

# **Market Outlook: Automotive**

November 2023

# Build strategy and manage risk through the lens of geopolitics and macroeconomics.

Understand the forces shaping the future of your organization

Assess their economic impact

Separate noise from signal

Find better options



**ONYX**  
STRATEGIC INSIGHTS

ation only.

## A unique global network

We are a division of Expeditors, one of the world's foremost supply chain companies. Our core team of global, regional and industry experts is complemented by our extended network of logistics and supply chain practitioners on the ground in 350 locations in 100+ countries globally.

## Quantifying impact is at the heart of our value

We believe that geopolitics and macroeconomics can shape any business. But understanding them is only half the story: we combine qualitative analysis and proprietary data to quantify impact on your business and produce actionable insights.

## We focus on what matters

We fully integrate macroeconomic and geopolitical analysis, unlike any other consulting firm. Our approach is tailored to the issues, geographies and industries you care about. We focus on getting to the so-what of politics – so you don't have to.

# Executive summary

## Market sizing and macro drivers

- **Consumer drivers are still under pressure** globally due to rising central bank interest rates that crimp borrowing and persistent inflation for both new and used vehicles.
- However, **auto sales are poised to recover** from the COVID slump this year, with APAC and China leading the pack.
- EV sales are projected to grow to a third of all auto sales by 2030 but some **demand uncertainties** such as bloated EV inventories present risks.

## Production: supply-side global policy drivers and uncertainties

- While global auto production is set to recover in 2023, **auto FDI remains weak**. Amongst US, China and Europe, Mexico is the most popular auto FDI destination.
- France is most active in **North Africa and Turkey**, mainly in manufacturing projects due to low labor costs, transit time.
- Moroccan **production and exports are growing** from an FTA with the EU and persistent investment.

## Cost of key inputs

- **Purchases and labor costs are the most significant costs** for automakers. However, labor costs are projected to rise in most manufacturing locations such as Mexico and China.
- **Vietnam** still maintains competitive labor costs due to its demographic dividend.
- Raw material prices down from peaks, but **intermediate prices remain high**, driving up material costs for automakers.

## **SECTION I**

# **Market sizing and macro drivers**

# Global economic forecast highlights

## GDP FORECAST FOR MAJOR ECONOMIES REAL ANNUAL % GROWTH

REGION	2020	2021	2022	2023F	2024F	2025F
US	-2.8%	5.9%	2.1%	2.2%	1.1%	2.0%
China	2.2%	8.5%	3.0%	5.0%	4.5%	4.4%
Eurozone	-6.3%	5.3%	3.5%	0.6%	1.0%	1.8%
Japan	-4.3%	2.2%	1.0%	1.3%	1.0%	1.0%
India	-6.0%	8.9%	6.7%	6.0%	6.3%	7.7%
UK	-11.0%	7.6%	4.1%	0.4%	0.4%	1.5%
Brazil	-3.6%	5.3%	3.0%	2.2%	1.5%	2.5%
Australia	-1.8%	5.2%	3.7%	1.5%	1.5%	2.5%

### US: IS THIS TIME DIFFERENT?

Growth accelerated in Q2, significantly reducing recession risks for 2023. But we're not out of the woods yet as risks for 2024 remain.

### CHINA'S REOPENING: PEAKED EARLY

Multiple headwinds, but primarily China faces a balance sheet problem and deflationary pressures

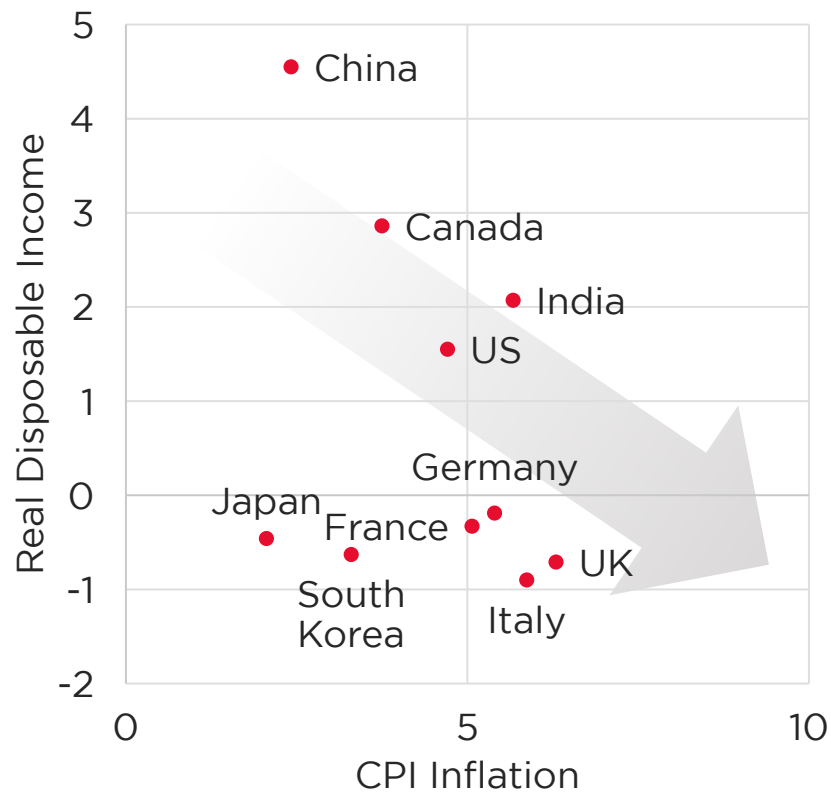
### EUROPE: FLIRTING WITH RECESSION

Inflation is decelerating, and growth turned positive in Q2. But significant challenges remain, including a German recession.

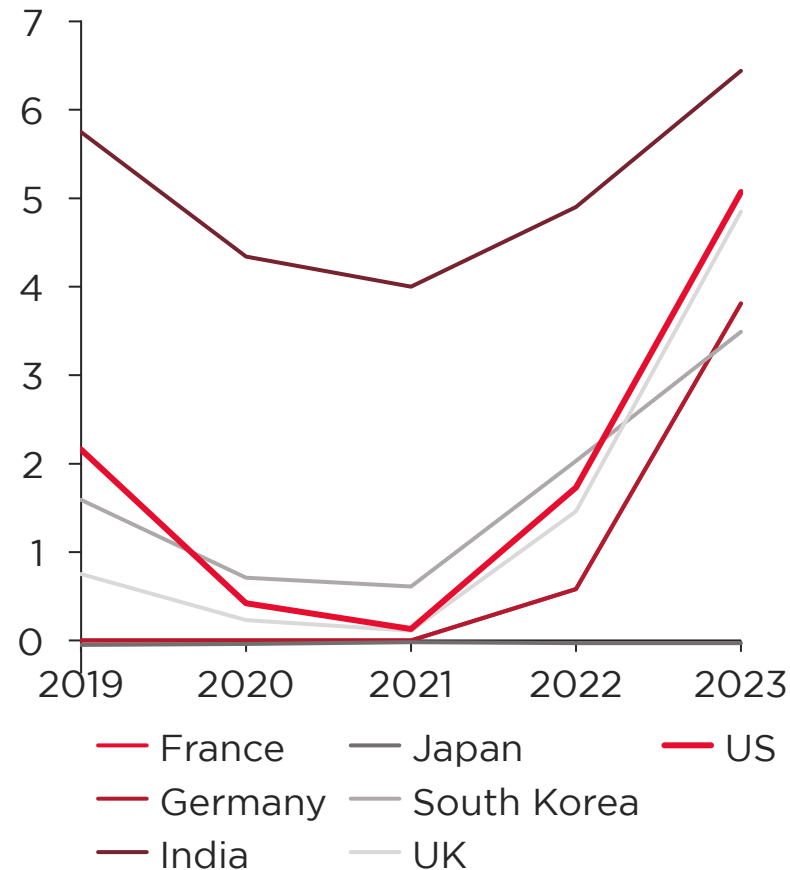
# Underlying consumer drivers are under pressure

