

# Global Economics

## Implications for Oil & Gas

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# Forecast Risks – from 2016

## Economic Risks

- Fed tightens monetary policy too quickly
- Chinese economy slows more rapidly
- Geopolitical shock

## Oil & Gas Risks

- Libya & Nigeria return to full production
- US Shale ramps back up sooner
- OPEC cuts fail to materialize

# Forecast Risks – from 2016

## Economic Risks

- Fed tightens monetary policy too quickly
- Chinese economy slows more rapidly
- Geopolitical shock (Iran Nuclear Deal, Venezuela)

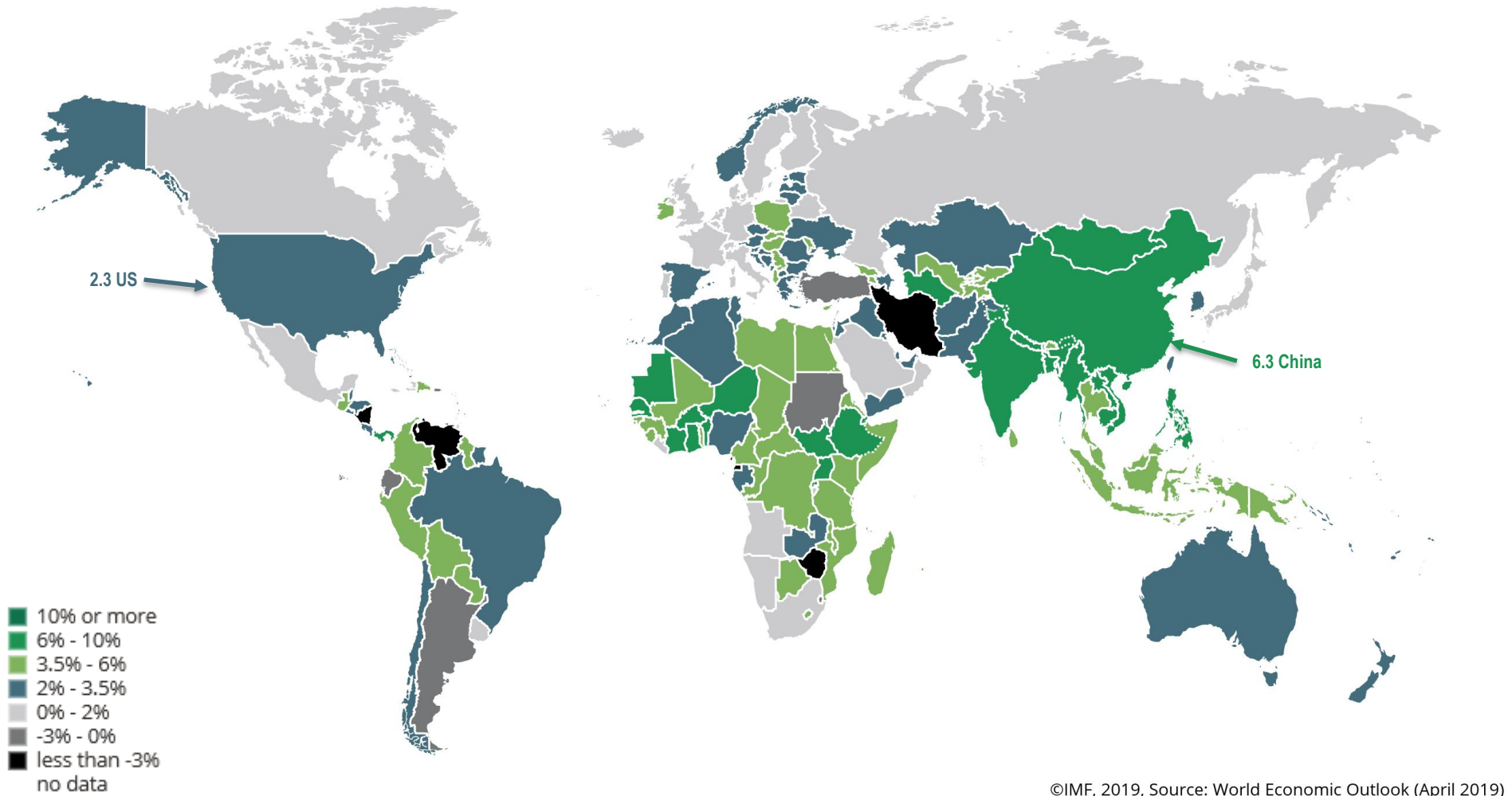
## Oil & Gas Risks

- Libya & Nigeria return to full production
- US Shale ramps back up sooner (50% higher now)
- OPEC cuts fail to materialize

# Economic Outlook

IMF DataMapper

Real GDP growth (Annual percent change, 2019)

