

The Current Oil and Gas Pricing Environment and Implications for Shipping



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Introduction (I)

- ❑ There is a direct link between Energy and Shipping in more ways than one.
- ❑ **Greek shipping has vested interests in energy commodities** as 50% of the value of Greek ships (i.e. \$50 billion) correspond to the value of oil tankers and LNG-LPG, etc. Greek shipowners control 30% of global oil tanker fleet and 15% of LNG vessels.
- ❑ A large segment of international maritime activity is directly linked to the **transport of energy commodities**.
- ❑ These include: oil and petroleum products, LNG-LPG, thermal coal, non-ore, specialist cargoes (e.g. uranium).
- ❑ Oil prices, and energy prices in general, have a **direct bearing on energy commodities global marketing and also on freight conditions** (i.e. daily crude tanker rates, daily product tanker rates, LNG daily rates).
- ❑ Crude oil prices are key in determining oil product prices and natural gas prices (where we have oil-indexed contracts).

Introduction (II)

The Oil Market at a Glance



- Oil prices have been recovering steadily in 2017-2018 following a huge slump in late 2014 and up to end of 2016.

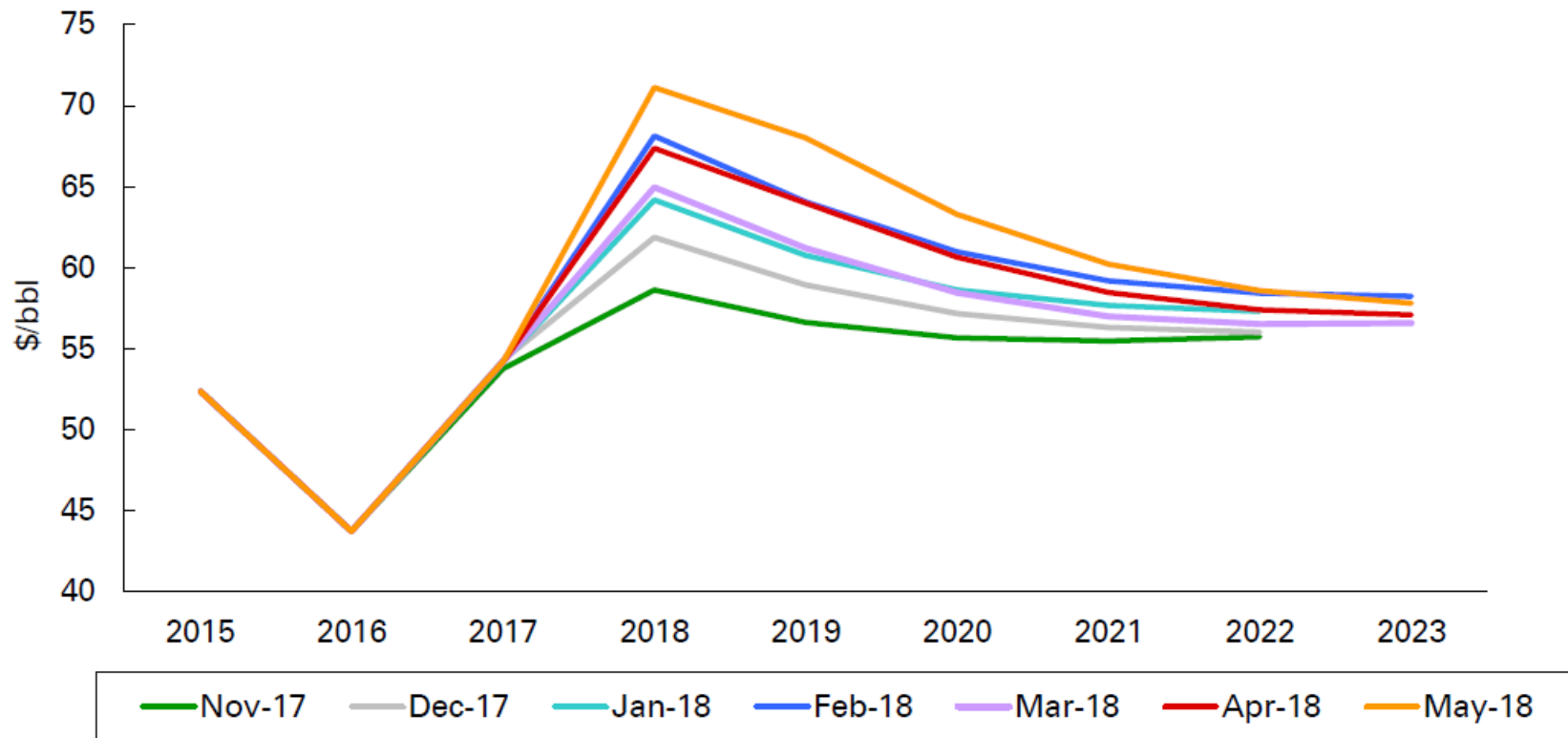
Why?

1. OPEC and Partners have agreed to rein on their production by collectively taking 1.5-2.0 mb/d off the market.
2. Oil stocks have steadily reduced from 3,100 mb in 2016 to 2,819 mb today, lowest since March 2015.
3. Global oil demand growth remains strong at 1.4 mb/d and global oil demand is expected to average 99.2 b/d in 2018.

Introduction (III)

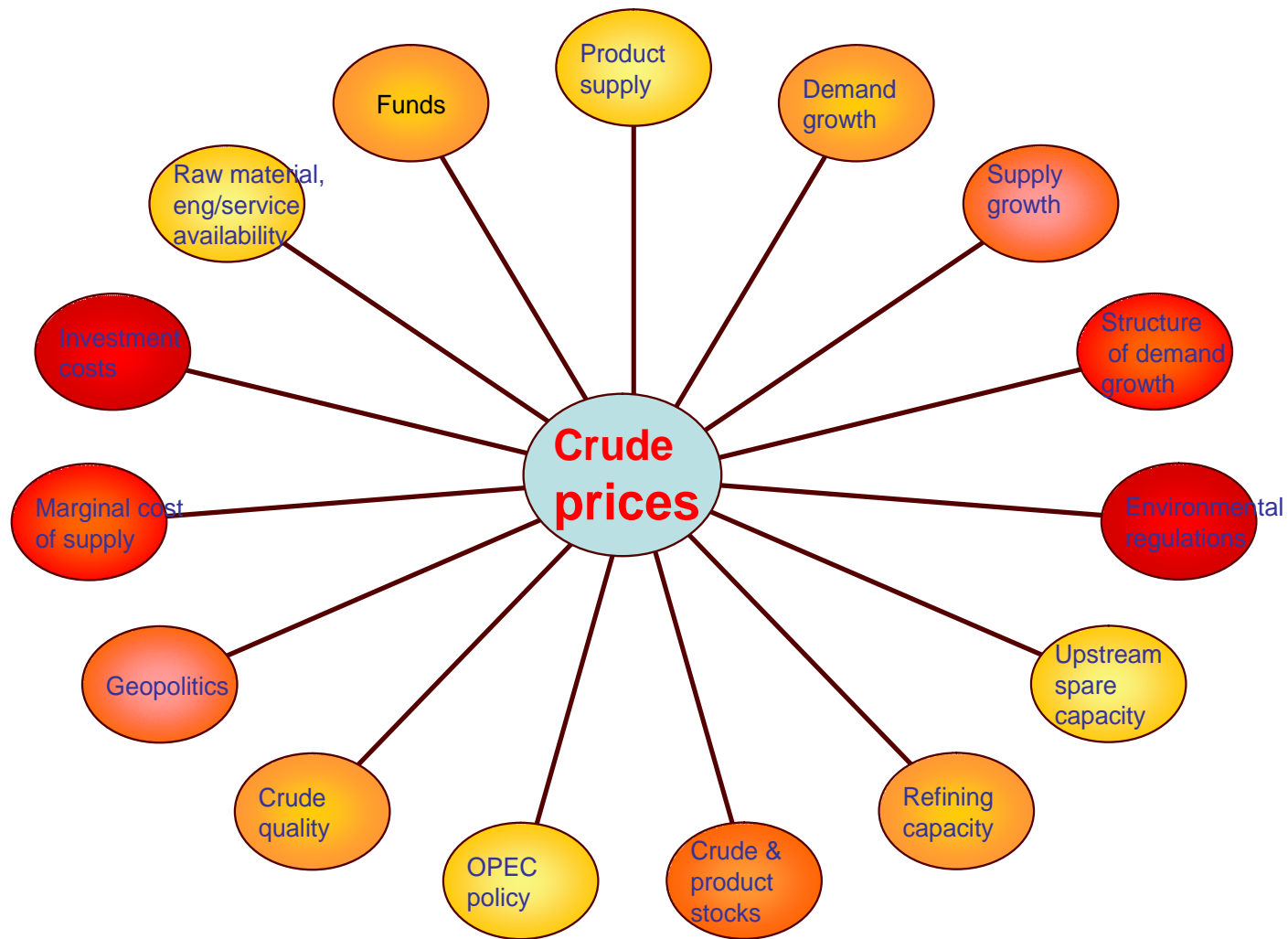
- ❑ **Global oil supplies held steady in April at close to 98 mb/d.** Robust non-OPEC output offset lower OPEC production. Strong non-OPEC growth, led by the US, pushed global supplies up 1.78 mb/d on a year ago. Non-OPEC output will grow by 1.87 mb/d in 2018.
- ❑ **OPEC crude production eased by 130 kb/d in April, to 31.65 mb/d,** on further declines in Venezuela and lower output in Africa. Compliance with the Vienna Agreement reached a record 172%. The call on OPEC crude and stocks will average around 32.25 mb/d for the remainder of 2018.
- ❑ **OECD commercial stocks declined counter-seasonally by 26.8 mb in March to 2,819 mb,** their lowest level since March 2015 and 214 mb below year-ago levels.
- ❑ **ICE Brent and NYMEX WTI futures prices rose to multi-year highs in recent days, and both are up by more than \$10/bbl since the start of the year.**
- ❑ **Global refining throughput is on the rise with runs expected to hit a record 83 mb/d in July-August.**