Rising inflation, interest rates and lower disposable income hurt spending

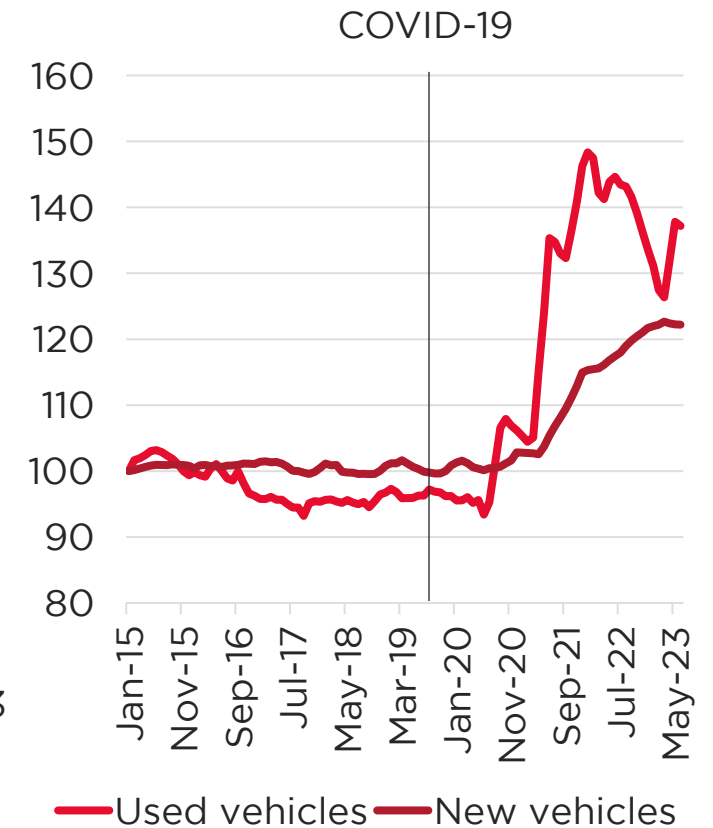
**INFLATION AND REAL DISPOSABLE INCOME FOR MAJOR ECONOMIES**  
ANNUAL PERCENT CHANGE IN 2023



**CENTRAL BANK INTEREST RATES**  
%



**CPI FOR NEW AND USED VEHICLES**  
2015 = 100



Source: Oxford Economics, FRED, Onyx

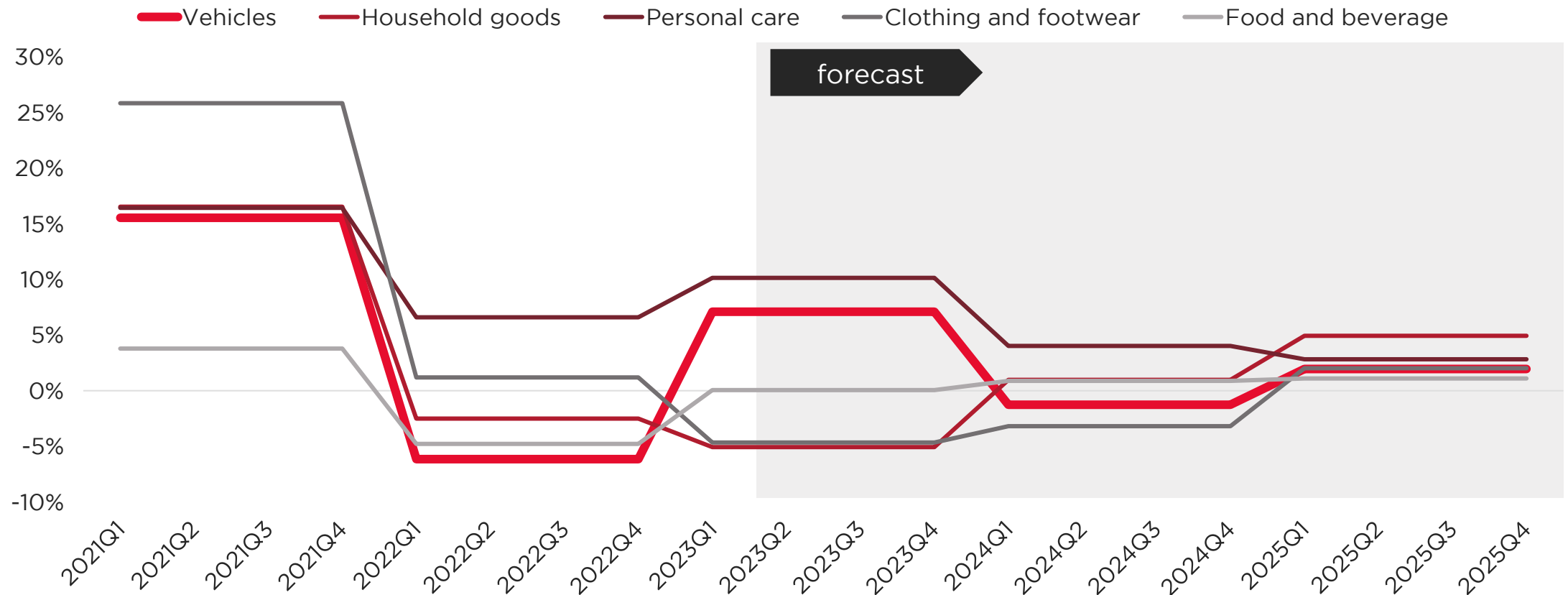
© Onyx Strategic Insights. Reproduction by written authorization only.