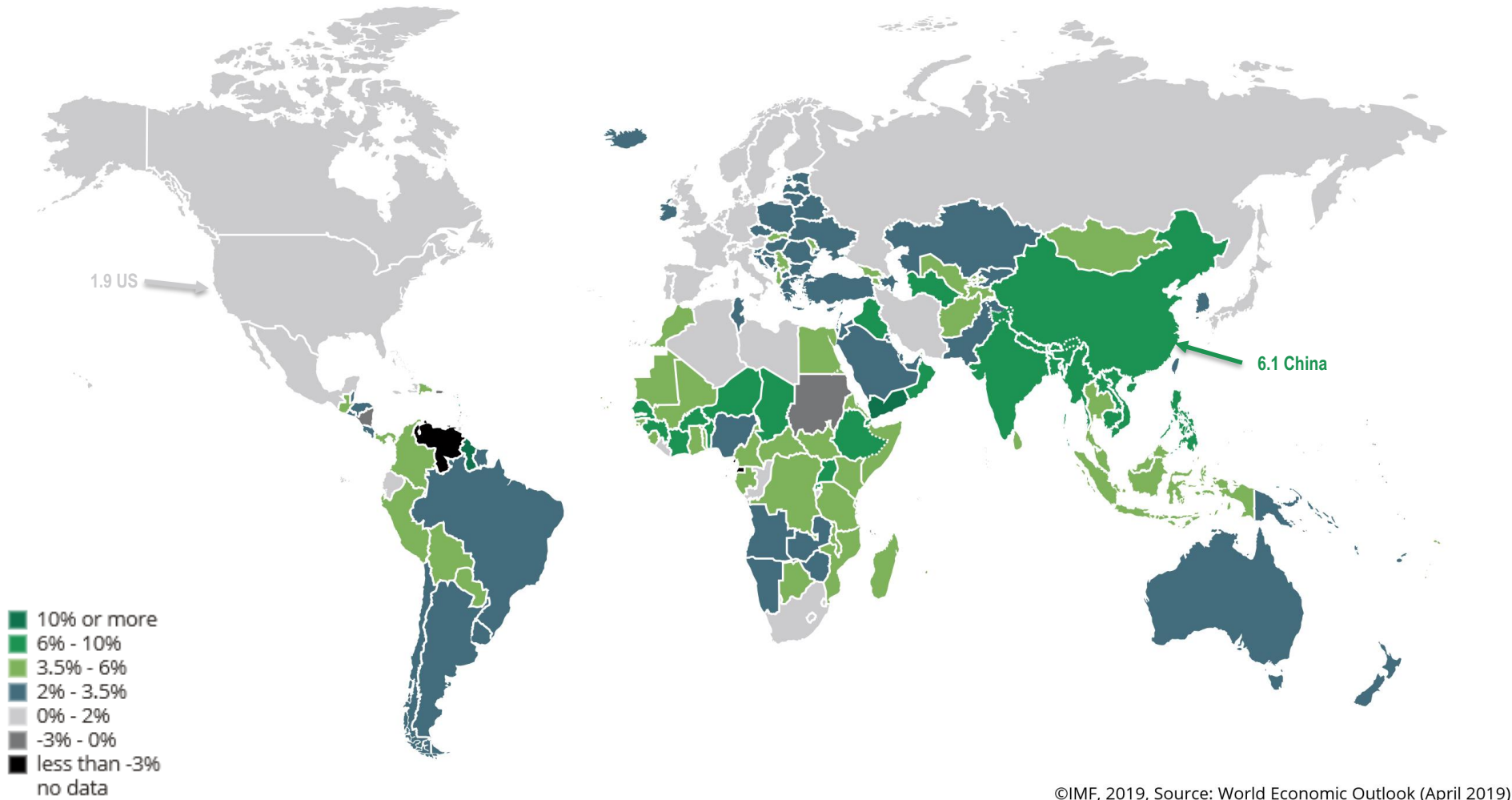


©IMF, 2019, Source: World Economic Outlook (April 2019)

