

# Energy Trends

Iron Ore & Coal Shipping Summit  
Colin Cridland, Managing Director Analyst Team  
Athens, 1 October 2012  
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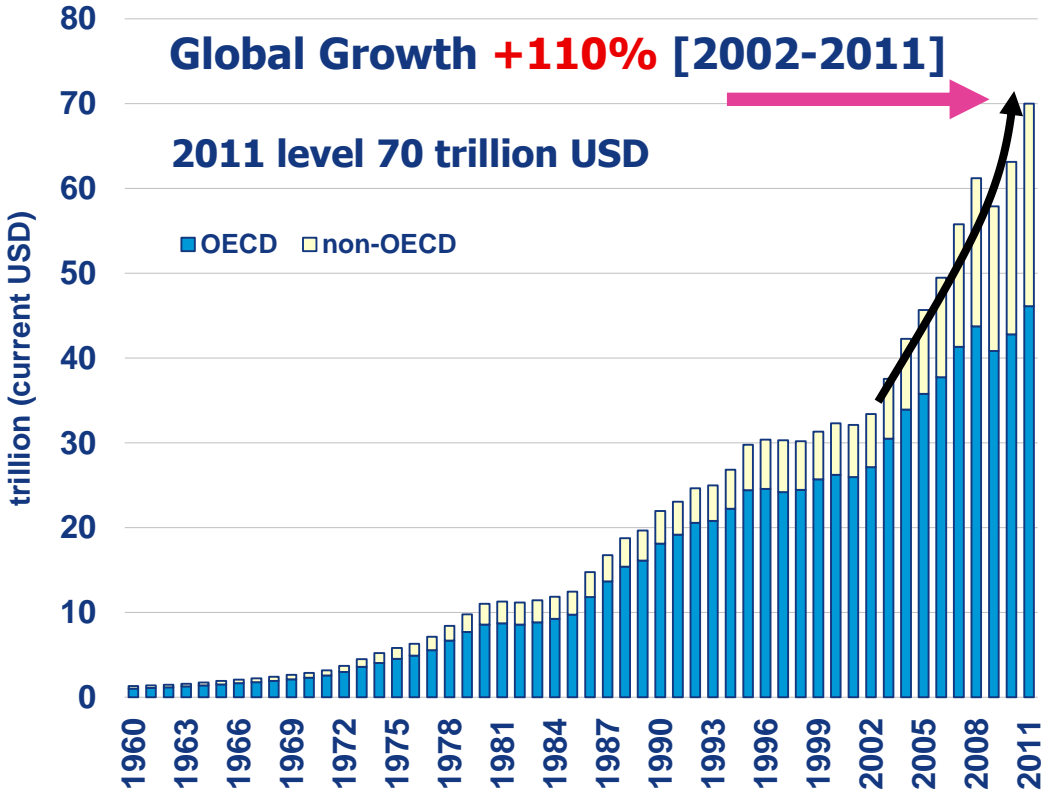
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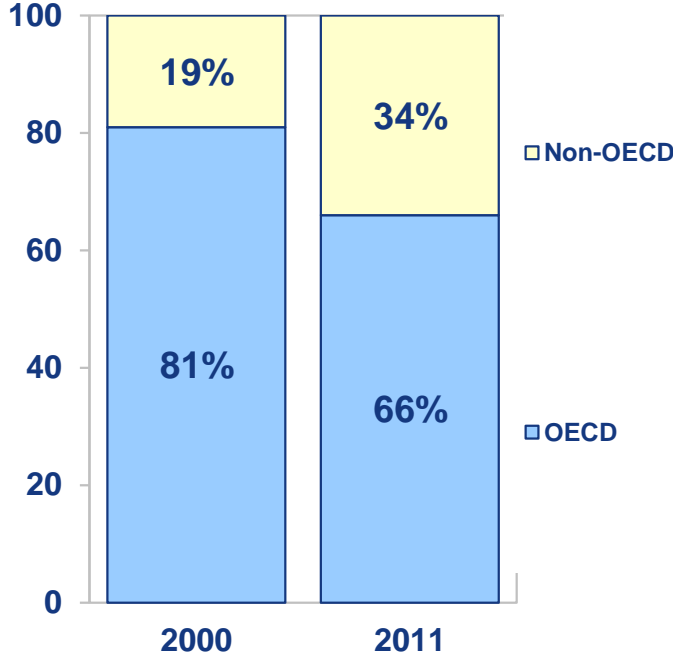
# Economics



# Global Economic Growth



Distribution of World Economic Growth



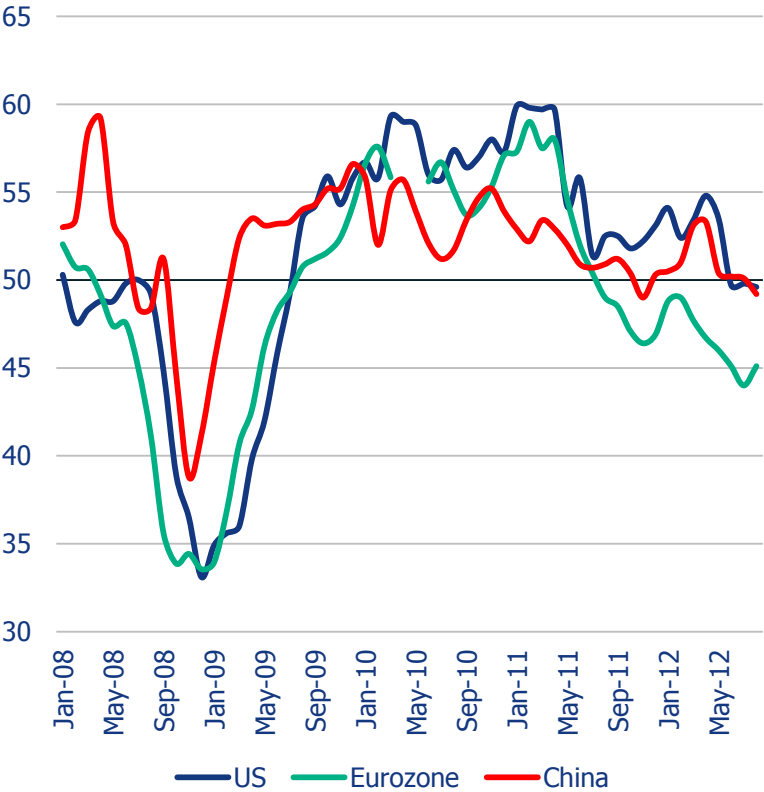
**Note:** GDP data basis current US dollars