# US Consumer: Discretionary spending slowing

2023 car purchases rebound from pandemic backlogs; 2024 contraction

## US SPENDING BY CATEGORY

REAL ANNUAL % CHANGE

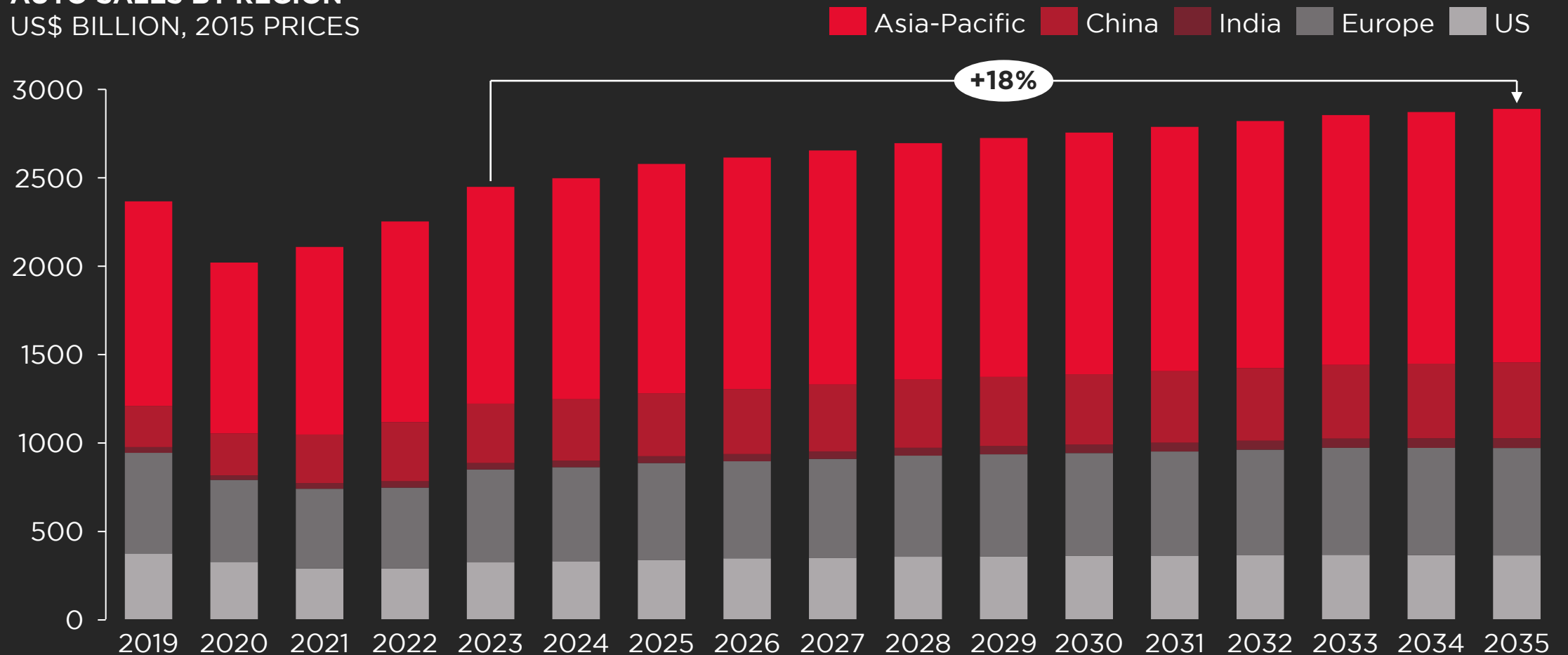


# Auto sales will recover from COVID slump in 2023

With APAC and China leading the pack

## AUTO SALES BY REGION

US\$ BILLION, 2015 PRICES

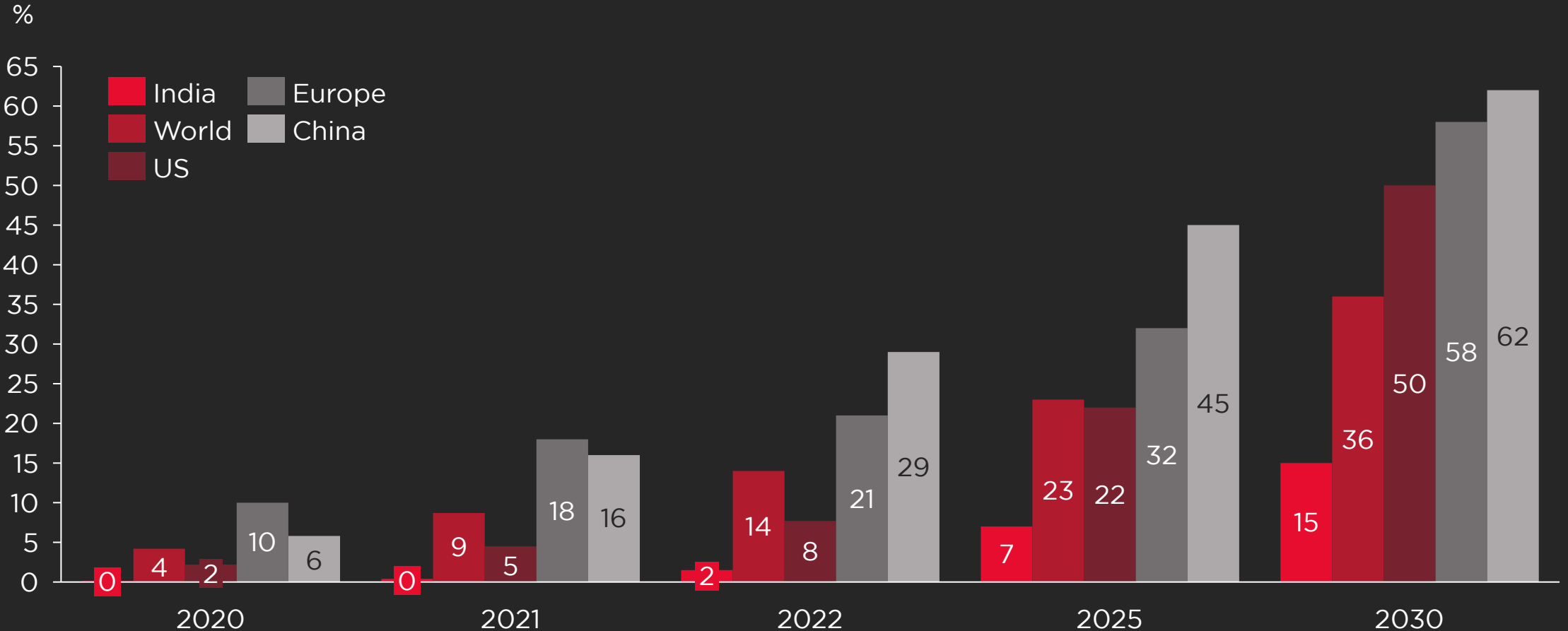




# A third of global auto sales will be EVs by 2030

Progress is faster in early adopters, China and Europe

## SHARE OF EVS IN TOTAL SALES BY REGION



## **SECTION II**

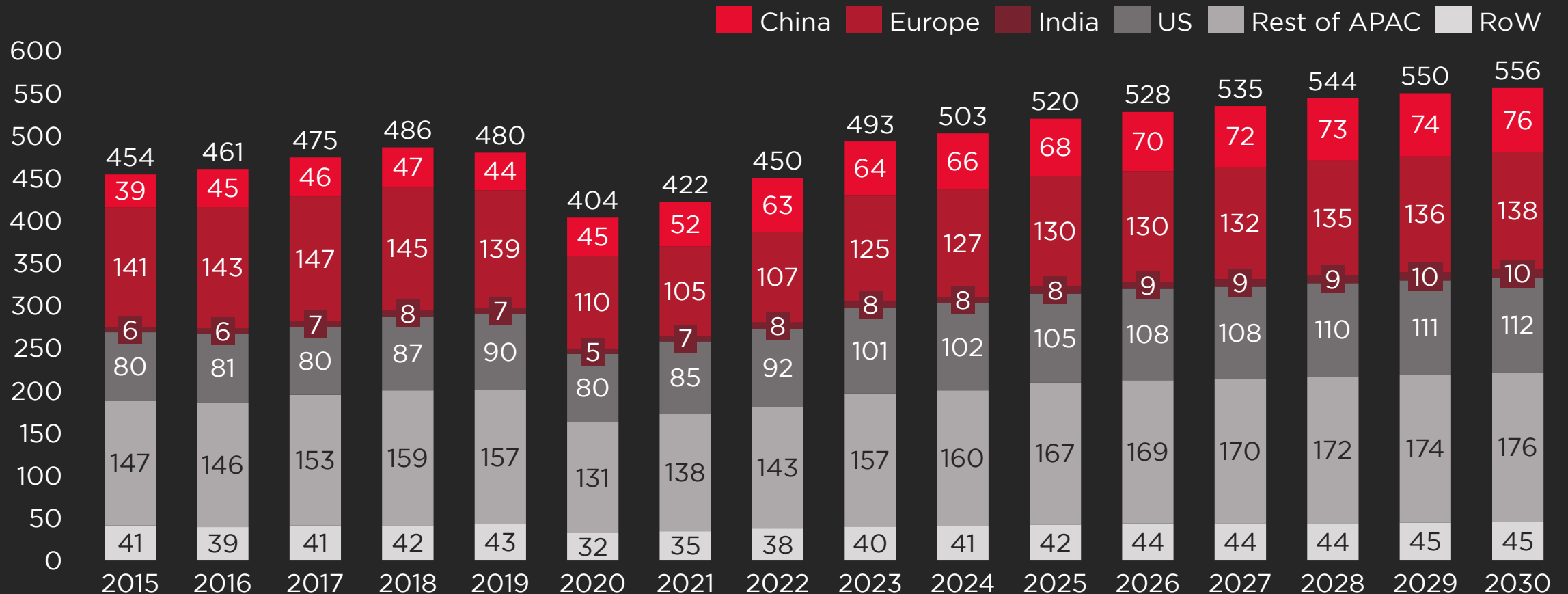
# **Production: supply-side global policy drivers and uncertainties**

