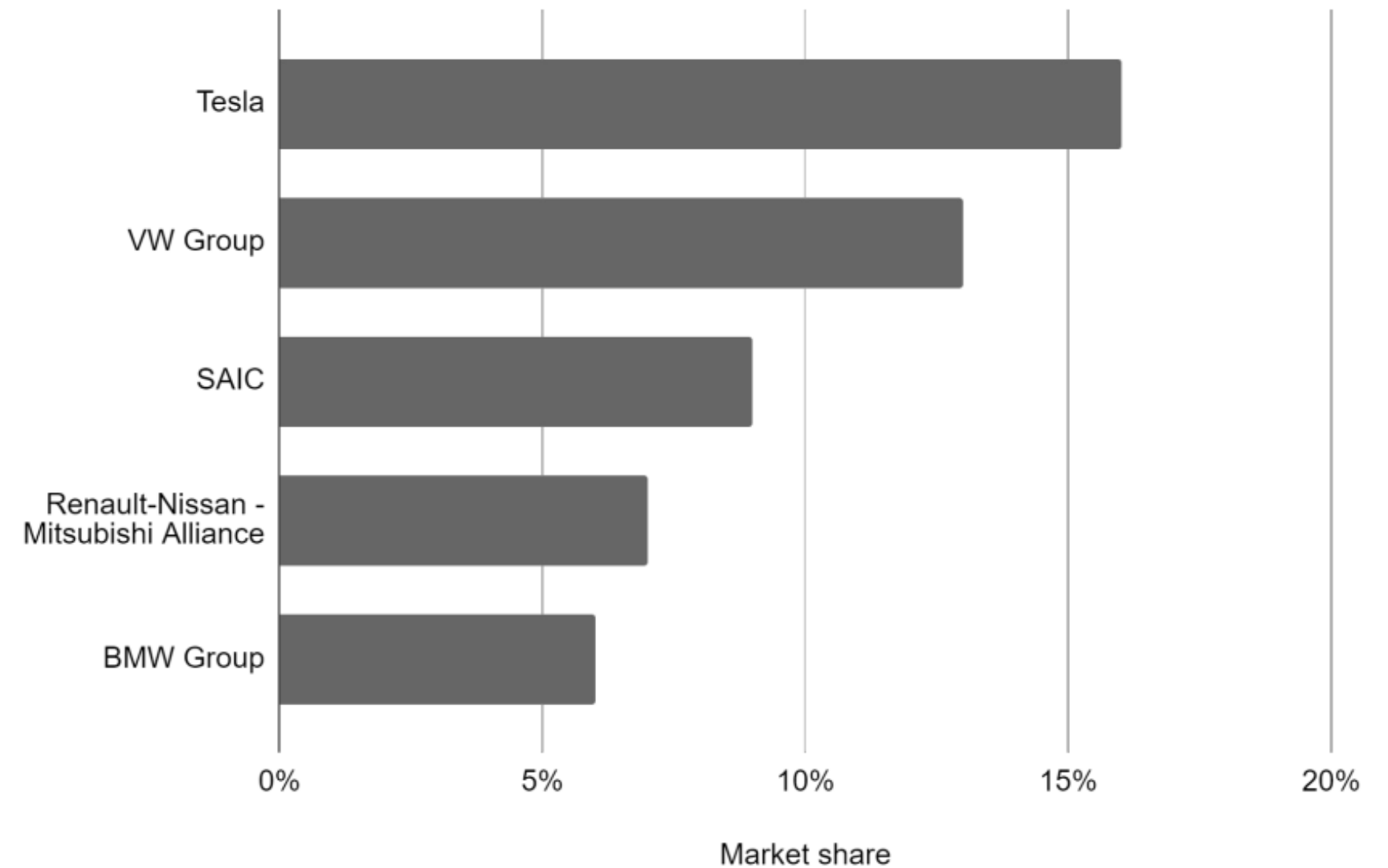
# Tesla has the lion's share in EV market

40%

more EVs for sale worldwide in  
2020 than 2019

Many entrants in recent years  
(BMW, Ford, GM and more)

