

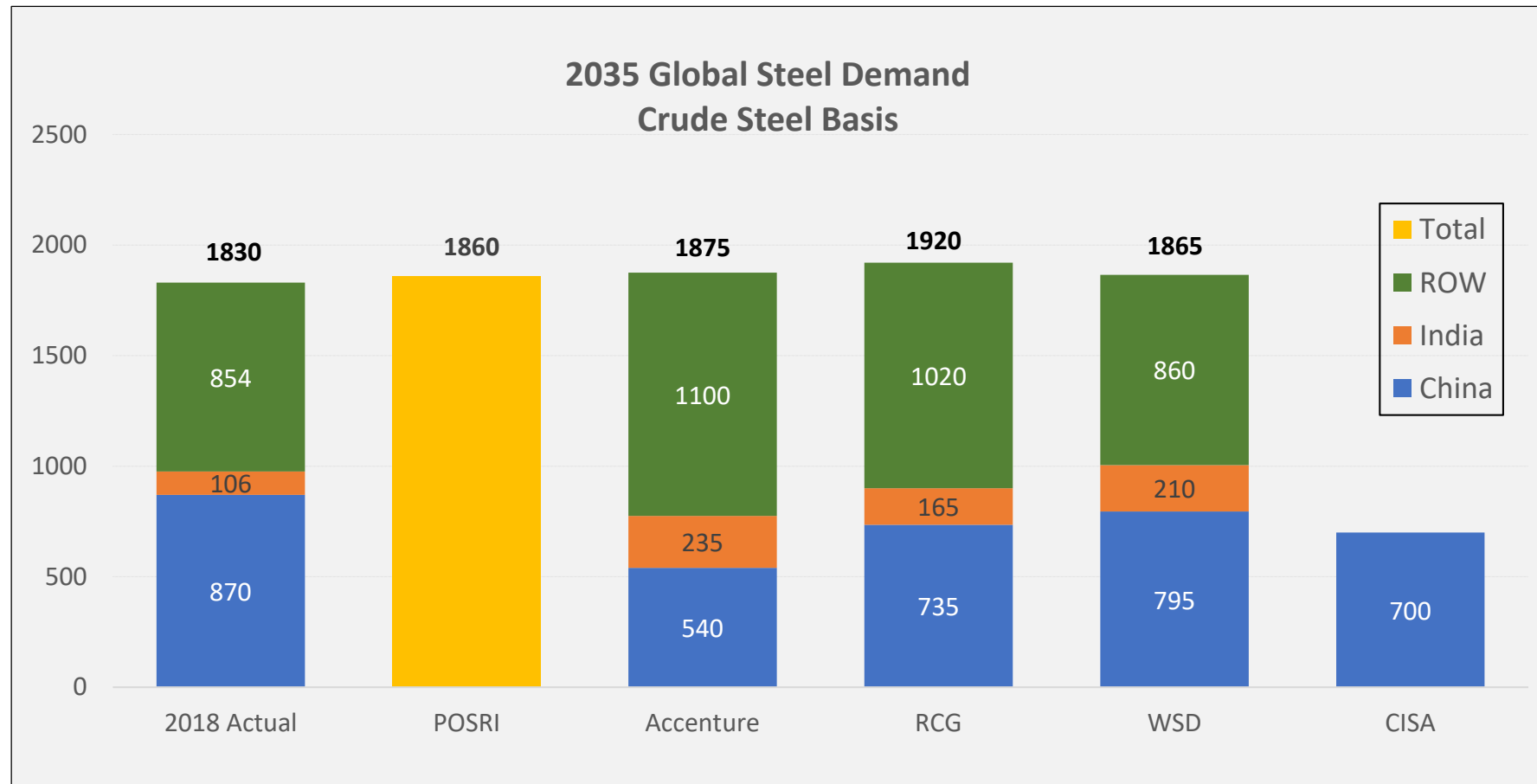
# Slowing Global Steel Demand Growth: Drivers and Implications

