



# The Changing Reality of the Global LPG Market



PFA Europe Spring Meeting – May 2018 - Athens



# Agenda

**Introduction**

**The Dynamics that Defined the Market in 2017**

**Future Market Dynamics**

**Final Thoughts**

# Disclaimer

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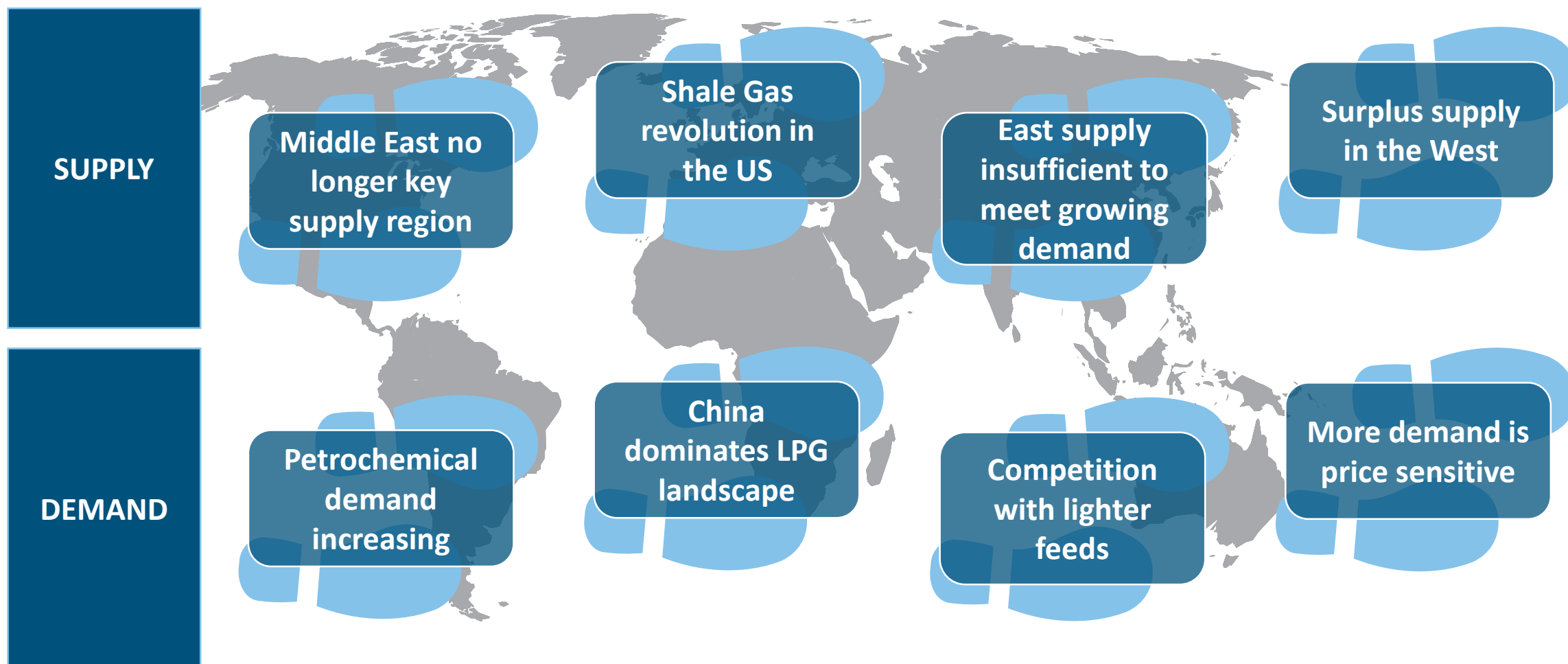
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# Introduction

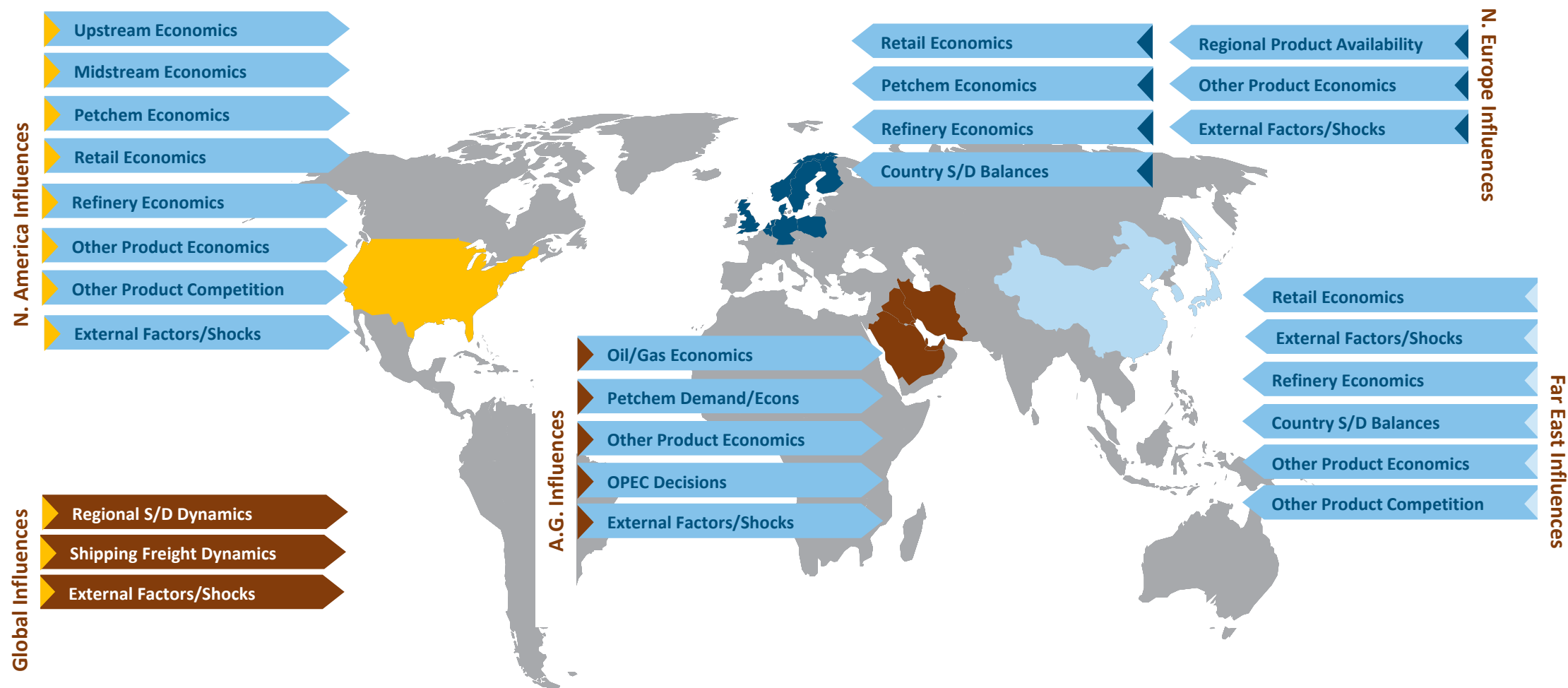


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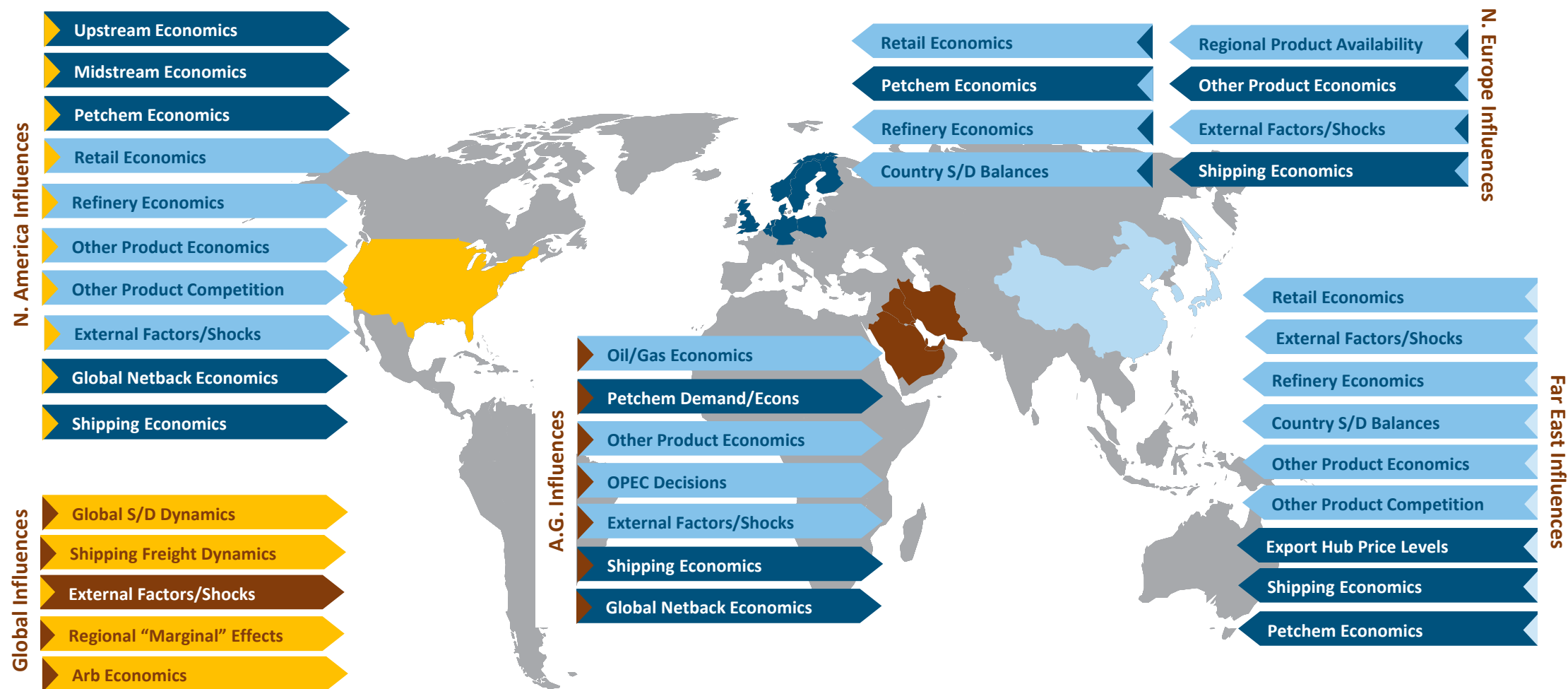
# The path to a new reality



