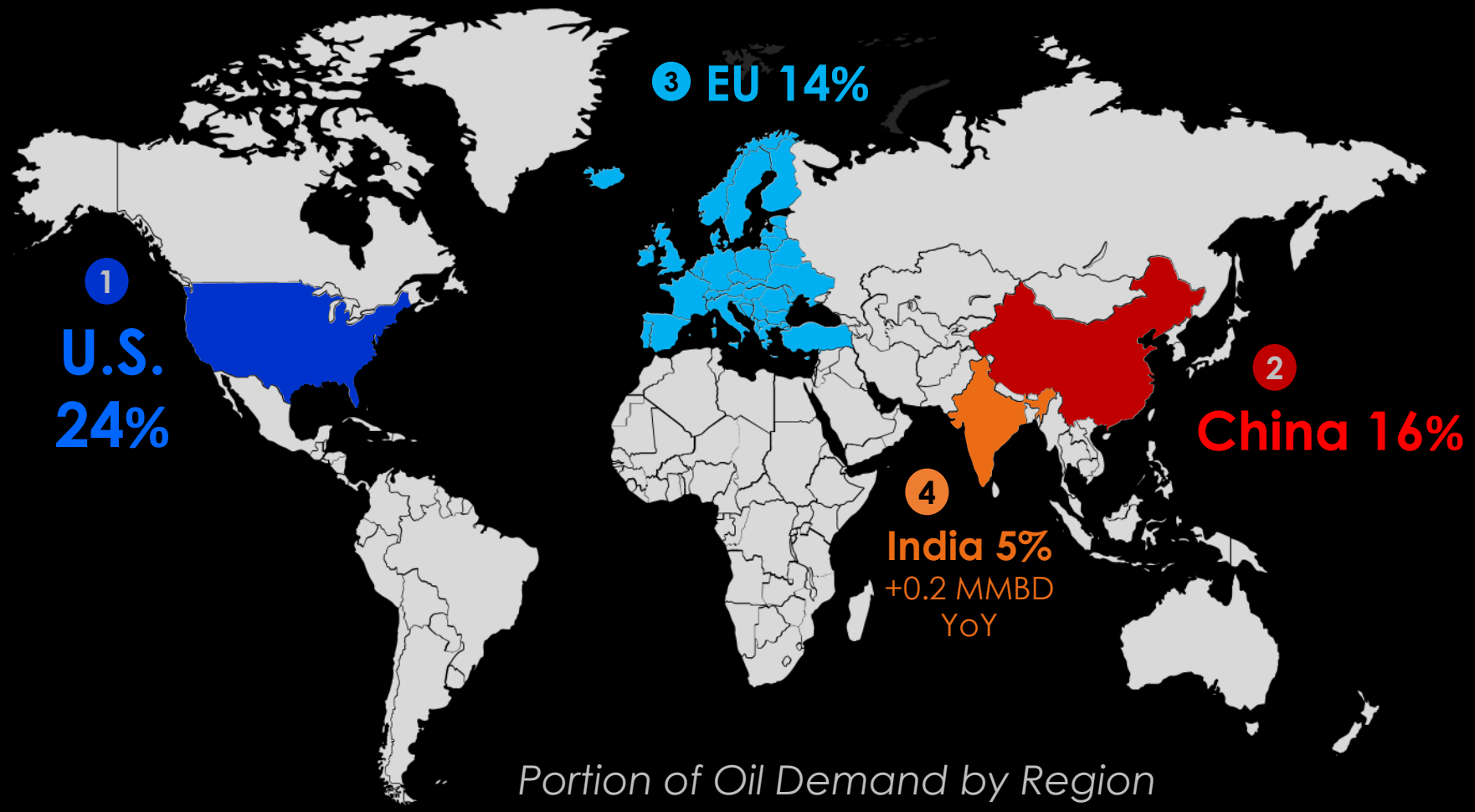

ptt Group
PRISM
Oil Demand:
Bracing for Headwinds Ahead


WHAT DRIVES GLOBAL OIL
DEMAND GROWTH?