ICE Brent Forward Strip

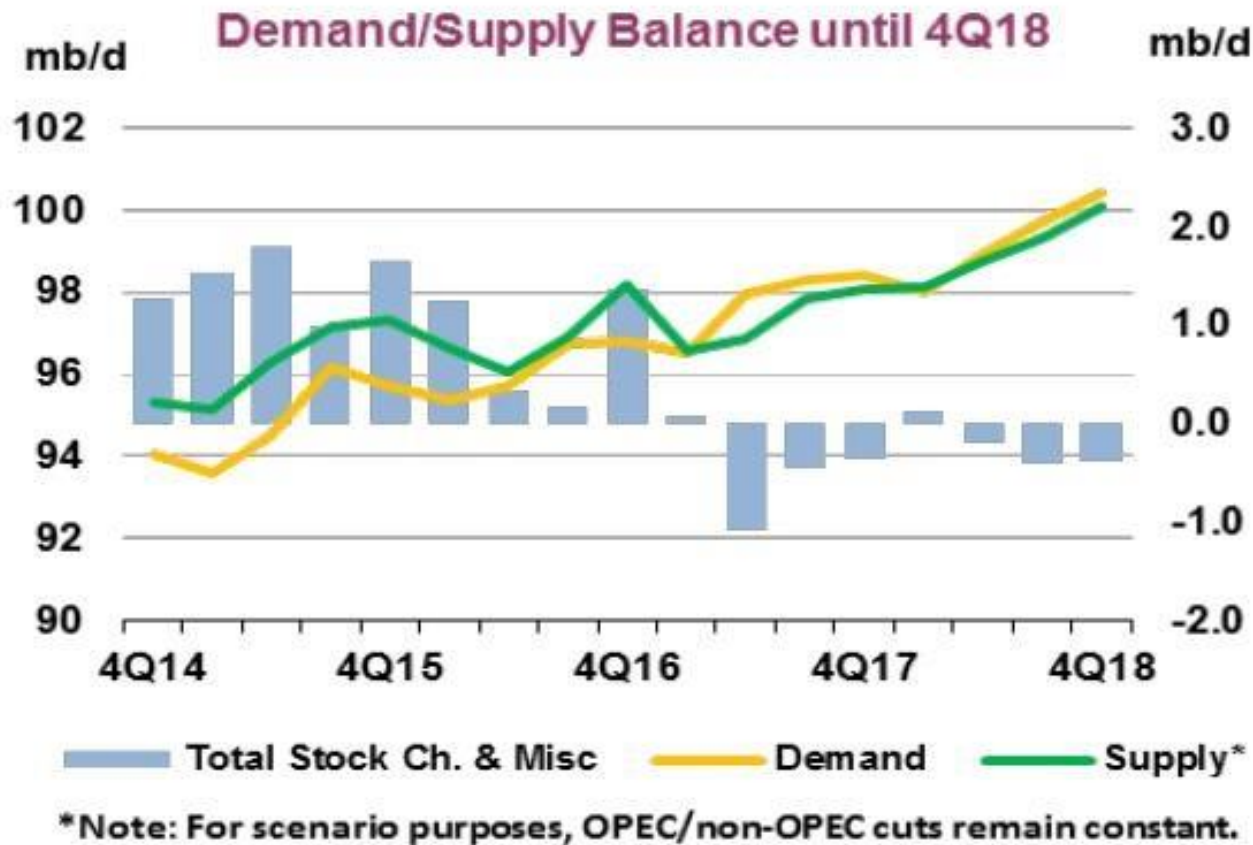


Source: BP

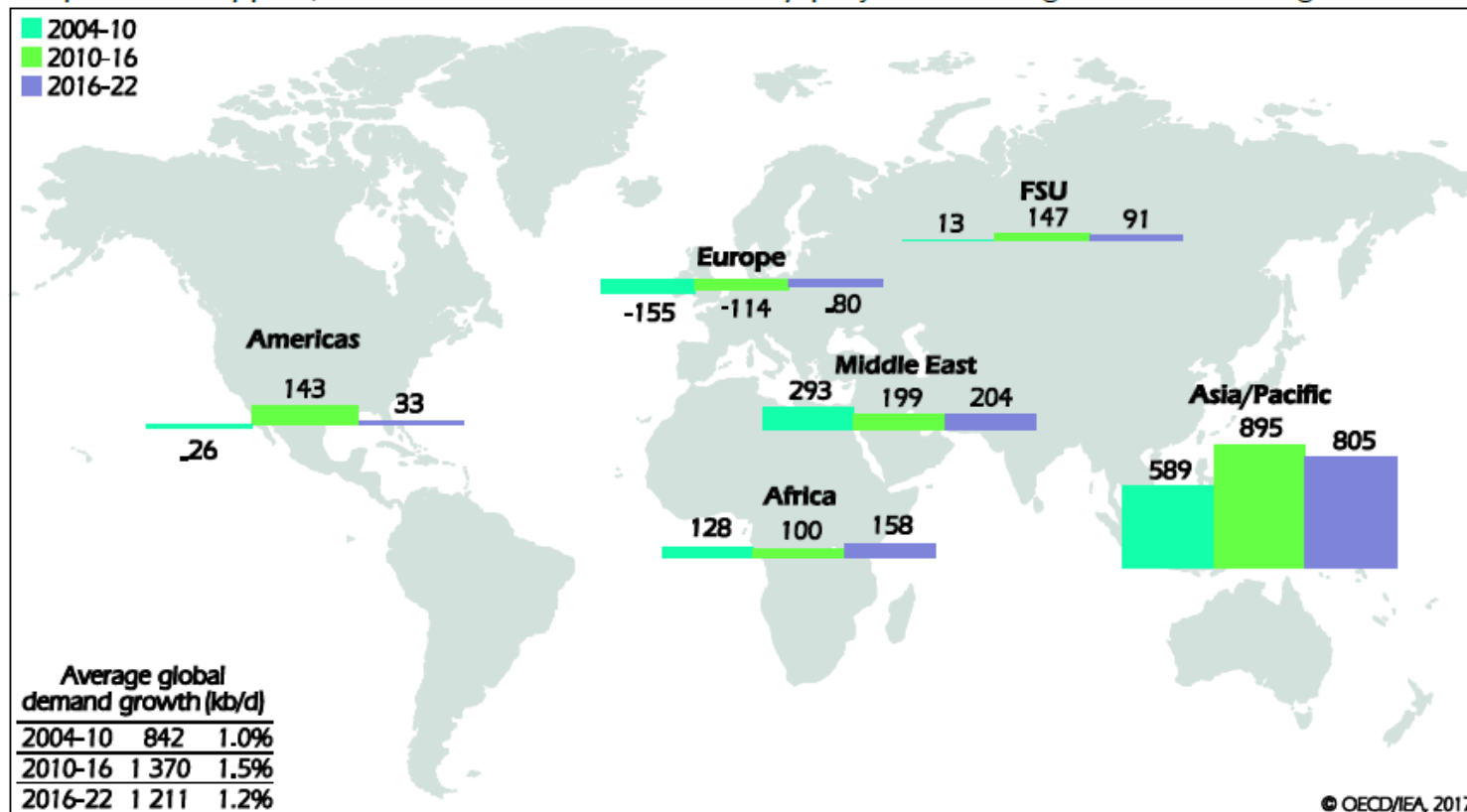
Price Formation: No Single Driver



Global Oil Demand and Supply Balance



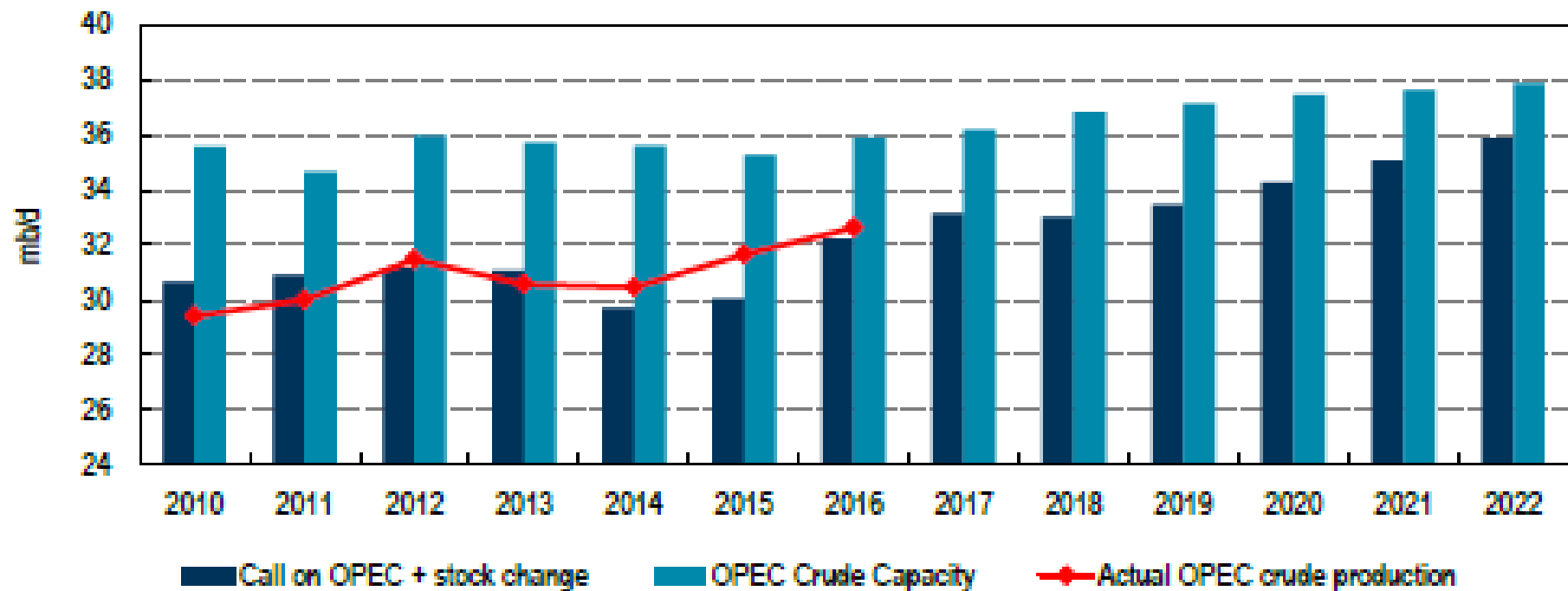
Global Oil Demand Growth, by Region, 2004-2022



