EFESO
MANAGEMENT CONSULTANTS

U.S. AUTO MARKET AT A CROSSROADS NAVIGATING SHIFTING POLICIES AND TARIFFS

Exploring risks and opportunities for OEMs and suppliers

SUPPLY CHAIN MANAGEMENT

INSIGHT

Management summary

Navigating U.S. Auto Policy Under President Trump: Risks and Opportunities

The re-election of Donald Trump as U.S. president brings significant risks and opportunities for the global automotive industry. His administration plans to reverse Biden's clean energy policies, weaken fuel-efficiency standards, eliminate EV tax credits, and impose new import tariffs: 25% on Canada and Mexico, and an additional 10% on China. Only time will tell whether it is negotiation preparation, a campaign promise, or genuine intent.

While appealing to some voters, these actions heavily impact both foreign and U.S. automakers, most of whom rely on imports from Canada and Mexico. Though the U.S. market, with 16 million annual vehicle sales, is the second-largest globally, automakers should not and most likely will not center strategies on U.S. policy alone.

EV market shares have grown over last years and see slower growth right now. With automakers like GM, Ford, VW, and Stellantis scaling back electrification targets, ICE sales might fill the gap also due to limited availability of affordable EV models and delayed new product launches.

Faced with volatile U.S. regulations and protectionist policies, automakers must ensure their strategies are adaptable. The recent election has shown that the voters can shift their allegiances quickly and already in the mid-terms in two years things can change. However, global plans must prioritize mega trends over volatile U.S. policies.

In the following pages, we outline the challenges and propose how to navigate the uncertainties with strategies that center around speed, adaptability and foresight.

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Overview

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Auto market & electrification trend
Electrification is winning market share

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U.S. trade regulations
Global supply chains put to the test

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U.S. election
Trumps agenda and its implications for automakers

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U.S. market strategy
Automakers need to rethink their go-to-market, production & supply chain strategy

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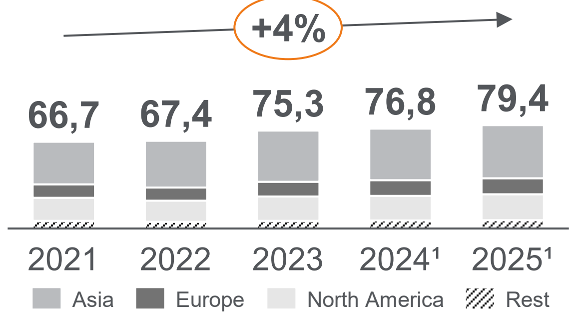
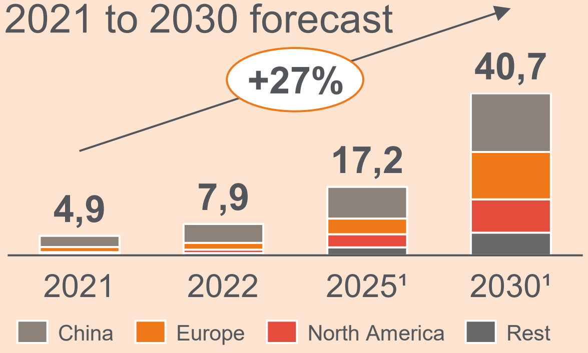
Next steps
What could be next steps?

Despite indications for growth slow down, electric vehicles have gained significant market share over the last years, and are still expected to gain more market share in future

Global light vehicle sales –
2021 to 2025 prognosis



EV vehicle sales –
2021 to 2030 forecast



Regional market view

Asia:
- **~40** million **units sold** in **total**, overall **growth steady, slowing down** after strong recovery
- thereof **~8 million EVs** sold in China and **~15 million EVs** projected **by 2030**

Europe:
- **~12** million **units sold** in **total**, slight **growth**
- thereof **~4 million EVs** sold in WEU & ZEU and **~12 million EVs** projected **by 2030**

North America[2]:
- **~19** million **units sold** in **total**, slight **growth**
- thereof **~3 million EVs in NA** and **~8 million EVs** projected **by 2030**

EV share develop.