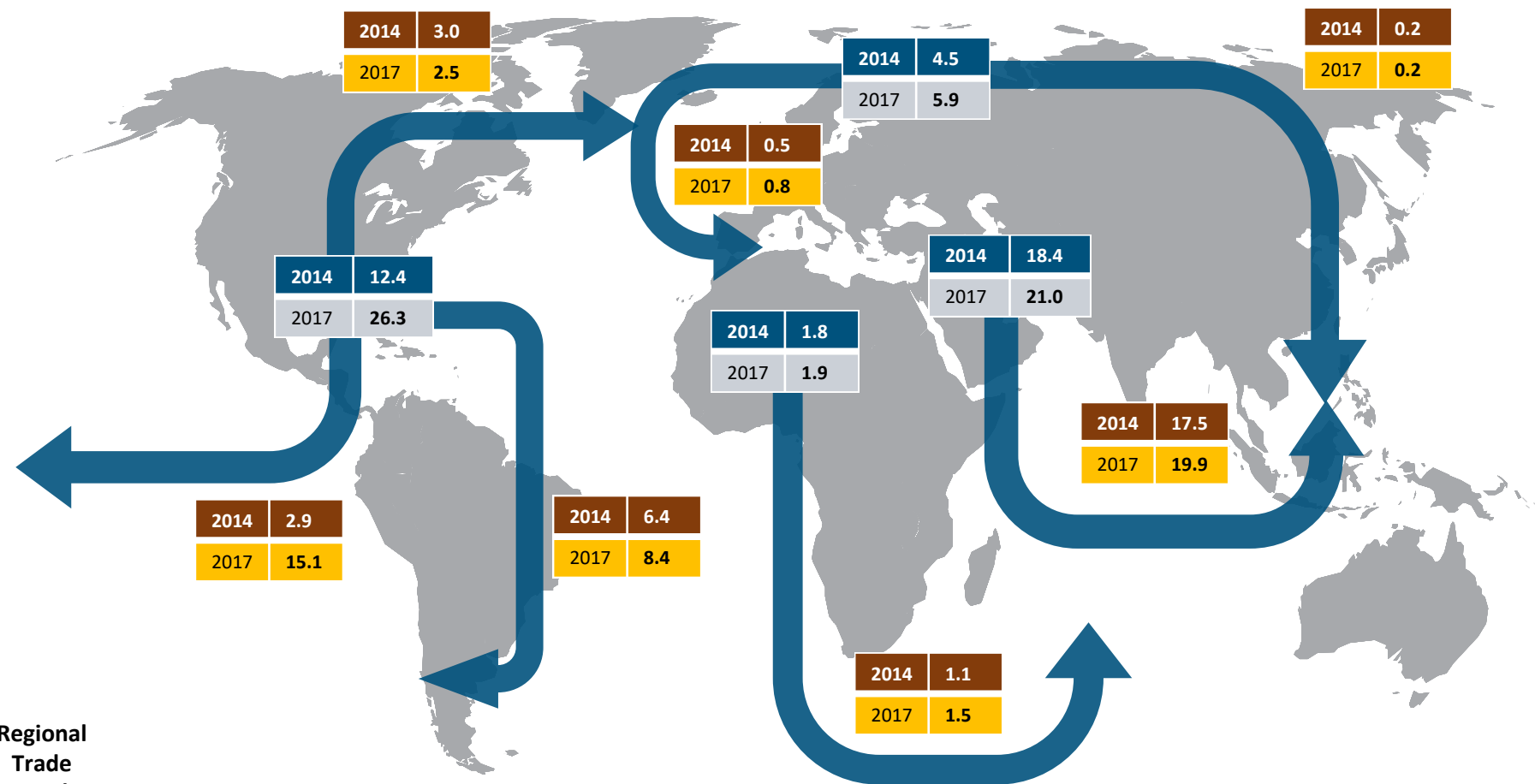
# Regional pricing dynamics - past



# Regional pricing dynamics - present



## C<sub>3</sub> seaborne trade movements

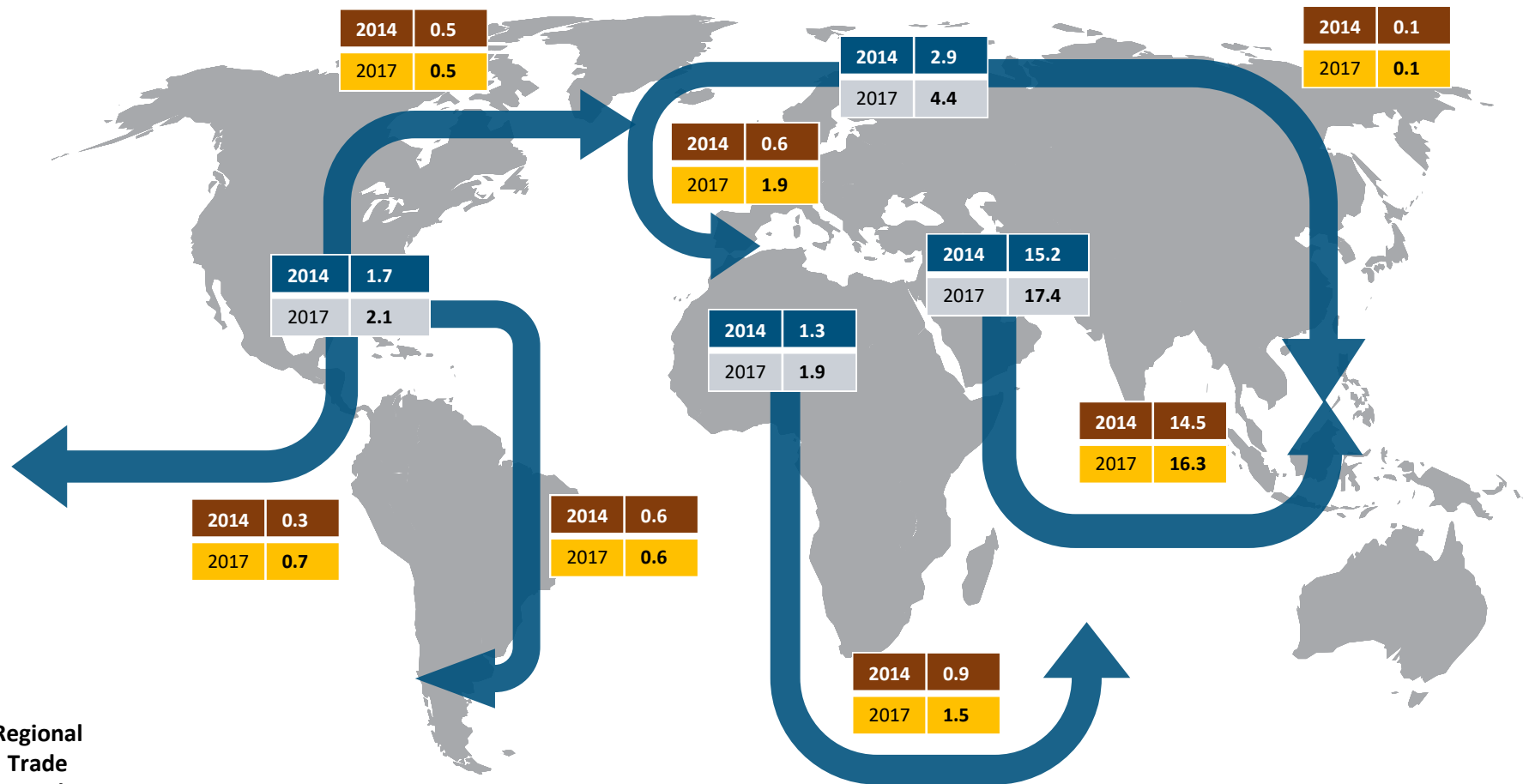


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Regional  
Trade  
Total  
Exports