# Global auto production to recover from pandemic slump in 2023

Growth rate to exceed pre-pandemic levels

## GLOBAL VALUE ADDED: AUTOMOTIVE

\$ BILLIONS, 2015 PRICES

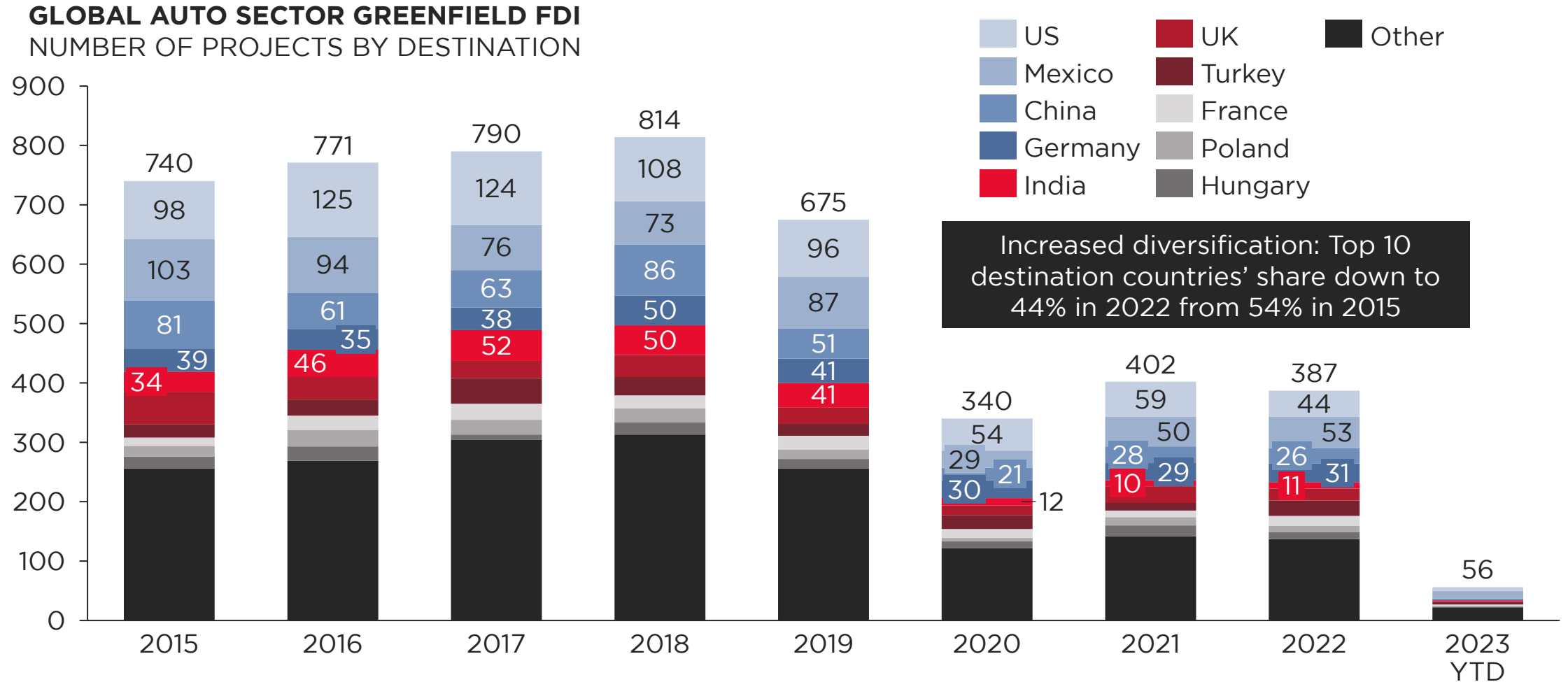


Source: Oxford Economics, Onyx

© Onyx Strategic Insights. Reproduction by written authorization only.

# Global auto FDI hasn't recovered from COVID

Mexico was the top destination in 2022, the first time since 2015



Source: fDi Markets, Onyx

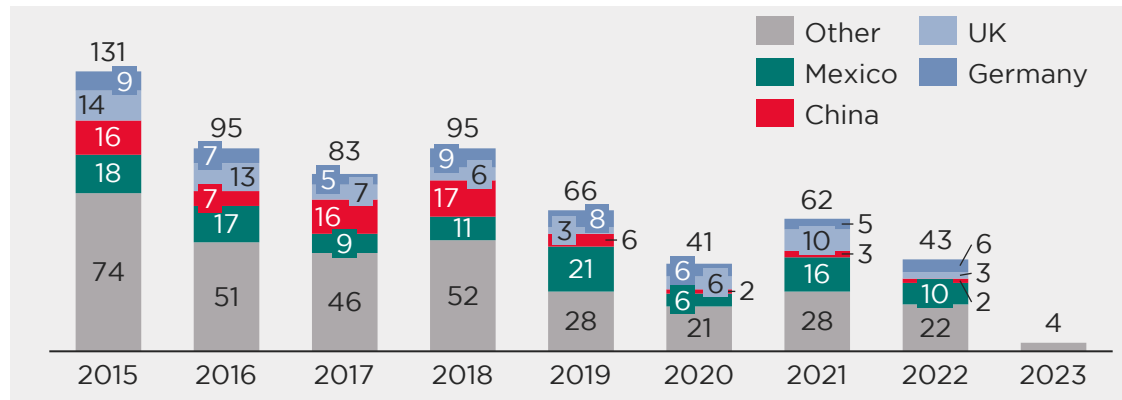
© Onyx Strategic Insights. Reproduction by written authorization only.

# Top auto FDI destinations for US, China, and Europe

Mexico is a common target, France most active in N. Africa and Turkey

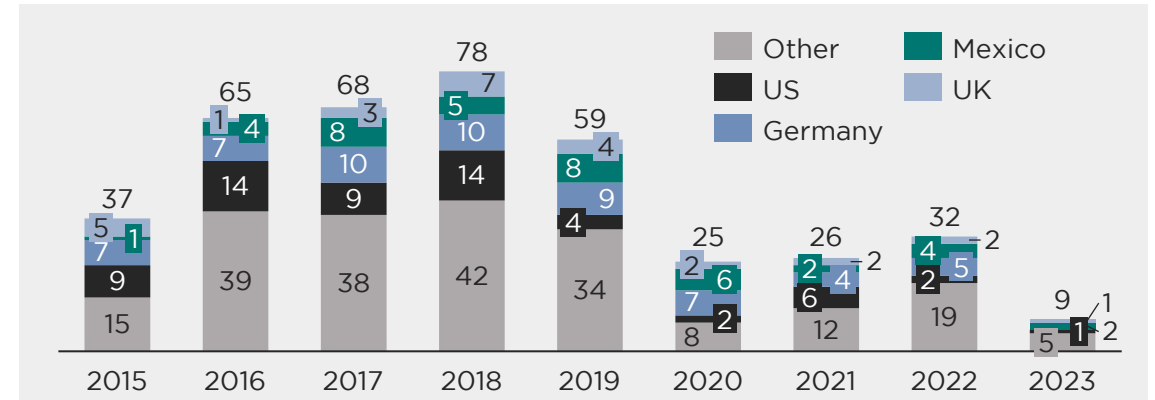
## UNITED STATES OUTBOUND GREENFIELD AUTO FDI