# Economic Outlook

IMF DataMapper

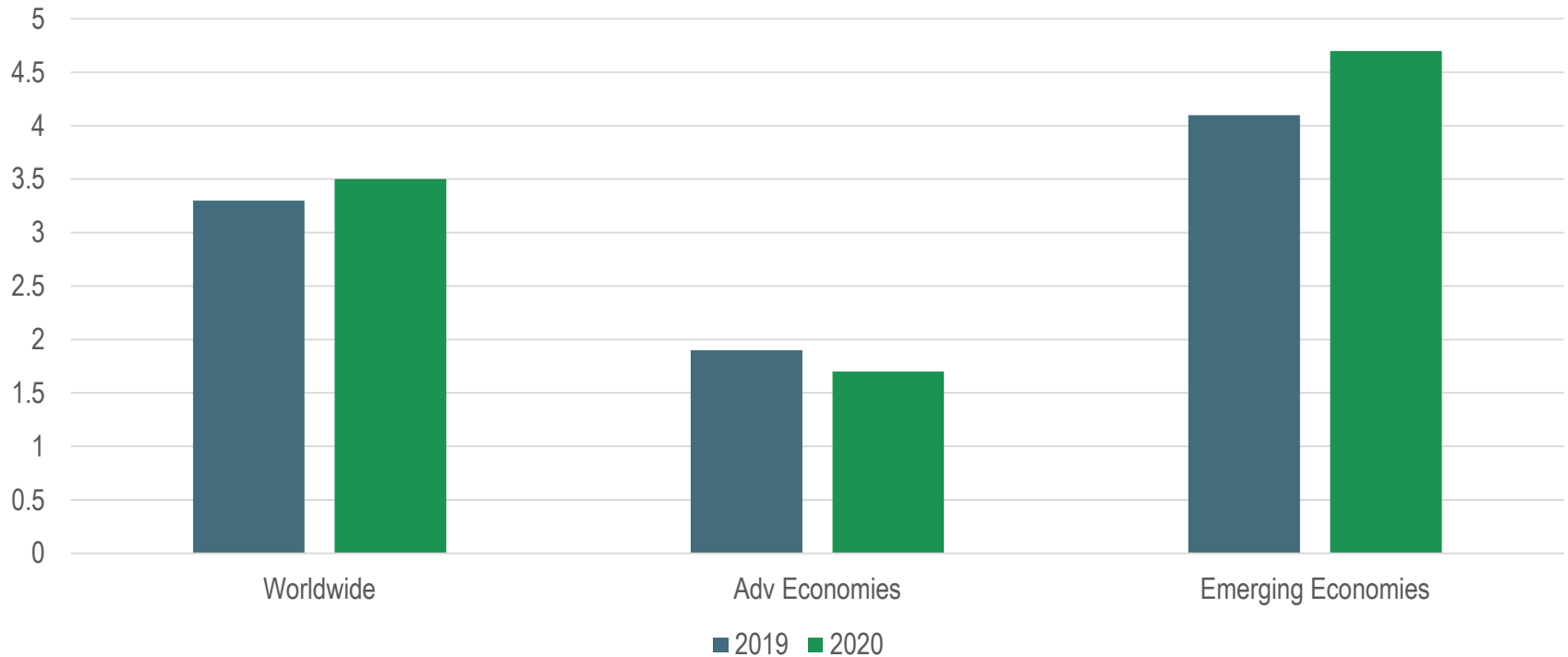
Real GDP growth (Annual percent change, 2020)



©IMF, 2019, Source: World Economic Outlook (April 2019)

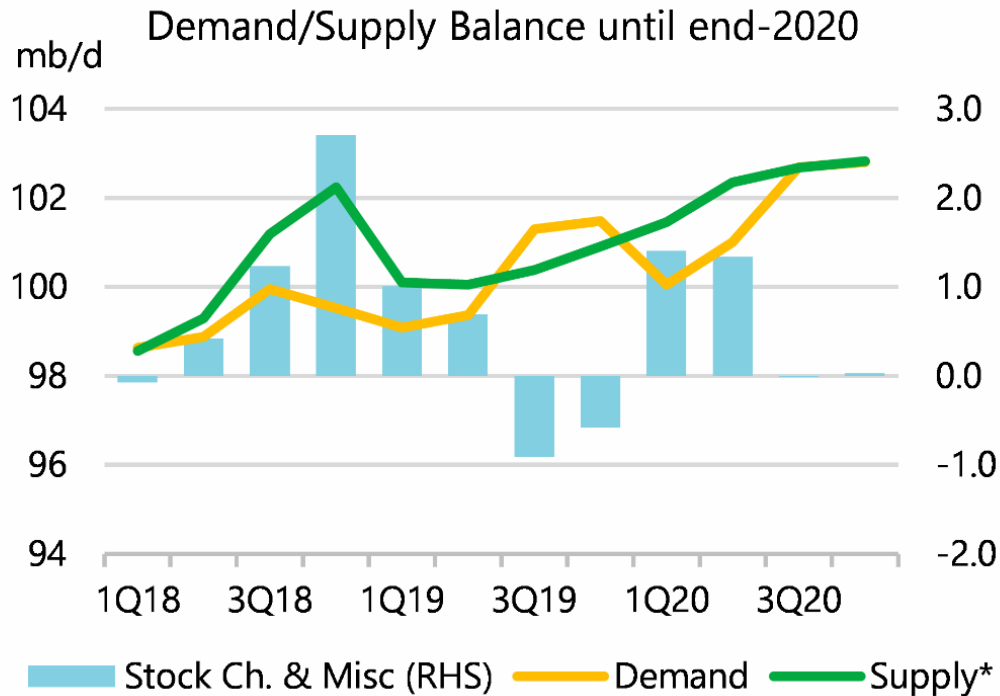
# Economic Outlook

Real GDP Growth (Annual %Chg)



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# Oil Supply & Demand Balances



\*OPEC crude output held steady at 29.7 mb/d from August 2019.