Data Source: World Bank, Clarksons

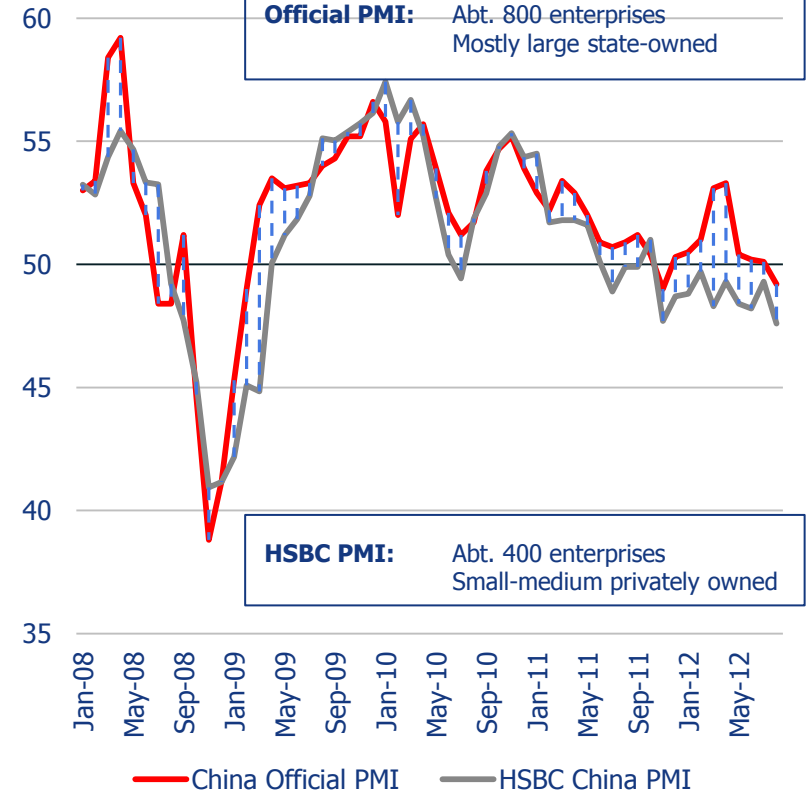


# Economic slow-down intensifies globally

### Global Manufacturing PMI's



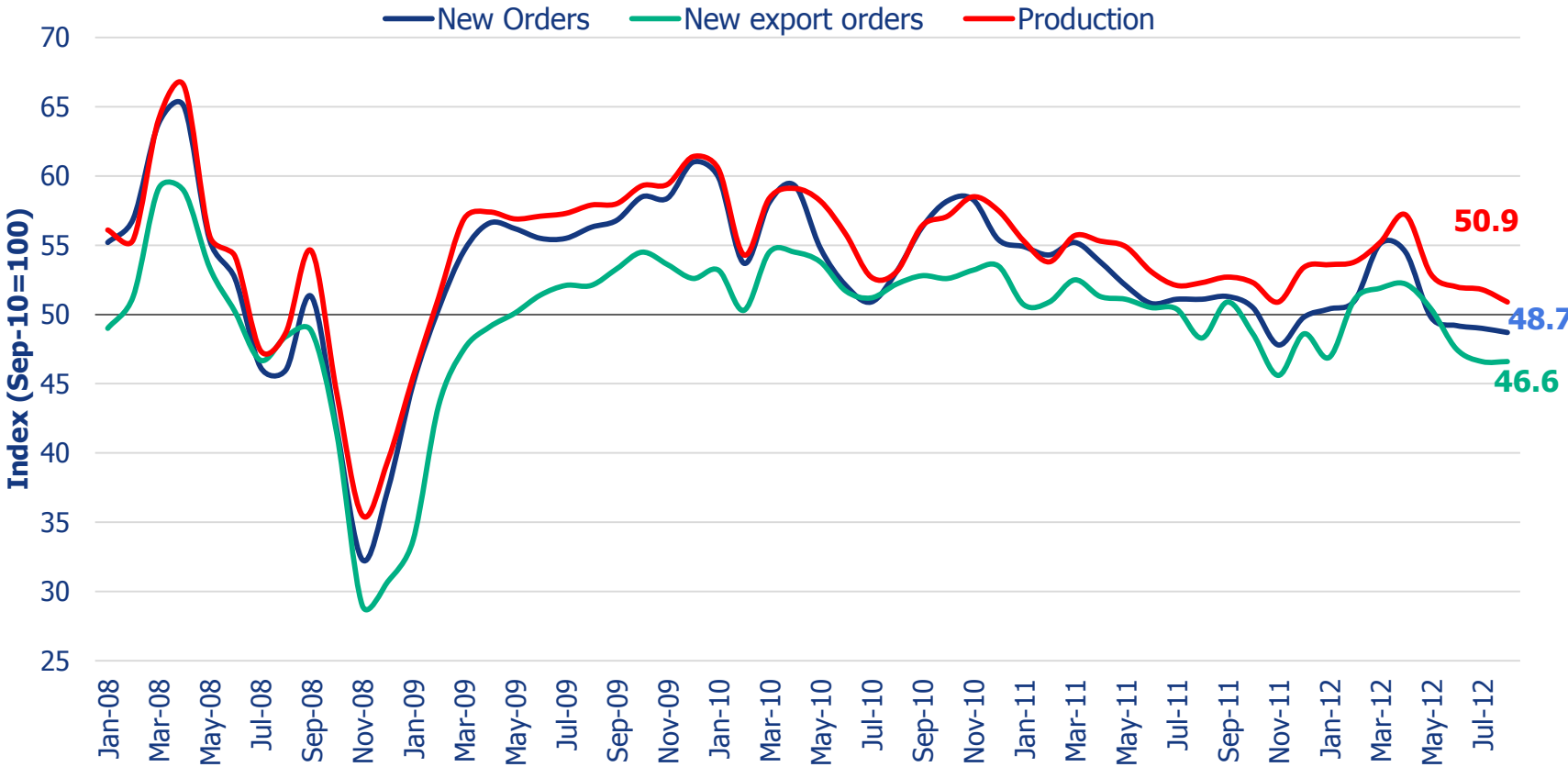
### China Manufacturing PMI - Official vs. HSBC