Presentation to the OECD Forum on Excess Steel Capacity  
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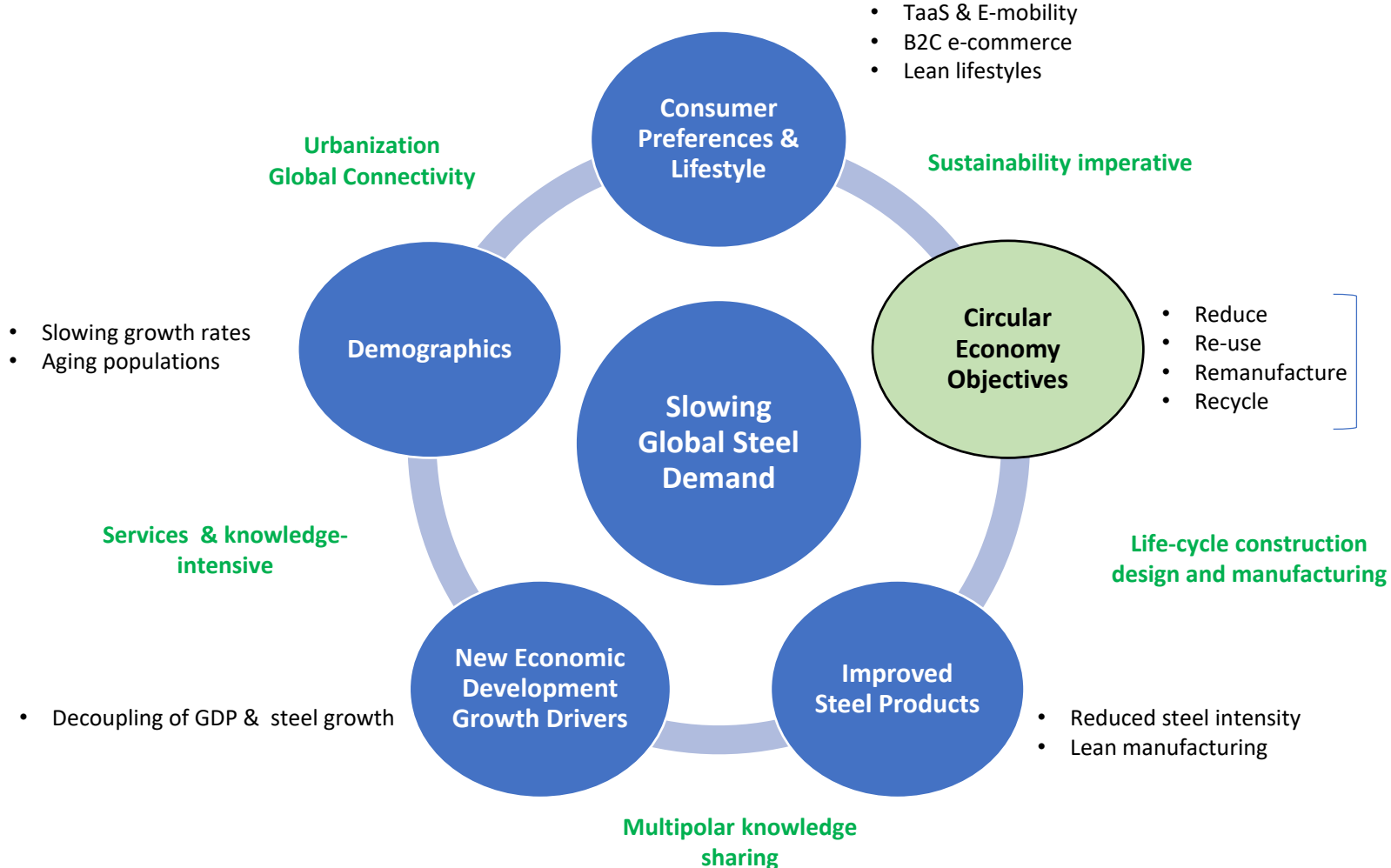
*Confidential*