	2022	2025[1]
Asia	~13%	~20%
Europe	~17%	~31%
North America	~6%	~17%

EV sales growth outperforming overall **vehicle sales**

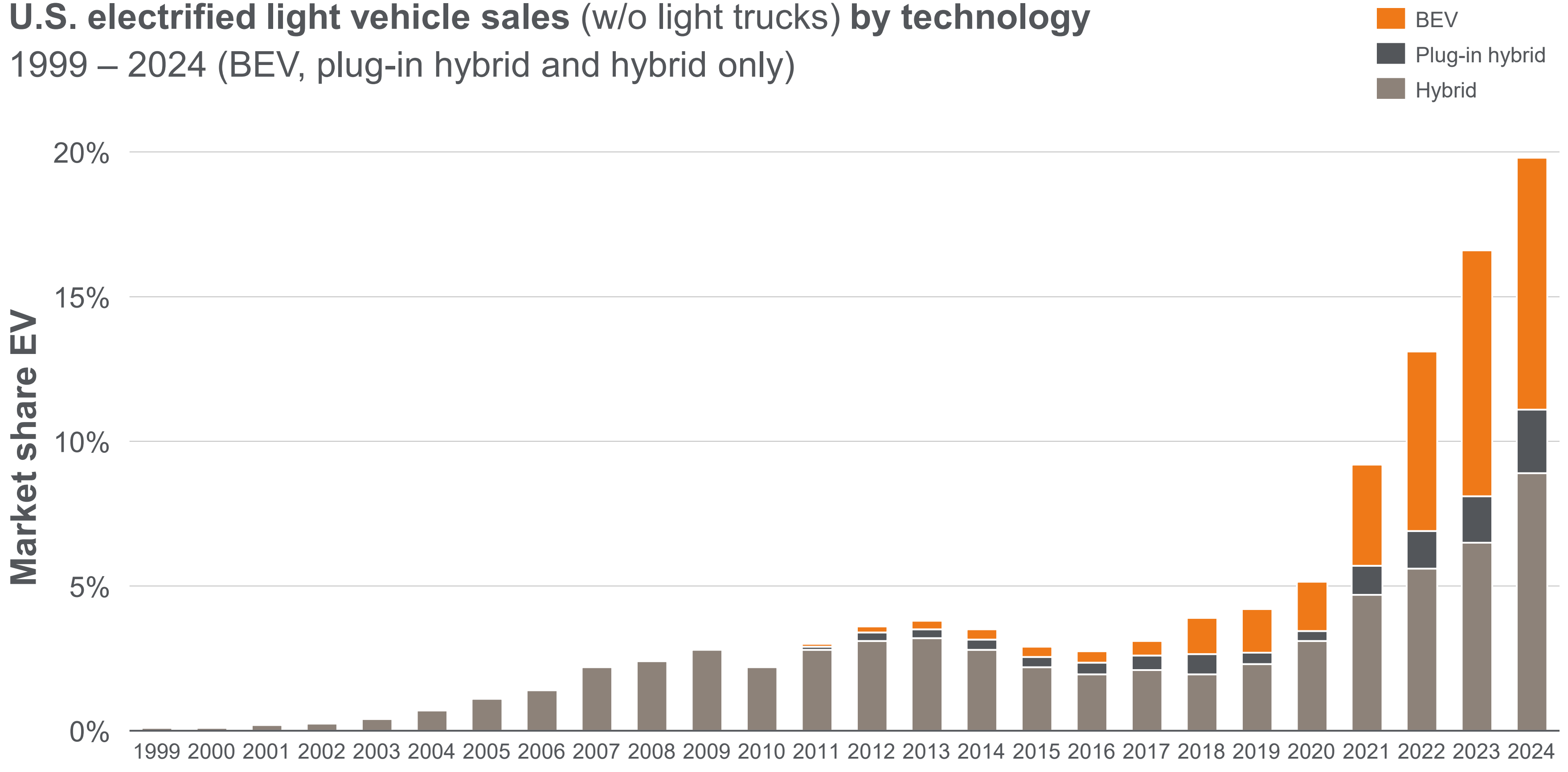
Market share expected to further **increase** up to **~50% by 2030**

Europe and China with significant and increasing EV market shares, while U.S. is catching up.