Number of Projects



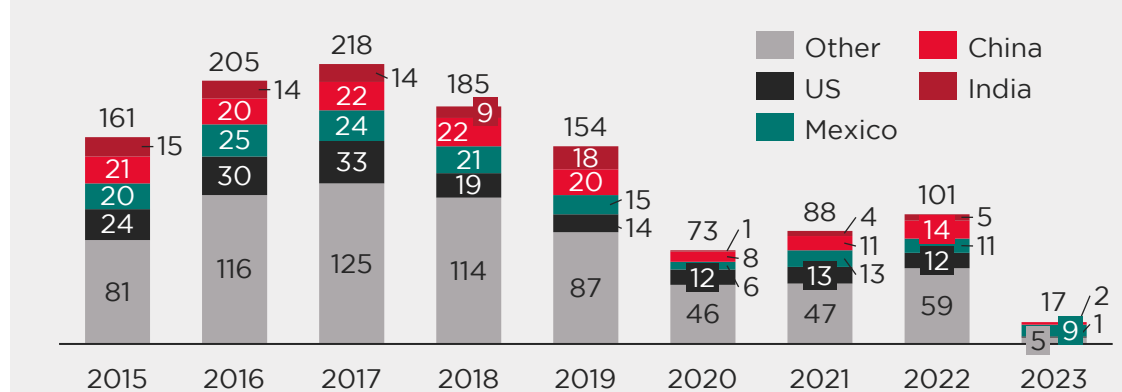
## CHINA OUTBOUND GREENFIELD AUTO FDI

Number of Projects



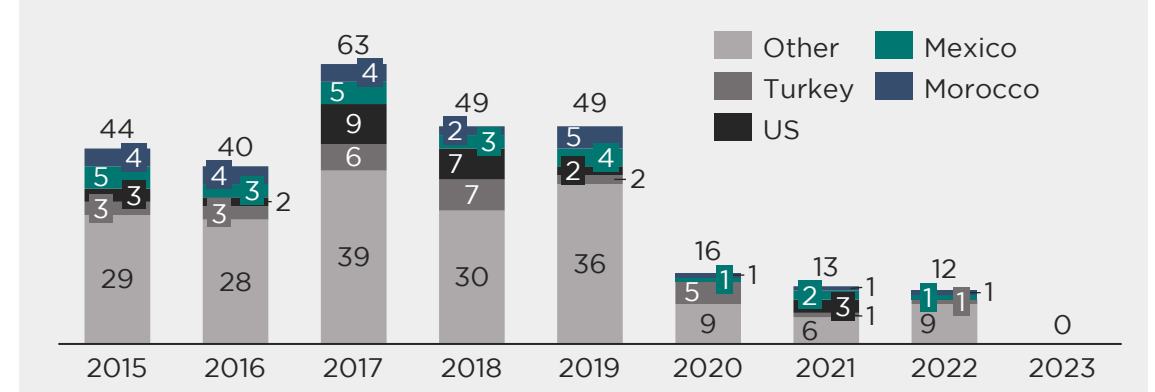
## GERMANY OUTBOUND GREENFIELD AUTO FDI

Number of Projects



## FRANCE OUTBOUND GREENFIELD AUTO FDI

Number of Projects

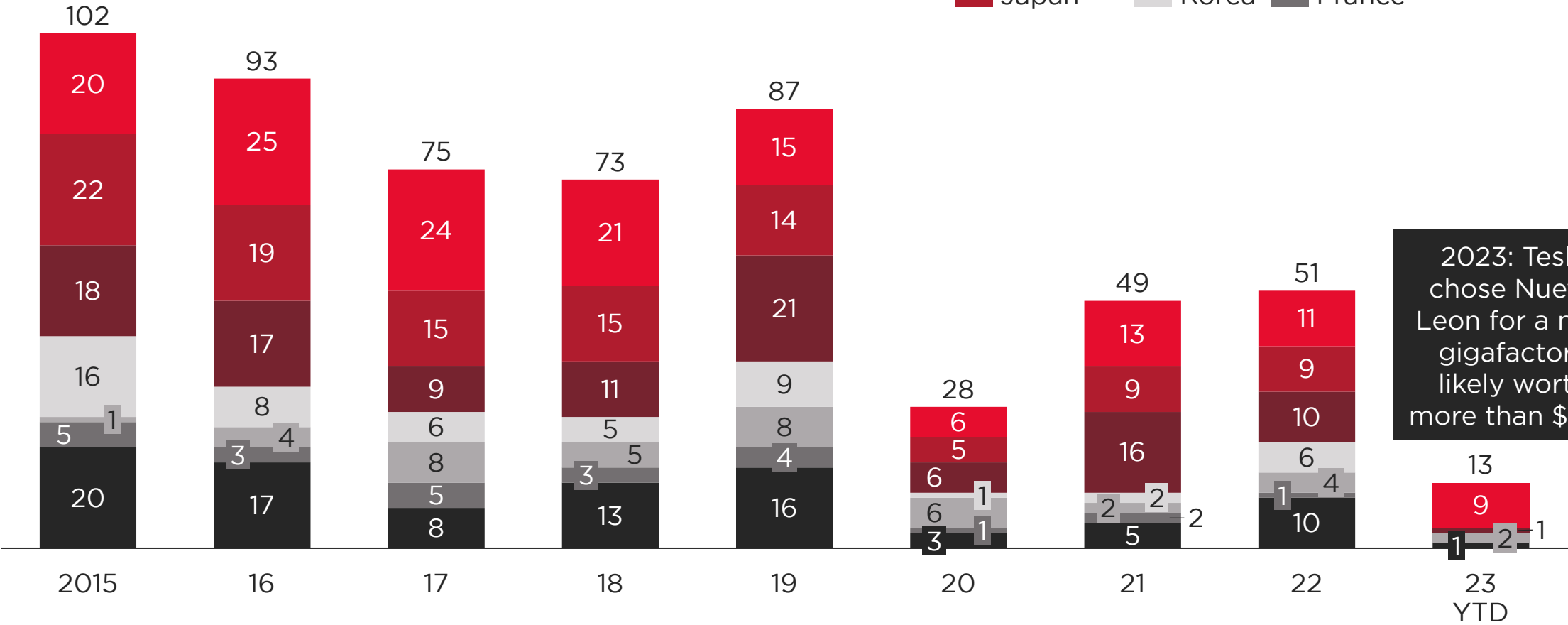


# Auto FDI into Mexico partially recovered

Number of projects masks Tesla’s recent gigafactory announcement

**GREENFIELD FDI INFLOW: MEXICO AUTO SECTOR**  
NUMBER OF PROJECTS by SOURCE COUNTRY

Germany US China Other  
Japan Korea France



Source: fDi Markets, Onyx  
© Onyx Strategic Insights. Reproduction by written authorization only.

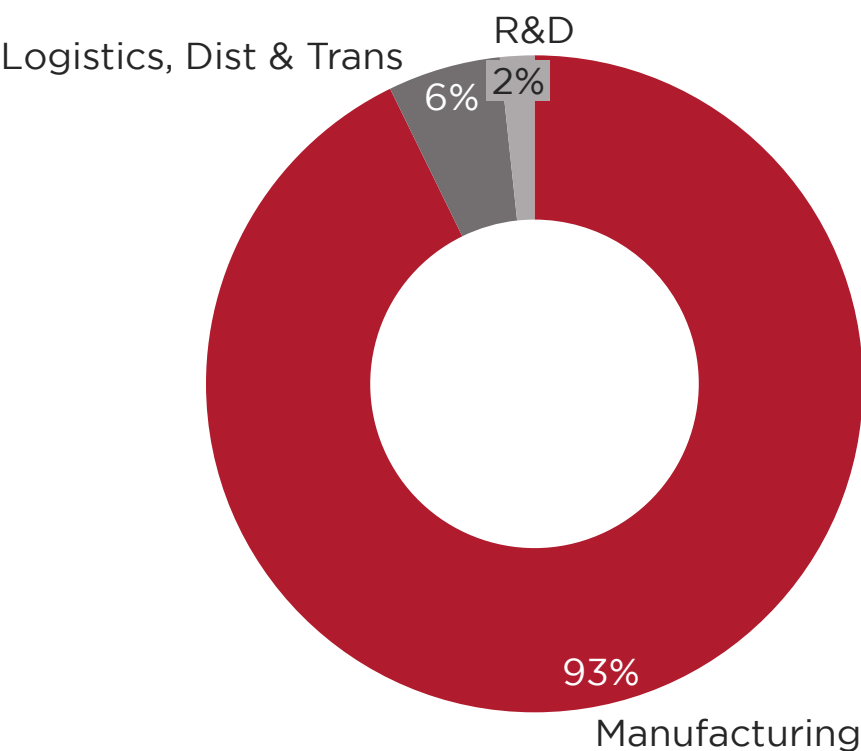
# US FDI is a key driver of Mexico's auto sector

Investments creating deeper integration across the value chain

## AUTO SECTOR GREENFIELD FDI

FROM US TO MEXICO

% OF TOTAL INVESTMENT VALUE BY PROJECT TYPE



## KEY TRENDS

- **Assembly was the starting point, now moving into manufacturing:**
  - Optimize by locating manufacturing close to source of supply and assembly closer to the customer
  - Assembly was the “low hanging fruit” first phase – companies increasingly looking at parts manufacturing
- **Motivations:** Shift from traditional cost drivers with acceptance of moderate supply chain risk to hedging geopolitical and supply chain risk while managing cost