# C<sub>4</sub> seaborne trade movements



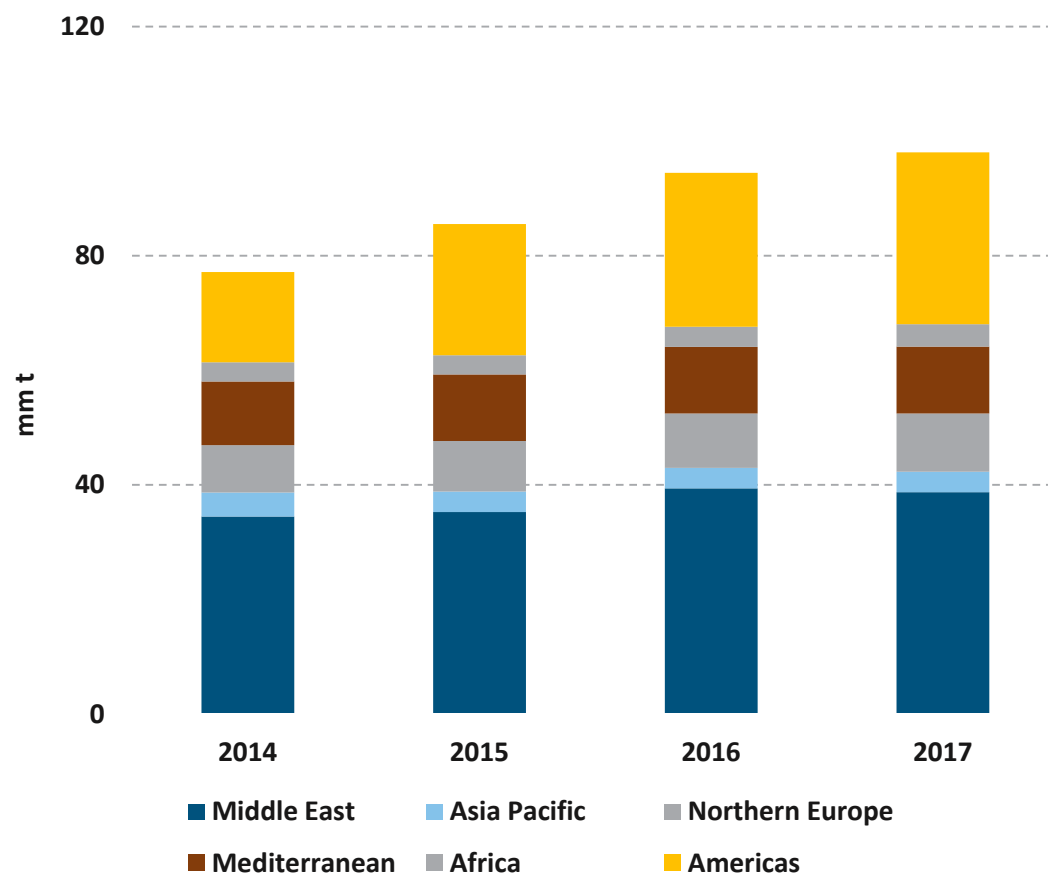
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Regional  
Trade  
Total  
Exports

# The Dynamics that Defined the Market in 2017

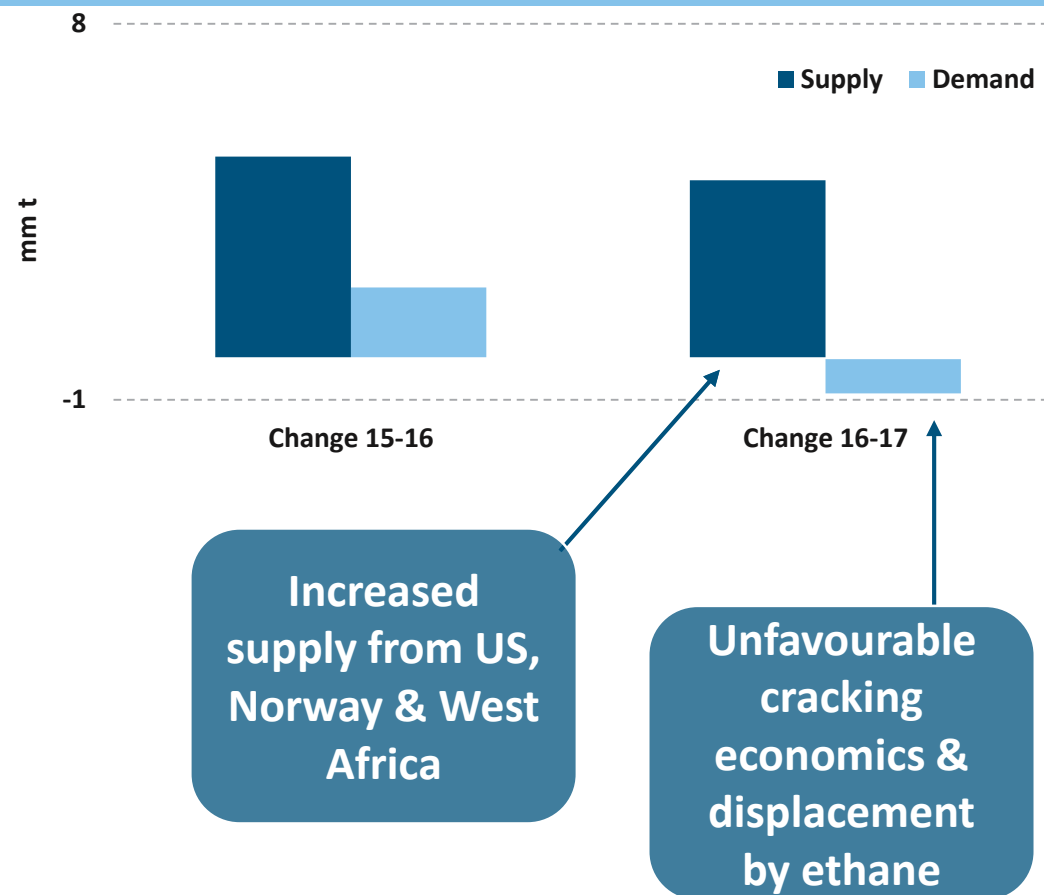
# US still leading the global LPG export growth...