Data Source: Markit/National Bureau Statistics of China/HSBC



# China sub-indices point to further weakness

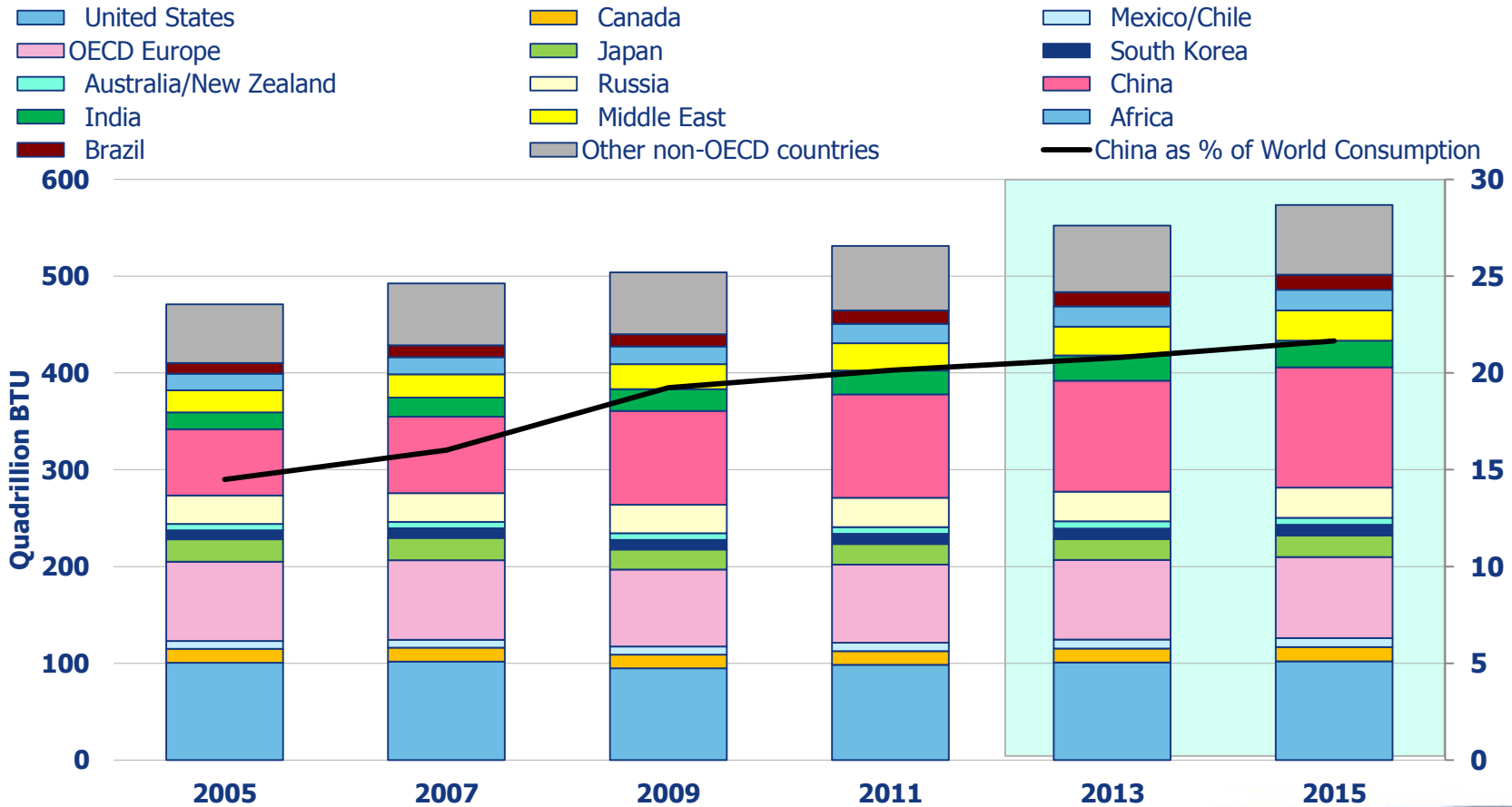


Data Source: National Bureau Statistics of China



# Energy

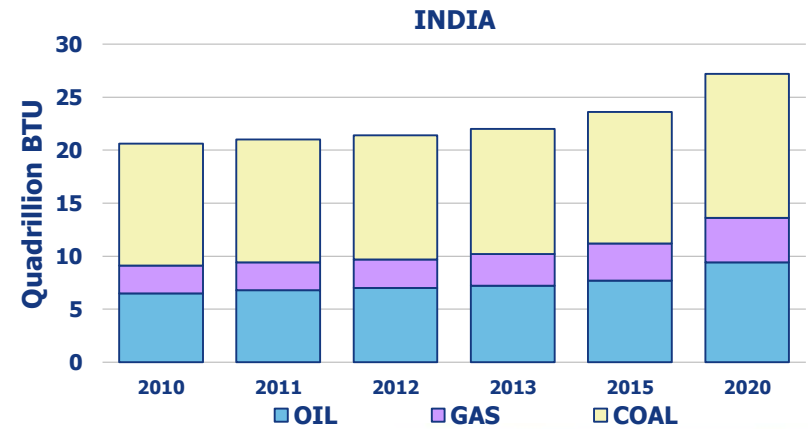
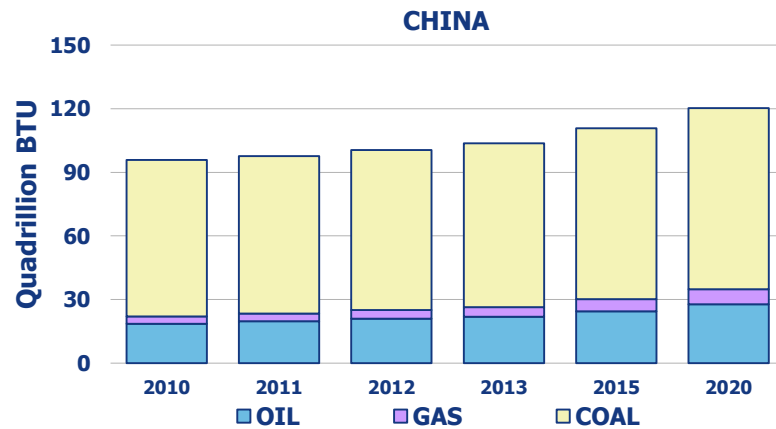
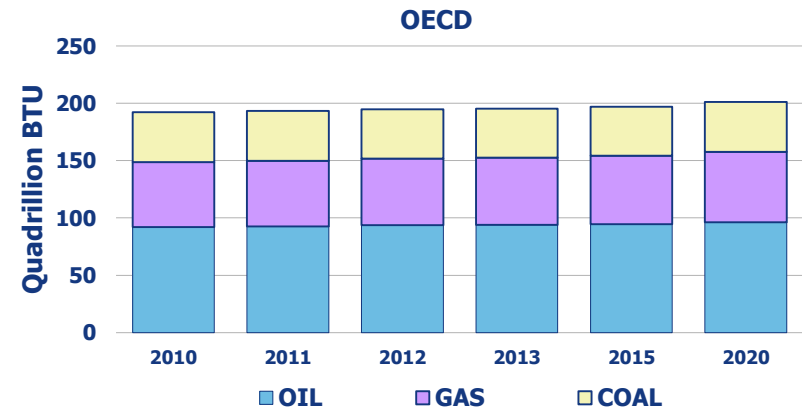
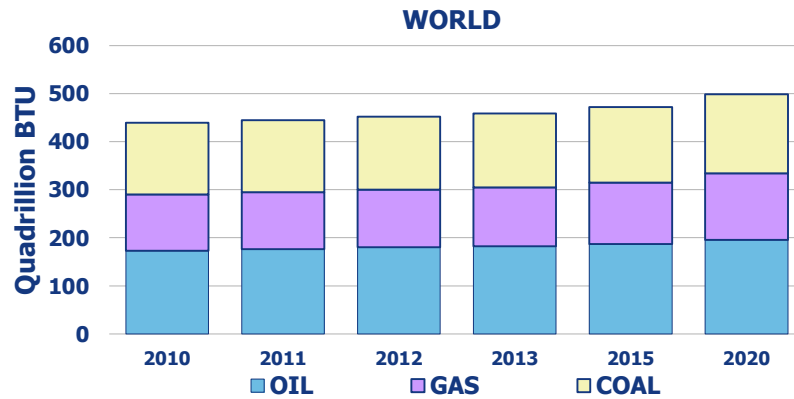
# Primary Energy Consumption