© IEA, 2019, Source: September Oil Market Report



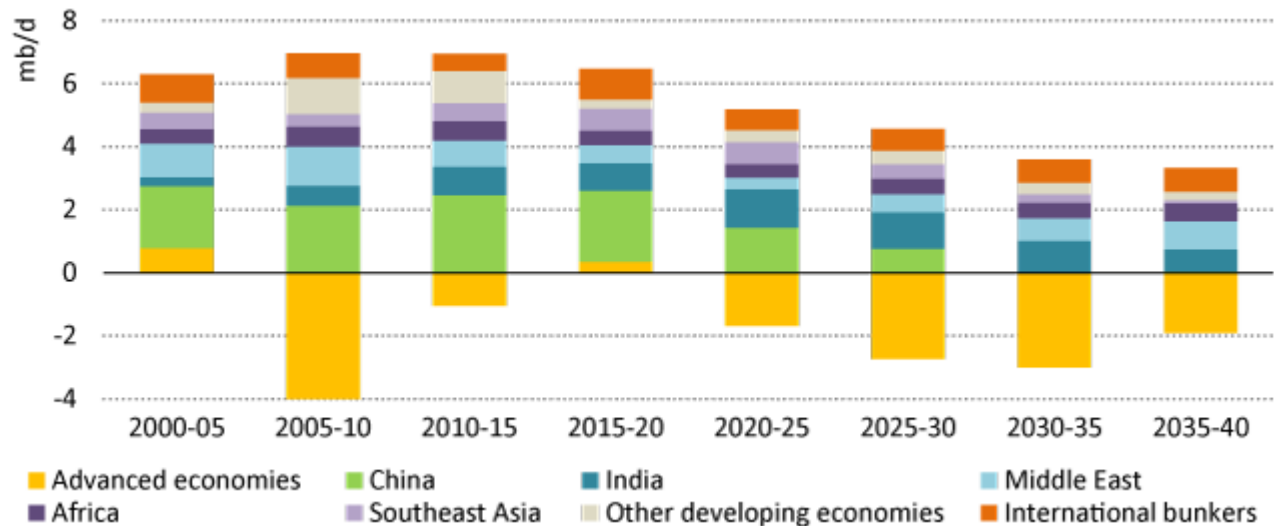
# Global Oil Demand

## Near Term Demand Growth

	FY 2019	FY 2020
Global (IHS)	0.95m b/d	1.4m b/d
Global (IEA)	1.1m b/d	1.3m b/d
China (IEA)		0.3m b/d
Asia (IEA)		0.5m b/d