Global EV market share 2020, by brand



**Threats of possible  
entrants**

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# High threat of entrants in EV sector



Incumbents can invest without concerns about short term profits



Competitors in autopilot tech (Waymo) may diminish Tesla's advantage



High growth industry attracts entrants

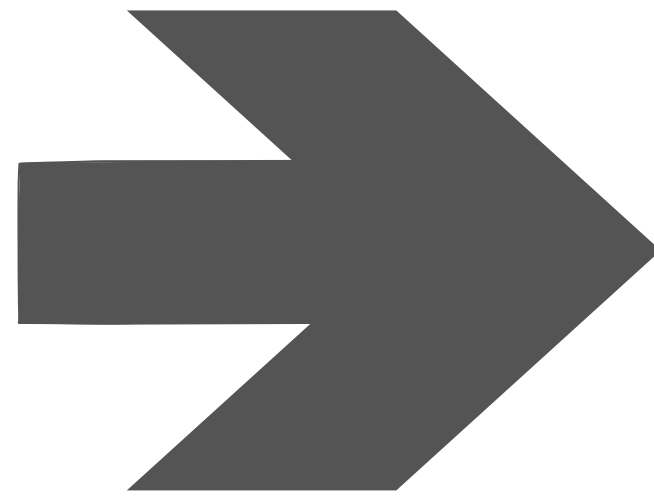
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# Tesla overcame hurdles of distribution

Territorial and brand  
exclusivity in dealerships

--> Unequal access to  
distribution channels



- Tesla has own distribution center and sells online
- Doesn't face territorial and brand exclusivity
- Compliments targeted market segment: younger, more tech savvy consumers
- More convenience and customizability

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# Regulations point to high threat of entrants

## US

50% vehicles sold will be electric by 2030  
Cut carbon emissions by  $\frac{1}{3}$  every year  
--> encourages entrants

## CHINA

Tightens data regulations in smart vehicles (EVs)  
Supports local EV brand  
--> Chinese market less favorable to foreign brands

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**Bargaining power  
of suppliers and  
buyers**