Data source: EIA

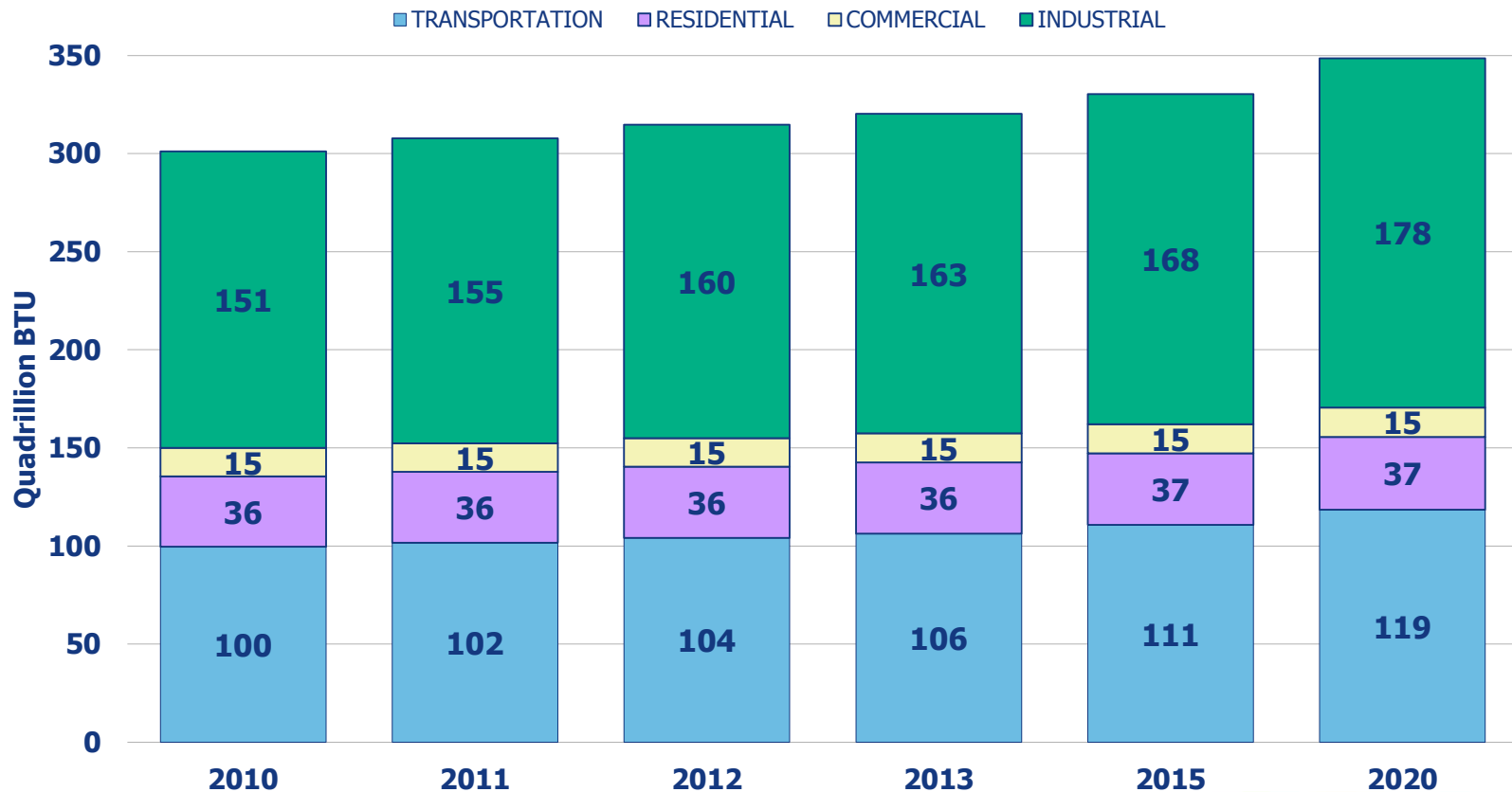


# Fossil Fuel Demand



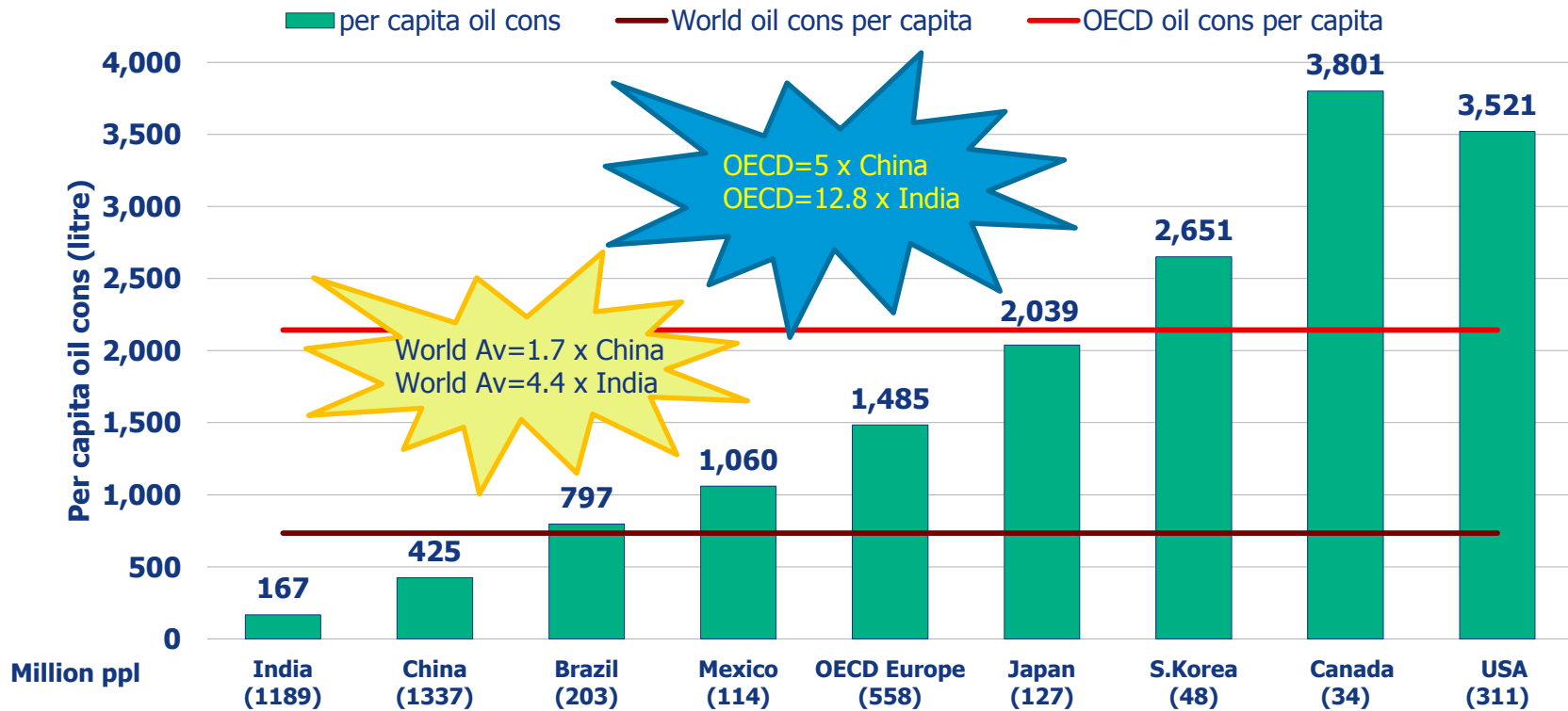
Data source: EIA

# World Fossil Fuel by End-Use



Data source: EIA

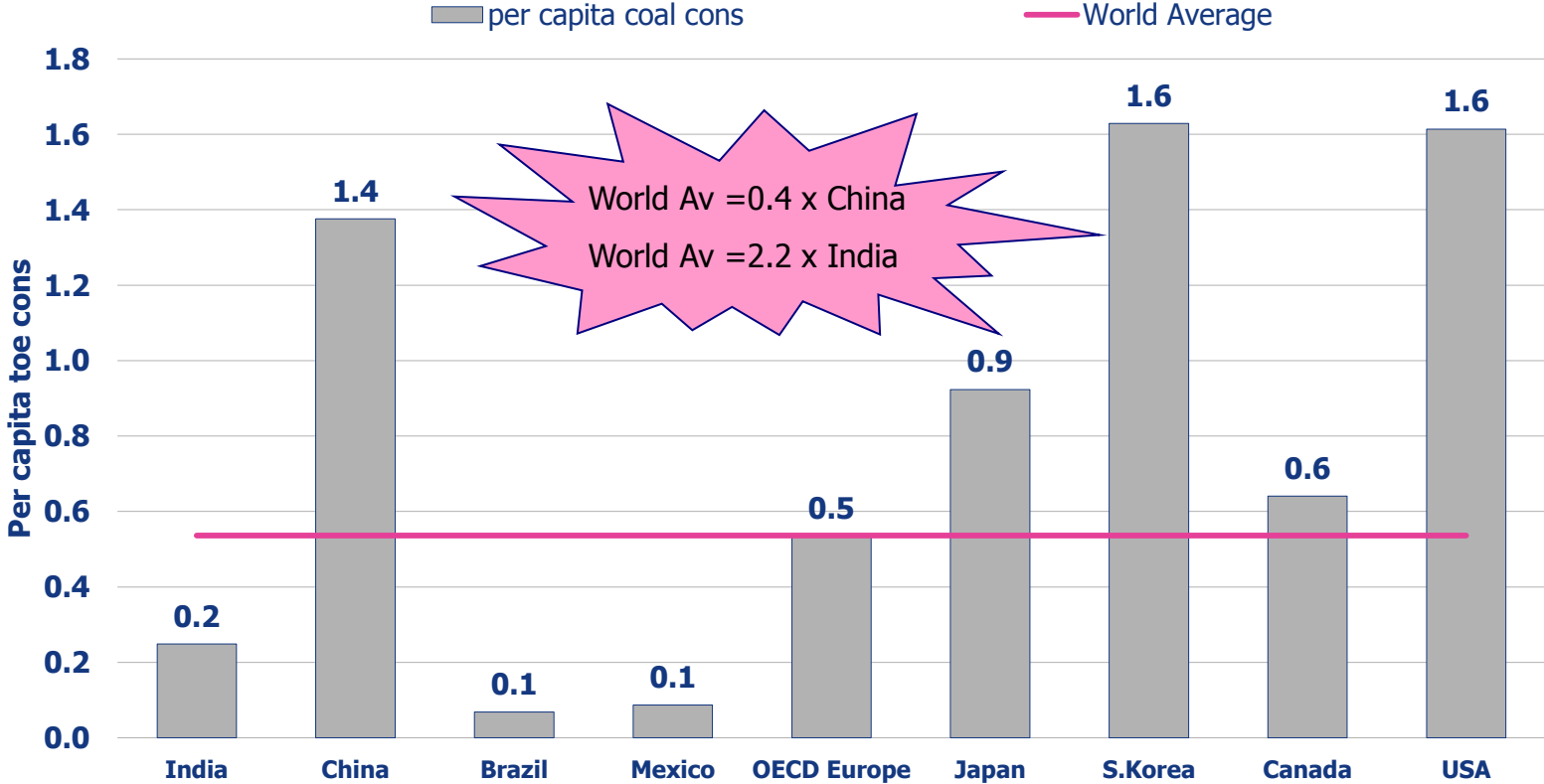
# Oil Consumption per Capita



Data source: EIA/US Census Bureau



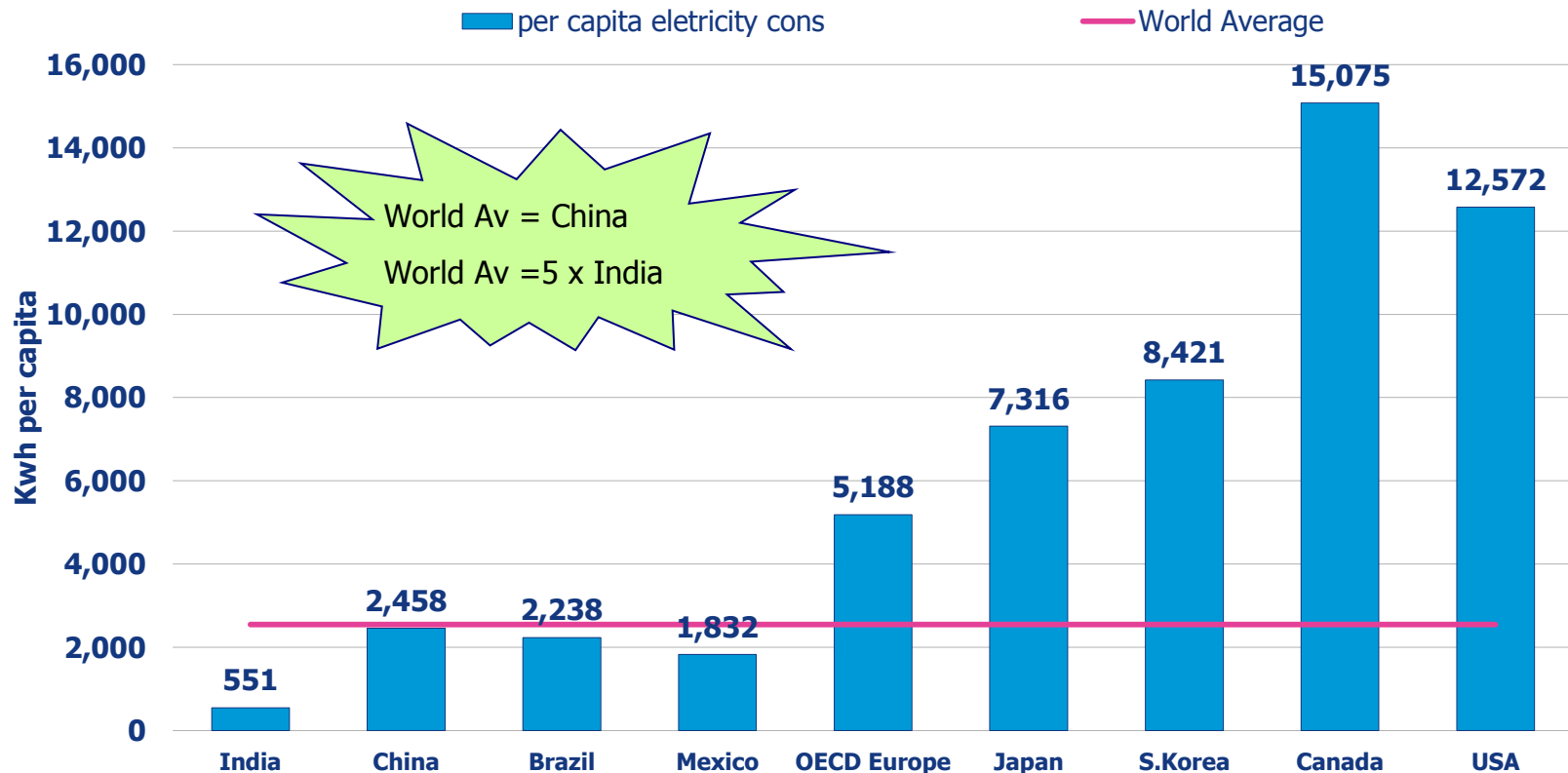