Source: IEA Monthly Oil Report; IHS Markit

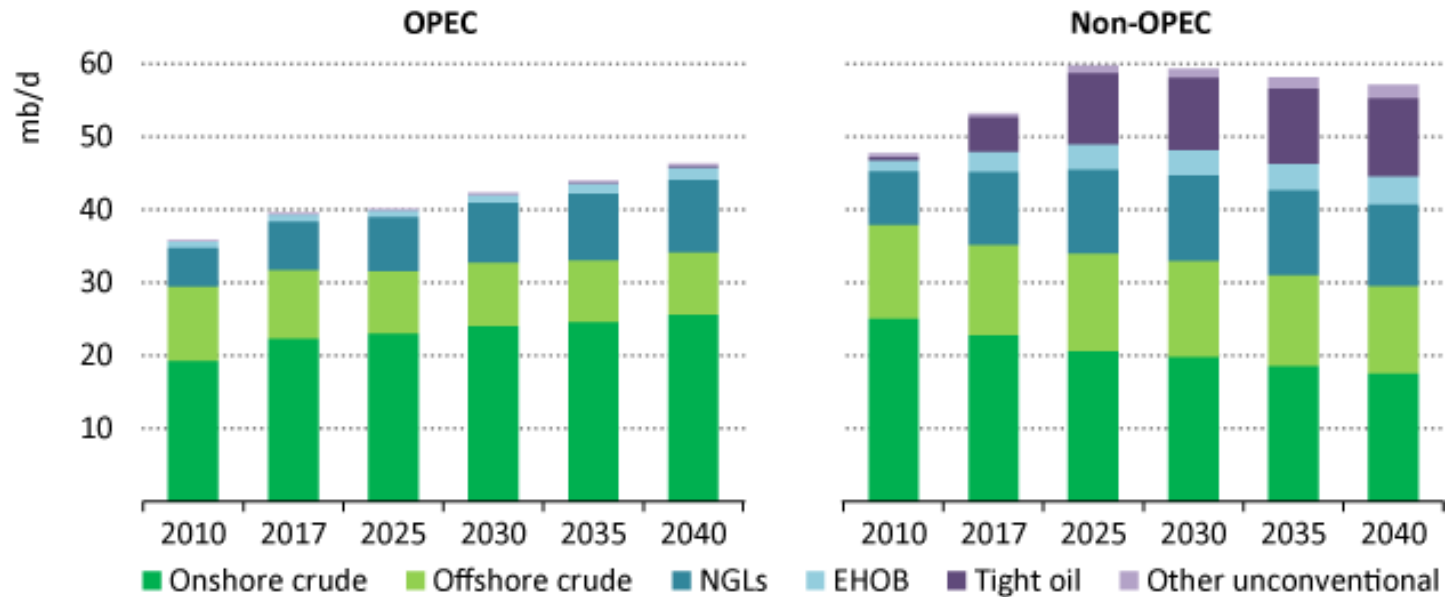
## Long Term Demand Growth



	2017-2025	2025-2040
CAGR	1.0%	0.2%

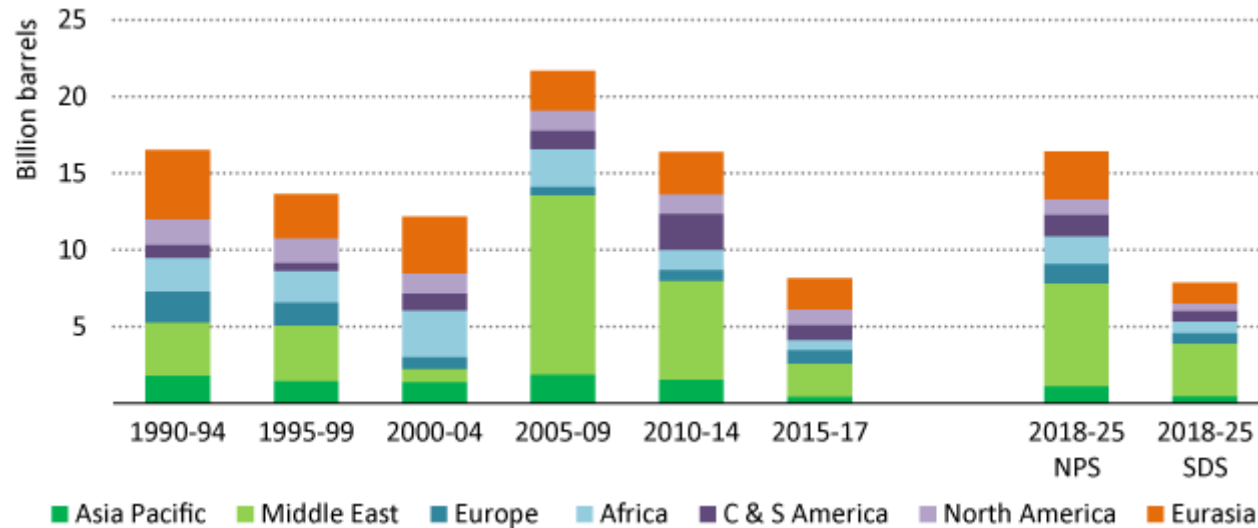
© IEA, 2018, Source: 2018 World Economic Outlook

# Global Change in Oil Production



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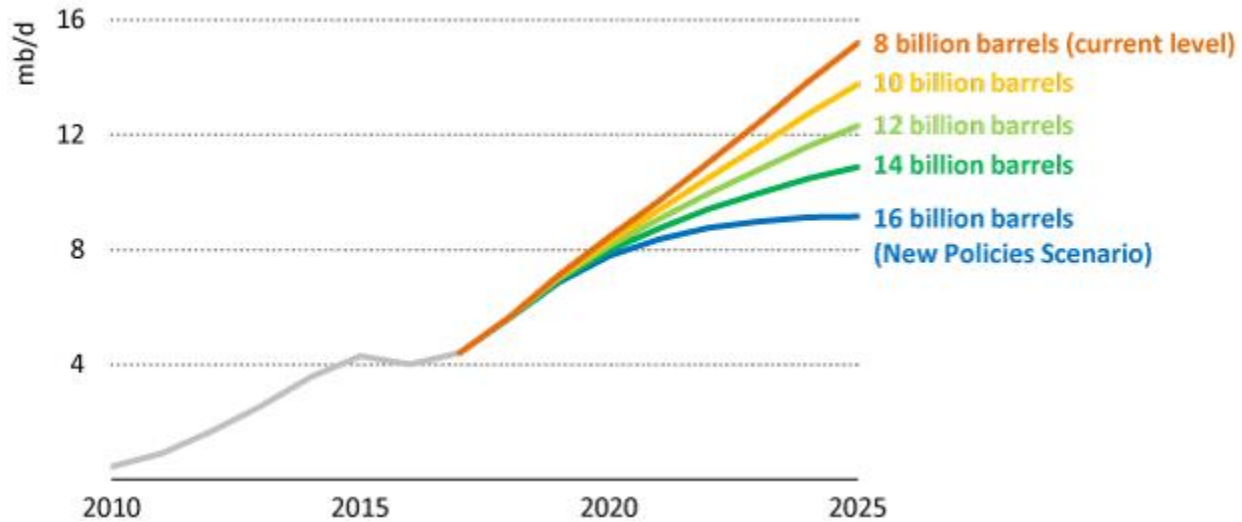
# Average Annual Conventional Resource Approvals