## There is an emerging consensus around slowing global steel demand growth, though with different underlying forecasts

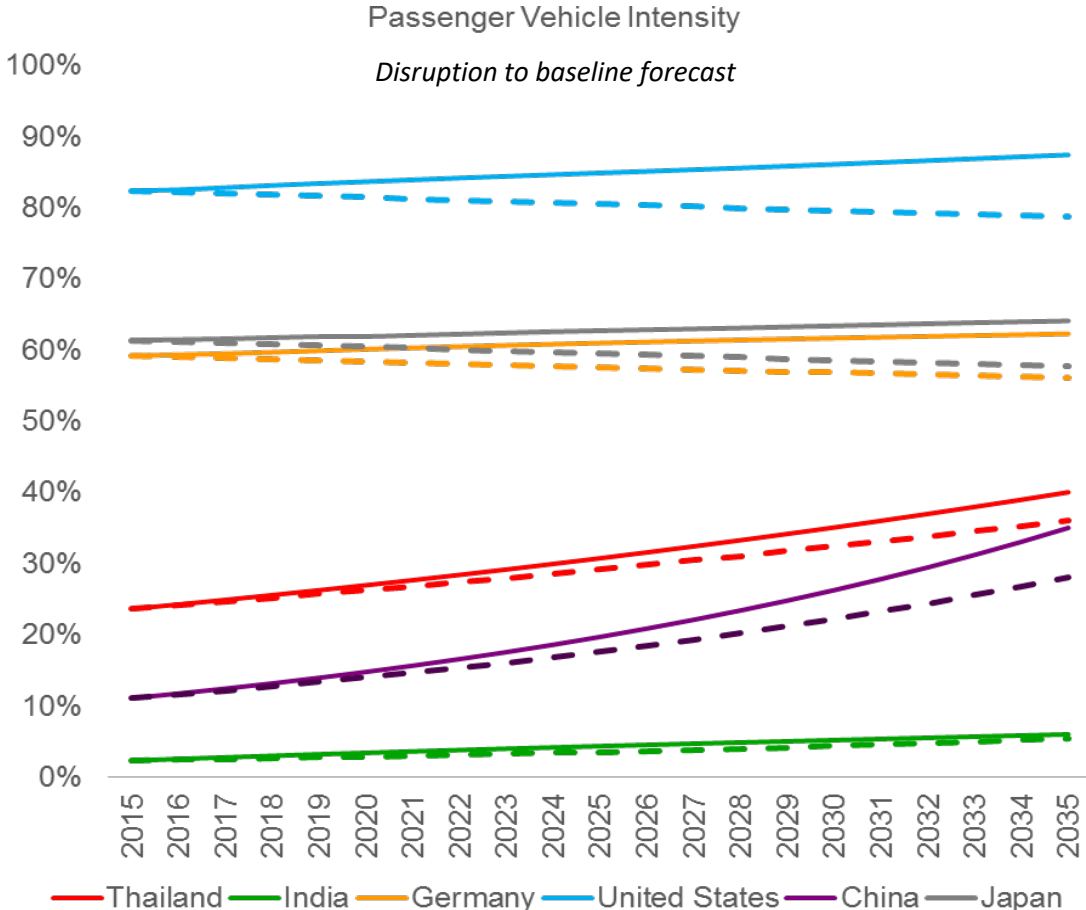
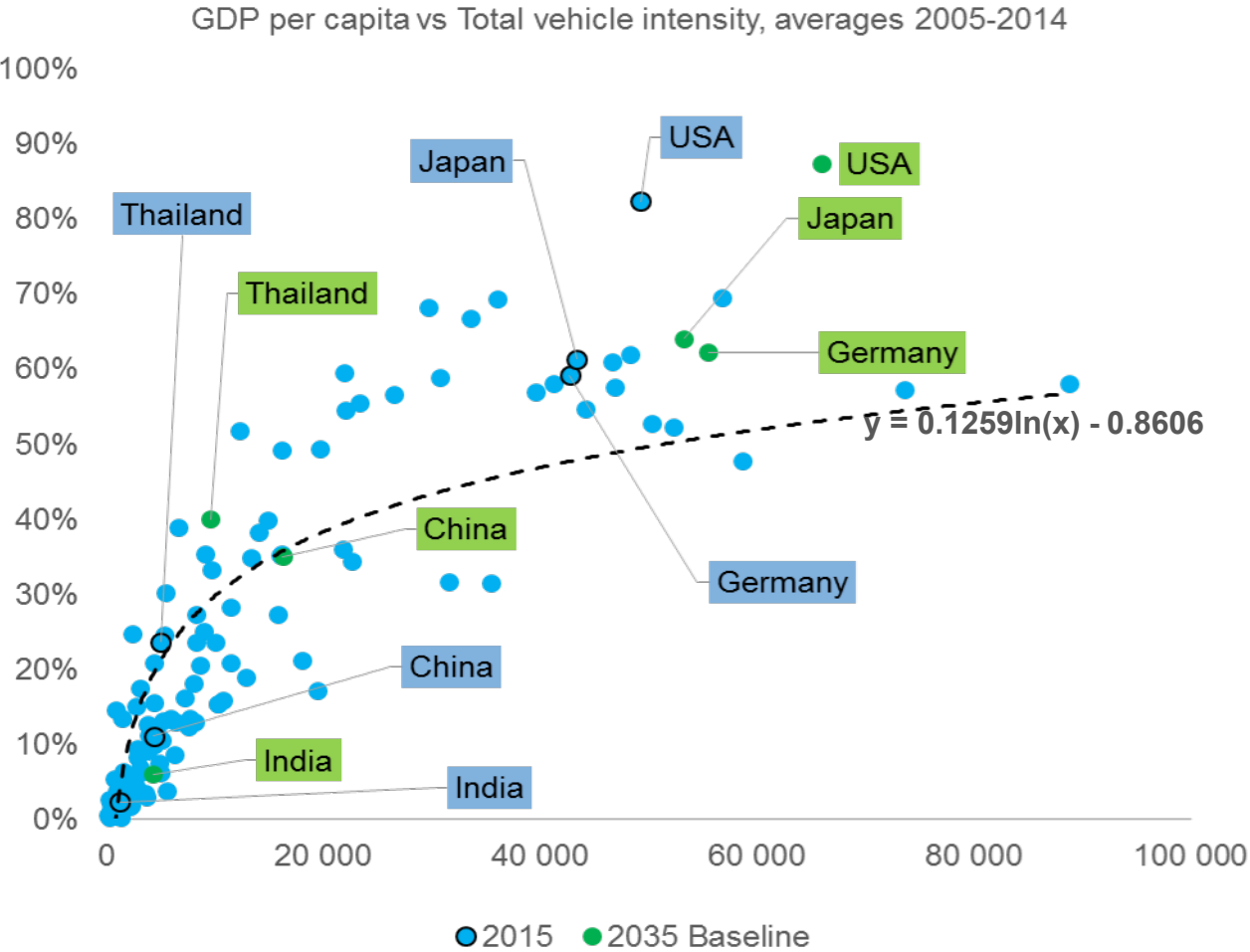