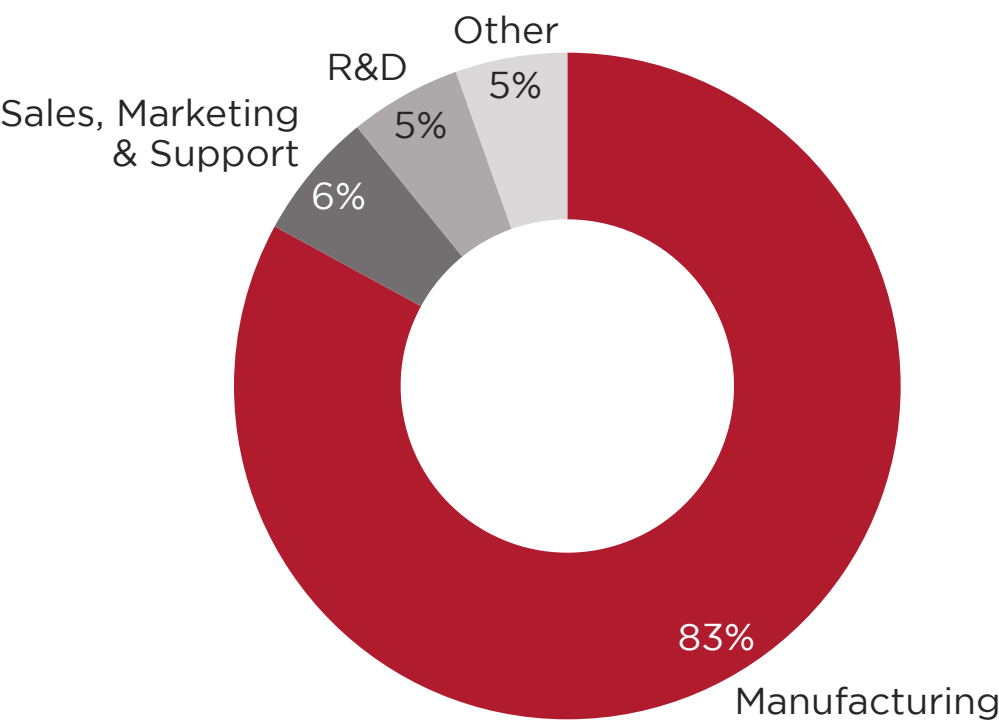
# Projects in N Africa focused on manufacturing

Favorable economics and supportive policy are attractive to investors

## AUTO SECTOR GREENFIELD FDI

INFLOWS INTO NORTH AFRICA

% OF TOTAL INVESTMENT VALUE BY PROJECT TYPE



## KEY TRENDS

- **Morocco, in particular, has created a friendly environment for foreign investment:**
  - Two industrial platforms with free zone status – five-year corporate tax exemption
  - Vocational education designed for the auto industry
- **Location and cost advantages**
  - Transit time to Spain is 1-2 days
  - Labor costs are one-quarter of those in Spain and slightly lower than Eastern Europe
- **Network advantages**
  - Renault reports that it can locally source **60% of content**
  - Working on higher-value components