# Coal Consumption per Capita



Data source: BP



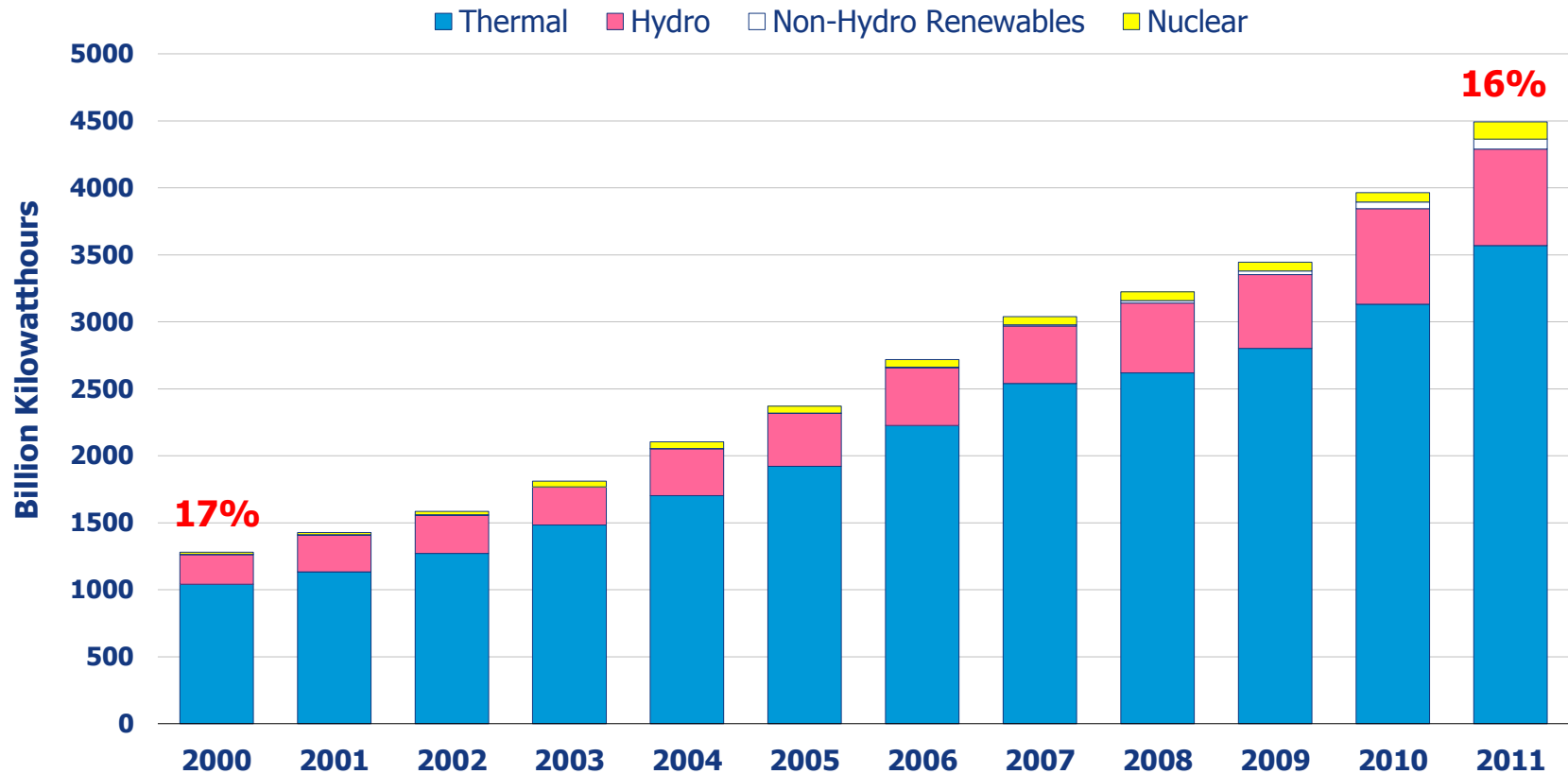
# Electric Power Consumption per Capita



Data source: EIA/Clarksons



# China Electricity Production by Source



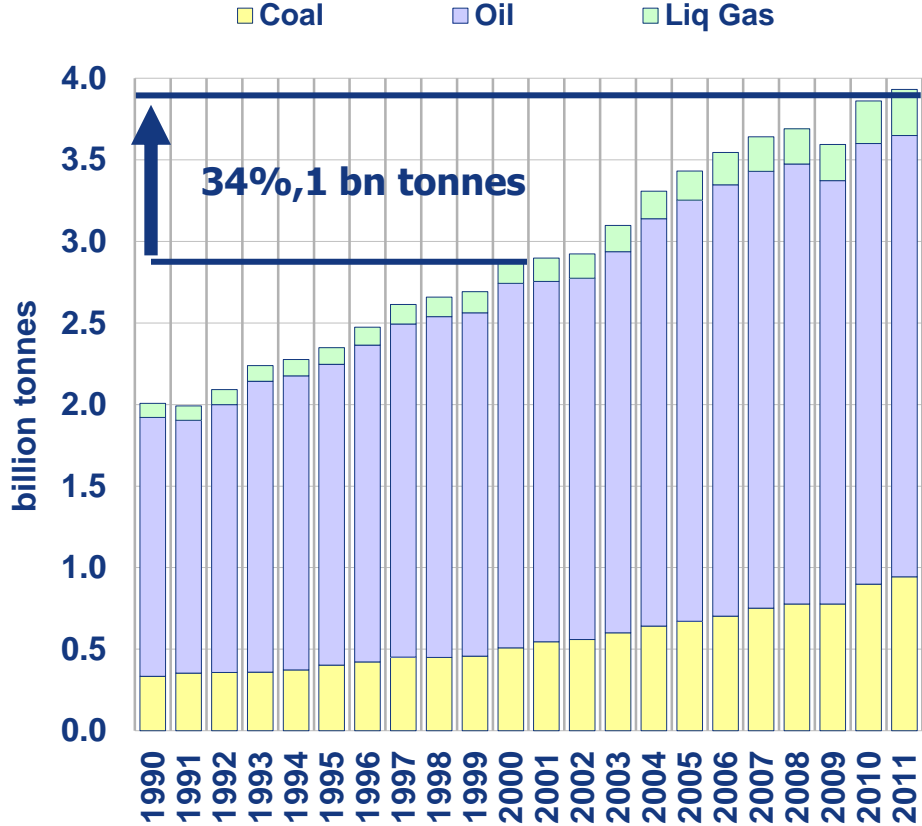
Data Source: EIA



# Trade

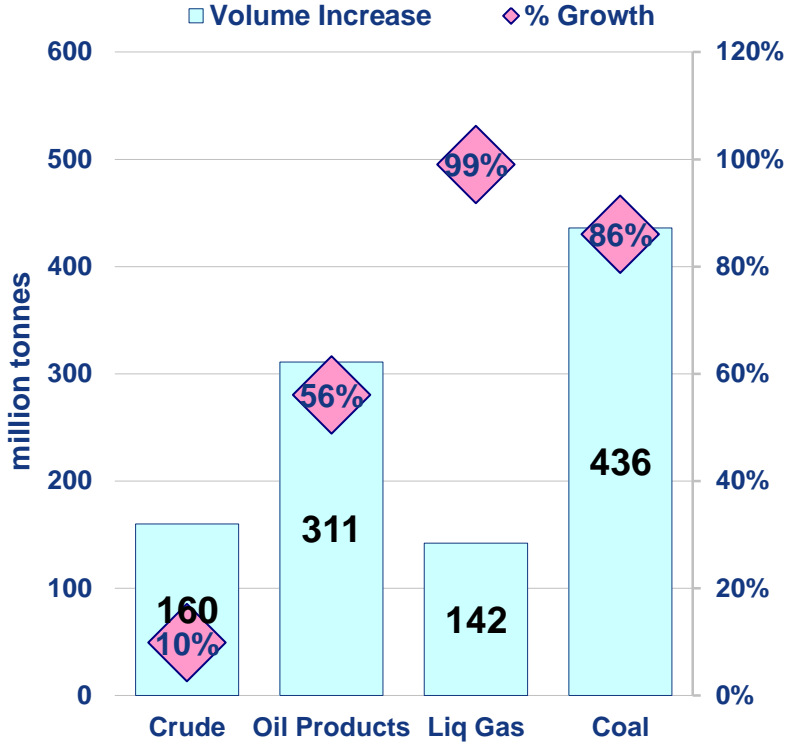


# Energy Seaborne Trade



Data Source: Clarksons