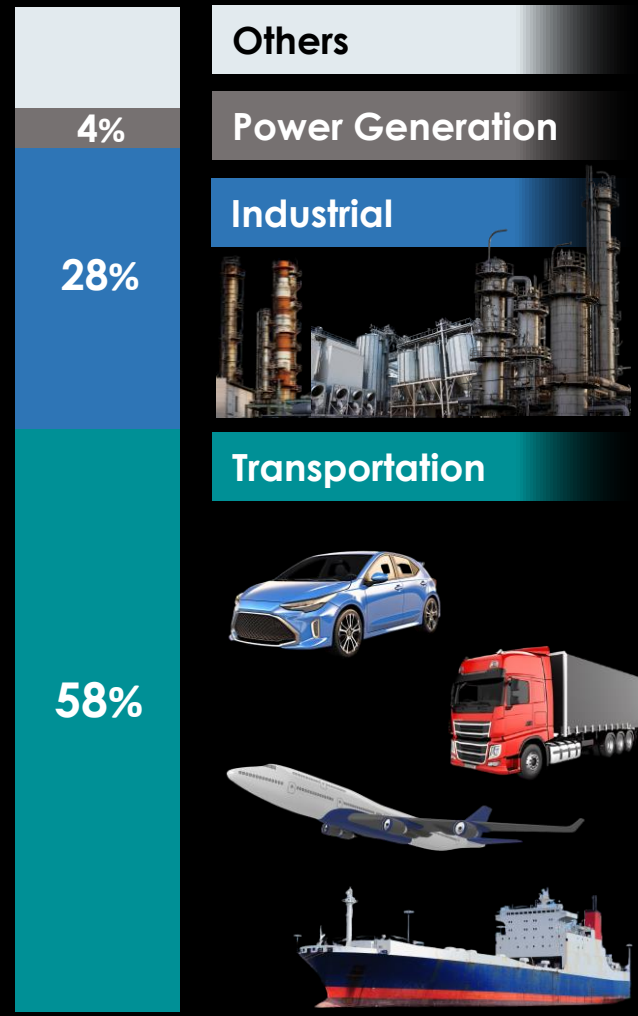
GLOBAL OIL DEMAND BREAKDOWN

2024 World Oil Demand
103.0 MMBD (+1.0 MMBD YoY)



Portion of Oil Demand by Region

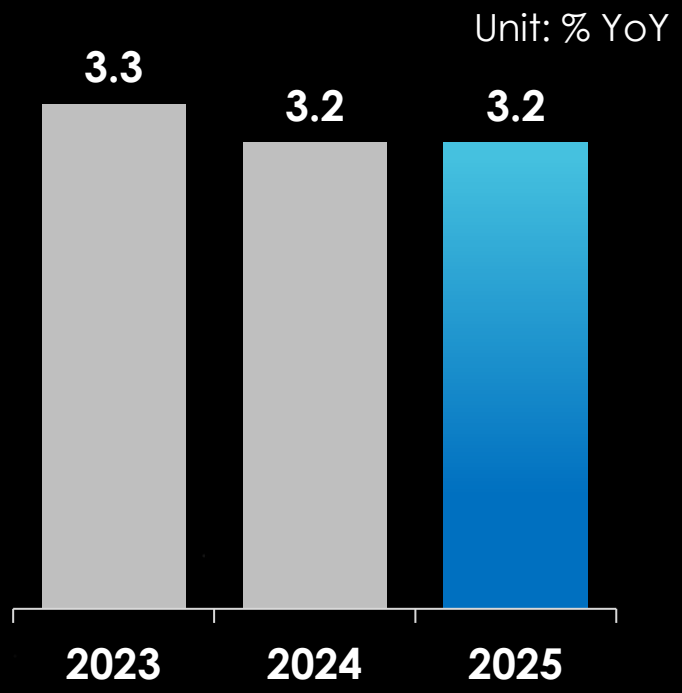
2024 Oil Demand by Sector



Source: IEA, EIA, OPEC (Oct 2024)

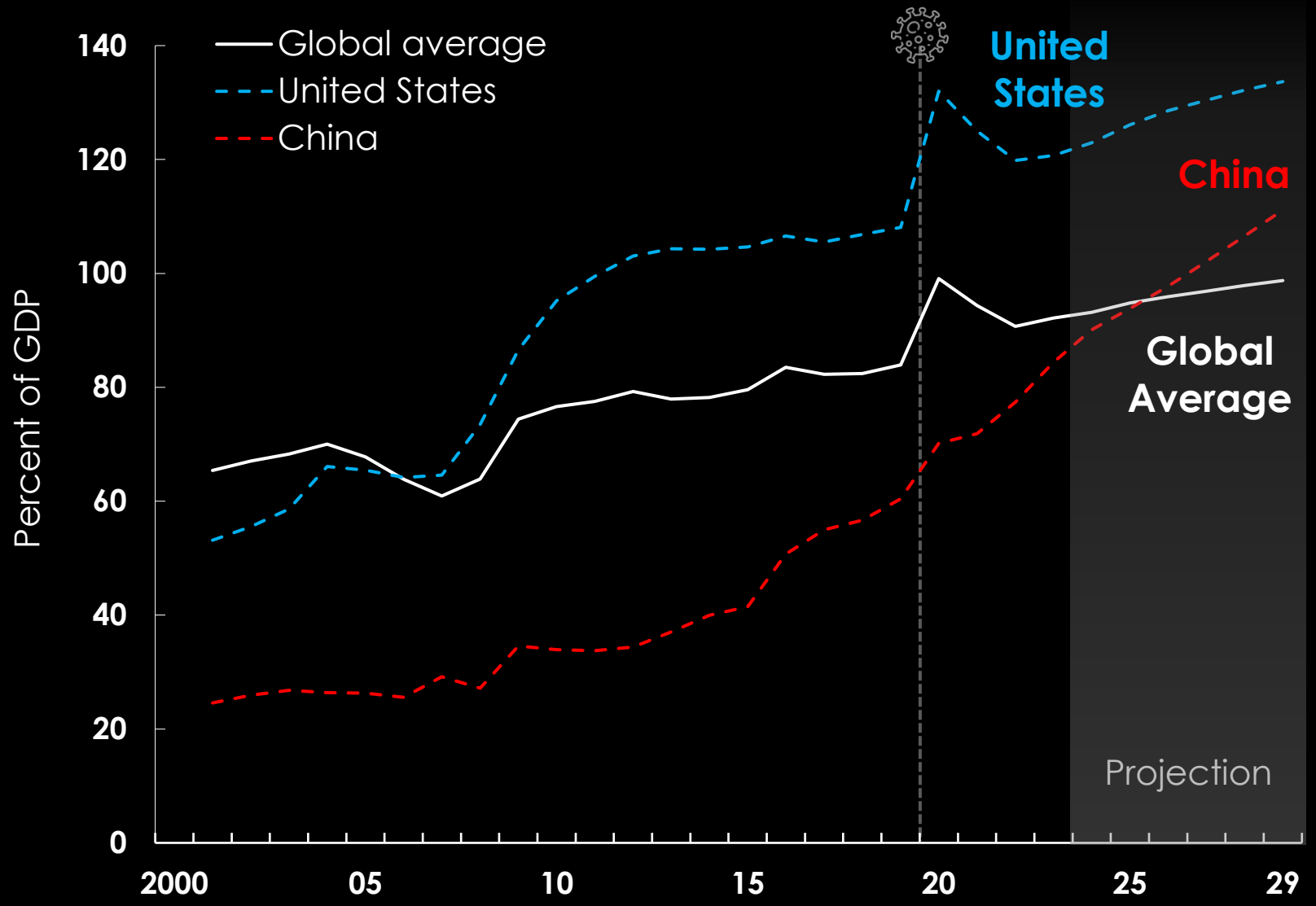
1 GLOBAL ECONOMY: FISCAL TIGHTENING CONCERN