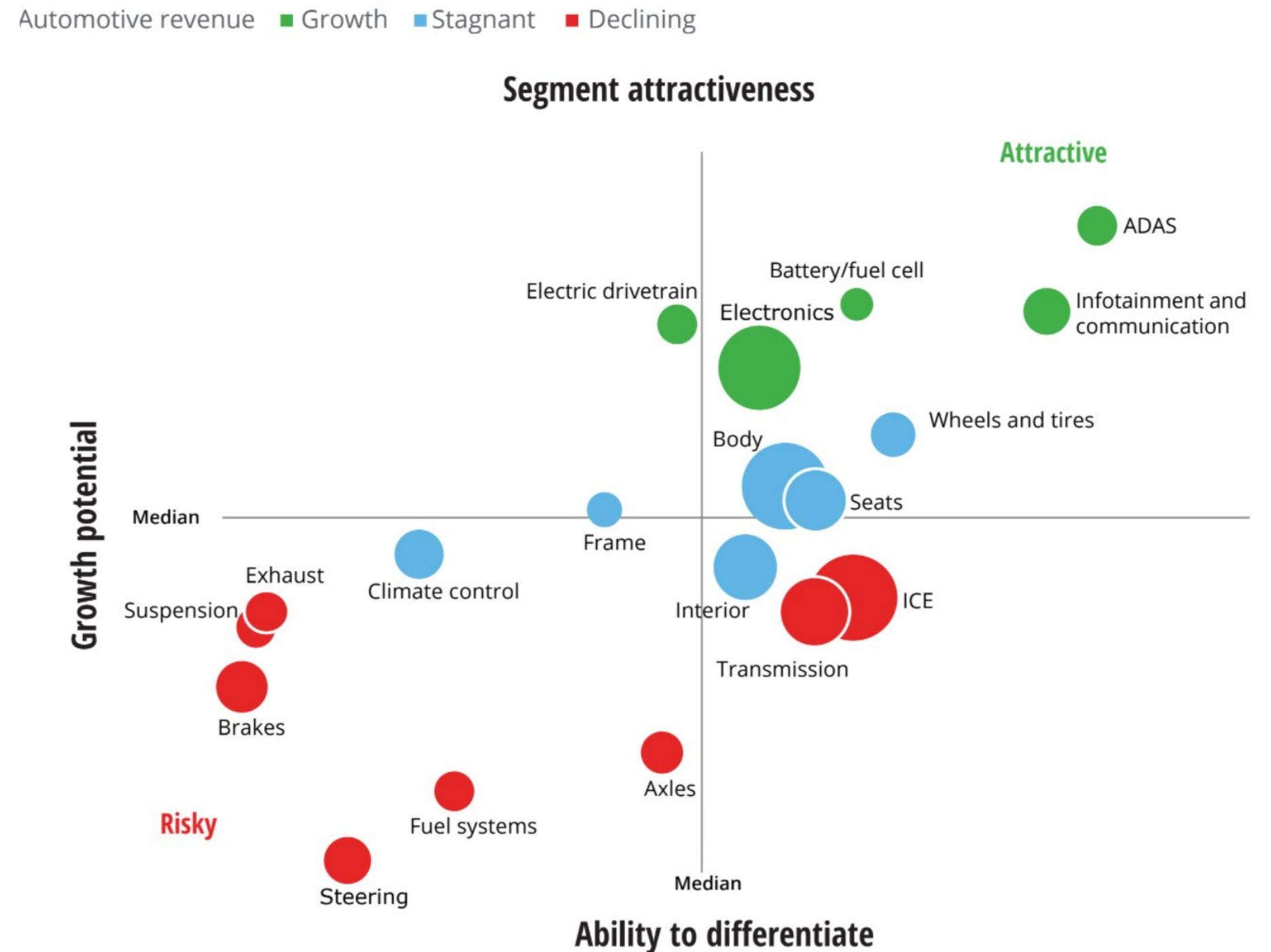
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# Tesla and industry highly depend on suppliers

- Suppliers contribute 82% to production process
- Suppliers seeing trends of consolidation in “mega suppliers”
- Tesla sources 2000 parts from 300 suppliers for Model S, mostly single source supplier

# Tesla gains strong bargaining power in the future

- Suppliers with declining to stagnant growth are prone to substitution
  - Tesla has/will vertically integrate in most high growth/high differentiation parts
- > Isn't dependent on this supplier group.



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# Tesla's buyers have little bargaining power

- Buyers in automotive industry are dealerships --> higher bargaining power
- Tesla sells directly to consumer and online

# Threats of substitutes

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## Current threats of substitute are moderate, strong in the future

- Internal combustion engine vehicles (ICE)
- Closest price to performance ratio
- Loses price advantage in 2026
- Ride sharing will be a strong substitute in the future
  - Increase 150% in the next 8 years
  - BMW has plans with a car-sharing company
  - Tesla plans to expand its business model with robotaxi.

**Strength of  
complementary  
goods and  
services**

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# Tesla has strong complementary goods and services