This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

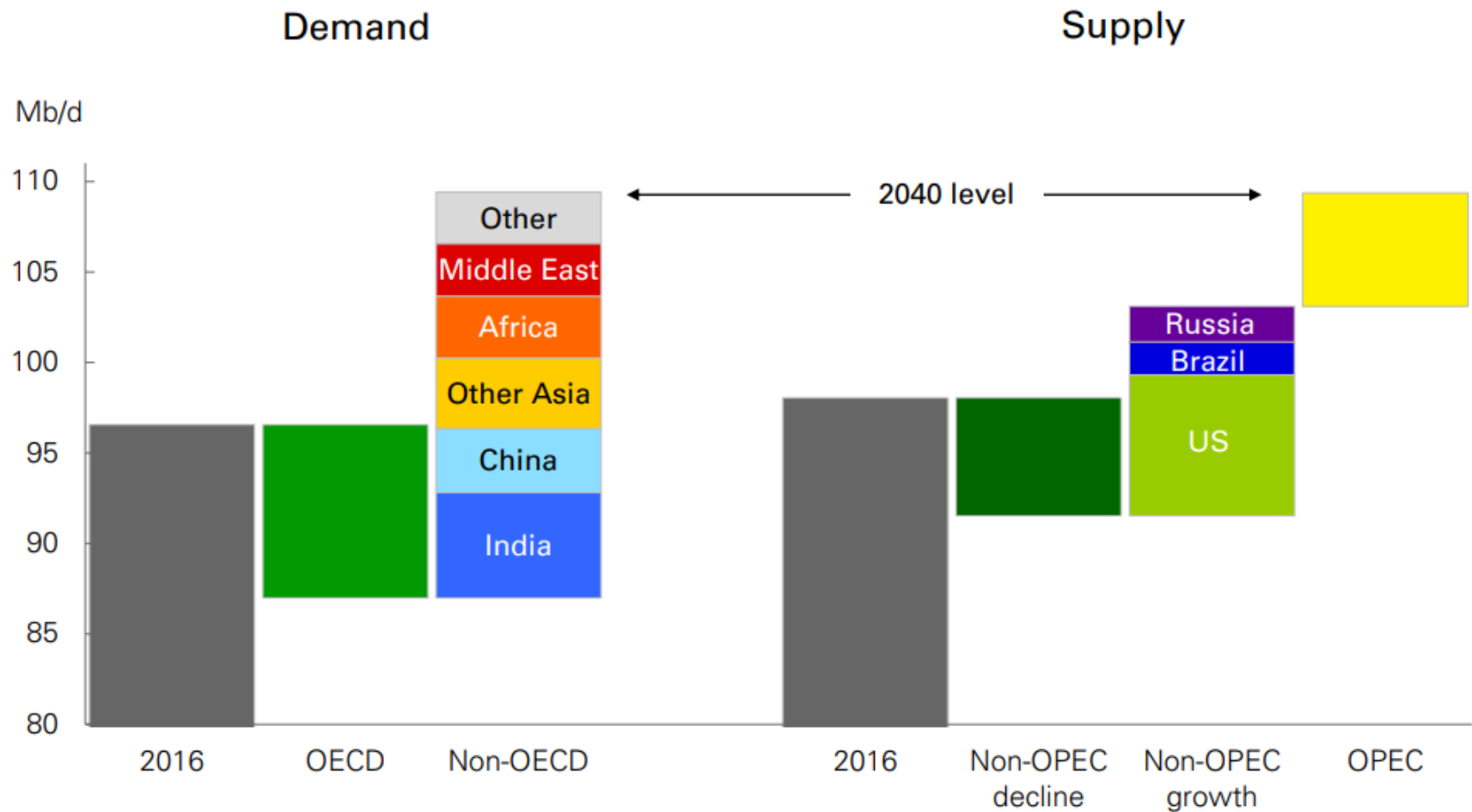
Source: IEA Oil 2017

Global Oil Market Balance, by 2022

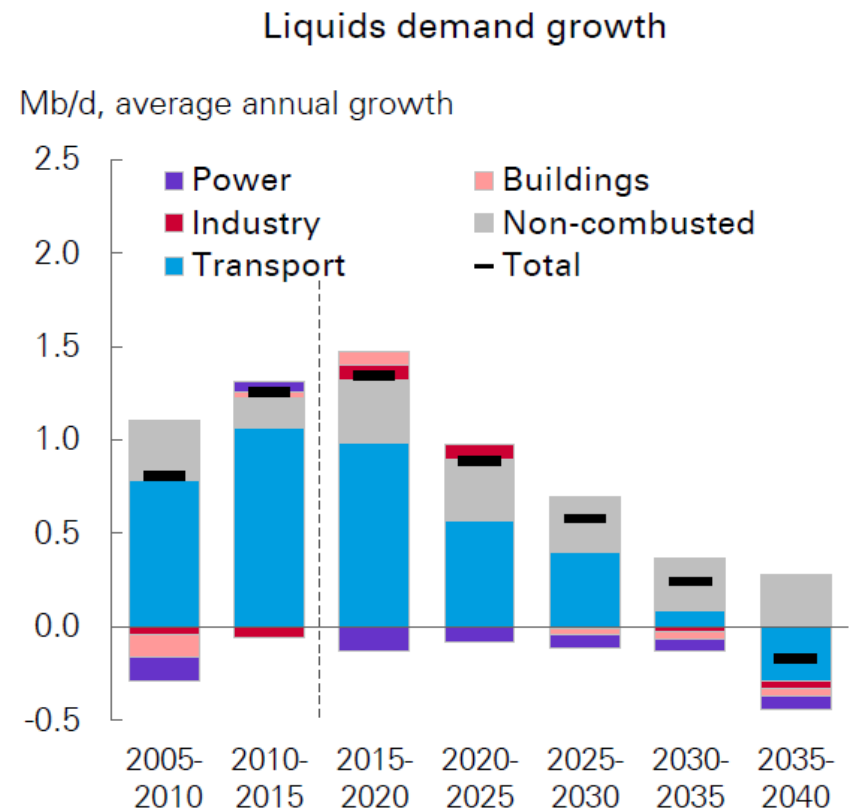
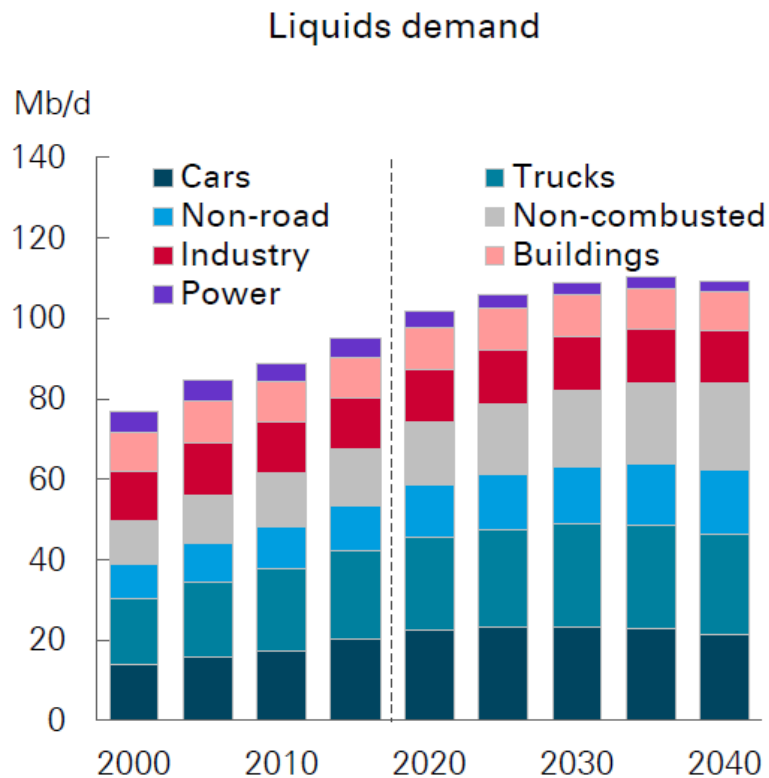