*IEA estimates "16b bbls new conventional crude resources need to be approved each year to 2025 to avoid 'mismatch' between supply and demand"*

© IEA, 2018, Source: 2018 World Economic Outlook

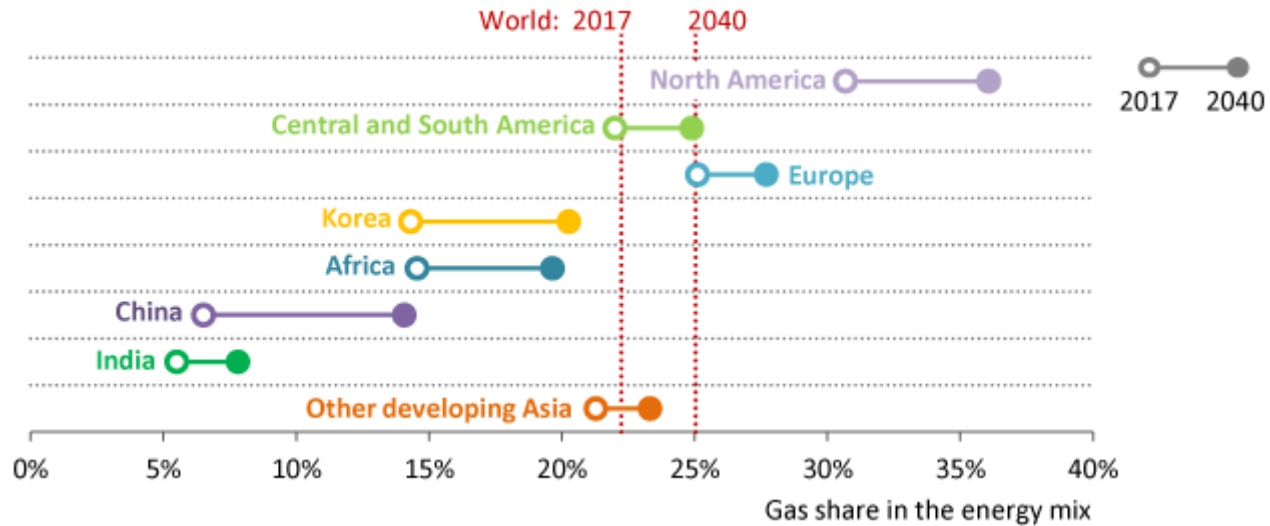
# Call on US Shale Production to 2025



*If annual conventional crude oil approvals stay at the level seen since the oil price crash in 2014 (8 billion barrels), then US tight oil production would need to exceed 15mb/d in 2025*

© IEA, 2018, Source: 2018 World Economic Outlook

# Global Gas Demand



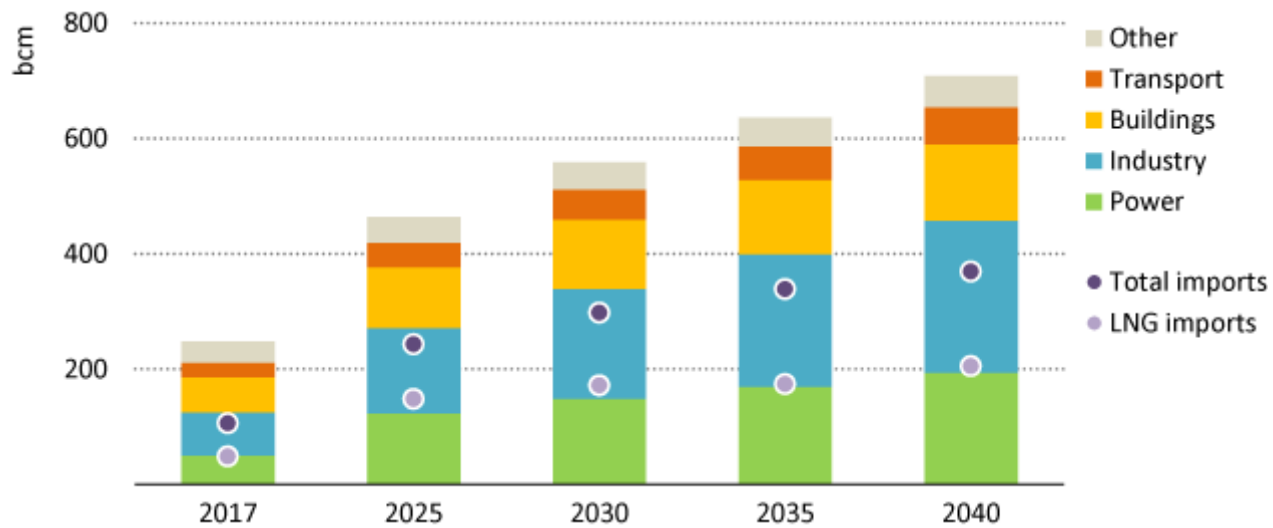
*Gas continues to gain share in the energy mix in most regions, boosted by its versatility and environmental advantages*