Source: https://www.vda.de; https://www.reuters.com; https://de.statista.com
1) Prognosis 2) Incl. light trucks | WEU = Western Europe; ZEU = Zentral Europe; NA = North America

For the U.S., electrified vehicles have captured a 9% share of the light vehicle market over recent years, most coming from BEV and hybrid vehicle sales

U.S. electrified light vehicle sales (w/o light trucks) **by technology**
1999 – 2024 (BEV, plug-in hybrid and hybrid only)



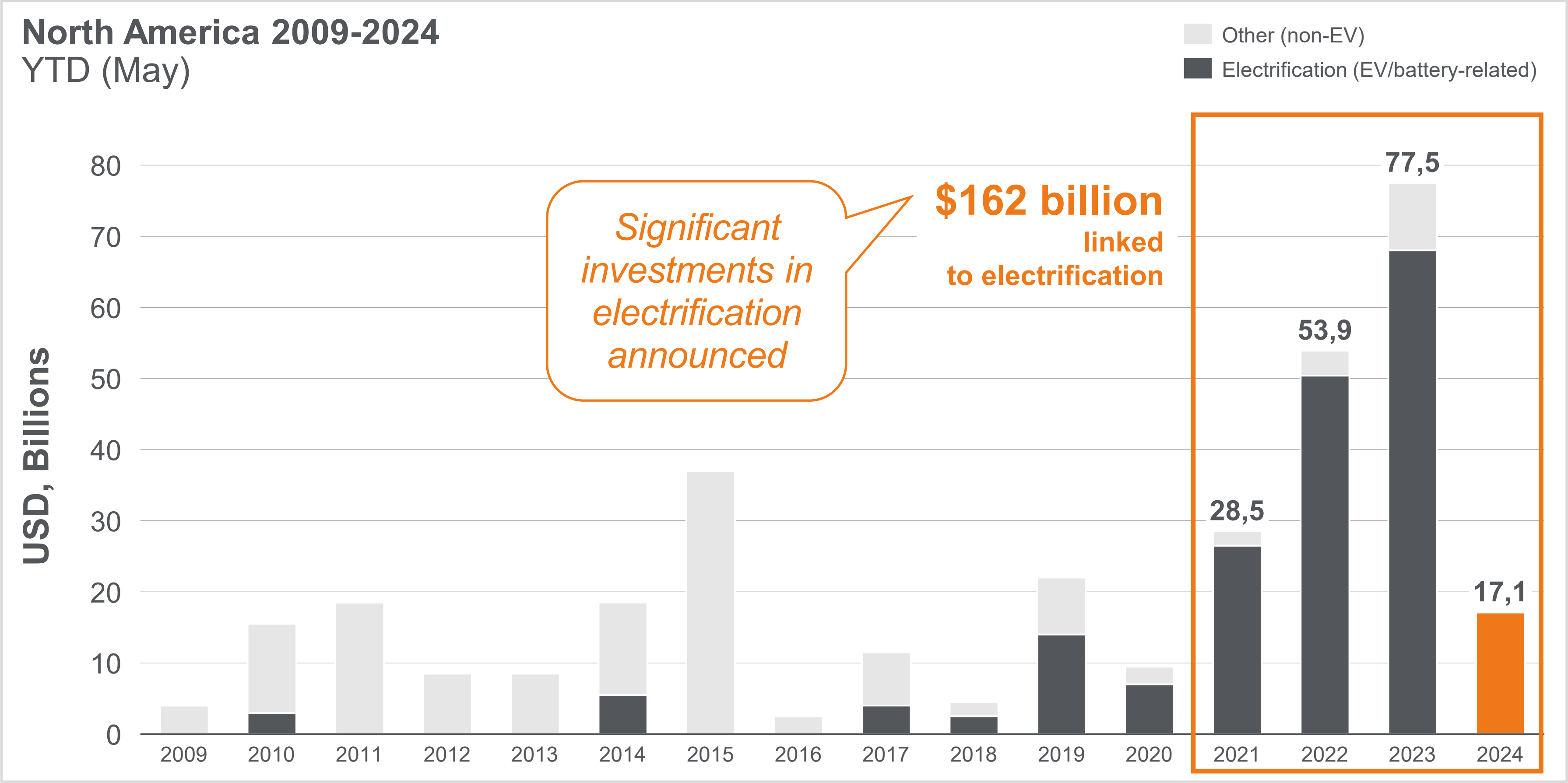
Comments

- **U.S. EV overall market share strongly increased** over recent years up **to >18%** in 2024
- **Especially BEV sales have grown** over the **last years up to ~9%**
- **Hybrid** vehicle sales grew significantly to **~9%**, while **plug-in hybrid** could **capture ~2%**

The overall growth comes from electrification and the automakers investments into it.