Source: IEA Oil 2017

Global Oil Demand and Supply

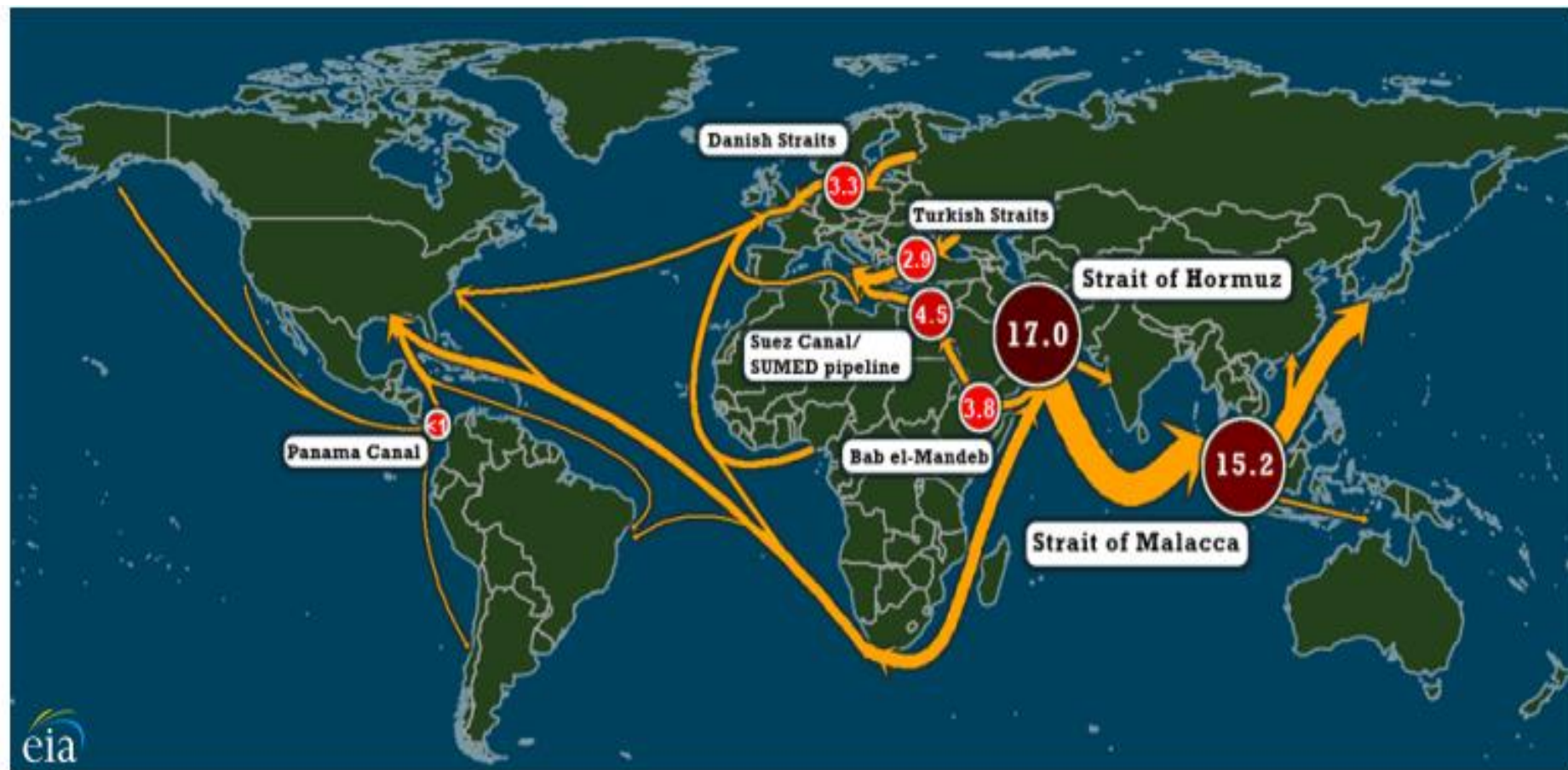


Demand for Global Oil and Other Liquid Fuels



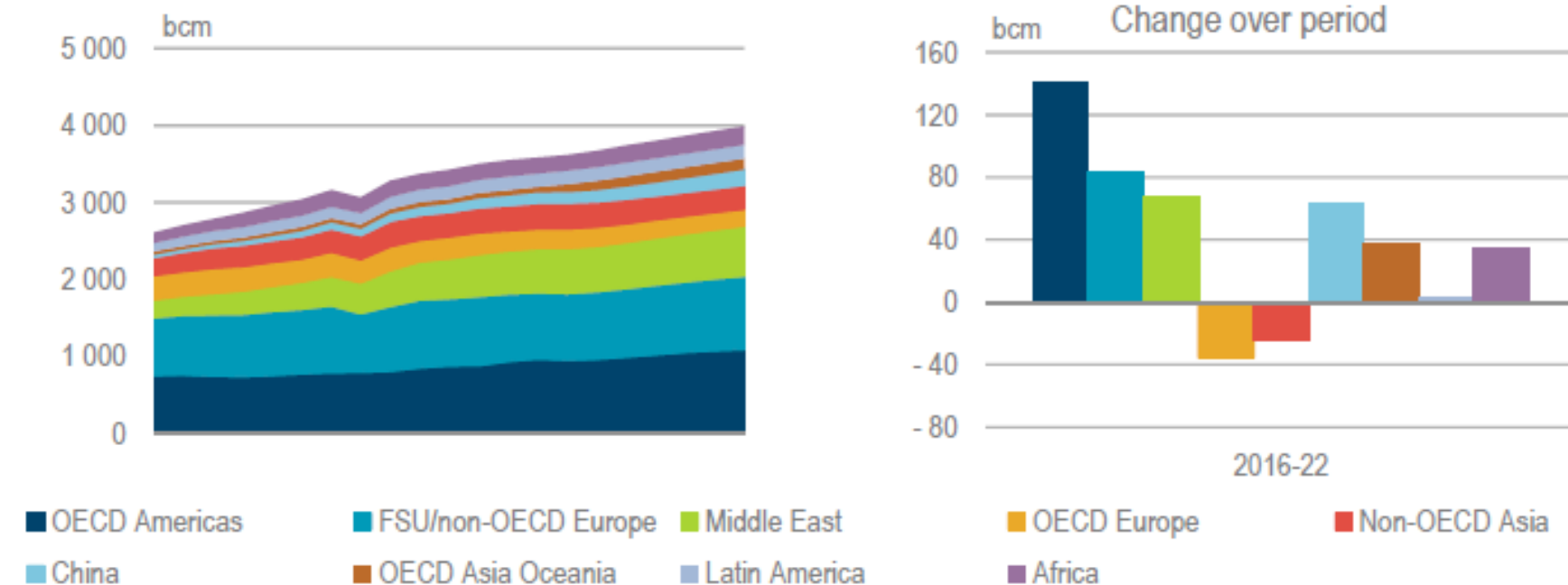
Source: BP Energy Outlook 2018

Daily Transit Volumes Through World Maritime Oil Checkpoints



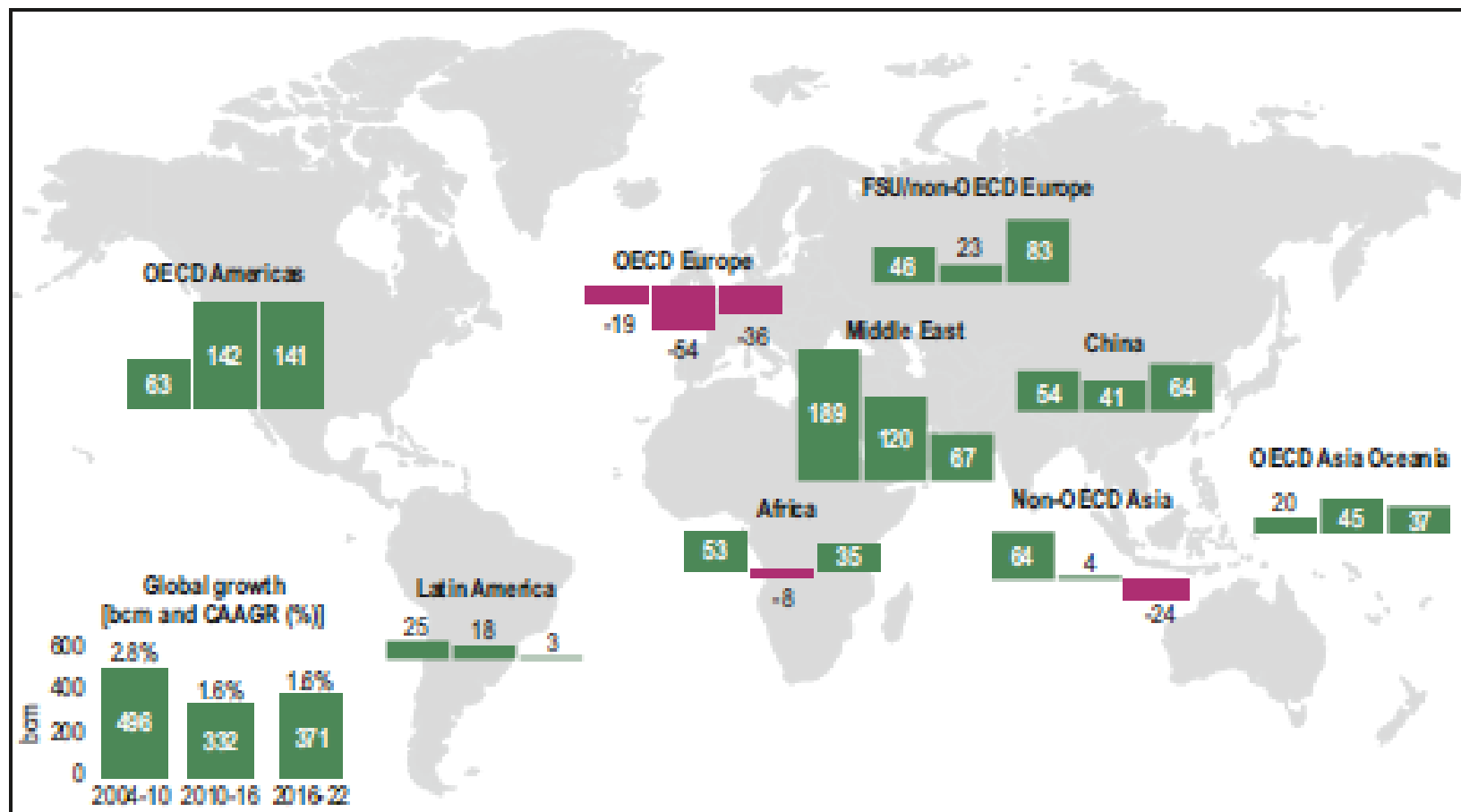
Note: All estimates in mb/d. Includes crude oil and petroleum products. Based on 2013 data.