## Global LPG Exports by Region 2014-17



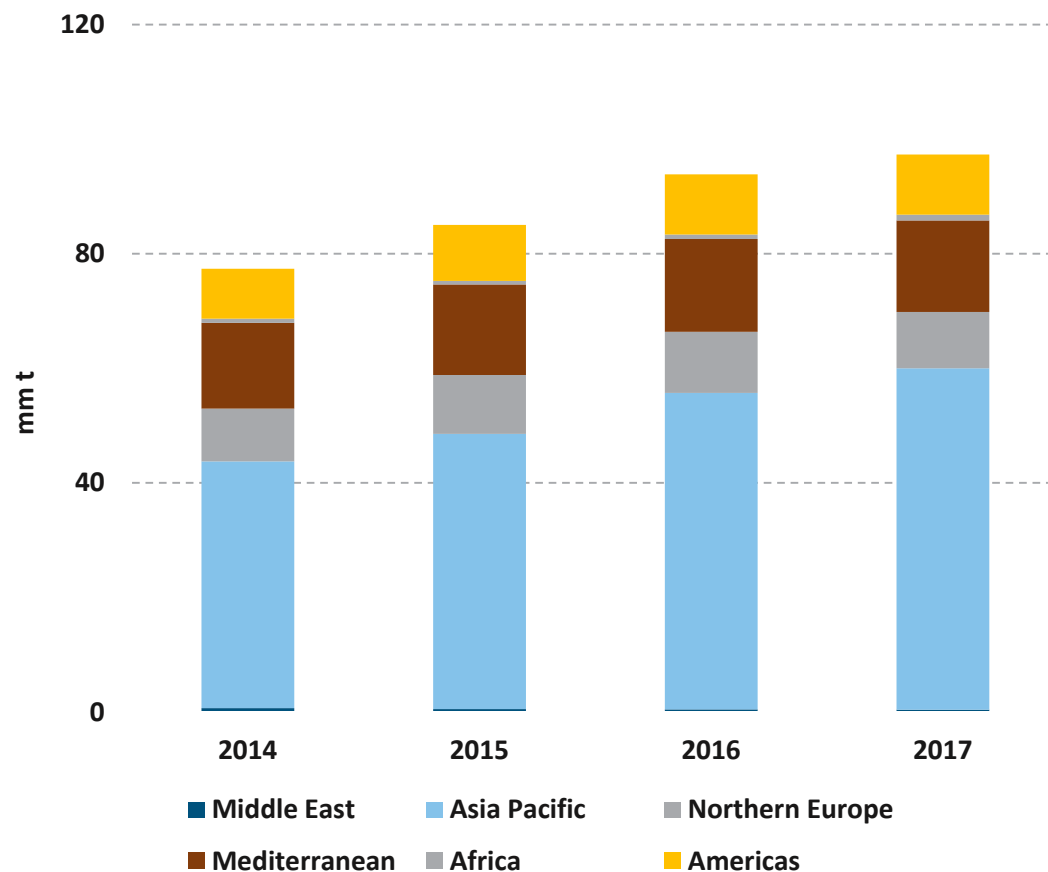
\*Preliminary numbers

## Changes West 2016 vs 2017



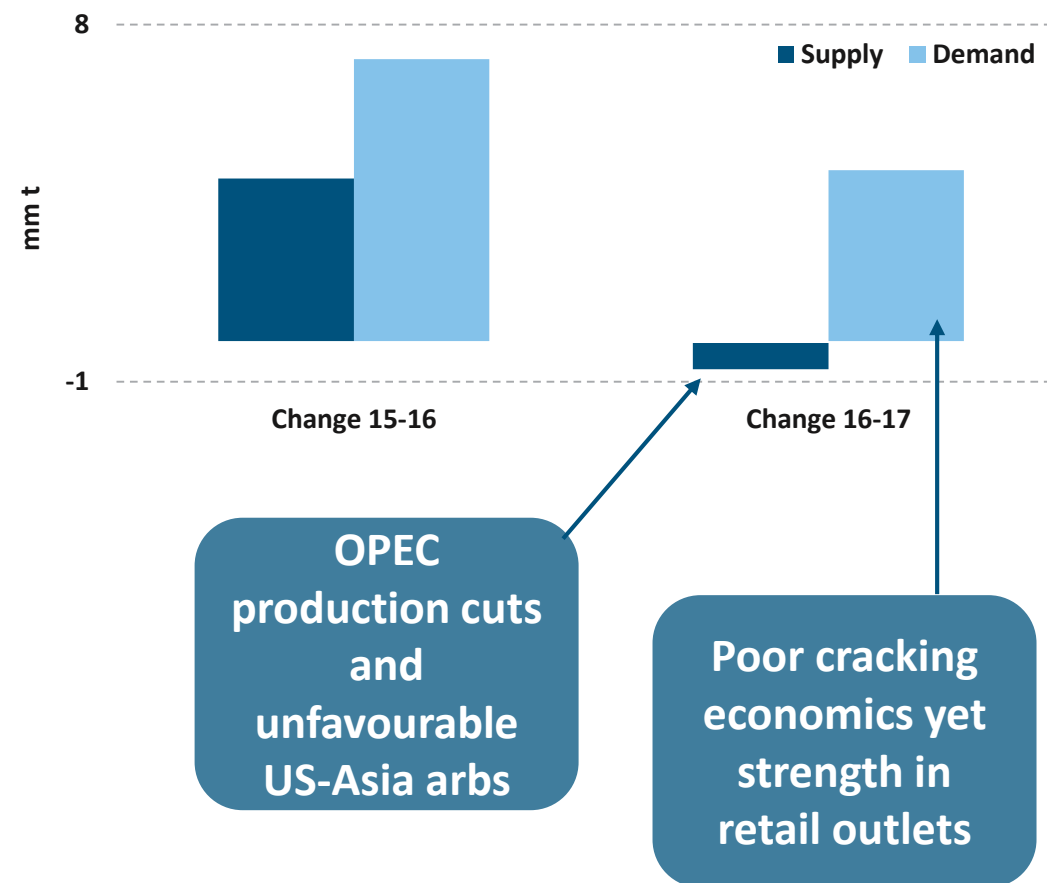
# ... with Asia/Pacific absorbing it

## Global LPG Imports by Region 2014-17

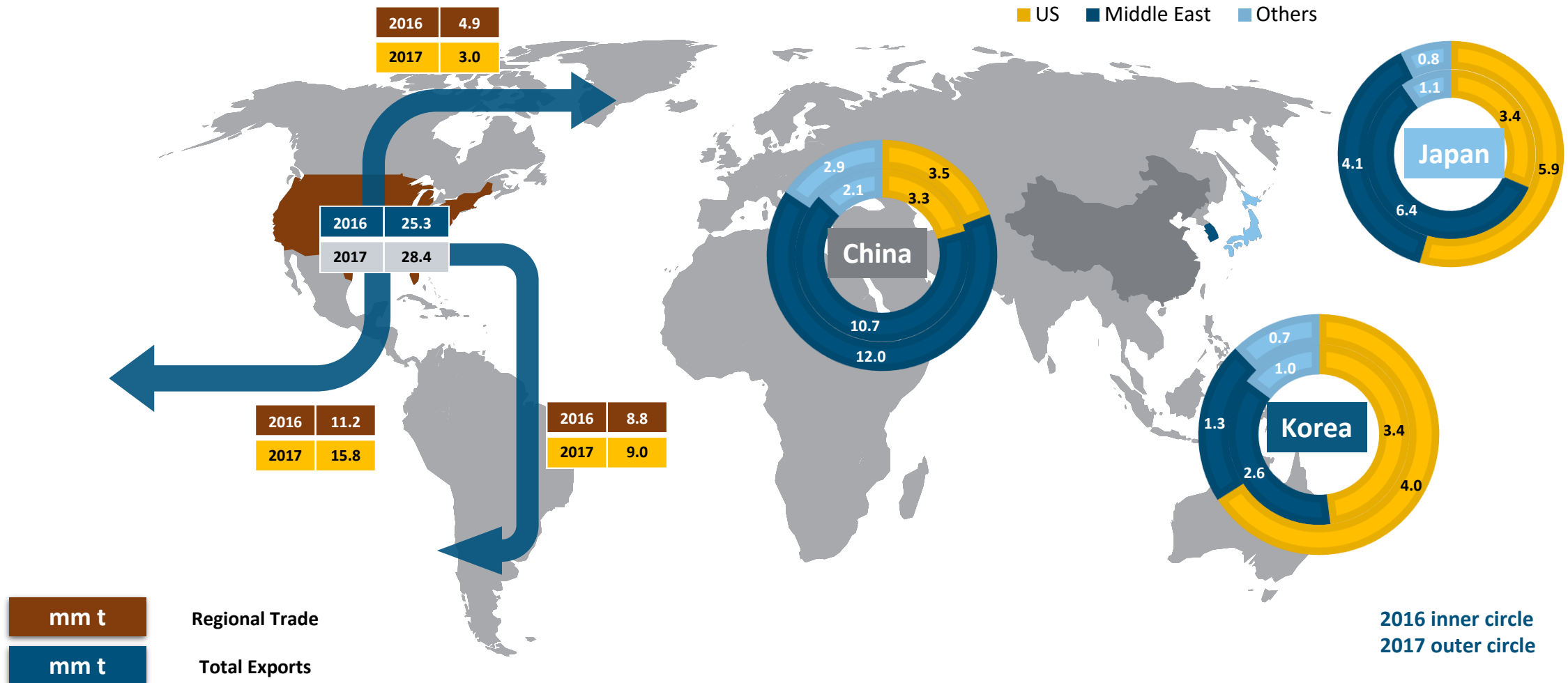


\*Preliminary numbers

## Changes East 2016 vs 2017

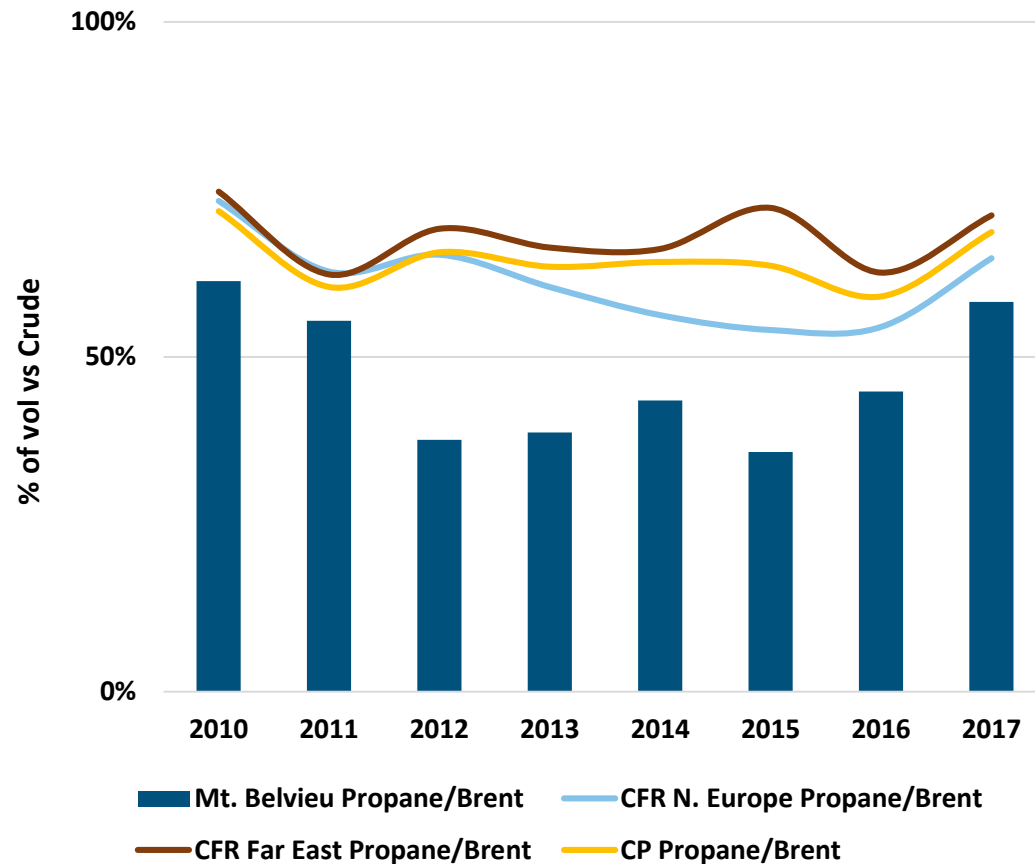


# US exports head East offsetting Middle Eastern volumes...

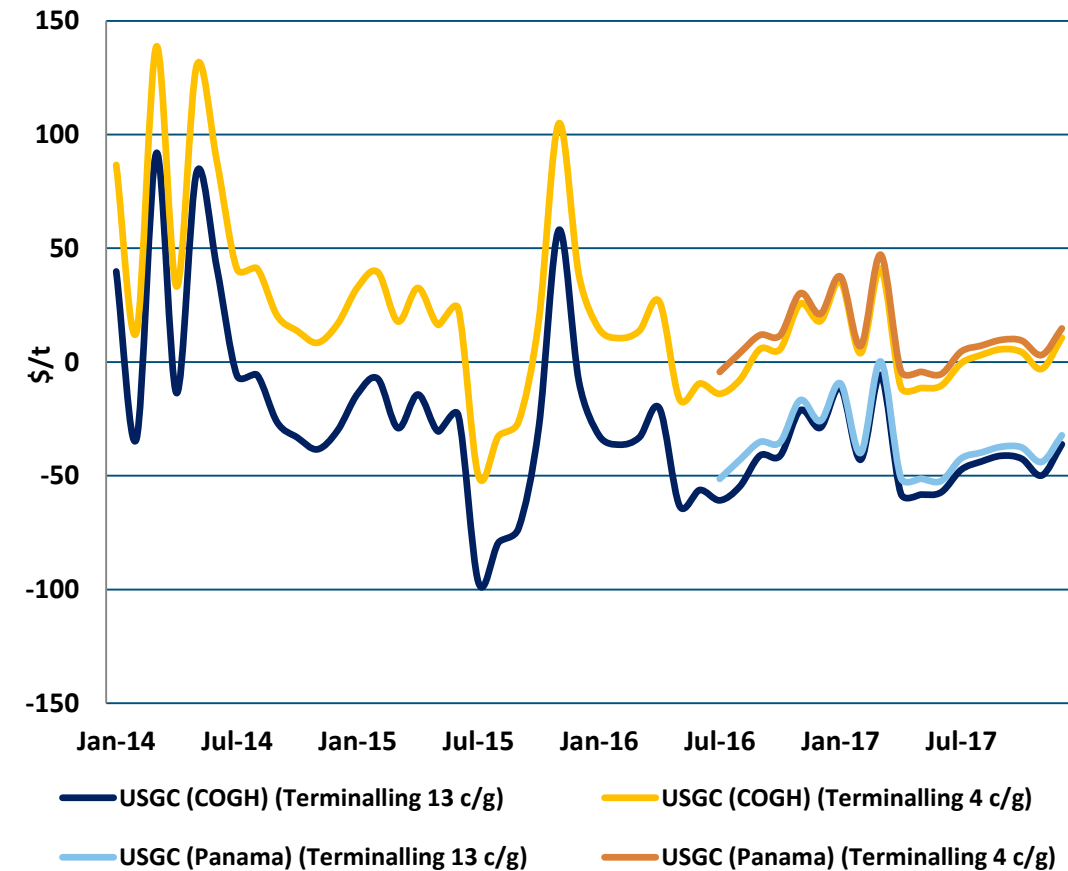


...despite LPG price strength and squeezed arbitrage opportunities...