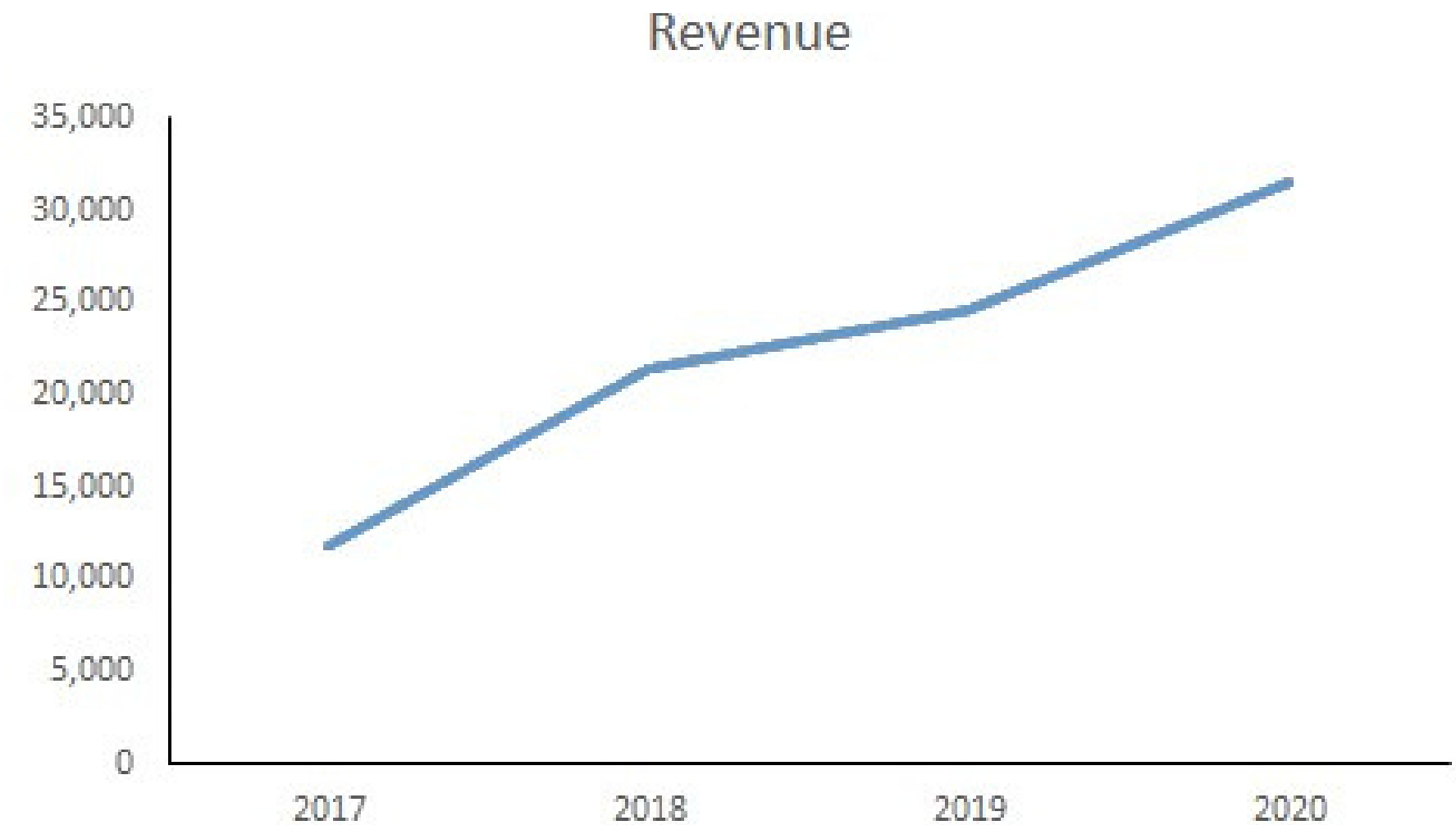
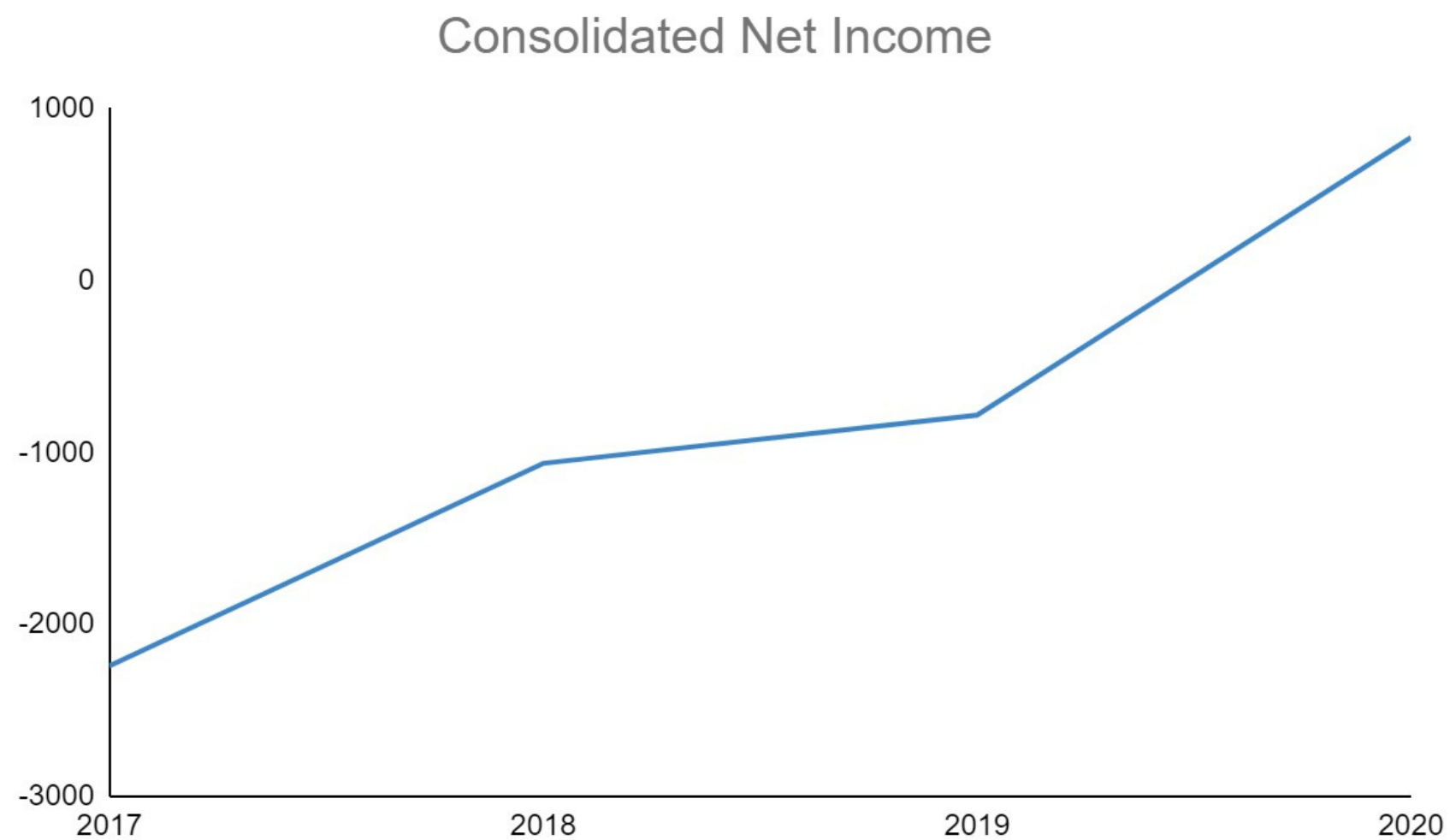
- First party charging network, biggest in the world.
  - Full autonomous driving subscription
  - Car insurance
  - Robotaxi service in the future
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# Financials