Source: Accenture (2017 presentation to WSA) POSRI (Asian Steel Watch #5), RCG (2020 analysis), WSD (2020 analysis), CISA and Crucible Consulting

# Five inter-dependent megatrends are driving the deceleration of global demand growth



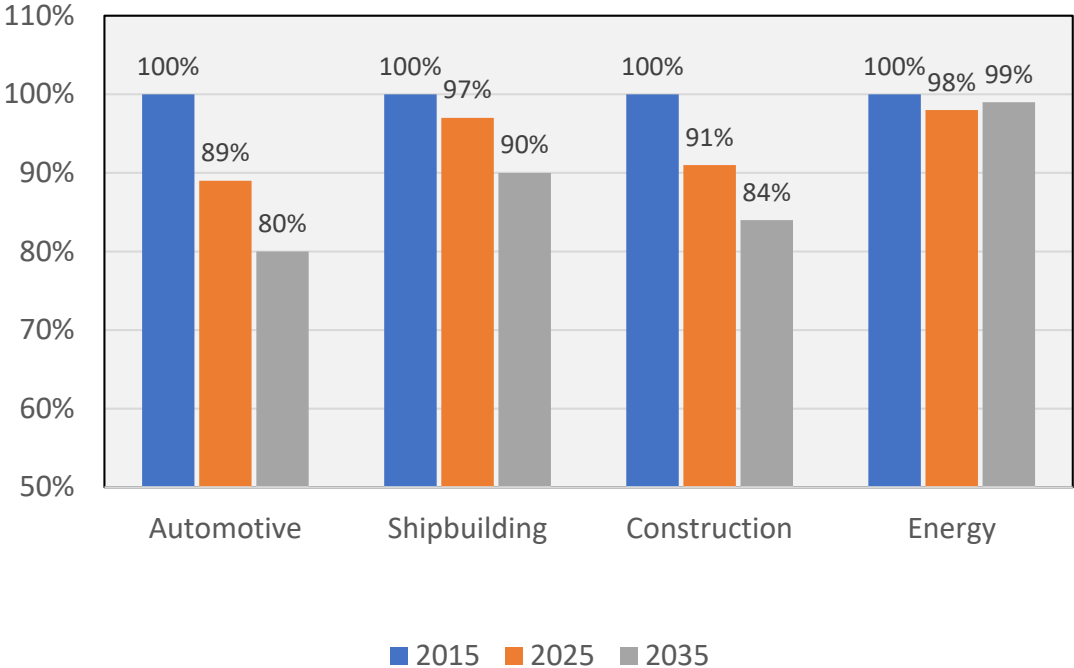
# Shifts in demographics and consumer choices are disrupting historical vehicle ownership patterns, reducing vehicles in use and the demand for new vehicle



Source: Accenture Research, Oxford Economics, OICA, RCG and Crucible Consulting.