## Propane

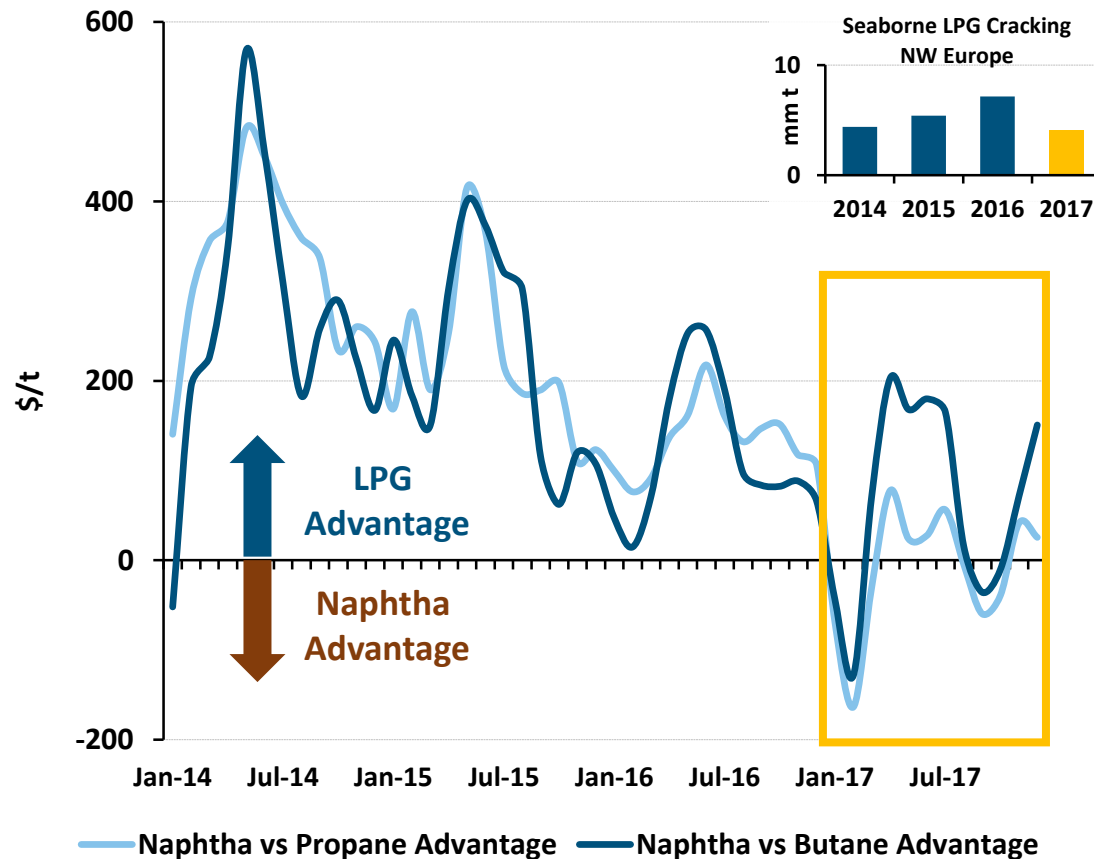


## US to Asia Propane Arbs

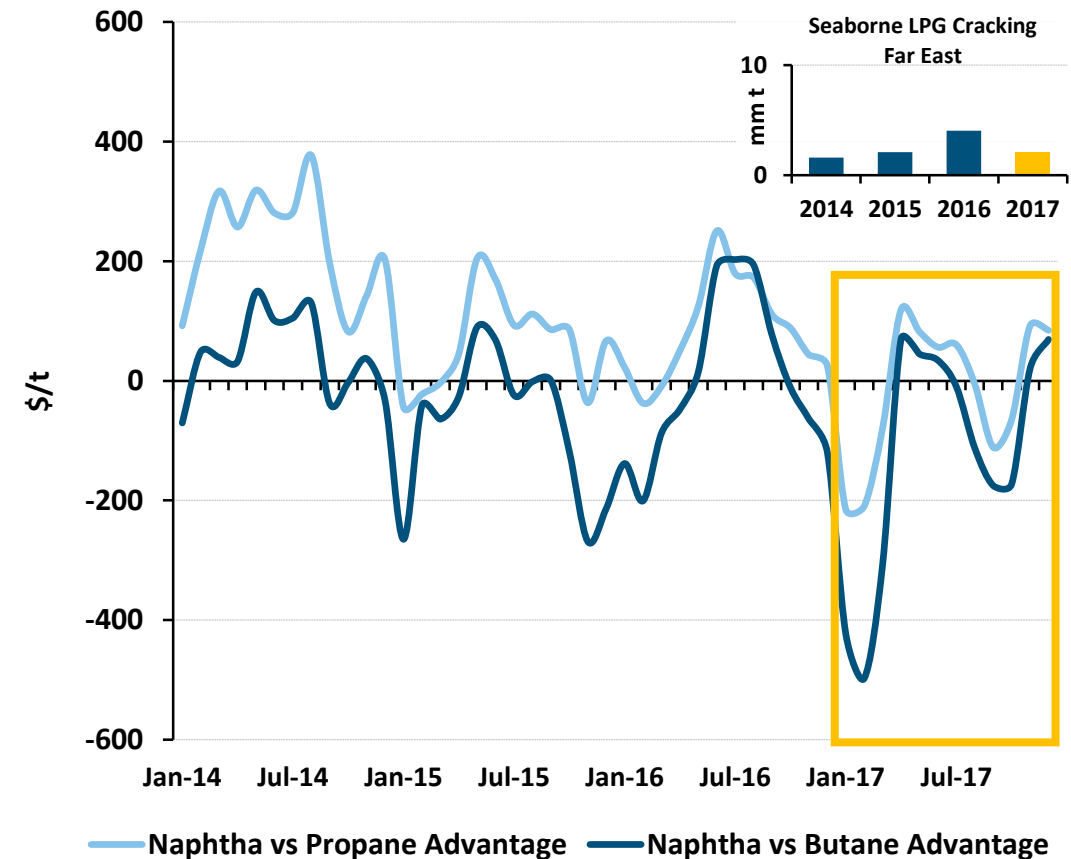


# ...resulting in LPG cracking economics deteriorating

Cracker Incremental Cash Margins Advantage  
N. Europe



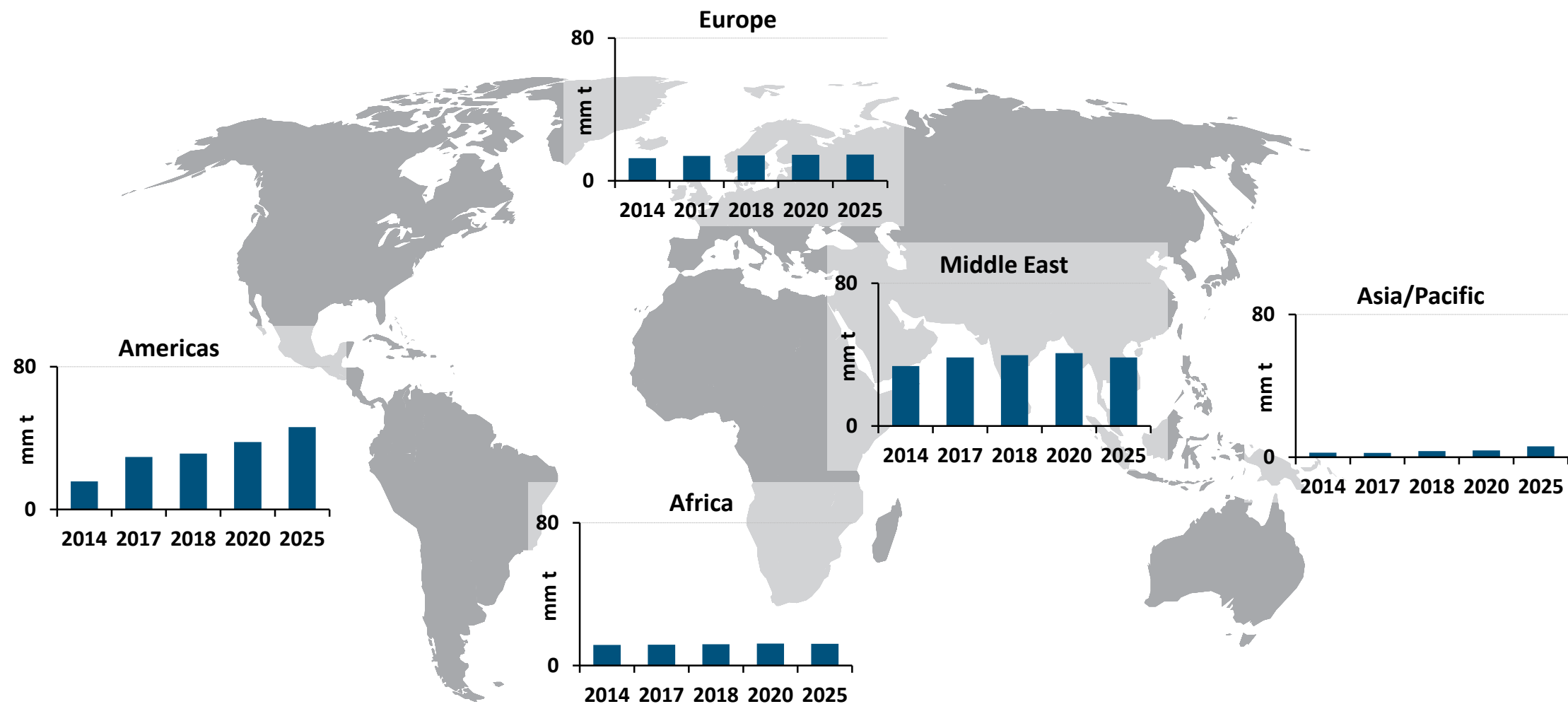