# Profitability

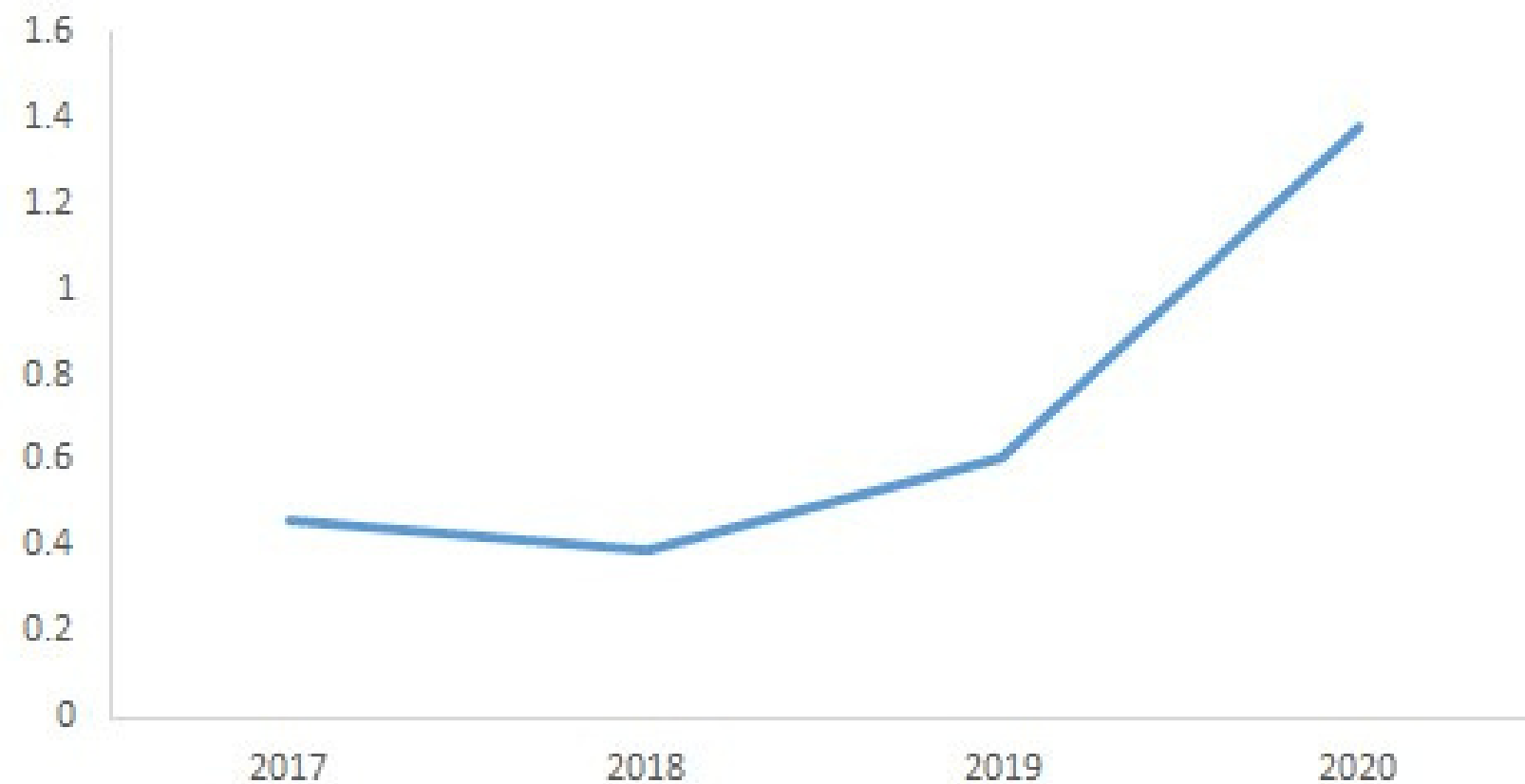
- High growth
- 2020 is first year of profit, with high projected growth



# Liquidity and efficiency

- Solid liquidity for future operations and investment, high growth.
- Growing efficiency due to production increase

Cash ratio



Asset Turnover



# Market value

- Market price growing rapidly compared to book value
- Overvalued



# **Risk factors and assessment**

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# Tension with the Chinese government

- Tesla has high stake in China
    - >30% production and revenue in China
  - US-China is at peak tension
    - CHIPS initiative to compete with China
    - \$50bn infrastructure bill partly driven by competition with China
  - Tesla is under Beijing's radar after security scandals
    - Chinese EV sales surged while Tesla's plummeted
  - Drastic and unpredictable regulatory changes.
    - Tutoring sector, entertainment sector, Antgroup IPO
- > Pose regulatory, political, economic risks
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# Pandemic induced semiconductor chip shortage

- Chip shortage projected to last until 2023
- Rise in chipmaker bargaining power
- Tesla plans to open first party plant
  - Problems: Costly, takes long, output constrained by raw materials