World GDP Growth





Public Debts Much Higher than Pre-pandemic



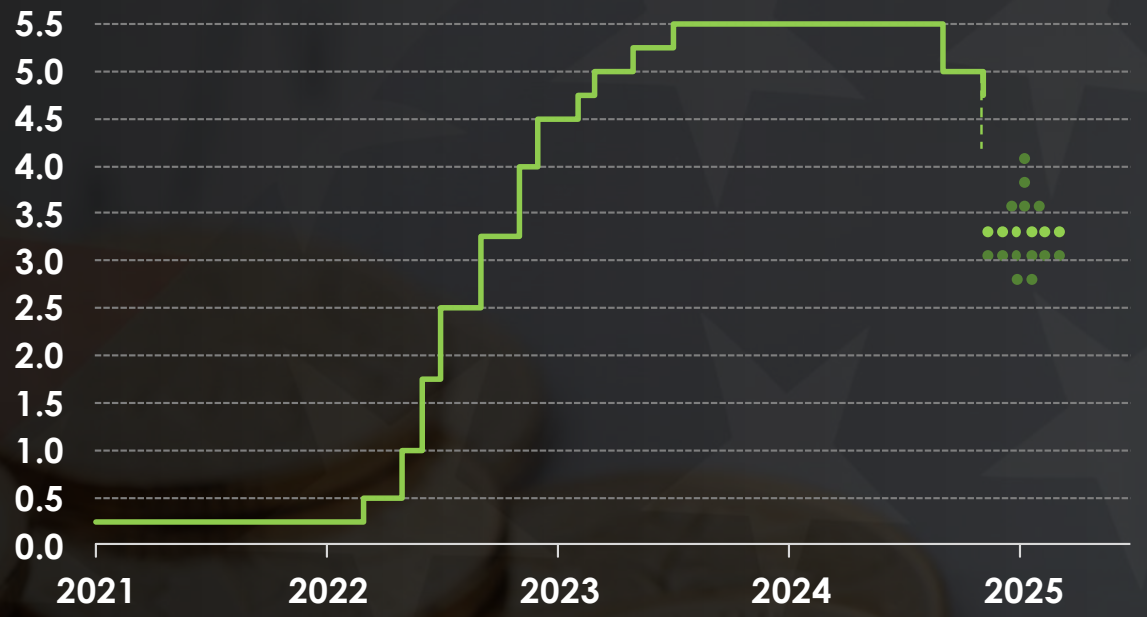
Source: IMF, World Economic Outlook Update (Oct 2024), Fiscal Monitor (Oct 2024)

1 GLOBAL ECONOMY: MONETARY EASING

Cooling Inflation & Labor Market



FED to Cut Another 0.25% in 2024, and 1% Next Year



U.S. GDP Breakdown

Personal Consumption

69% of U.S. GDP



2 TRADE WAR : DONALD TRUMP RISKS, WORLD DEMAND CONCERNS

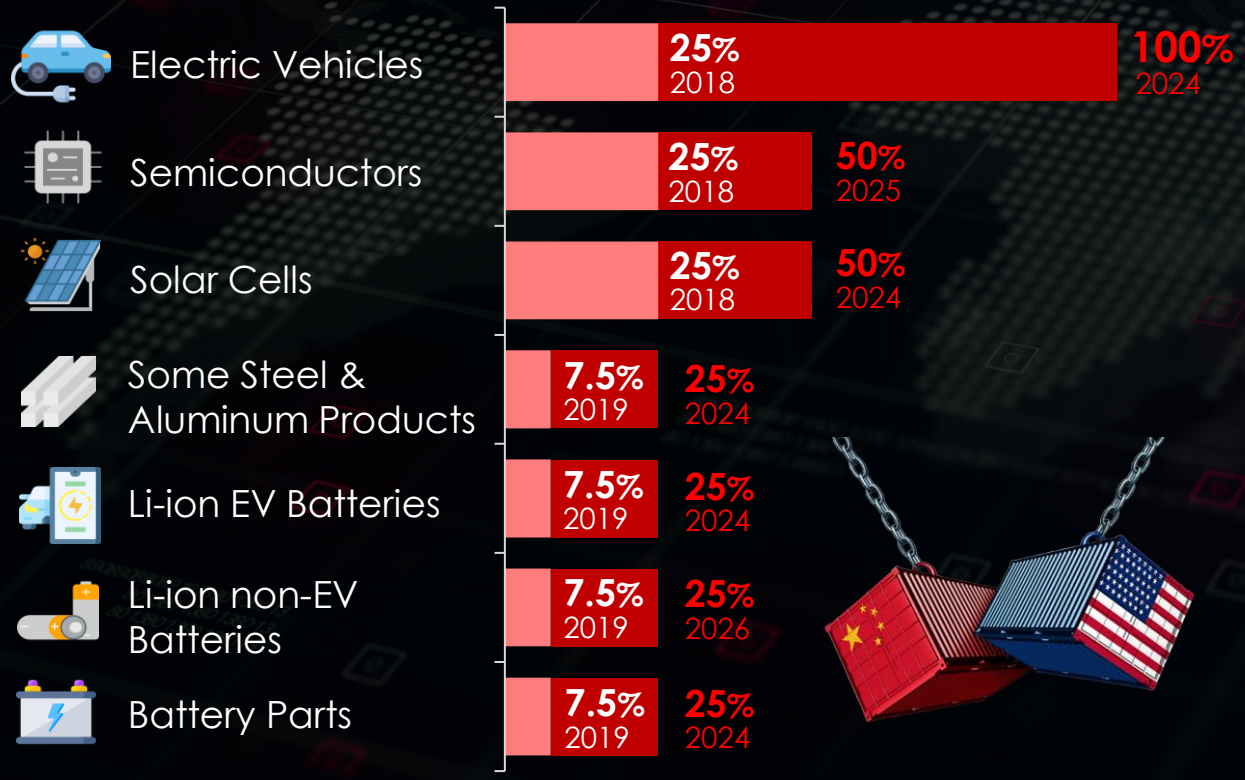
'Trump Trade War'