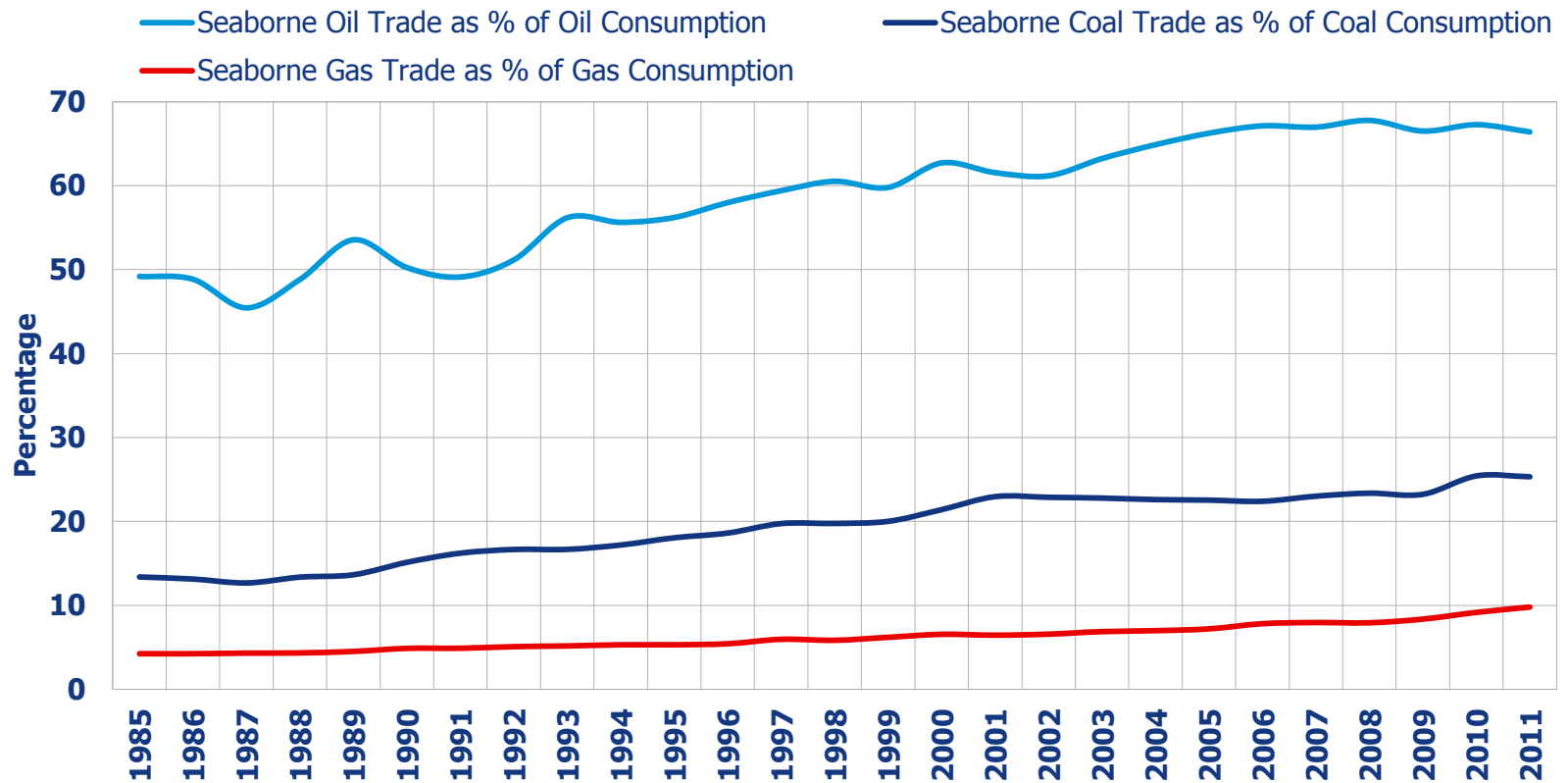
## Energy Trade Growth 2000-11







# World Seaborne Energy Trade vs. Consumption



Data source: Clarksons

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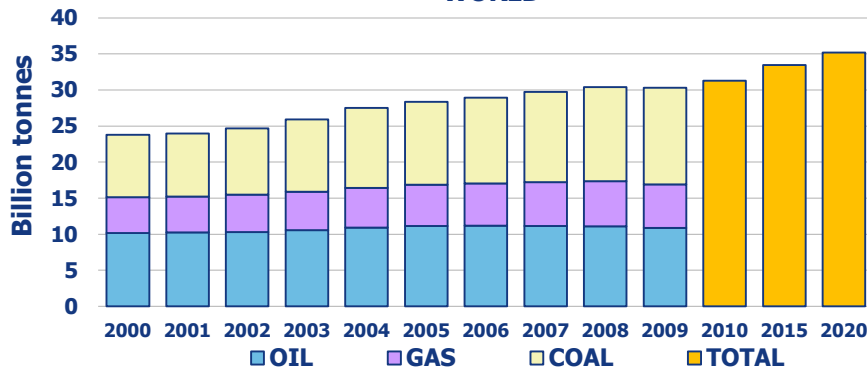
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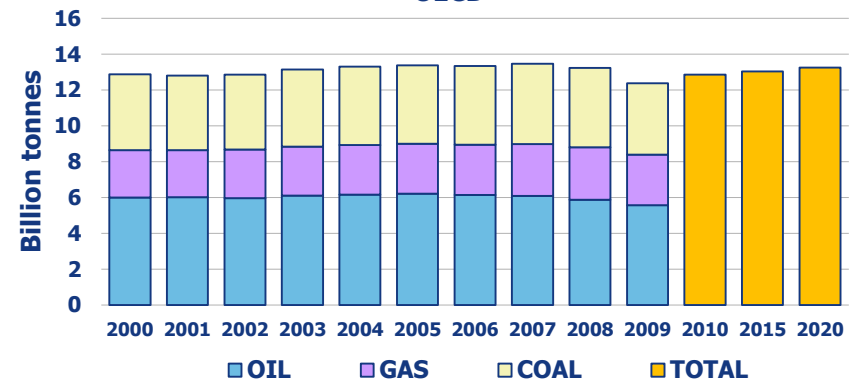
# Carbon Emissions