Global Gas Production in 2002-22 and Regional Share in Growth, 2016-22



Note: OECD = Organisation for Economic Co-operation and Development; FSU = Former Soviet Union.

Global Gas Supply Growth by Region, 2004-10, 2010-16 and 2016-22



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Source: IEA Gas 2017

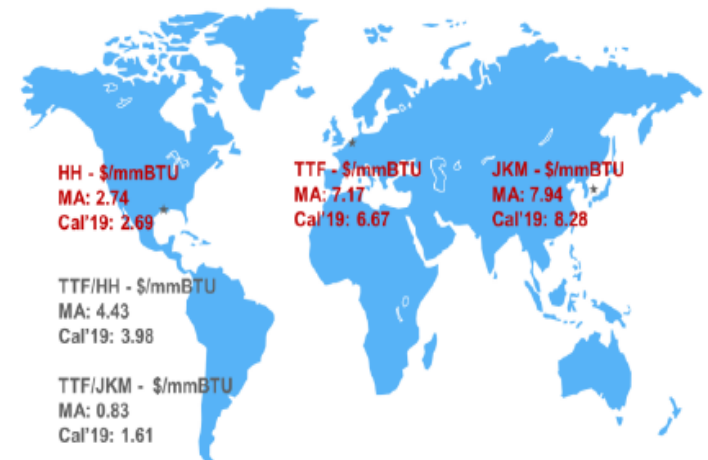
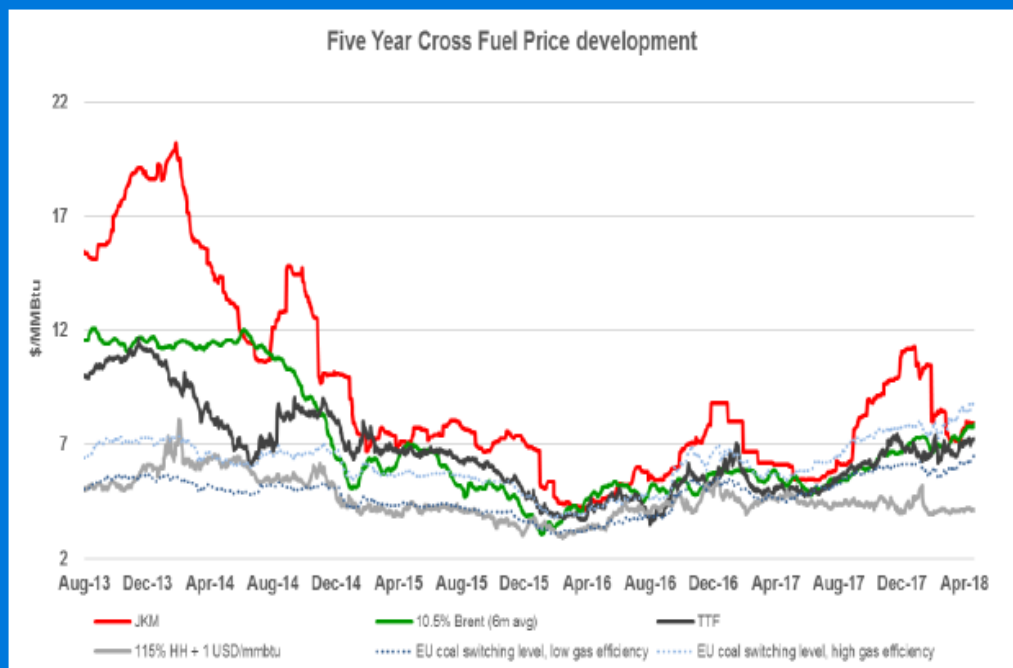
What Drives Global Gas Prices?