	2017-2025	2025-2040
<b>CAGR</b>	1.7%	1.5%

© IEA, 2018, Source: 2018 World Economic Outlook

# China demand for gas

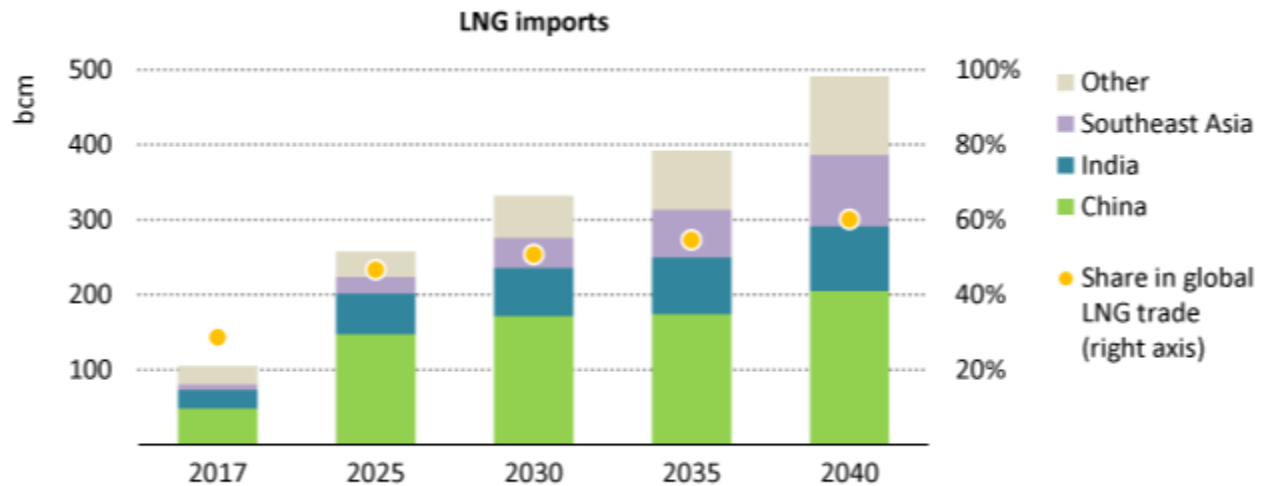
(by sector and import needs)



*With rising gas demand in all end-use sectors, China's import needs more than triple in the period to 2040, and it becomes the largest gas-importing country*

© IEA, 2018, Source: 2018 World Economic Outlook

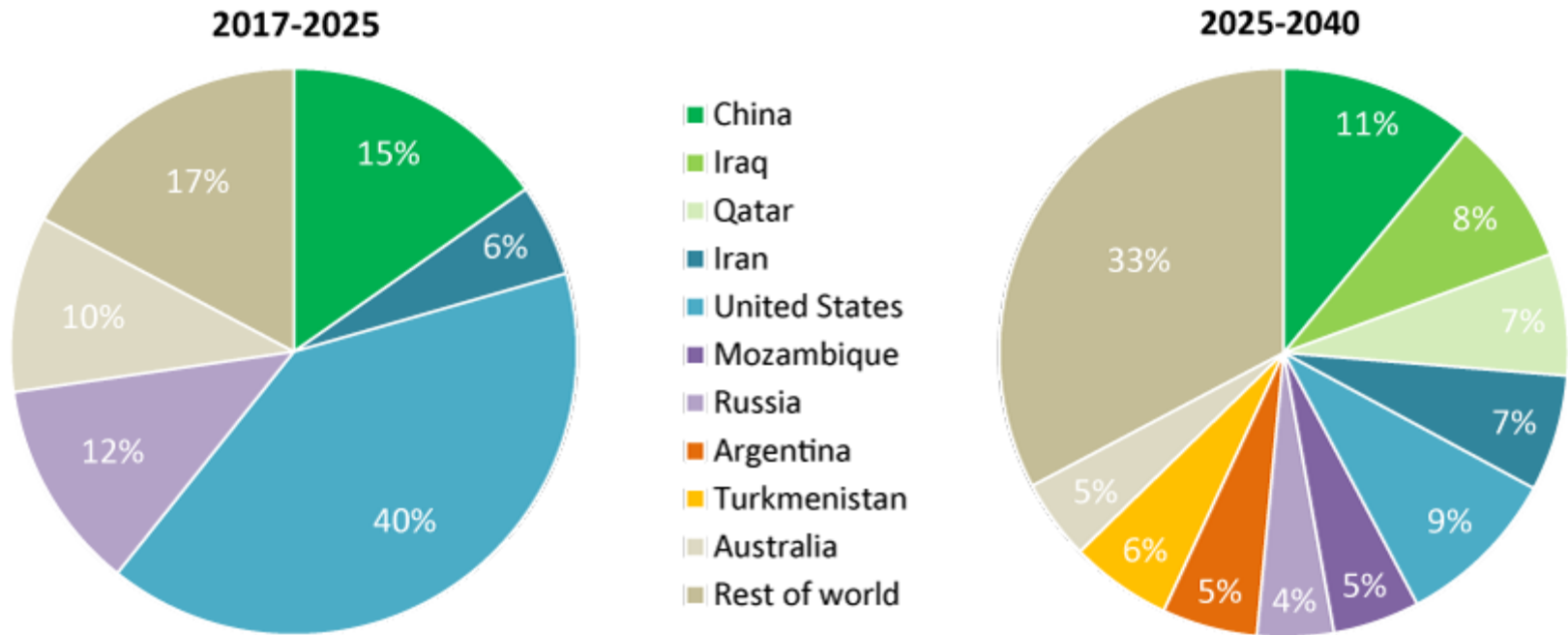
# LNG imports in emerging Asian economies