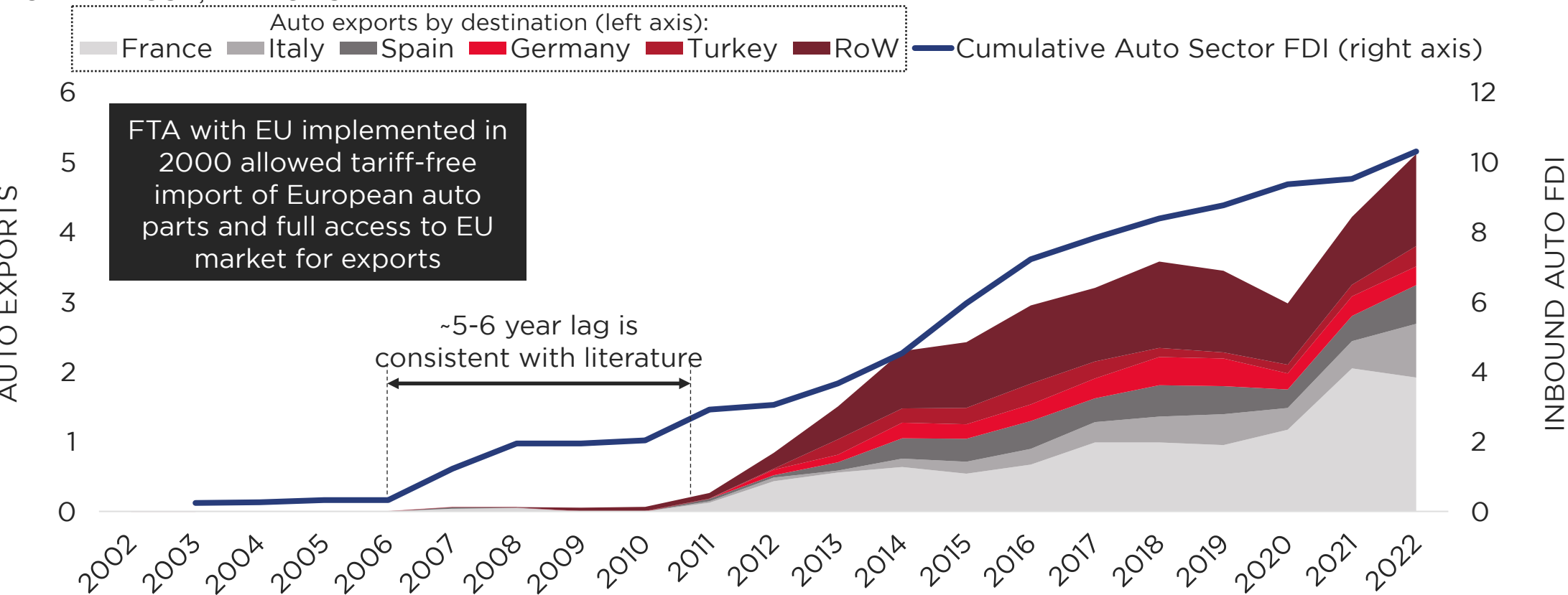


# Morocco: The making of a value chain

FTA and persistent investment led to production and export growth

## MOROCCO: INBOUND AUTO FDI and AUTO EXPORTS

NOMINAL USD, BILLIONS



## **SECTION III**

# **Cost of key inputs**

# Cost structure for auto manufacturing

Purchases are the most significant cost for automakers

## COST STRUCTURE: AUTO MANUFACTURING

% OF REVENUE



Source: IBISWorld, Onyx

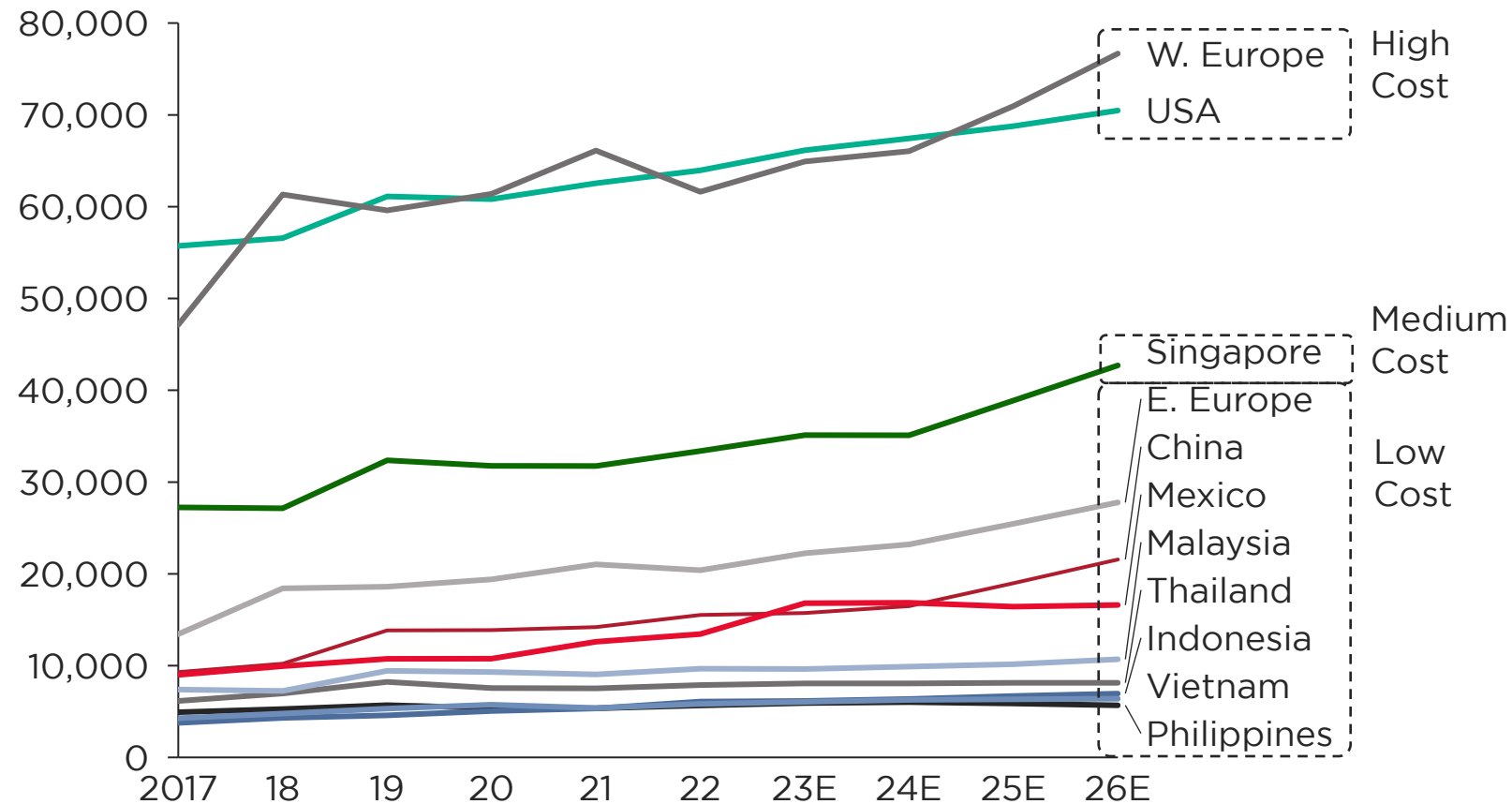
© Onyx Strategic Insights. Reproduction by written authorization only.

# Labor costs breakdown by region

China and Mexico wages are comparable, double rest of Emerging Asia

## SKILLED MANUFACTURING ANNUAL WAGES BY COUNTRY

US DOLLARS, NOMINAL



### ASEAN

Nominal wages increased 32% the past five years and are expected to rise another 11% by the end of 2026

### US

Nominal wages increased 15% the past five years and are expected to rise another 10% by the end of 2026

### EASTERN EUROPE

Nominal wages increased 52% the past five years and are expected to rise another 36% by the end of 2026

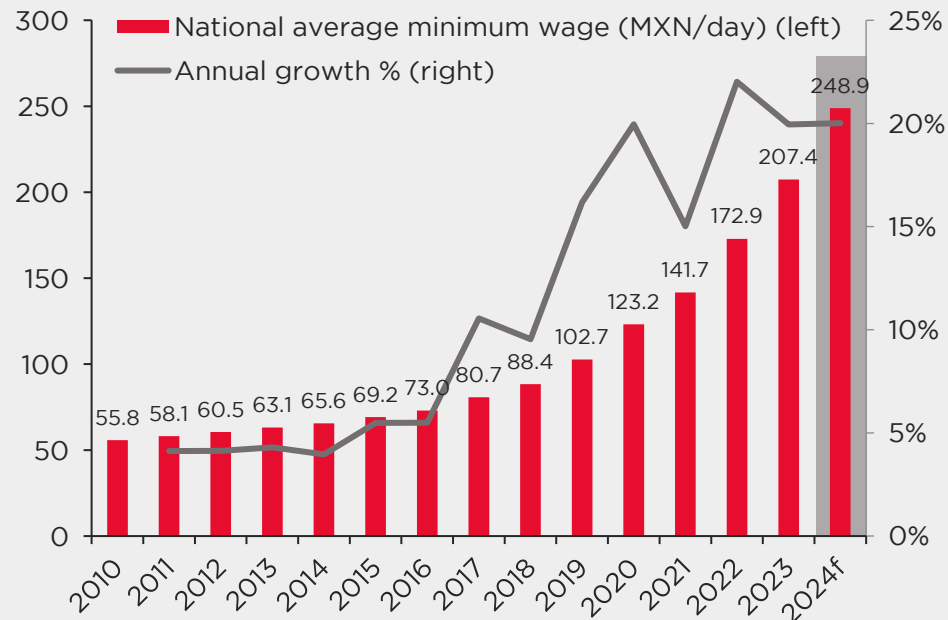
### CHINA

Nominal wages increased 67% the past five years and are expected to rise another 39% by the end of 2026

# Mexico sees rising manufacturing labor costs

The minimum wage has more than doubled under AMLO

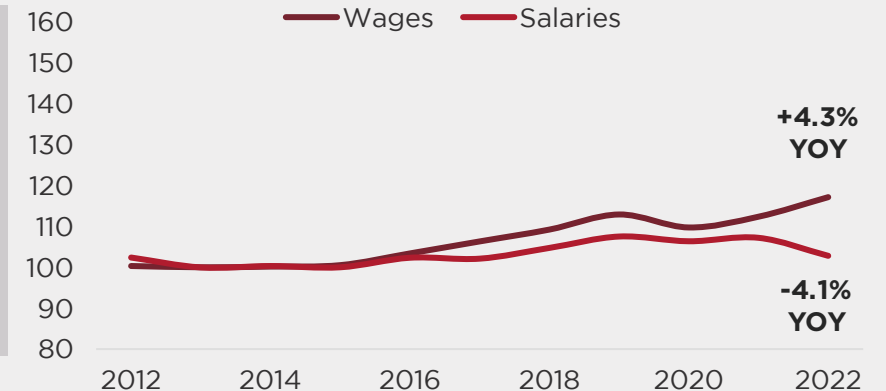
## Mexico: National Average Minimum Wage MXN/Day



## Key structural trends

- Labor costs are rising across Mexico. Improving labor rights and a rising minimum wage are putting strong pressure on the low end.
- **Manufacturing salaries are falling in real terms, while manufacturing wages are growing 4.3% faster than inflation.**