Cracker Incremental Cash Margins Advantage  
Far East



# Future Market Dynamics

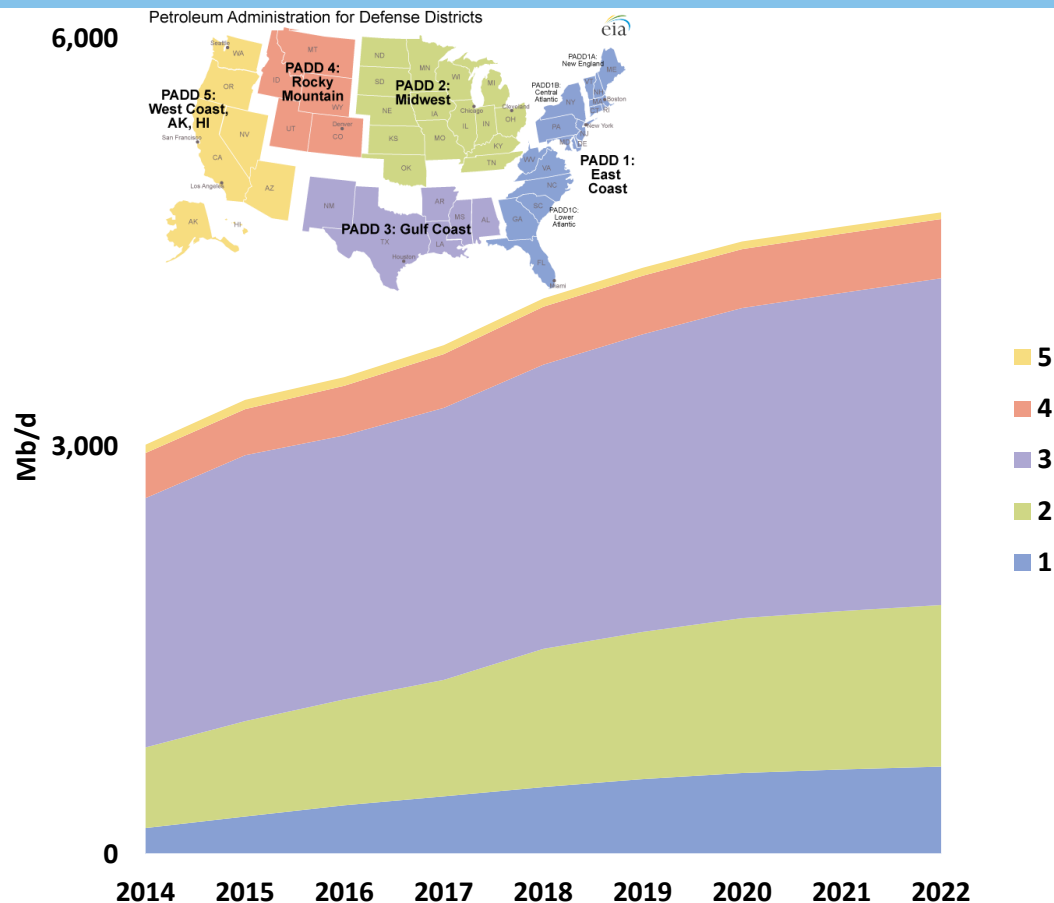


# Global exports - more of the same?



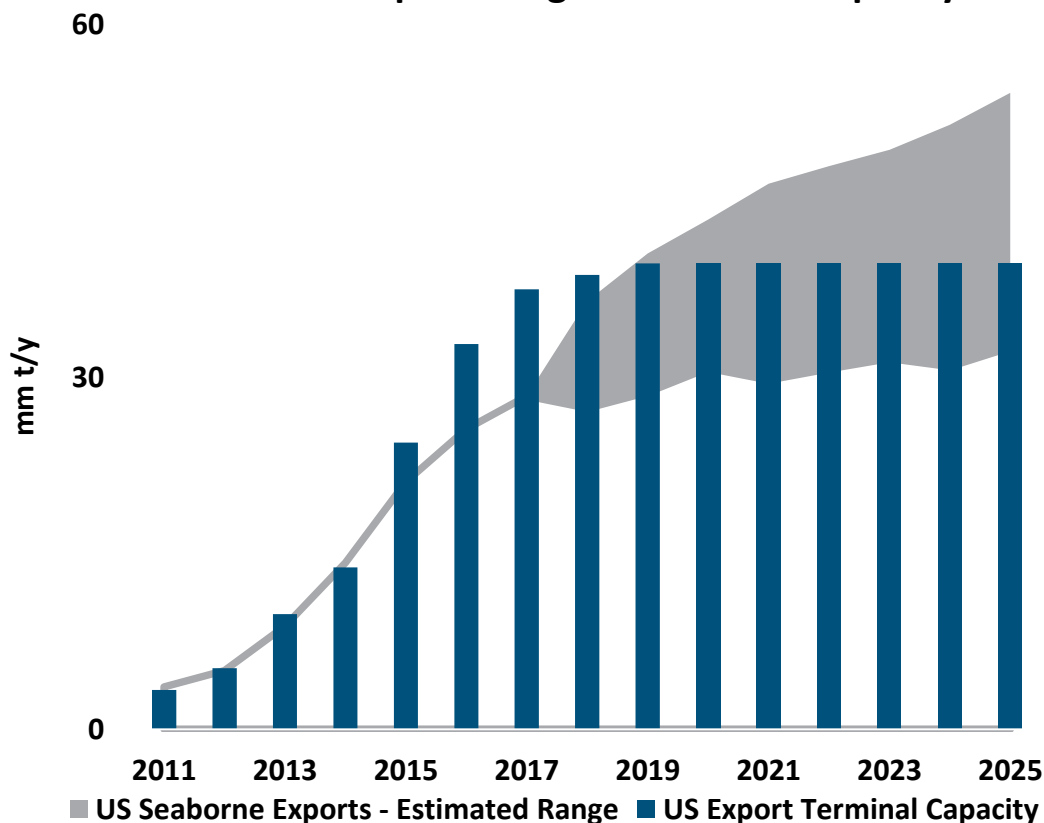
# US production growth pushes export levels higher