Source: Uniper

Global Gas Price Dynamics at a Glance

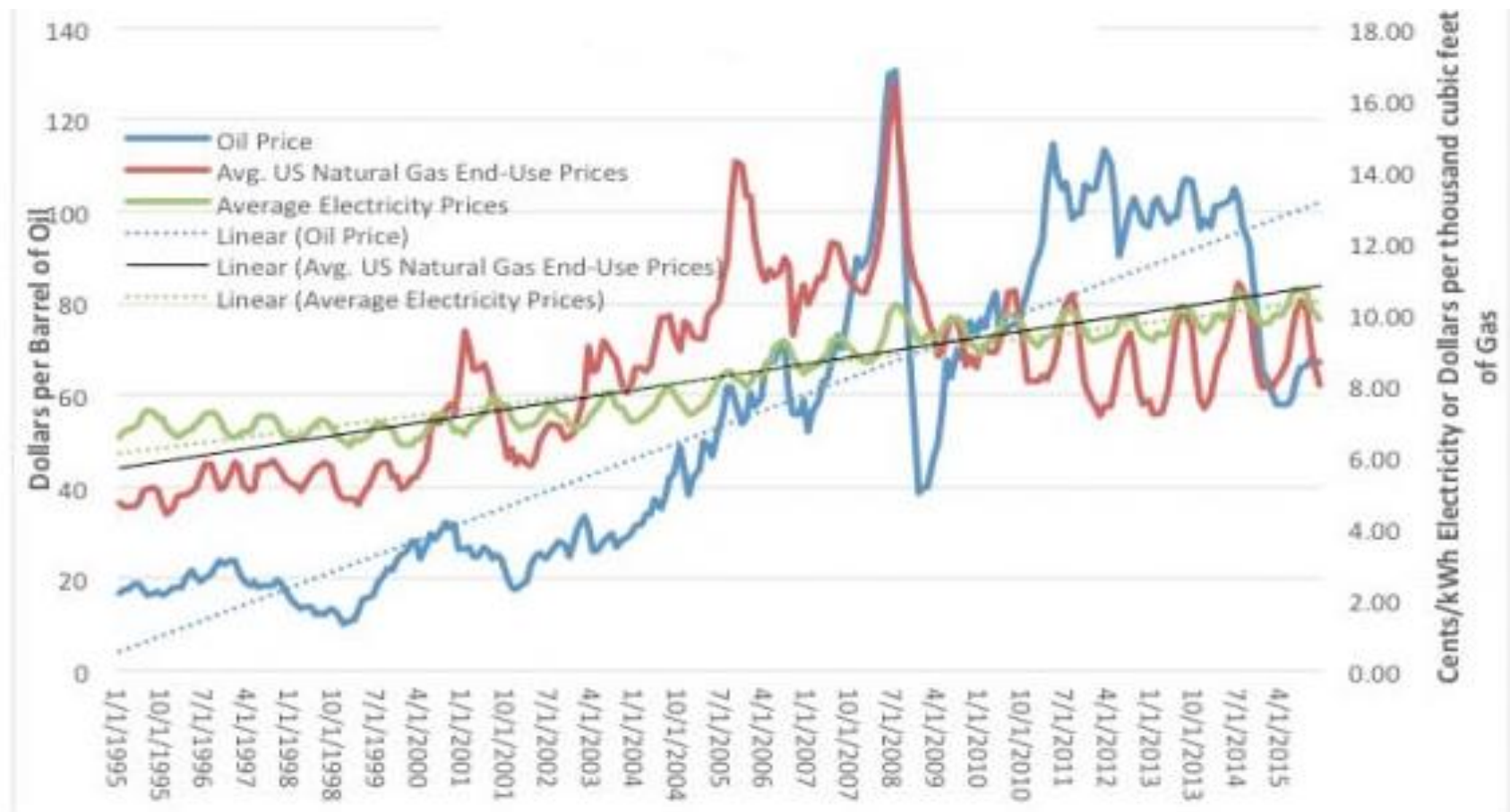
Cross Regional Gas Spreads



Reuters/Platts - Price Markers 8th May 2017 vs. Cal'19

- Global spreads strongly subject to seasonal fundamentals in the respective regions
- Continued oil price recovery supporting LNG prices in the Pacific
- Pacific and Atlantic prices evolution suggests stronger interdependency, but...

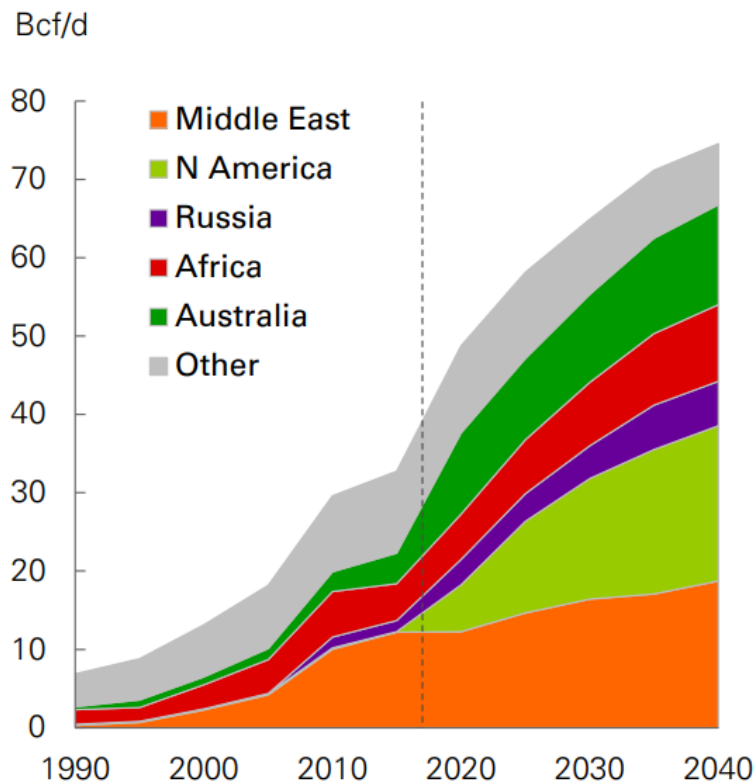
Correlation Between Oil, Gas and Electricity Prices



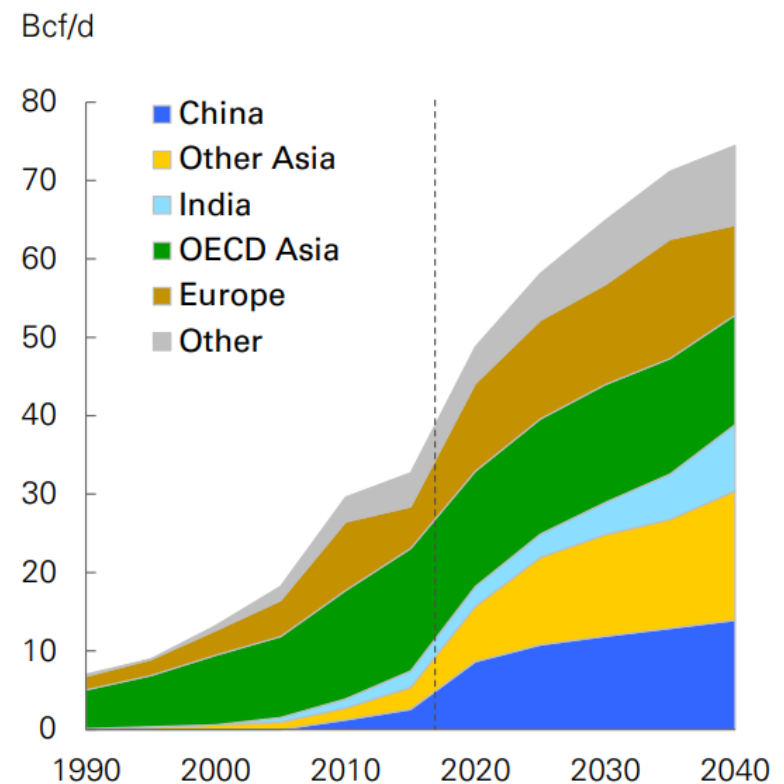
Source: US EIA

Global LNG Trade (1990-2040)