Global GDP **-0.3%**

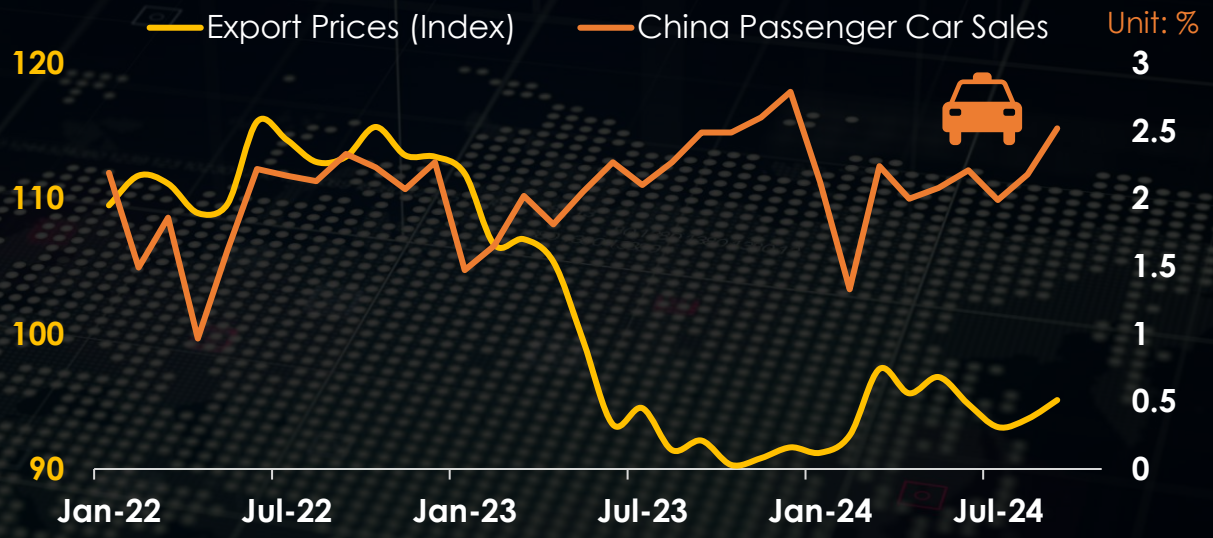
- **10-20%** Import Tariffs Across-the-board
- **60%** Levied on China



US's Tariff Increase on China Products



Export Prices and Producer Prices Index (YoY)



Foreign Direct Investment (YoY)



Source: Bank of America, The White House, Ministry of Commerce of the People's Republic of China, General Administration of Customs

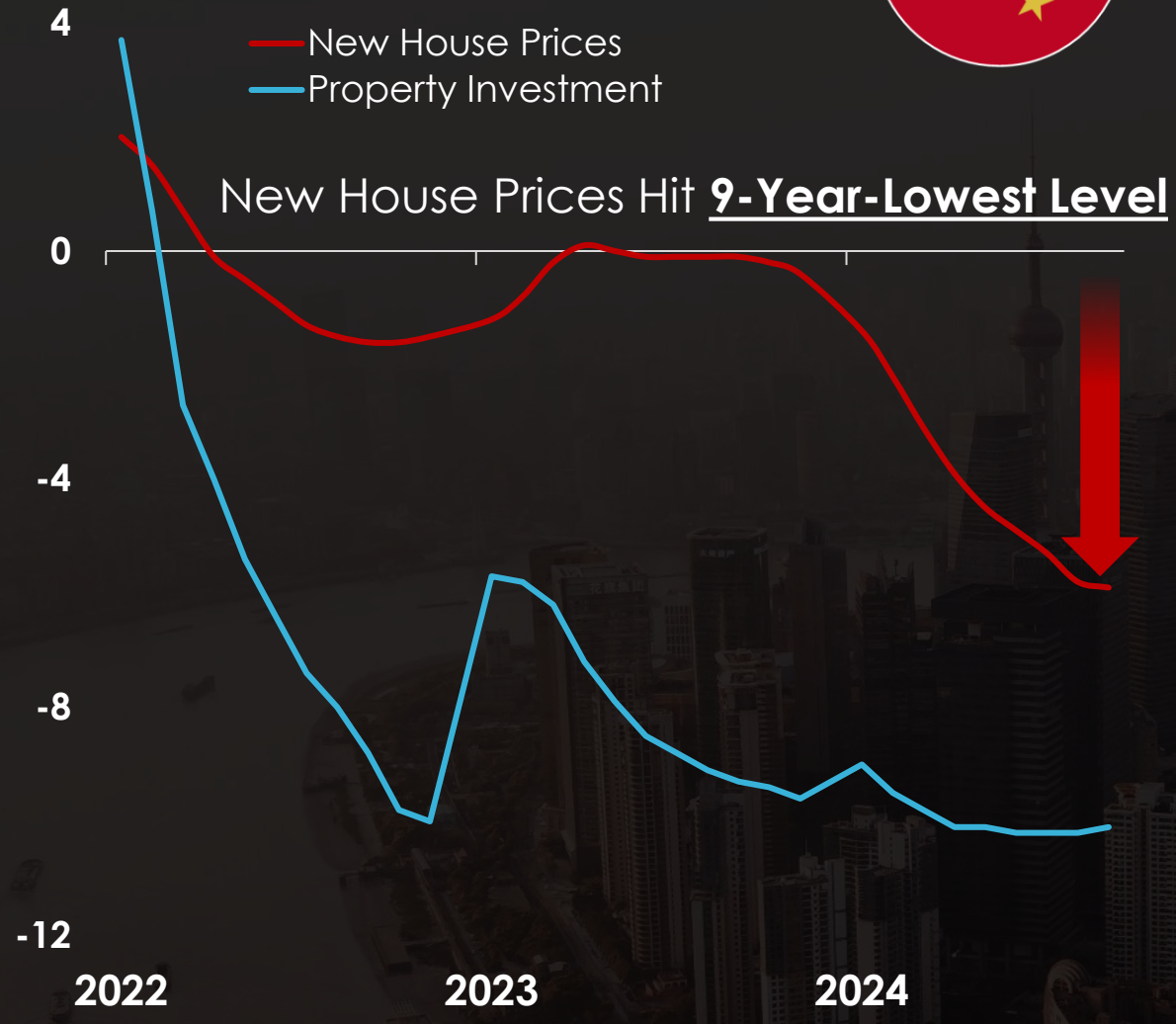
3 CHINA'S CONSUMPTION: 99 PROBLEMS ARE REAL