# CO2 Emissions from Fossil Fuels

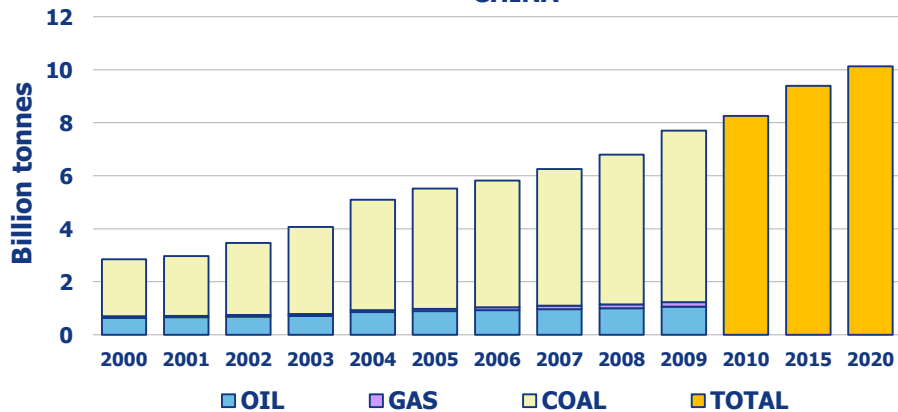
WORLD



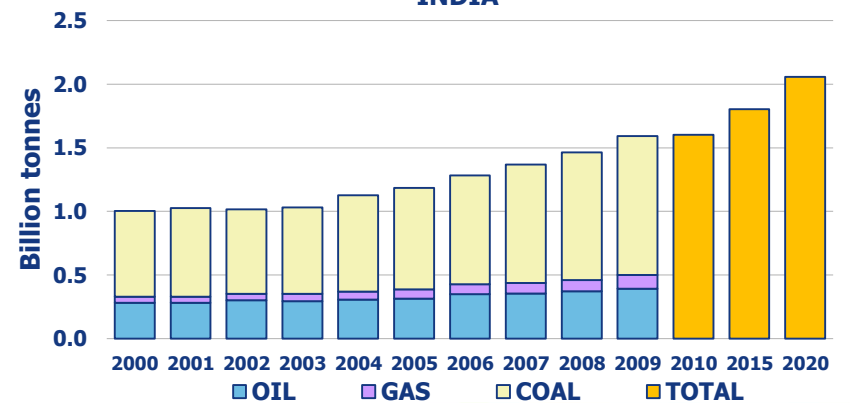
OECD



CHINA



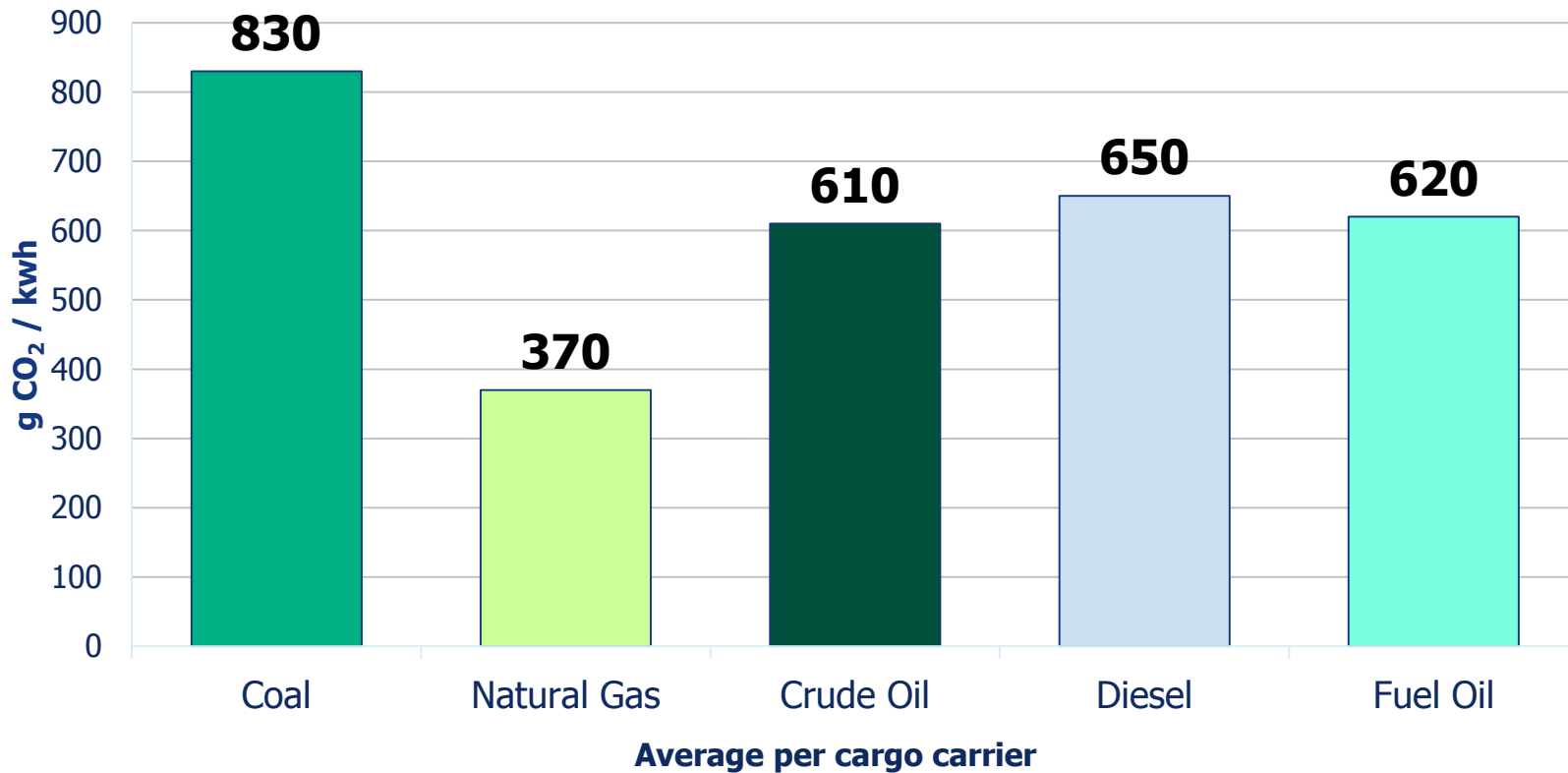
INDIA



Data source: EIA



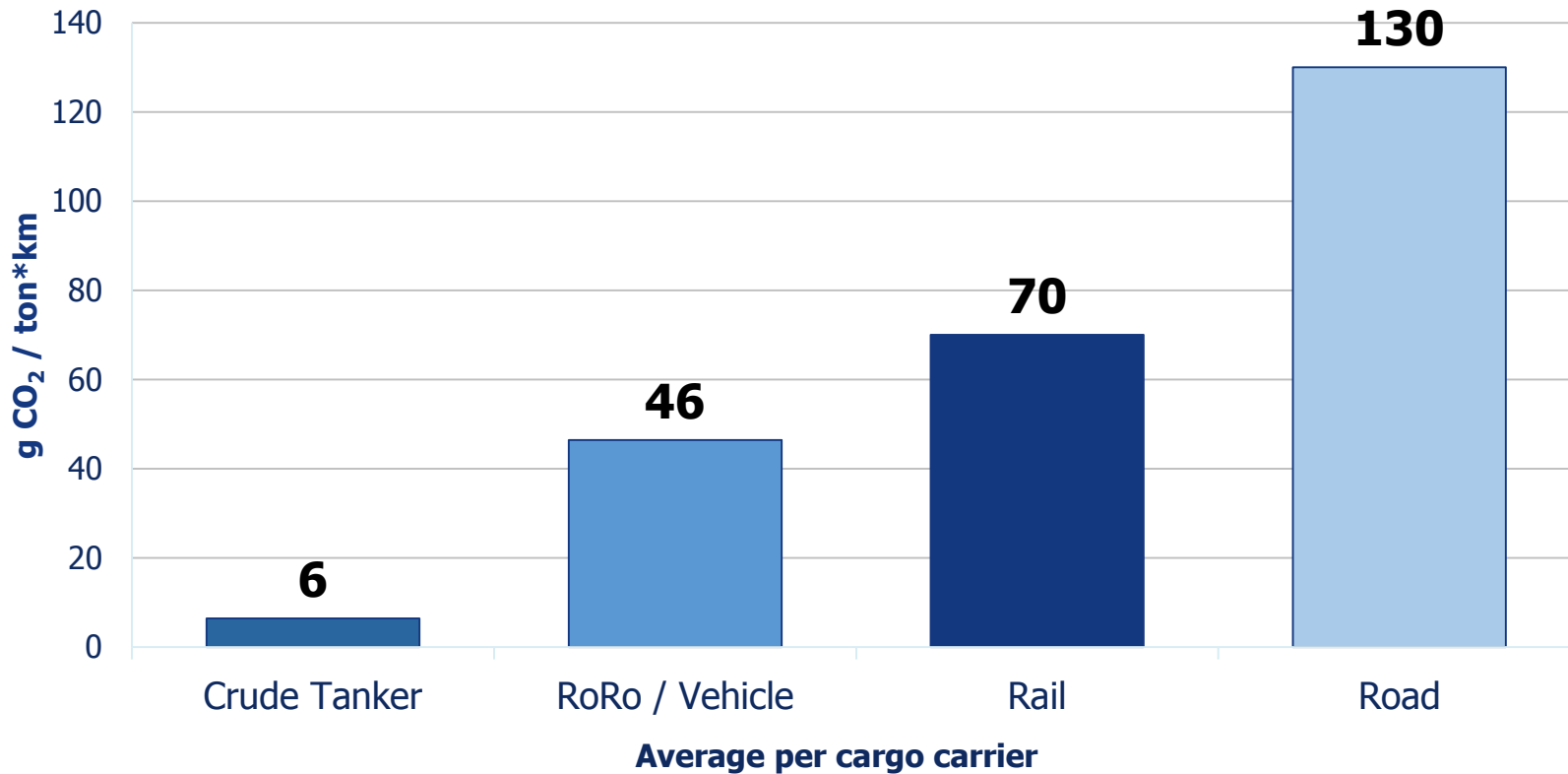
# Emissions Factors for Heat & Electricity Generation