# Continual improvements in steel properties are driving a reduction in engineered steel intensity

Forecast Change in Steel Intensity

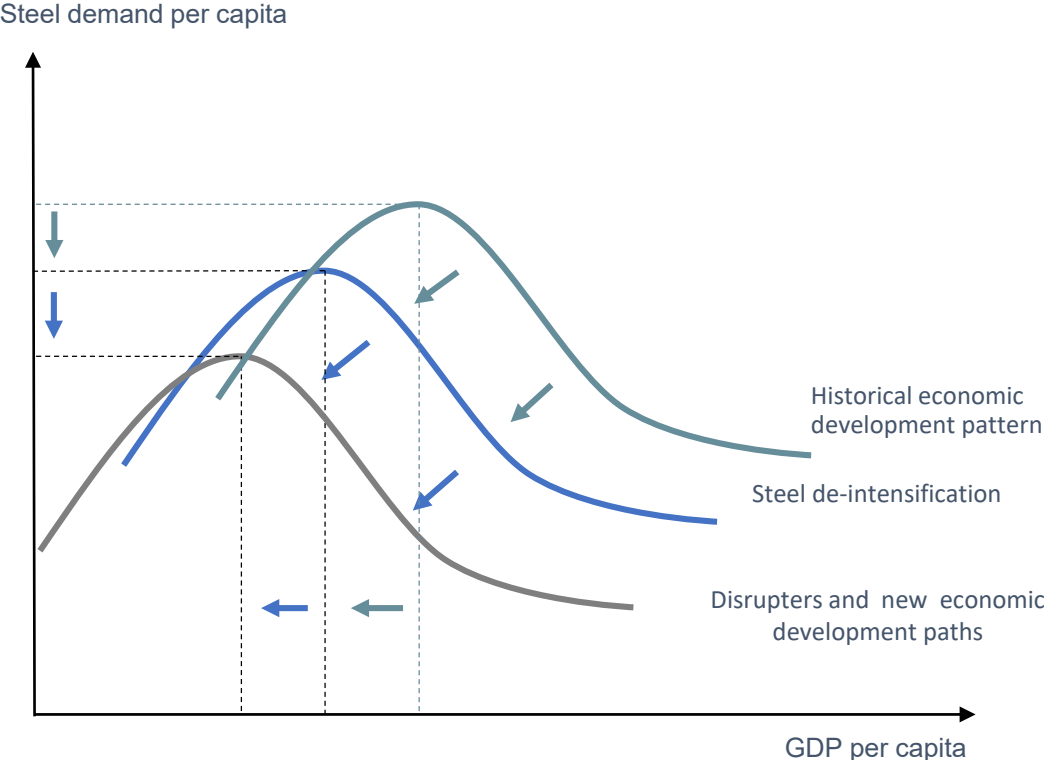


- Steel de-intensification is an ongoing process over time as steel users look for ways to reduce costs and steel companies develop products to retain or increase steel’s competitiveness versus other materials
- De-intensification pressures are increasing in response to changing consumer preferences, government policies and advances by other materials
- The development of Advanced High Strength Steels (AHSS) to support the automotive industry’s efforts to reduce vehicle mass is the foremost example of this trend. Similar trends are underway in all sector

Source: POSRI Asian Steel Watch #3 and Crucible Consulting

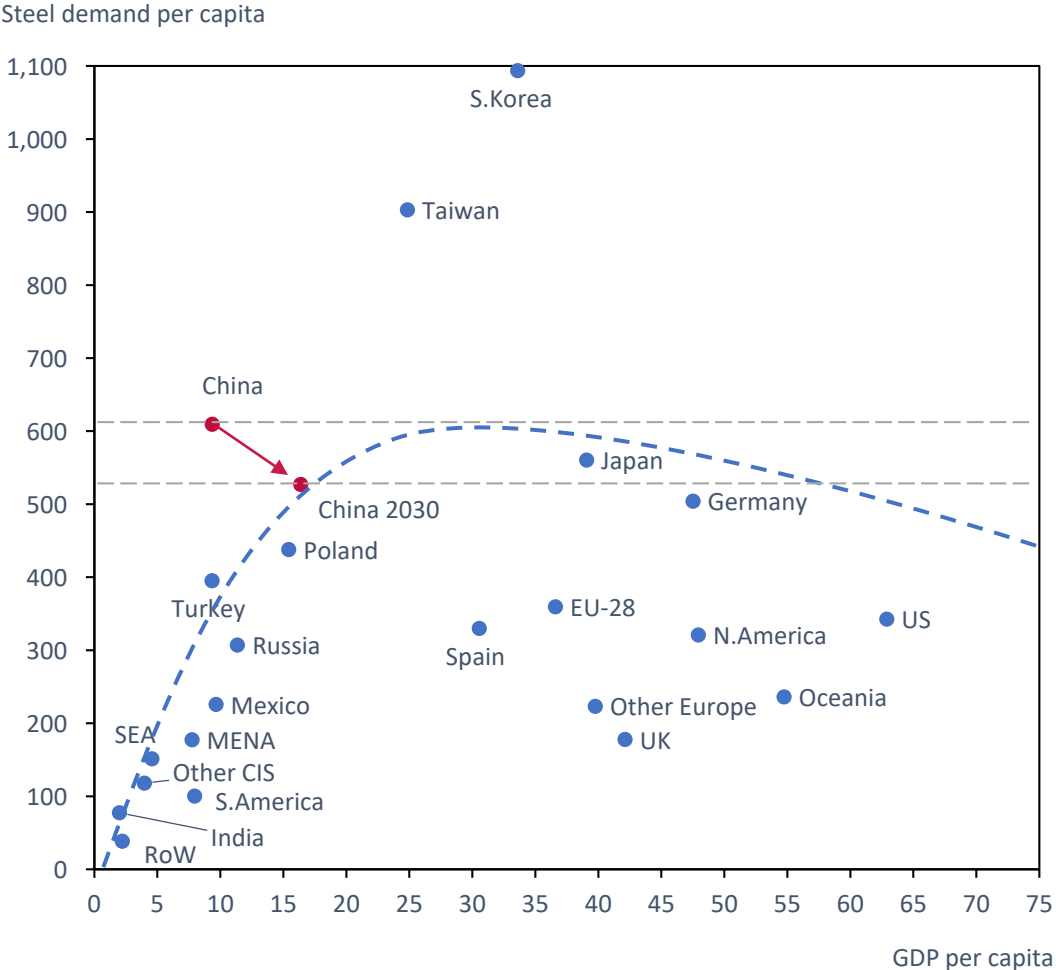
# Steel demand continues to grow in developing economies, though more slowly than expected due to the preceding megatrends combined with a shift away from typical steel-intensive growth drivers