Real Estate



30% of China's GDP

Unit: %



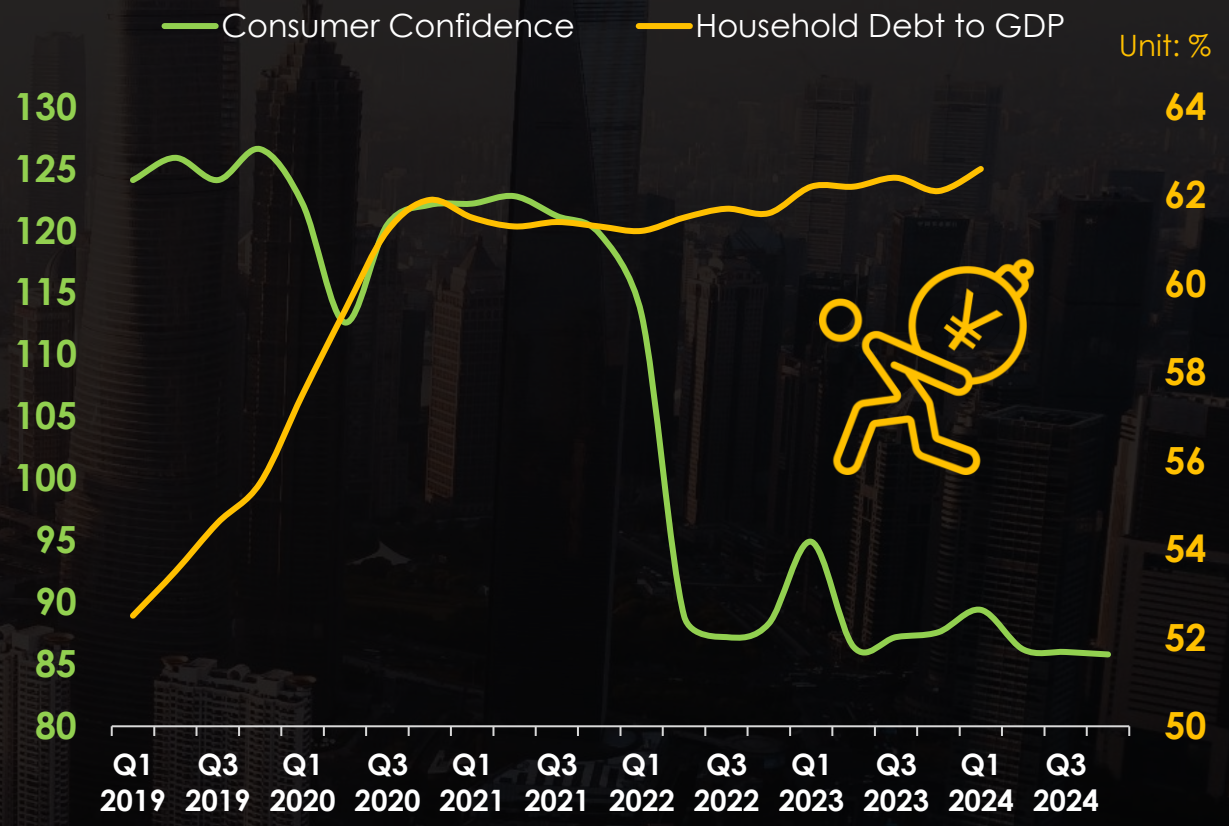
New House Prices Hit **9-Year-Lowest Level**

Household Consumption



38% of China's GDP

The prolonged crisis is eroding consumer confidence, with about ***70% of household wealth tied to real estate.***



Source: National Bureau of Statistics of China, Bank for International Settlements, China Real Estate Information Corp.