Data source: EIA



# Modal comparison of CO<sub>2</sub> emissions



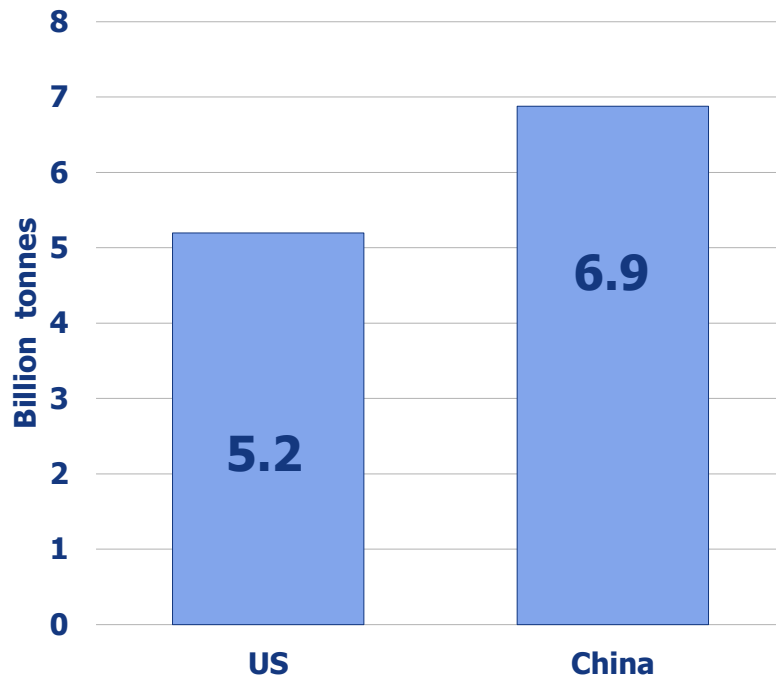
Data source: Marintek



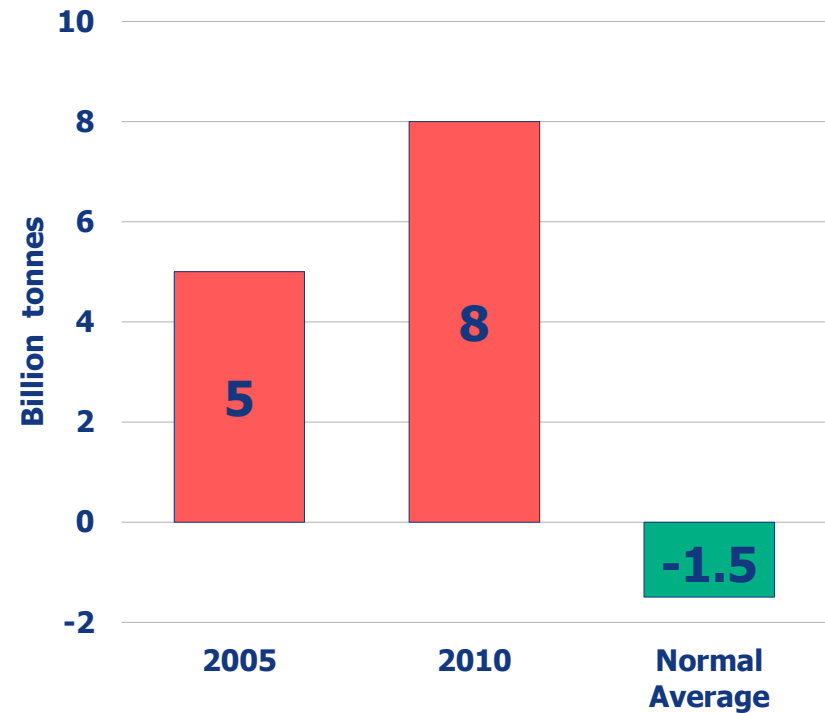
# Ship CO<sub>2</sub> Emissions in Context

**World CO<sub>2</sub> Emissions = 29bn ton**

US vs. China



Amazon



Data source: IEA/BBC/Clarksons

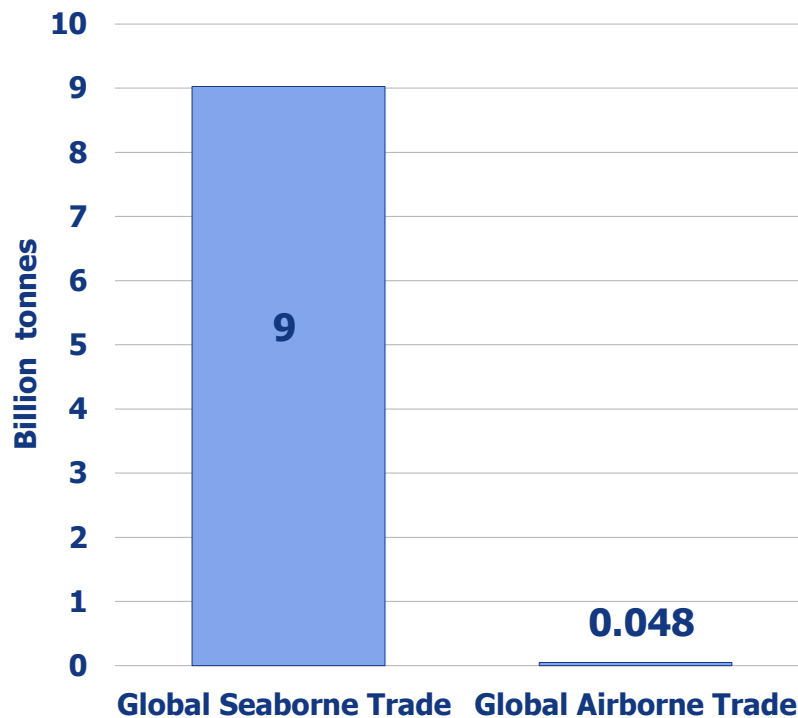
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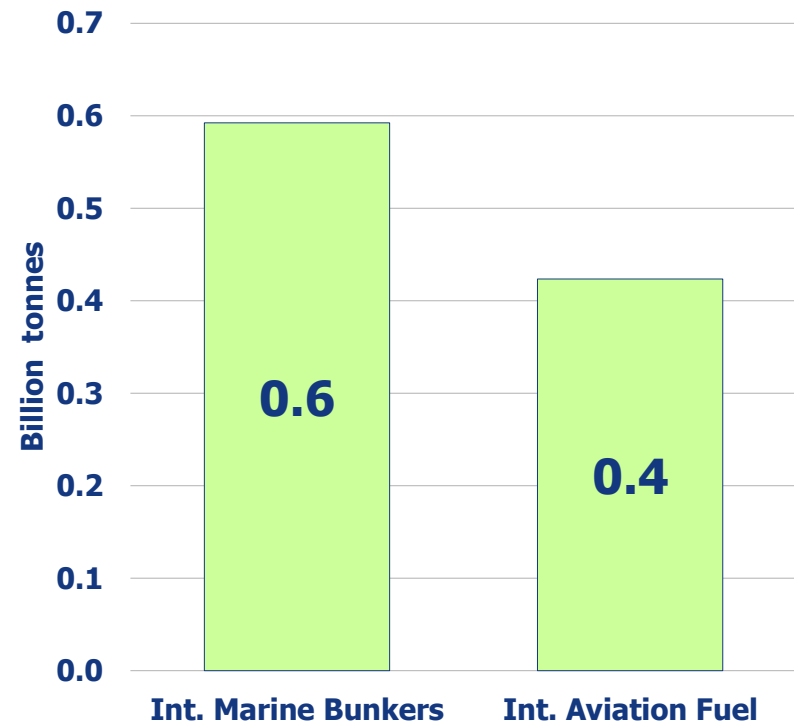


# Trade vs. Emissions

## Global Trade



## CO<sub>2</sub> Emissions



Data source: IEA/BBC/Clarksons



# Thank You