Source: World intelligence; CAR research, S&P global mobility's data; https://www.reuters.com; https://de.statista.com

Automaker have announced investment up to $162 billion into electrification



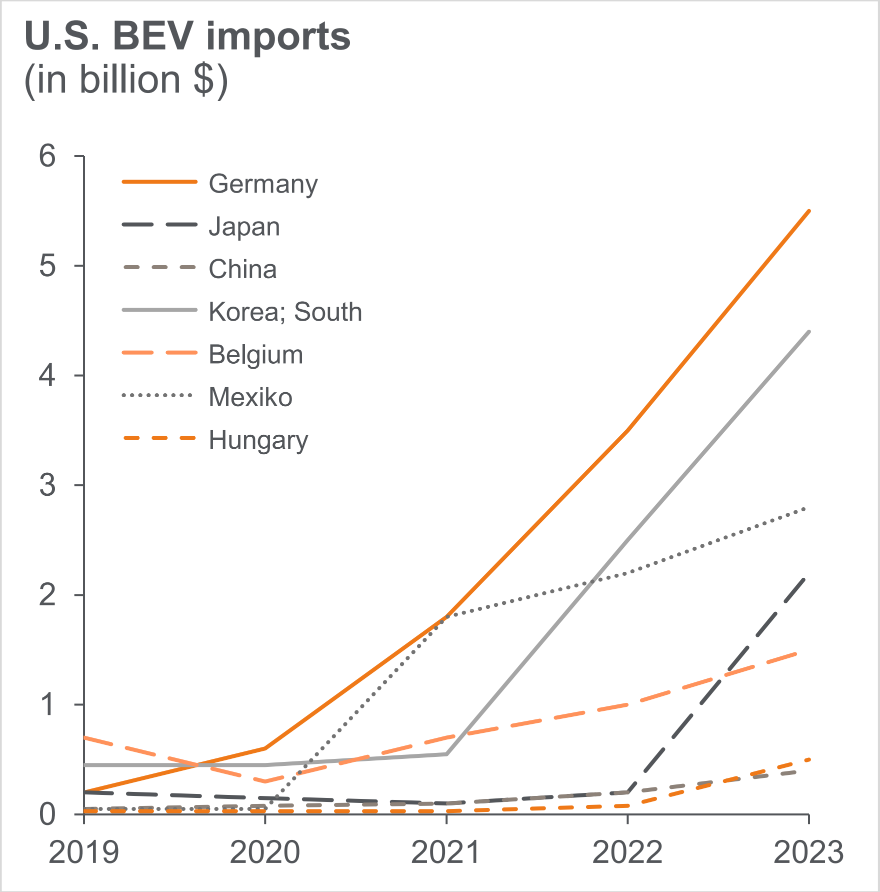
Comments

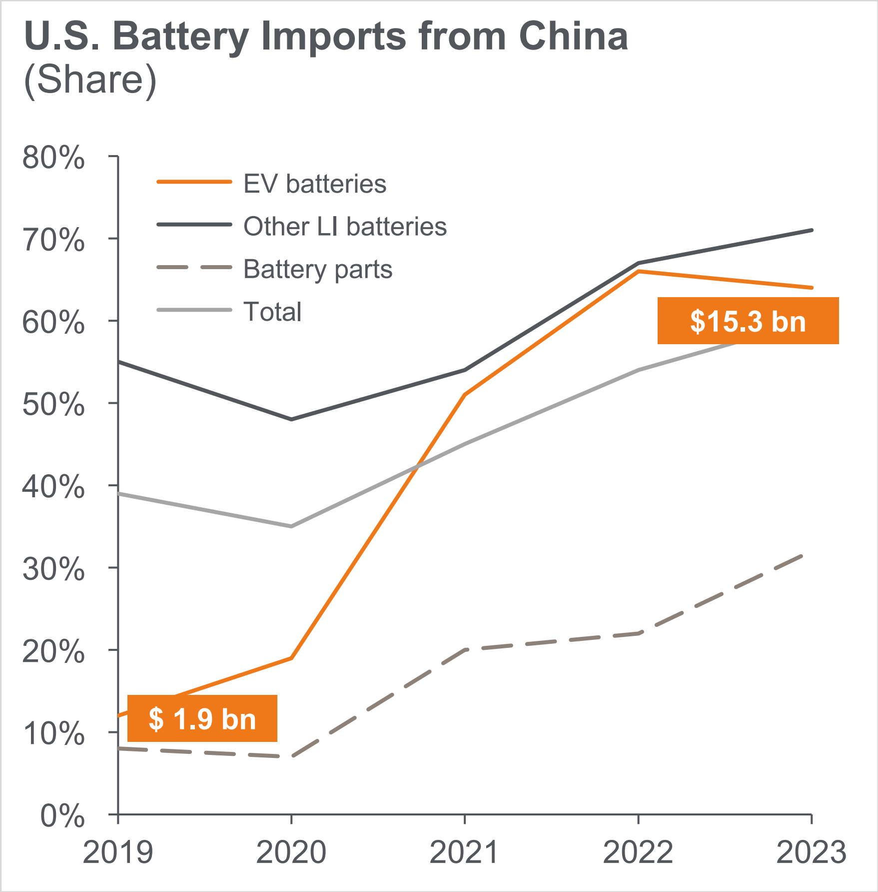
- Automakers investing **$162 billion** in **BEV** over the last years - **strong increase** compared to pre-Corona years
- **IRA sourcing requirements** are **tightening up**
- **Chinese invests in Mexico** e.g., **BYD plant MX**, up to 150k cars p.a. by end of 2024
- **US-based OEMs expect EV adoption slow-down** e.g., **GM reduces EV** 2024 **sales forecast**
- **Government incentives for EV buying subsidies** might be eliminated (bill of Republicans)