3 CHINA'S CONSUMPTION : SERIES OF STIMULUS PACKAGE



141 Billion USD

Reserve Requirement Ratio (RRR)
0.5%



Total Injection = 10% of China's GDP

New Lending Facilities



113 Billion USD



Strengthen Capital Market =70 Billion USD



Re-lending Facility =70 Billion USD

To help speed up sales of unsold housing

Special Purpose Bonds

1,400 Billion USD



Local Government = 840 Billion USD
(for 3 years)



Local Government = 560 Billion USD
(for 5 years)

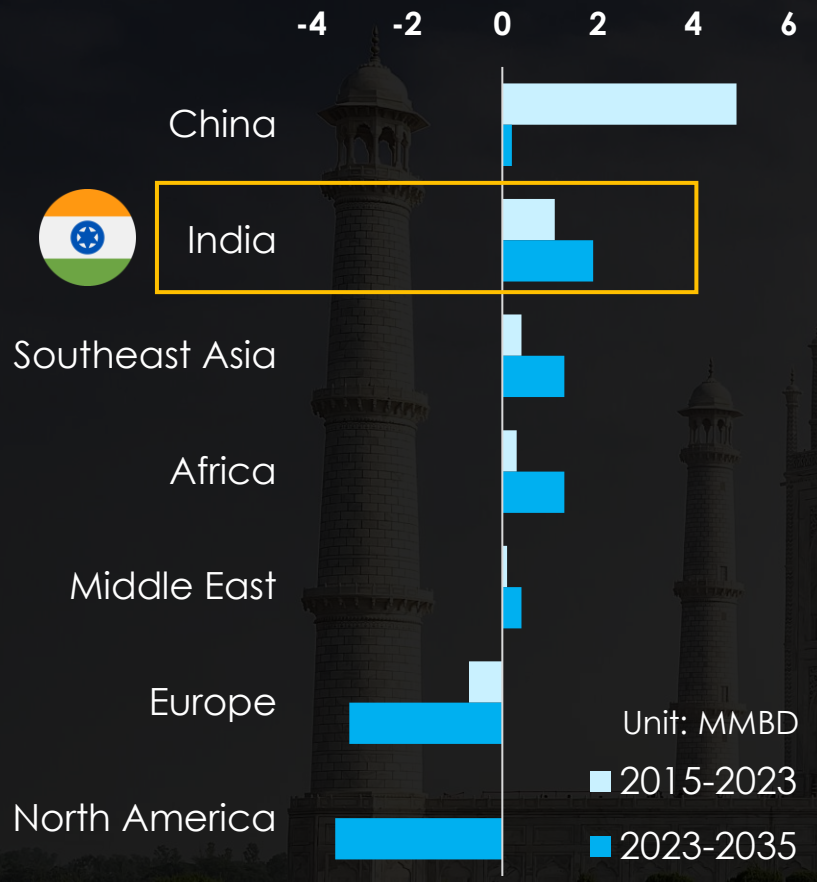


Lower Home Purchase Deed Taxes



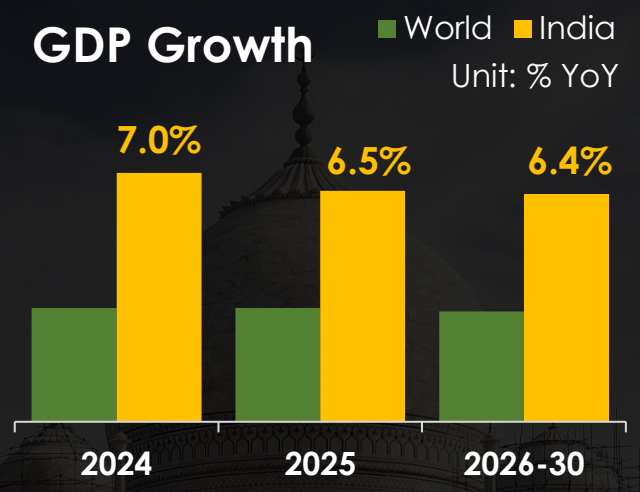
4 GROWTH ENGINES : INDIA AND THE EMERGING MARKETS

- **Change in Global Oil Demand by Regions**

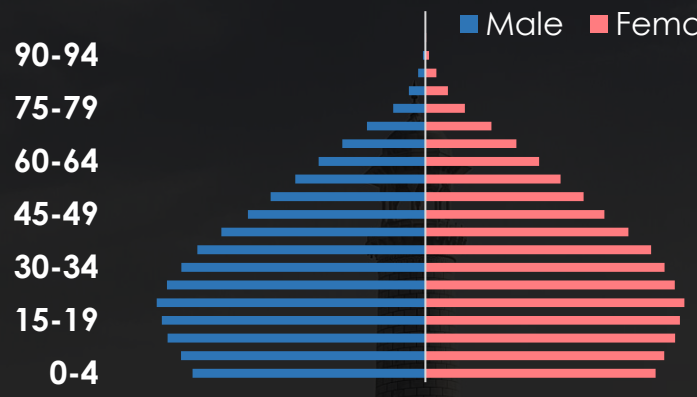


75% of Net Global Gains in 2025-2030 Belongs to **India**

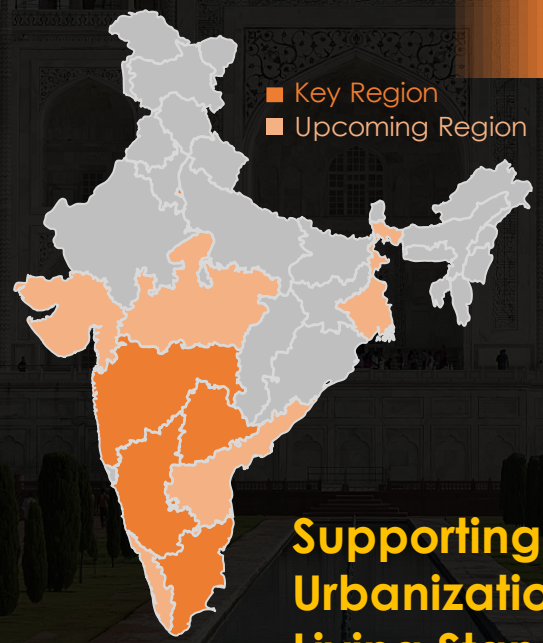
- **GDP Growth**



- **Youth Population**



Booming Data Center Industry in India



Factor

- Growing Digital Economy
- Allow 100% Foreign Direct Investment
- Well-developed Fiber Optic Cable Network
- A Conduit between The Middle East & SEA