LNG exports

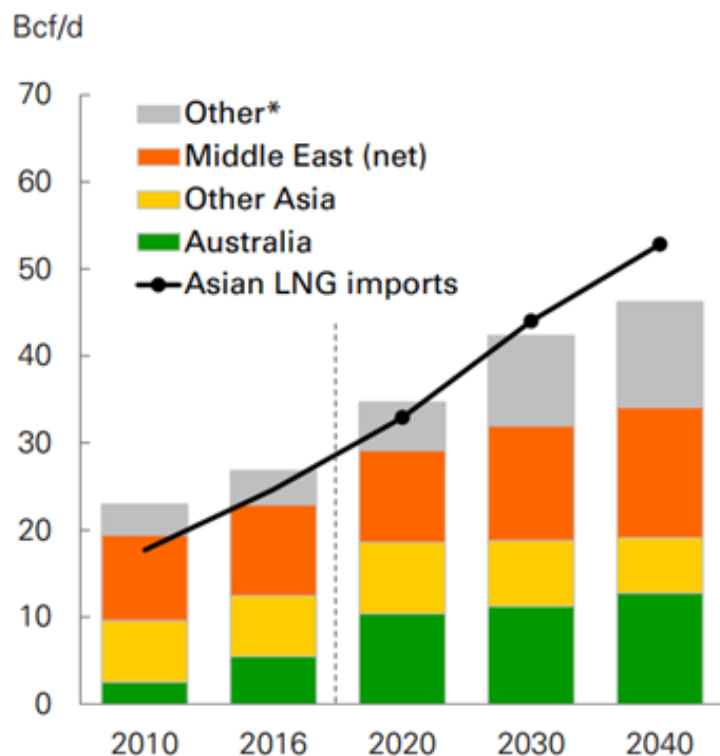


LNG imports



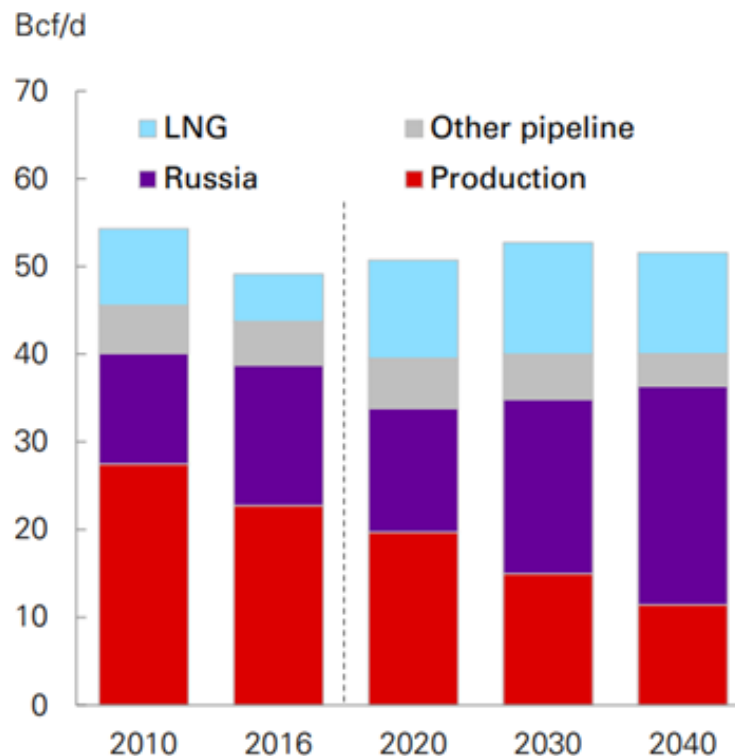
Asian LNG Trade and Gas Supply to Europe (2010-2040)

Asian LNG imports and LNG exports of regions 'close' to Asia

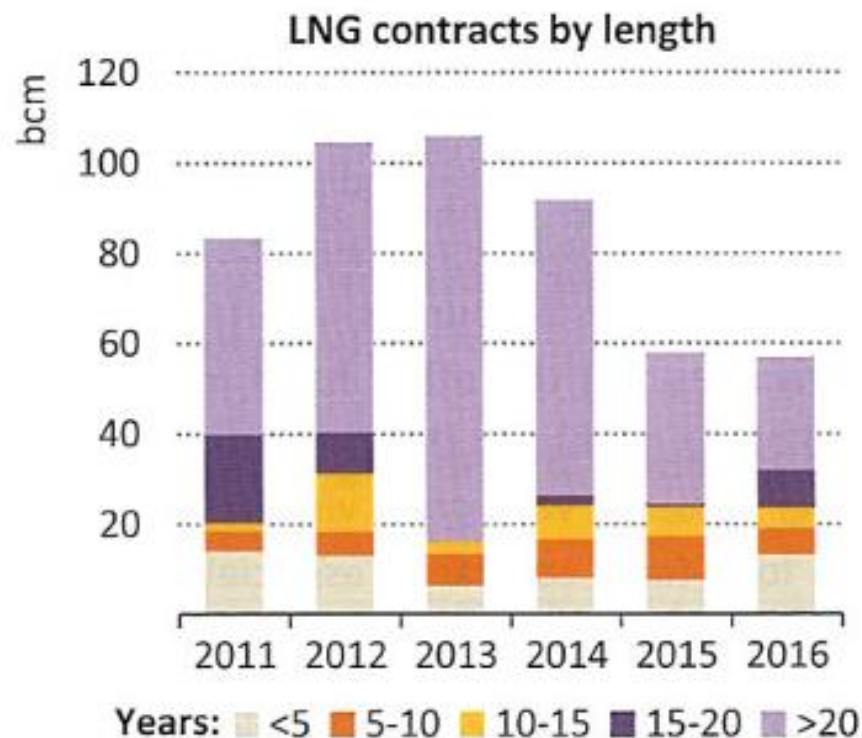


*Other includes Peru, Canada, East Africa, Angola, parts of West African and Russian gas supplies