The increasing investments in electrification leads to significant growth of BEV / battery imports.

Source: World intelligence; CAR research; GM authority; E&E news

The North American BEV imports show significant growth with increasing battery imports coming from China





Comments

- **China** is the **3rd -largest global exporter** of **BEVs** by value the **7th-largest source** of **EVs to the U.S.**
- **Imports** from **China** are **not rising** like those from other **sources**, likely due to a **25% tariff under section 301**
- **U.S. imports** of **Li-ion batteries** and parts **from China increased** from $1.9 billion **to $15.3 billion**
- **U.S. investment** in **battery production** could **significantly reduce** imports from **China within the next five years**

The U.S. government aims to strengthen local production and reduce dependency on CN imports.

Source: USITC / dataweb; HTS10 statistical reporting numbers: 8507.60.0010 (lithium-ion EV batteries), 8507.60.0020 (other lithium-ion batteries), 8507.90.8000 (other battery parts)

While U.S. protectionist regulation and tariffs are aiming to foster local production and products, global auto industry must navigate this without panic and a clear long-term focus

Protectionism: a double-edged sword

- The U.S. pursues a **protectionist policy** to push **more domestic production** of **vehicles & components,** e.g., by imposing **stricter regulations** and increased **import tariffs**
- **New tariffs** for **Mexico** and **Canada announced** by D. Trump would have a significant impact:
  - **Non-US-based** but also **US-based** automakers face **diminishing profits**, as most of them have a **footprint in MX** and **Canada**
  - For those with strong **local footprint** in the **U.S.** this is **good news** and provides **opportunities** to **improve competitive position**

Energy policy and emission targets

- A **pro-fossil-fuel** stance like '**Drill Baby Drill**' could boost **traditional ICE vehicles** in the **short term**
- However, **over-reliance on internal combustion engines** could **risk focus on innovativeness** and **long-term irrelevance** considering **global electrification trends** and **2050 Net Zero** targets

OEMs need **to review** their **U.S. strategy** and **product mix**, if it allows **flexibility towards** even stricter, **trade regulations,** and **shifting** EV **demands**

U.S. policies and regulations provide both: opportunities and risk.

Source: USITC / dataweb; HTS10 statistical reporting numbers: 8507.60.0010 (lithium-ion EV batteries), 8507.60.0020 (other lithium-ion batteries), 8507.90.8000 (other battery parts)

Four political elements of U.S regulation support the reduction of inflation, strengthen the U.S. based production and buying of regional products while fencing off Chinese products

Inflation reduction act

IRA supports **local production** and **buying of local products** by e.g., **tax credits** for **clean vehicles** and excluding **non-qualified parts and cars**

China 301 tariffs

The further **tightening of tariffs on Chinese products** is bringing the trade war between the **U.S.** and **China** into the next round

Connected vehicles investigation

Connected vehicles investigation suggest to **mitigate U.S. national security risks** by introducing **restrictions** for **Chinese** vehicles / parts

Uyghur forced labor prevention act

Uyghur forced labor prevention act prevents sale of products made with **forced labor** by **increasing inspections**

The regulative landscape will see changes under D. Trump that impact automakers localization strategies.