Supporting Urbanization & Raising Living Standard

Growth of Data Center

10-12% | 15-20%

Source: IEA, Oxford Economies

5 TRANSPORTATION : AUTOMOTIVE DEMAND

Demand by Sector



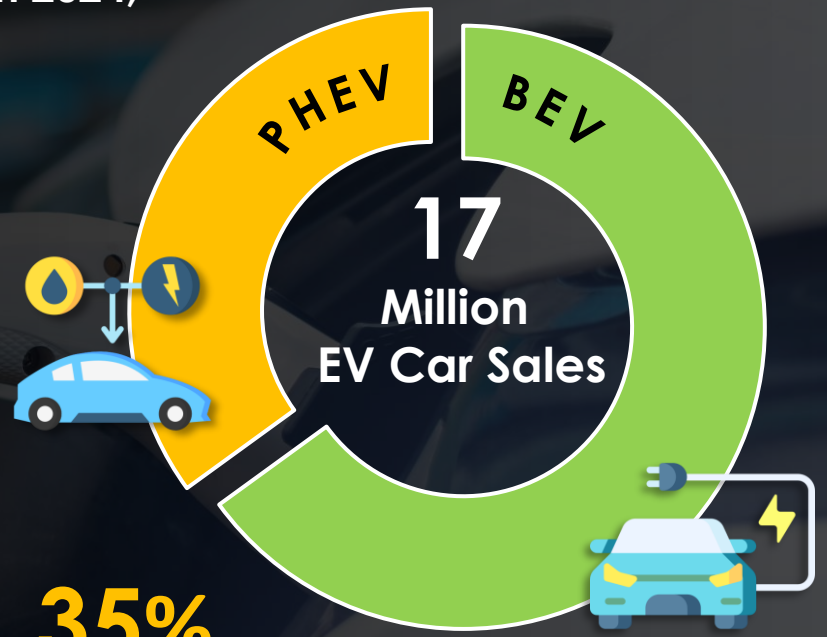
EV Car Sales (% of Total Sales)



1/5 of Car Sold Globally is EV Car in 2024

Source: EIA, Wood Mackenzie, BloombergNEF

In 2024,



35%

(~5.95 Million Car)