**Real compensation:**  
Transportation  
equipment  
manufacturing  
Index,  
2013=100

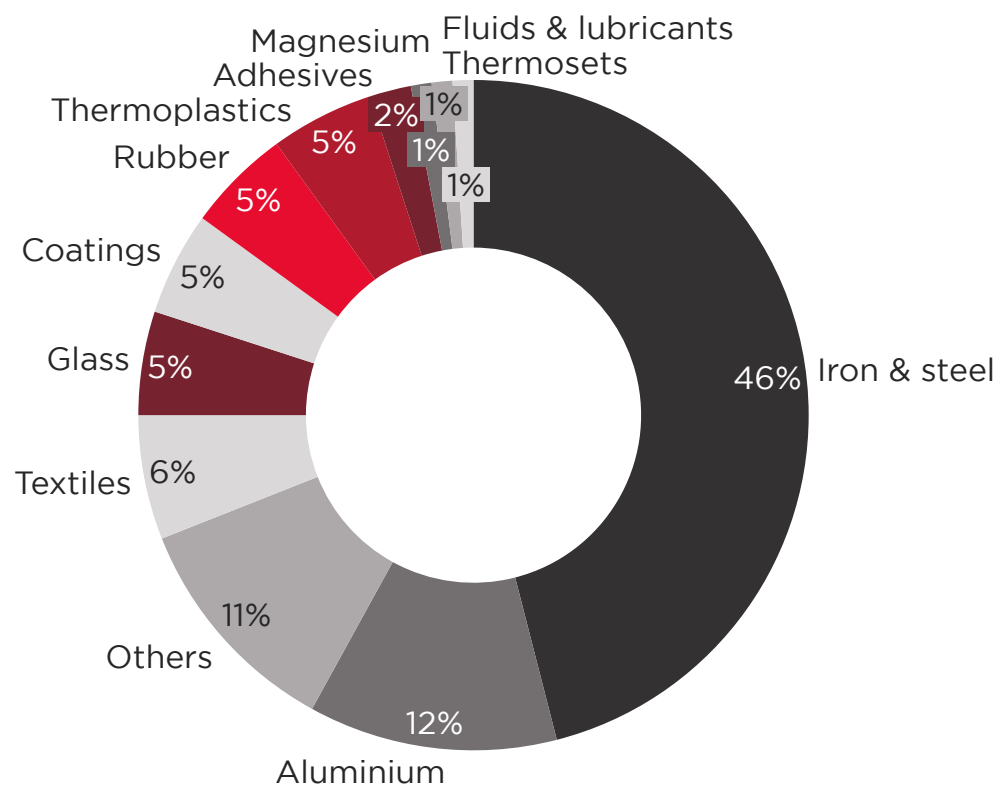


# Key materials costs for auto

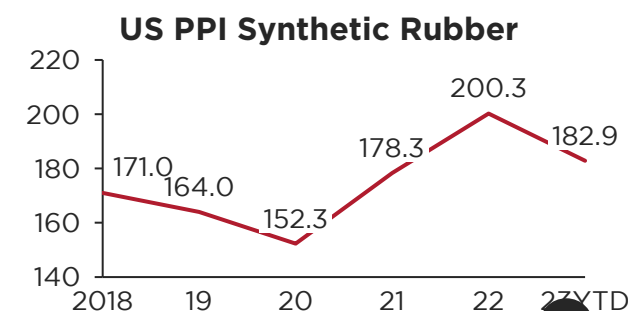
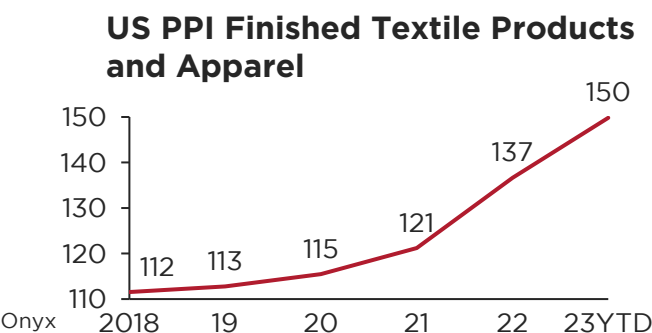
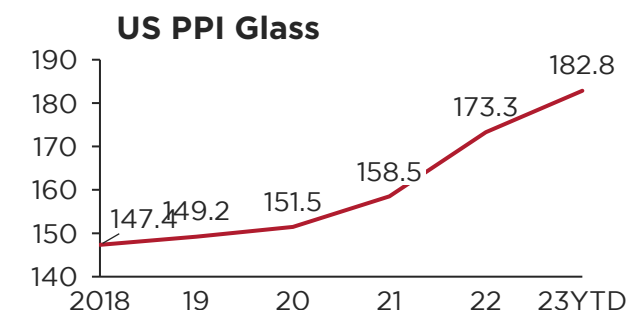
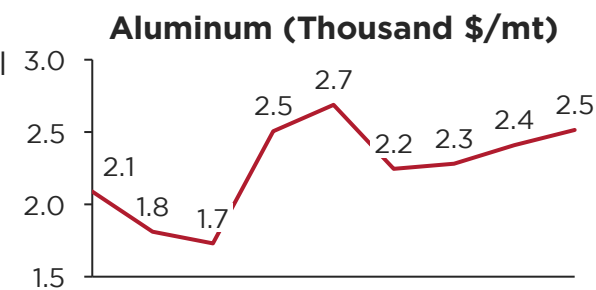
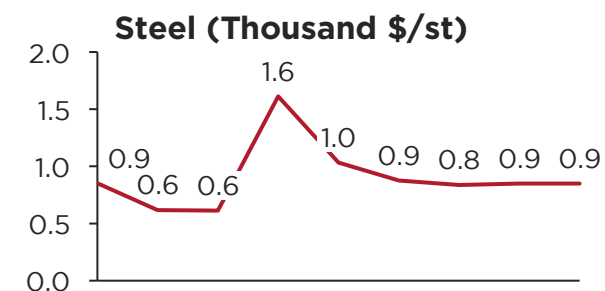
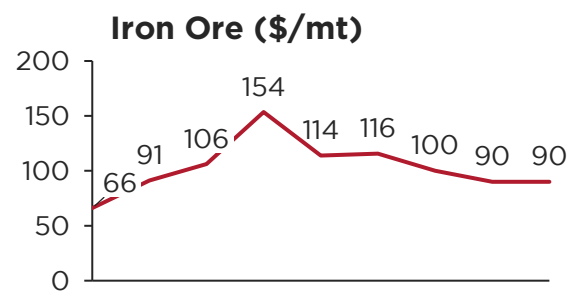
Raw material prices down from peaks, but intermediate prices remain high

## EXAMPLE RAW MATERIALS AUTO PRODUCTS

% OF TOTAL RAW MATERIALS



## KEY COST FORECASTS AND HISTORICAL TRENDS



# Get in touch

Website  
[onyxsi.com](https://onyxsi.com)

Contact  
[info@onyxsi.com](mailto:info@onyxsi.com)

LinkedIn  
<https://www.linkedin.com/company/onyxsi/>

Twitter  
<https://twitter.com/OnyxInsights>

# Disclaimer

Onyx Strategic Insights ("Onyx", "Onyx SI", "We", "Our", or "Us") is a division of Expeditors International of Washington, Inc. ("Expeditors").

The information in this website, article, event invitation or other written form, or shared during or provided in materials as part of an event or other forum ("Content") is for informational purposes only. The views, opinions, analyses, estimates, predictions and/or strategies ("Views") expressed in the Content are those of the respective Onyx authors and/or speakers who publish and/or present the Content, and may differ from those of other Onyx employees and/or Expeditors and its officers, directors, and employees. The Content is as of a certain date and is often based on current market and/or geopolitical conditions and is subject to change without notice.

We do not guarantee the accuracy, completeness, timeliness, or availability of the Content. In preparing this Content, we have relied upon and assumed, without independent verification, the accuracy and completeness of all information that was acquired from public sources. Any mention of third-party trademarks, brand names, products and services is for referential purposes only and is not meant to imply any sponsorship, endorsement, or affiliation unless otherwise noted. Copying, re-publishing, or distributing this Content is strictly prohibited without prior written consent from an authorized representative of Onyx.

The Content does not represent an offer or commitment by Onyx or Expeditors to provide any service. The statements in the Content are not intended to be legally binding, and any references in the Content to services that may be offered by Onyx and/or Expeditors are subject to, and superseded by, the terms and pricing set forth in the separate legally binding documentation and/or terms and conditions applicable to those service offerings. Nothing in the Content shall amend the applicable documentation and/or terms and conditions.

The Content and Views are not advice on legal, accounting, trade compliance, tax, financial, investment, regulatory, technology or other matters. You should always consult your own legal, accounting, trade compliance, tax, financial, investment, or similar advisors before making any relevant decisions. In no event shall Onyx, Expeditors or any of its directors, officers, employees or agents be liable for any use of, any decision made or action taken in reliance upon, or any inaccuracies or errors in or omissions from, the Content or Views.

The information in the Content does not include all applicable terms or issues and is not intended as an offer or solicitation for the purchase or sale of any service. Our services are subject to applicable laws and regulations, as well as our service terms and policies. Not all services are available in all geographic areas or to all customers. Credit is subject to approval. Rates and programs are subject to change. Certain restrictions apply.