## US NGL Production by PADD

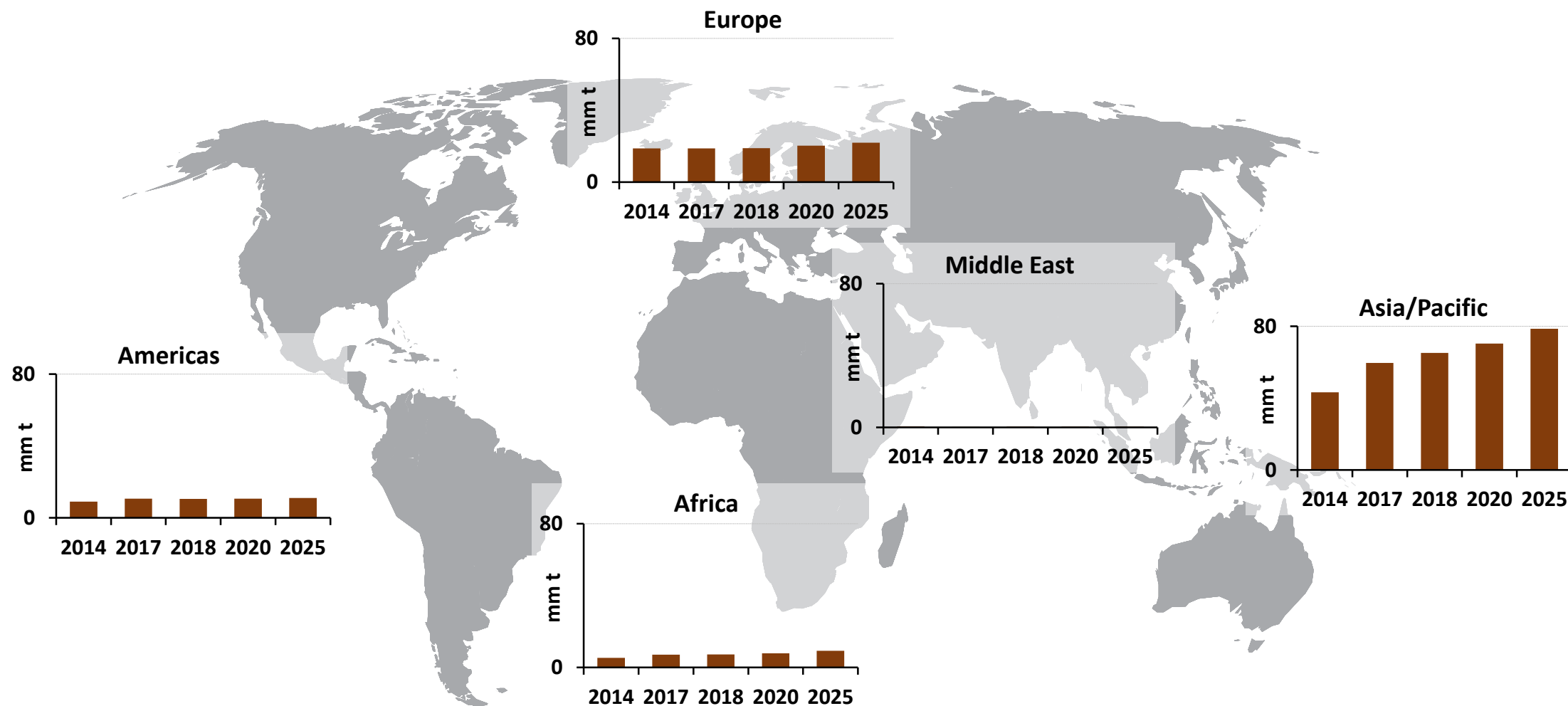


## Export capacity limiting factor?

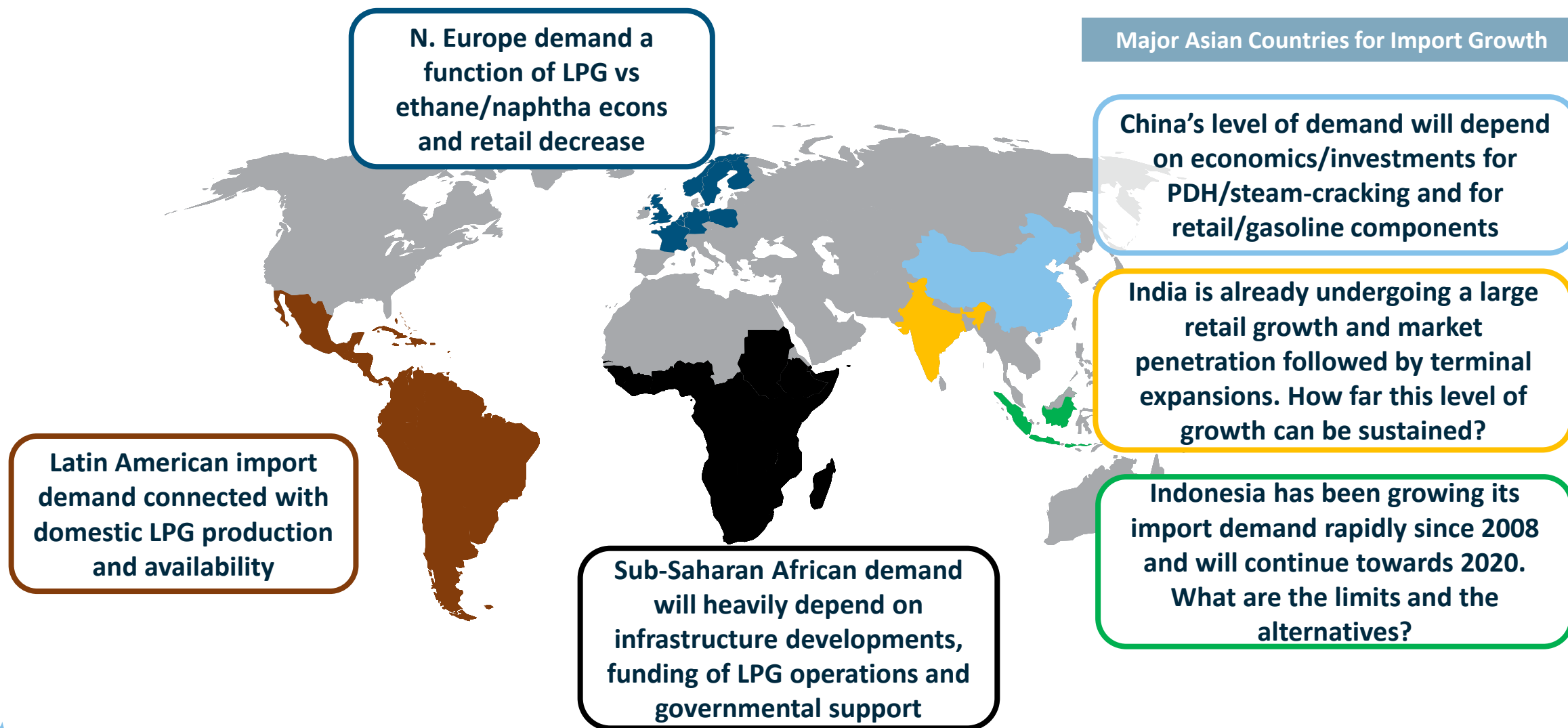
### US LPG Export Range vs Terminal Capacity