Sources: Pub. L. No. 117-78 and U.S. Senate Committee on Finance, 'Automakers Shipped Cars and 100 Parts Made by Chinese Company Banned for Forced Labor to the United States'

China 301 tariffs – the imposition of tariffs on Chinese products has a significant impact on global supply chains and the U.S.-China trade war seems likely to intensify further

	Previous rate Implementation year	New rate Implementation year
Electric vehicles	**25%** 2018	**100%** 2024
Semiconductors	**25%** 2018	**50%** 2024
Solar cells	**25%** 2018	**50%** 2024
Syringes and needles	**0%**	**50%** 2024
Some steel and aluminum products[1,2]	**7,5%** 2019	**25%** 2024
Lithium-Ion EV batteries[1]	**7,5%** 2019	**25%** 2024
Lithium-Ion non-EV batteries[1]	**7,5%** 2019	**25%** 2024
Battery parts[1]	**7,5%** 2019	**25%** 2024
Some personal protective equipment[1,2]	**7,5%** 2019	**25%** 2024
Rubber medical and surgical gloves[1]	**7,5%** 2019	**25%** 2024
Natural graphite and permanent magnets	**0%**	**25%** 2024
Other critical minerals	**0%**	**25%** 2024
Ship-to-shore cranes	**0%**	**25%** 2024
All other Chinese products	**0%**	**10%** 2025 (D. Trump announced)

Comments

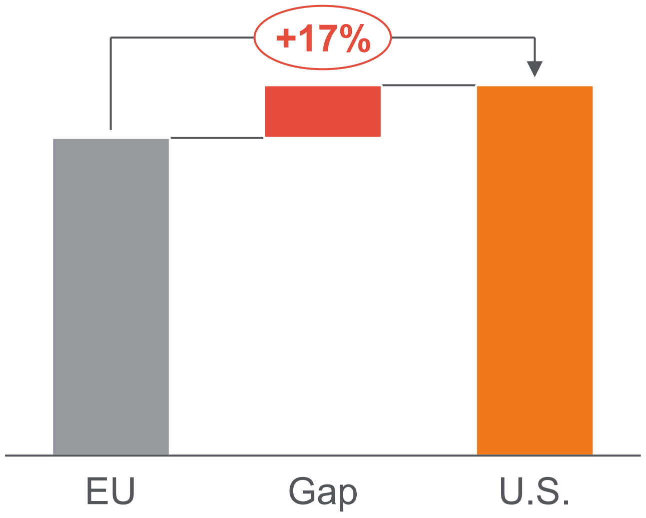
- **Higher tariffs imposed** on **Chinese imports,** especially on **EVs** and **key technologies**
- **Global supply chains** into the U.S. market are becoming **more expensive**
- **D. Trump's announcement** of **+10%** on **all Chinese goods** would **intensify** the **trade war** and **further increase** the **cost pressure**

Source: The White House; 1) Tariffs implemented in 2019 started at 15% and were reduced to 7,5% in January 2020; 2) Current rate for steel and aluminum products and personal protective equipment ranges from 0 to 7,5%

EFESO insight: non-U.S. based automakers localization see 15-20% cost increase* for system parts for passenger cars; U.S. automakers to reduce costs to compensate increases

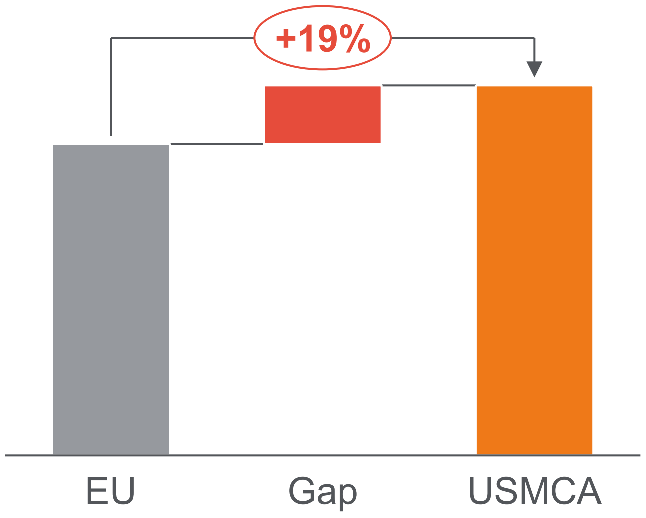
Axle drive simulation EU vs. U.S.
(Material cost with localization effect (wages, electricity, etc.) considered

+17% costs switching from EU to U.S.