*Emerging Asian economies become heavyweights in global LNG markets, with their share of global LNG trade more than doubling to 60% by 2040*

© IEA, 2018, Source: 2018 World Economic Outlook

# Global Gas Supply



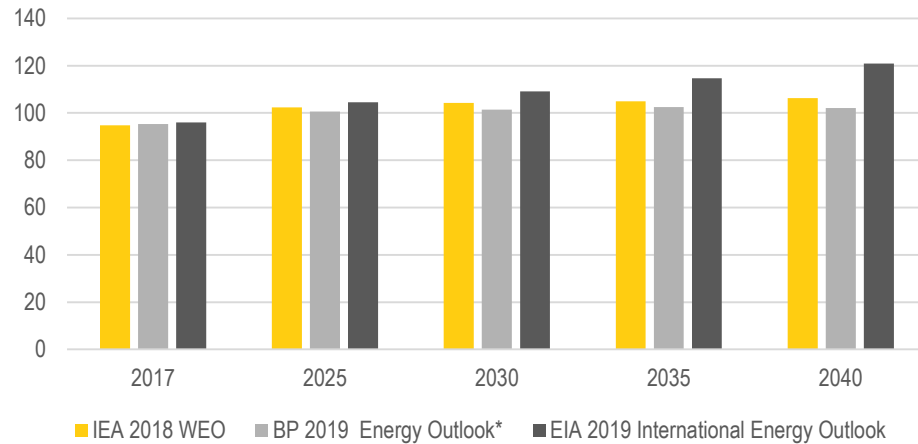
*The supply picture becomes increasingly diverse after 2025;  
The top-ten contributors share around two-thirds of the production growth*

© IEA, 2018, Source: 2018 World Economic Outlook

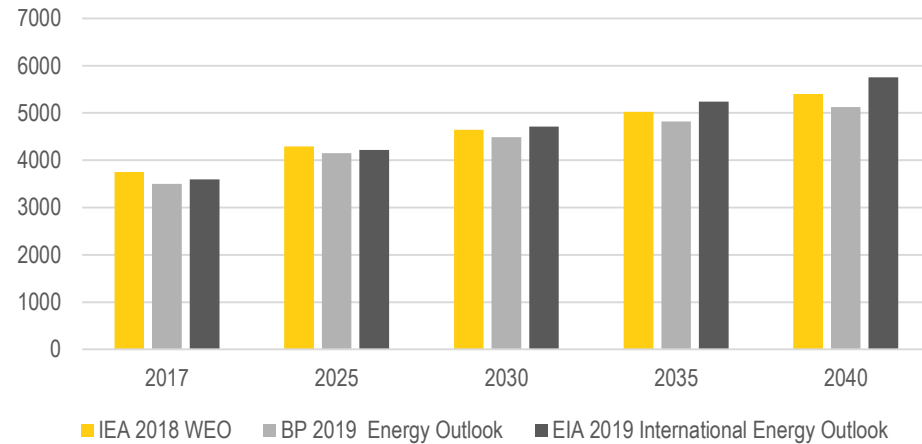


# Oil & Gas Forecasts

## Oil Consumption (M B/d)



## Natural Gas Consumption (bcm)



\* Estimated from MTOE

Source: IEA 2018 World Economic Outlook, EIA 2019 International Energy Outlook, BP 2019 Energy Outlook

# Potential Risks – for 2020

## Economic Risks

- US economy moves into recession
- Chinese economy slows more rapidly
- Geopolitical shock

## Oil & Gas Risks

- Geopolitical risk in AME
- OPEC+ abandons production cuts