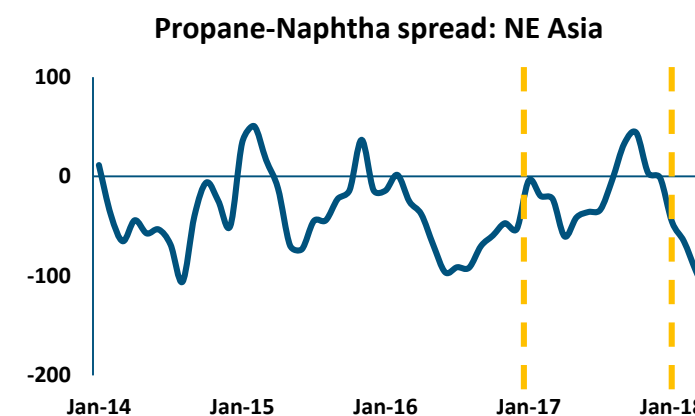
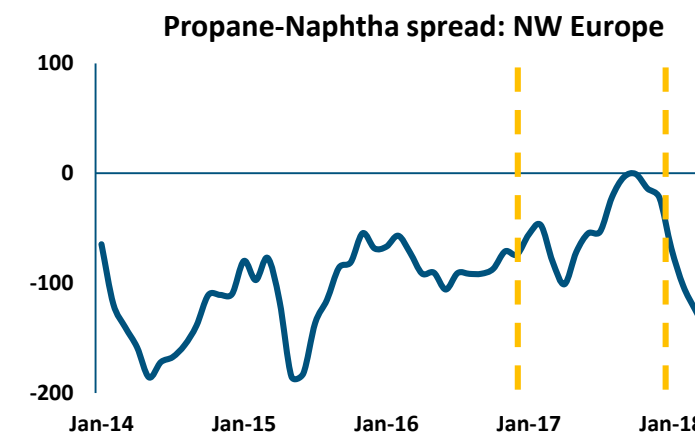
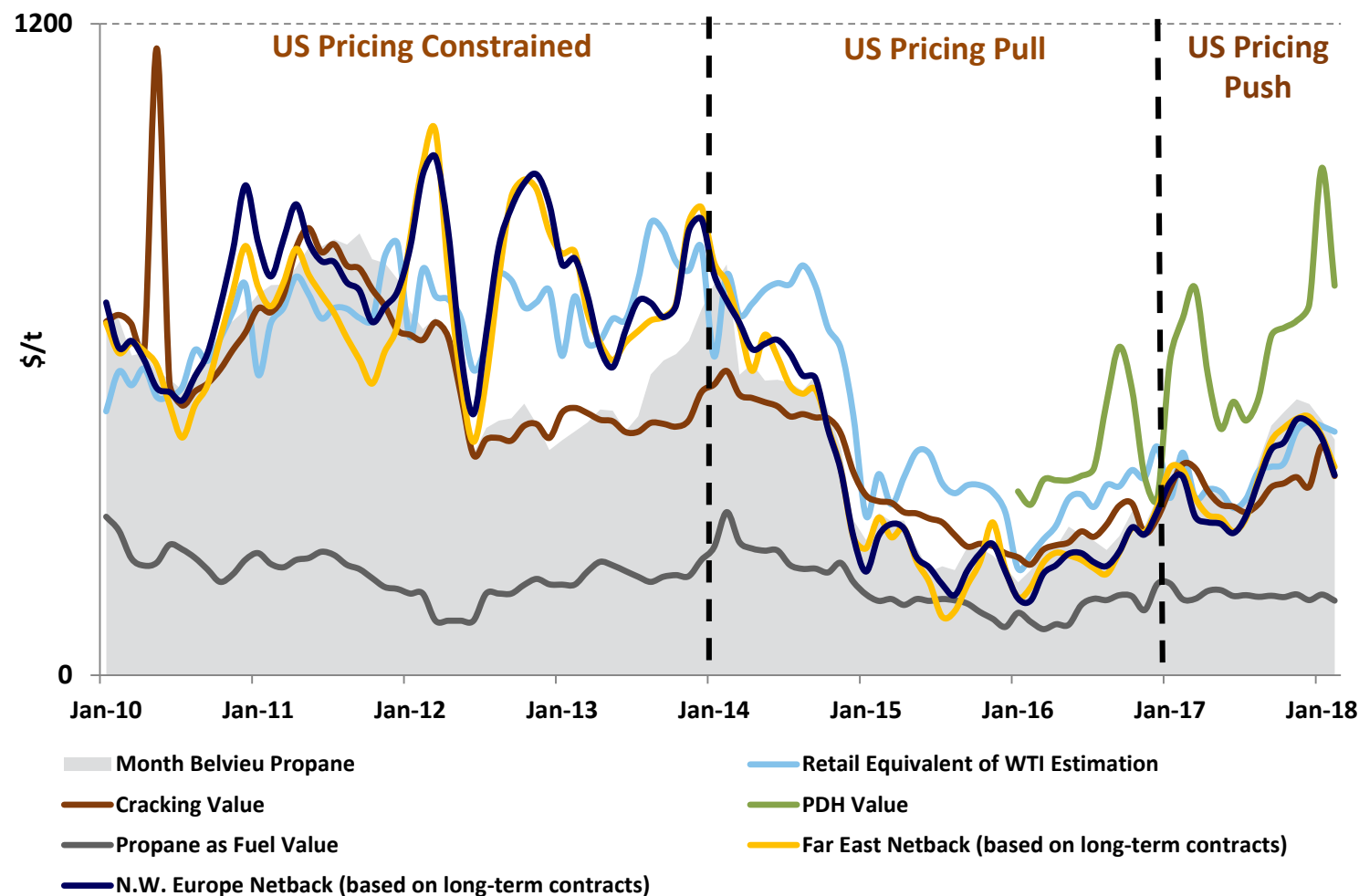
# Global imports – no surprises?



# Key demand/import considerations



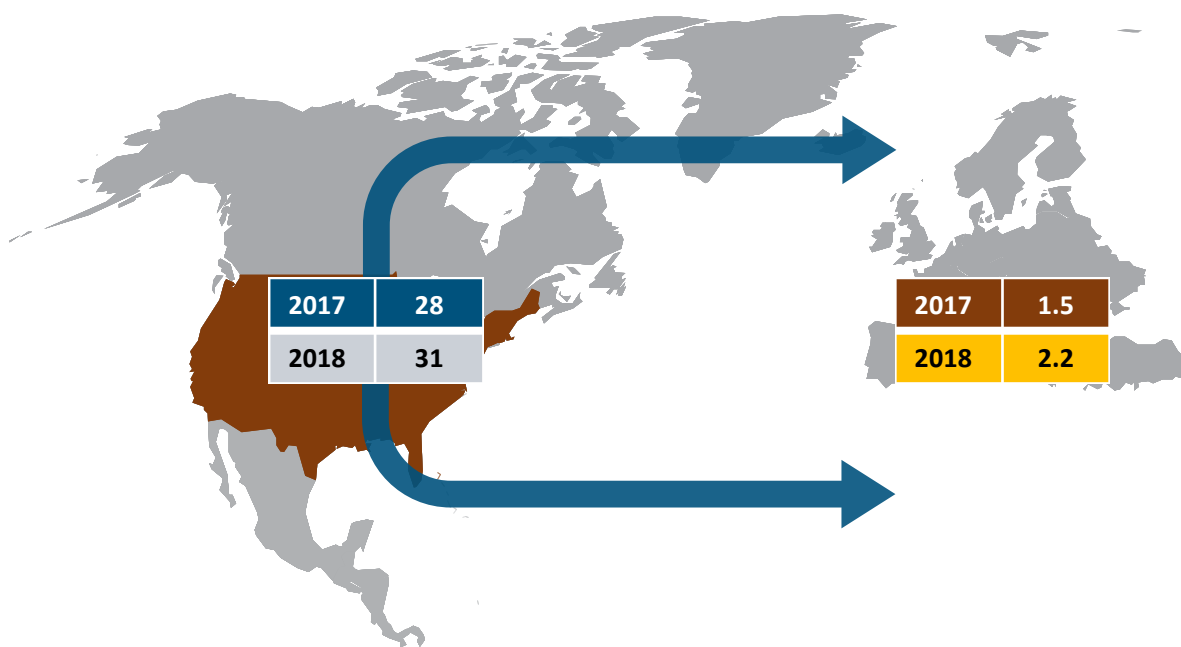
# US price connected with the global markets



Basis: spot prices

# US influence on petrochemicals in NW Europe

## Increased US to NW Europe trade in 2018



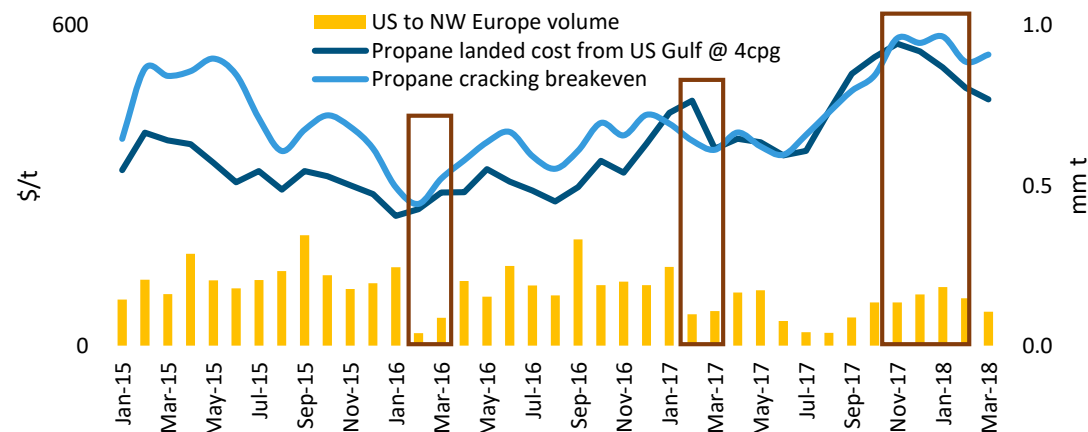
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Regional Trade

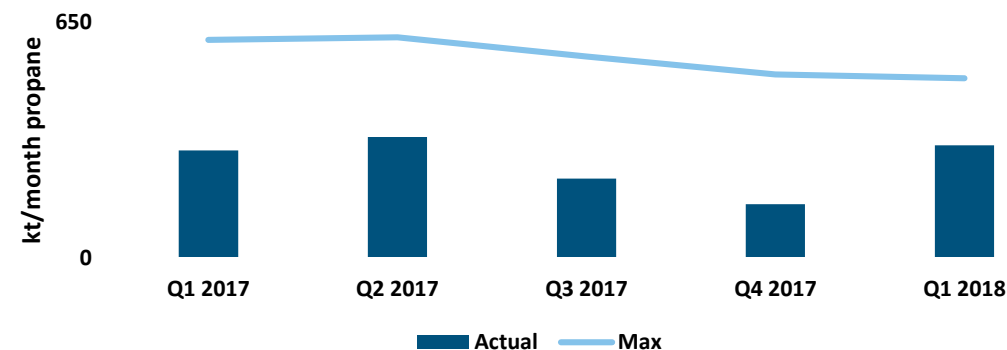
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Total Exports

## US volumes related to total cracking



### NW Europe: Propane Imports for Cracking



# Final thoughts

# LPG: a truly global market





## ABOUT US / CONTACT US



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