Transmission simulation EU vs. USMCA
(Material cost with localization effect (wages, electricity, etc.) considered

+19% costs switching from EU to USMCA



Comments

- Our exemplary **system parts simulations** based on **detailed costing calculations** show additional costs for localization in NA:
  - **+17% cost** for **axle drive localization** in **U.S.**
  - **+19% cost** for **transmission localization** in **USMCA**

Trumps announcements indicate increases of import tariffs and new tariffs not only affecting China but USMCA.

*Material cost with localization effect (wages, electricity, etc.) considered, without additional transport costs, tariffs, investment or lower OEE

Trump recent announcements bare risks and opportunities for all automakers, depending on their footprint and their ability to balance changing policies and regulations

01 **Rollback of fuel efficiency standards**
- ➔ EV production urgency reduced; focus may shift to SUVs / trucks
- ➔ Risk of lagging behind global EV trends

02 **End of $7,500 EV tax credit repeal EV purchase subsidies**
- ➔ Higher EV prices reduce demand
- ➔ Tesla may gain due to cost leadership; legacy automakers face profitability challenges

03 **North American trade tariffs: 25% tariffs on Canada / Mexico imports**
- ➔ Supply chain with increase costs needs re-evaluation
- ➔ Pressure to relocate production to U.S., advantage for those with strong U.S. footprint

04 **Additional 10% tariff on Chinese goods, including EV batteries**
- ➔ Higher EV production costs
- ➔ Need for local battery manufacturing

05 **Fossil fuel support and clean energy funding cut**
- ➔ Slower EV transition risks competitiveness in the long run
- ➔ Higher costs maintaining ICE and EV portfolios in parallel

Implications for automakers

- **Evaluate impact** of **new tariffs** and **regulation**
- **Consider** further **diversified supply chains**
- **Adjust product strategies** to **balance** ICE and EV models
- **Reduce production costs** to stay competitive

U.S. regulation and D. Trumps' announcements should be evaluated, but not dictate automakers' strategies.

Source: https://www.reuters.com

The whole automotive industry needs to deliver faster and be more adaptable to change to cope better with fast shifts consumer demands and policies

U.S. vehicle market is **expected** to **grow** only **incrementally** in the coming years, the **right product / market strategy** and **portfolio** makes the difference.

Taxes might be reduced under D. Trump in the attempt to reduce the pressure on the middle class, therefore **more companies** and **consumers** may have **more money in their pocket to be spend**.

If costs will **rise** for **automakers**, e.g., from increasing import tariffs, the **products prices** for the end **consumer** will **rise**. **Consumers demand** will **decline**, especially for **BEVs**.

U.S. will still **import goods** and **EV technology** from **China going forward**, but it must be evaluated **how to handle** the **additional cost** of e.g., rising import tariffs and the **effects** on the **supply chain strategies.**

With mid-term elections only 2 years away, all needs to happen **quickly**. Automakers need to **deliver products faster** and need to be **more adaptable** to **satisfy changing consumer needs better**.

To navigate the challenges, to identify the risks and opportunities we suggest a 5-step approach.

Source: https://www.reuters.com

'Never let a crisis go to waste' … use it to become better!
Five recommended steps to gain transparency and decide on U.S. market strategy

01 Baseline

Generate **transparency:**
- On **supply chain** / supply base
- Share of **Chinese parts** / **FEOC content**
- On **forced labor**
- Impacting **regulations**
- Evaluate the **ability to become qualified**
- **Identify consumer needs**

02 Strategy

- **Explore** new regulation **risks** and **opportunities**
- **Evaluate levers** and **develop measures**

03 Product & market

- **Product / pricing strategy** in US
- **Sales target**
- **Regulations** for **different technologies** (e.g., ICE, BEV)
- **Accelerate product development**

04 Business case

- Develop **market strategy** and calculate **business case**

05 Implementation

- **Decide** and **implement** localization **strategies**
- **Start** rapid **efficiency programs** in your **supply chains** and your own **operation**

Quote: Winston Churchill

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