--> Poses supply chain risks

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# Tech industry overview



# Sector overview

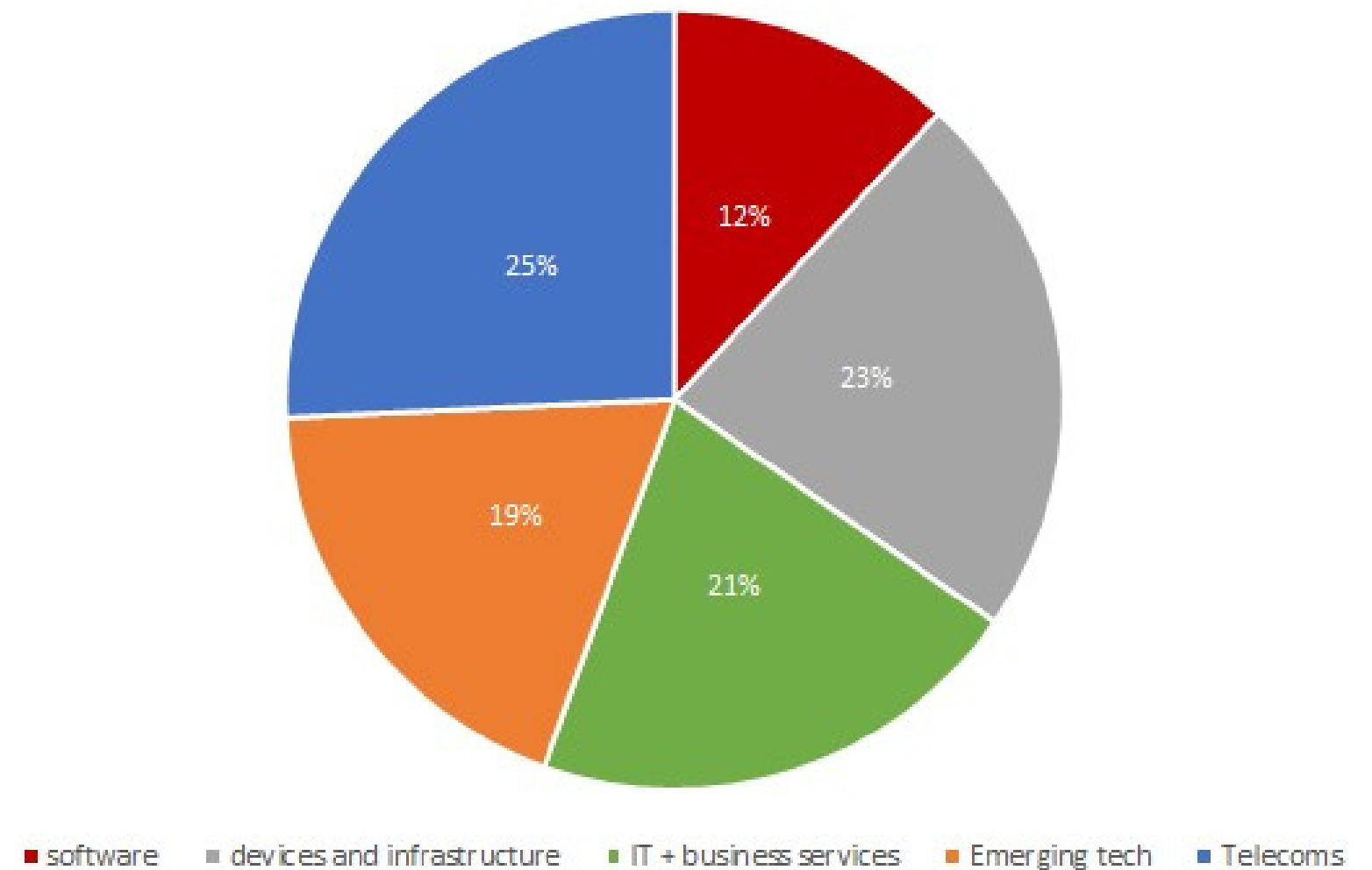
\$2tn

annual global exports

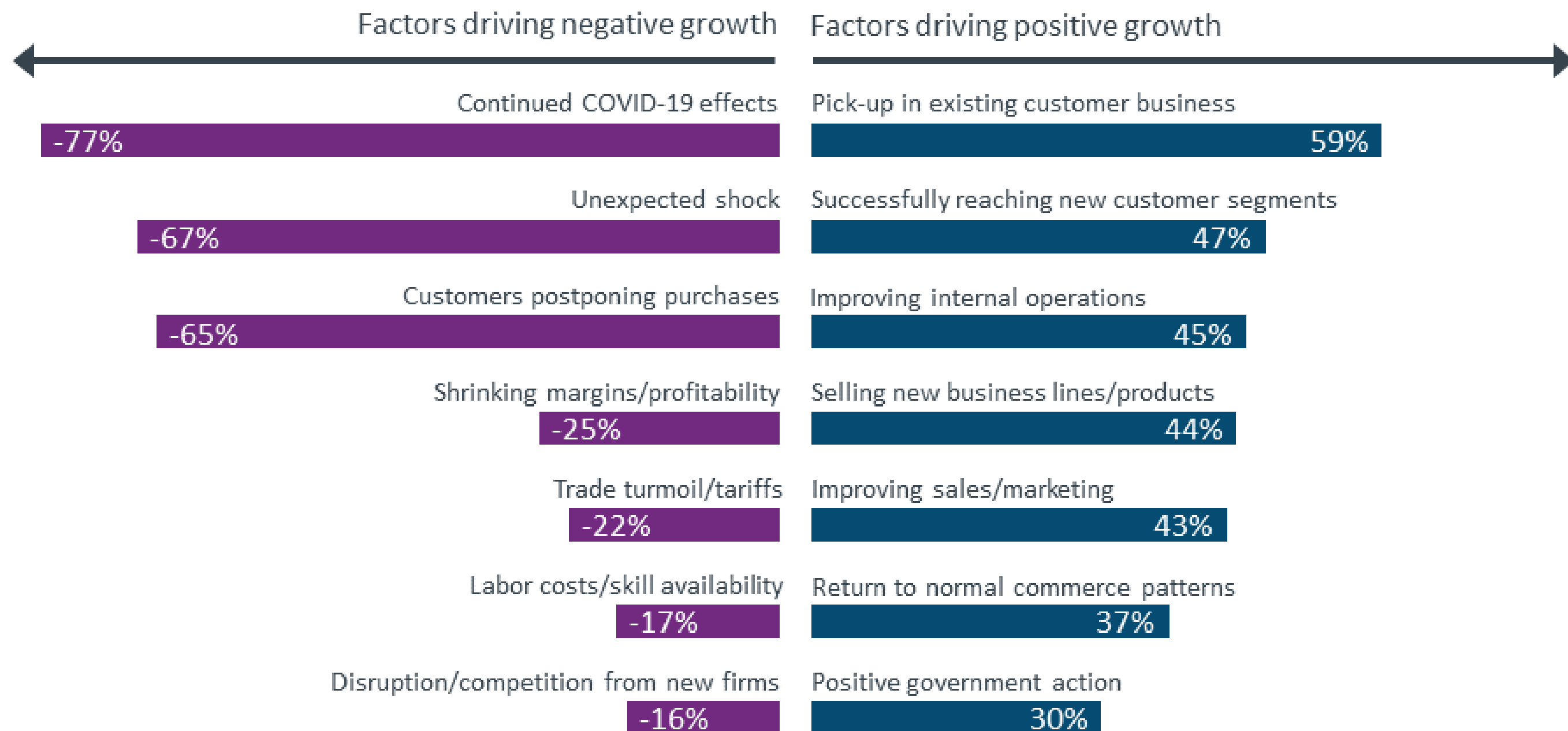
8%

worldwide spending to growth in 2021

Key industry categories



# Factors that could impact 2021-2022 growth



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# Tech industry trends accelerate Tesla's growth

## Software-as-a-service

Tesla sells self driving software as a subscription service

## Cloud

Tesla utilizes cloud in data collection for superior in-car map UI and self driving tech.

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**Thank You.**