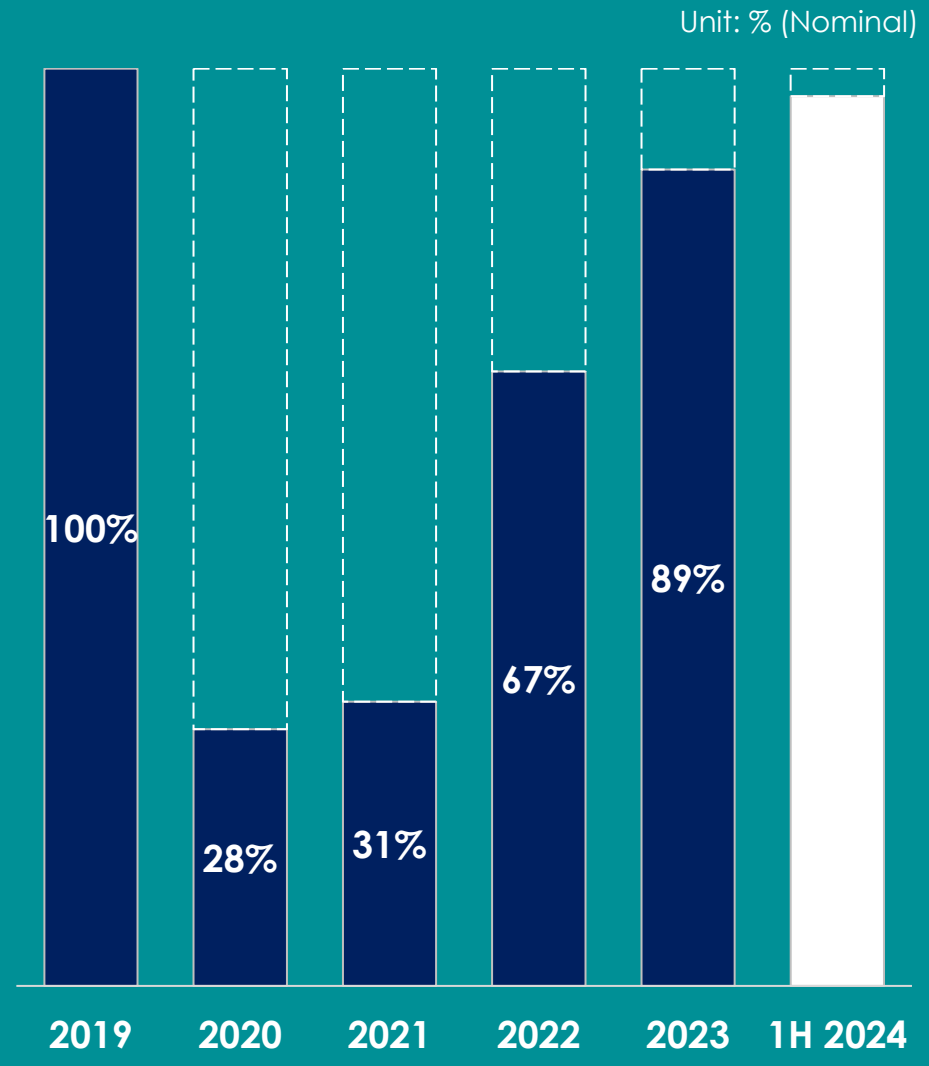
of Electric Car Sold Globally

Factors

- Range Anxiety
- Lack of Infrastructure

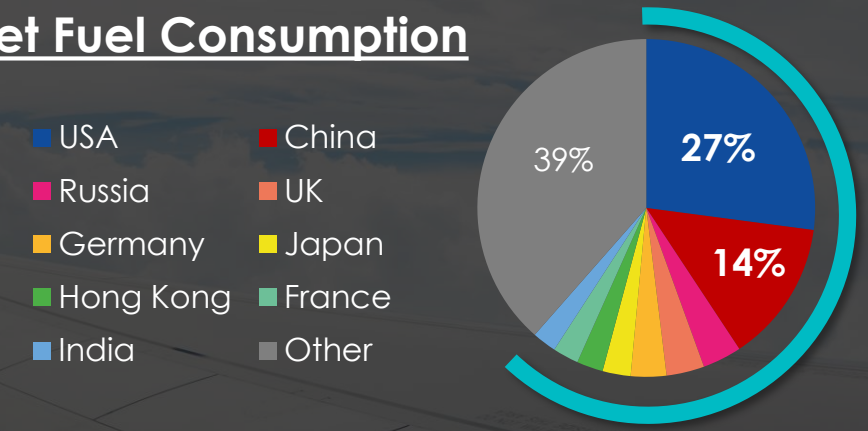
5 TRANSPORTATION: LIMITED GREEN SUBSTITUTION FOR AVIATION

International Tourist Arrival Almost Hit Pre-Covid Level



Long-distance transport, where demand is **less amenable to direct substitution**, will continue to post growth.

Jet Fuel Consumption



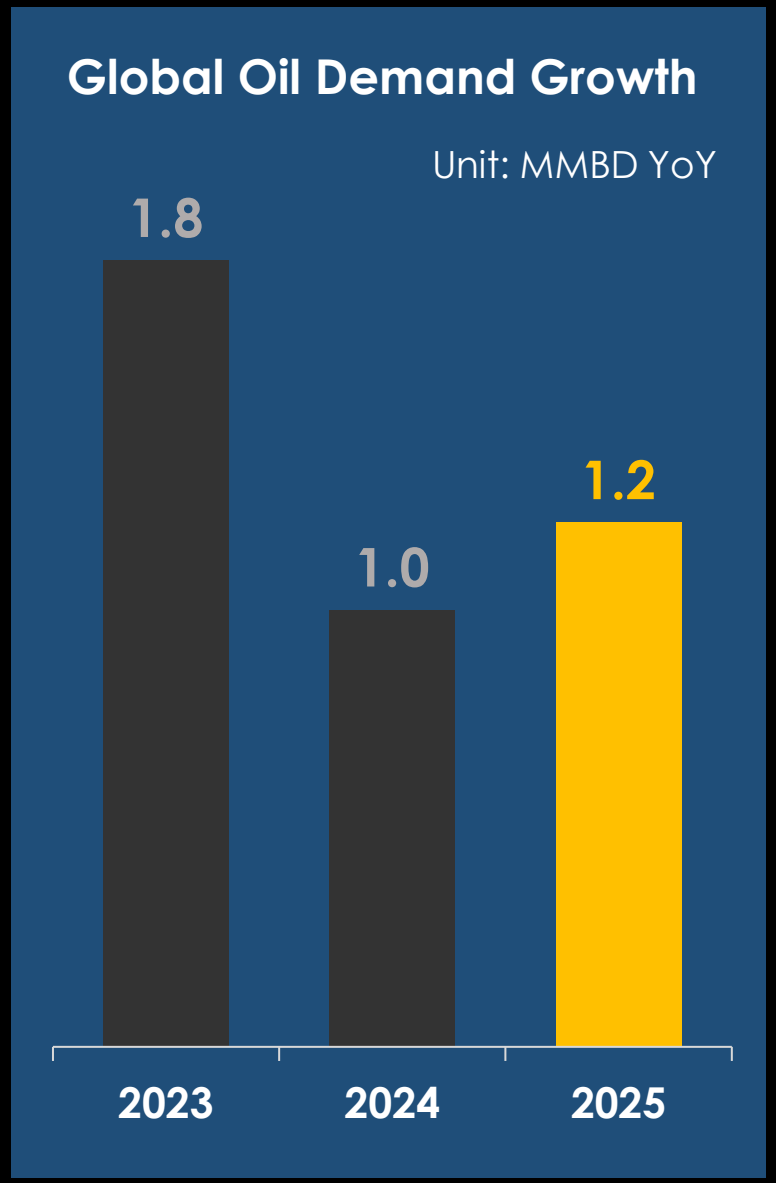
>60% of Global Jet Fuel Consumption

Publicly Stated Targets for SAF Introduction by Country

	2025	2030
USA	-	20%
China	-	-
Russia	-	-
UK	-	10%
Germany	-	2%
Japan	-	10%

Source: EIA, Wood Mackenzie, BloombergNEF

OIL DEMAND: RISING STEADY WITH SUBSTANTIAL HEADWINDS



2025 World Oil Demand

104.2 MMBD (+1.2 MMBD YoY)

Factors to Watch

- **ACCELERATION OF EV ADOPTION & ALTERNATIVE FUELS**
- **TRADE WAR vs. IMPACT OF CHINESE POLICIES** *(+0.4 MMBD)*
- **U.S. RATE CUT SUPPORTING OIL DEMAND** *(+0.1 MMBD)*
- **DEVELOPING ECONOMIES BECOMES GROWTH ENGINE OF OIL DEMAND GROWTH** *(+0.2 MMBD)*

Source: EIA, IEA, OPEC (Oct 2024)


Oil Fuels Global Industry,
Powering Economies
and Growth.