Shifting peak steel demand per capita

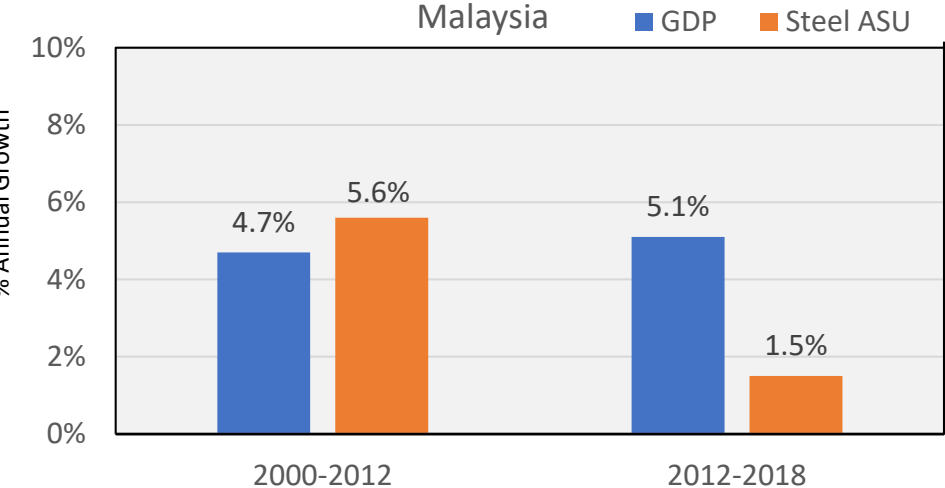
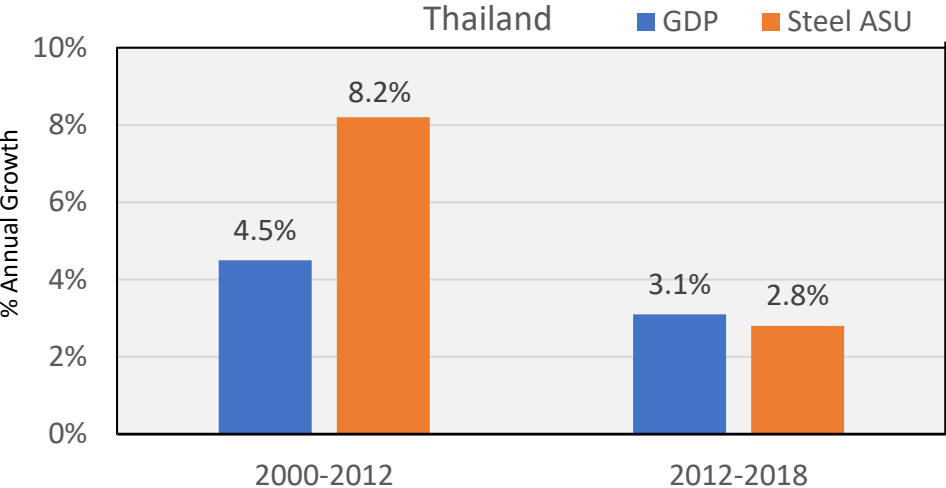
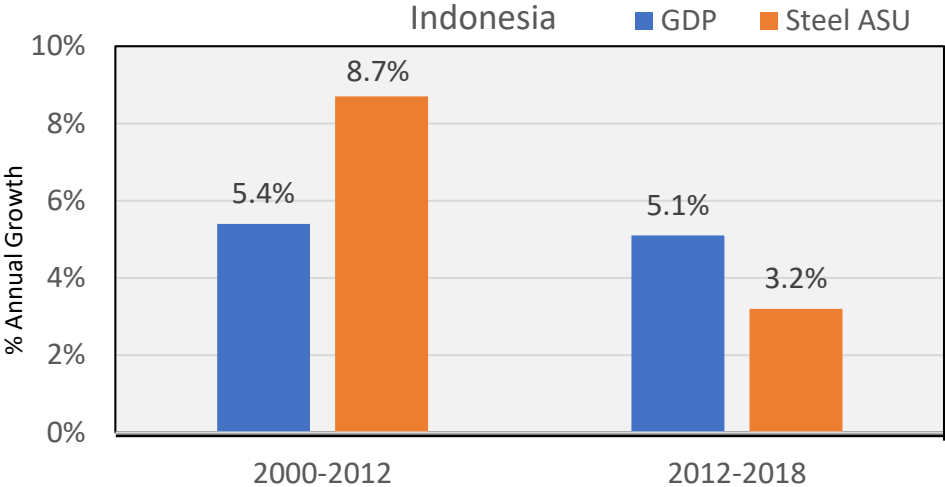
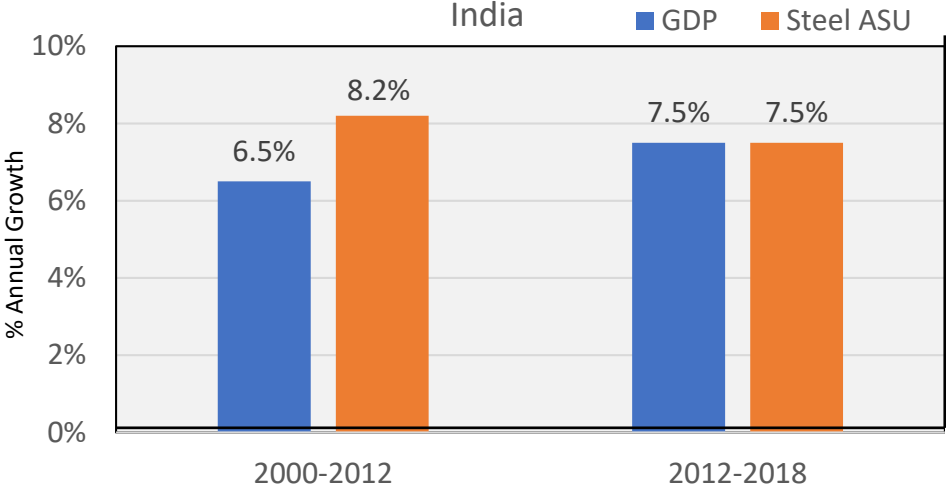


Source: RCG and Crucible Consulting

Dependency of steel demand per cap.[kg] on GDP per cap., 2018 [\$K]



# In several key emerging countries, steel demand growth in recent years has not kept pace with overall economic growth\*



\* Vietnam is a notable exception

## Implications and discussion topics

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- Based on the forecast of slowing demand growth, the current global industry capacity of > 2.3 BT appears to be sufficient in aggregate to meet future market requirements, albeit with some regional imbalances
- The potential exists for the steel industry as whole to significantly reduce its CO<sub>2</sub> emissions over the next decade, and for some production sites to become carbon-neutral by 2050. This will require significant capital investment and support from the public sector
  - Existing and incremental improvement technologies until 2030:
  - Break-through hydrogen-based steelmaking thereafter – dependent on hydrogen price
- 2035 is unlikely to represent peak steel: China and the developed countries should reach a floor for steel consumption, and demand by most emerging economies will continue to grow
- Global raw materials markets will undergo significant changes: the seaborne iron ore market will likely reach a peak before the end of the decade. Scrap use will grow due to increased production by electric arc furnaces supported by increased scrap availability, especially in China