Gas supply to Europe

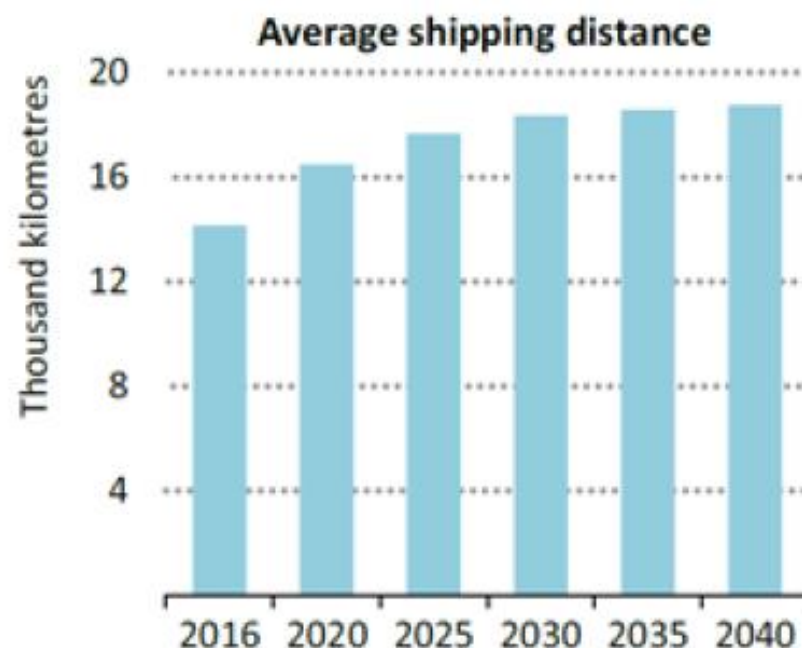
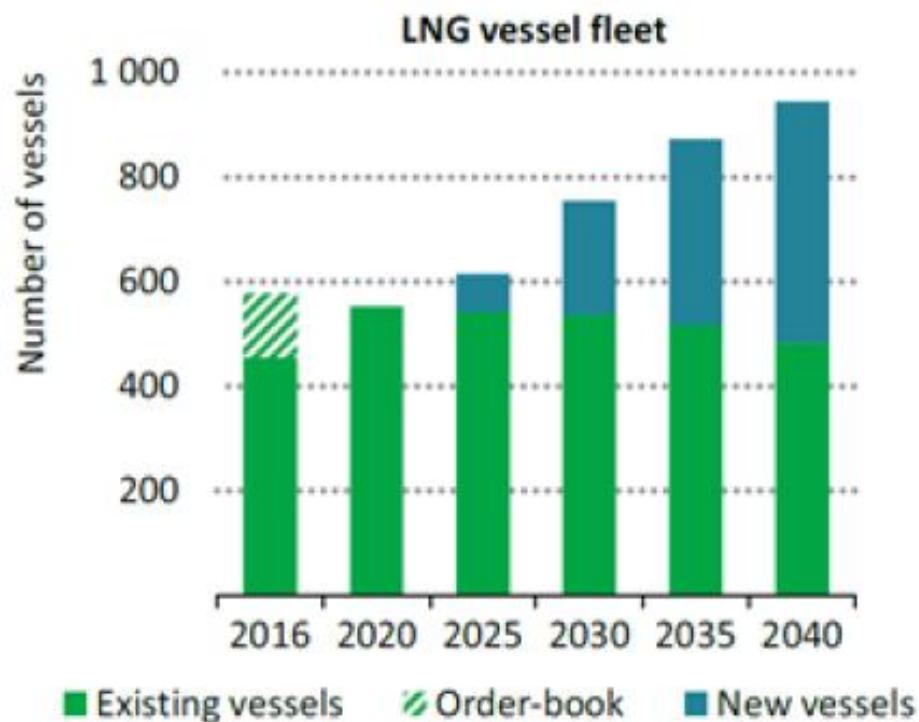


Total Volume of LNG Contracts Concluded between 2011 and 2016 by Size and Duration



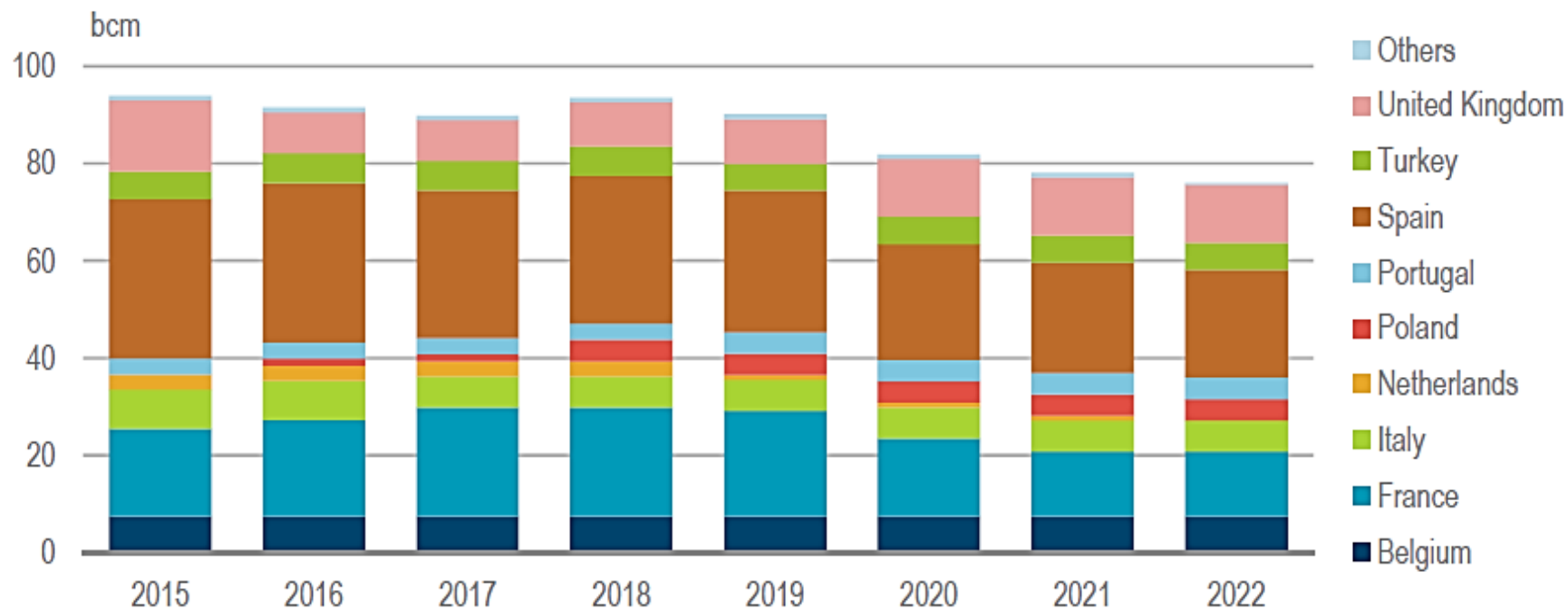
Source: IEA World Energy outlook 2017

Evolution of the LNG Vessel Fleet and the Average Shipping Distance (New Policies Scenario)



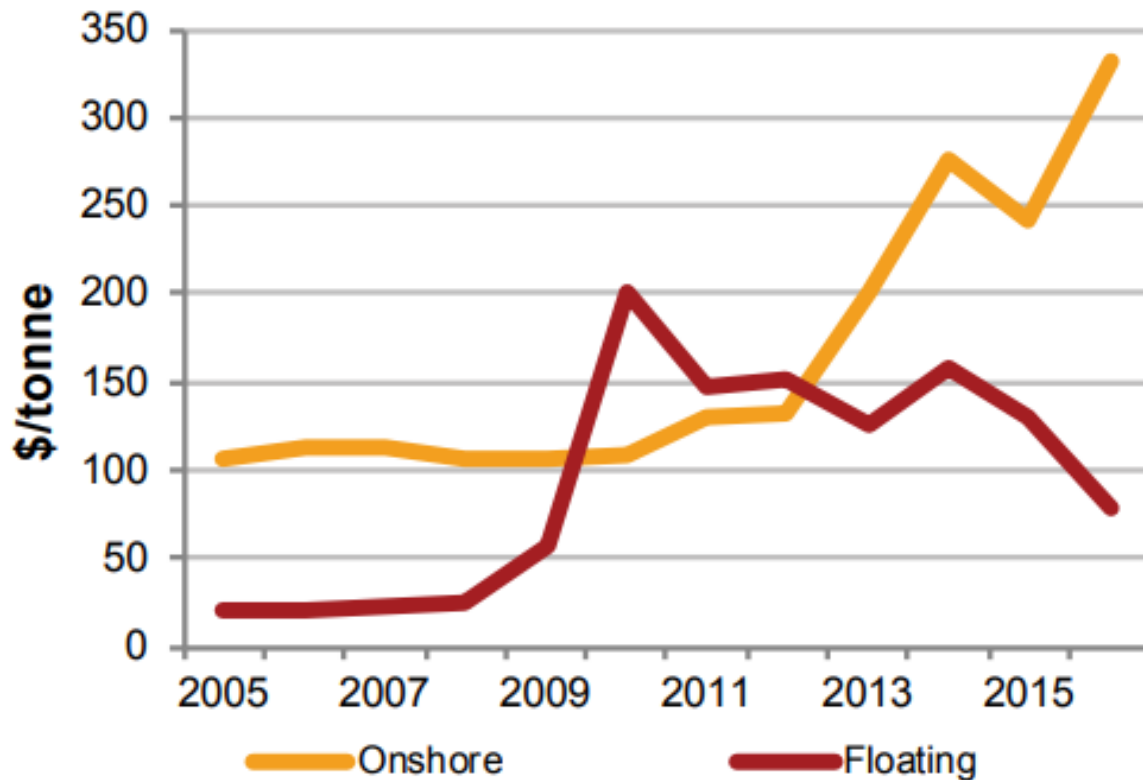
Source: IEA World Energy outlook 2017

LNG Contracted Volumes in Europe over 2015-22



Source: IEA Gas Market Report 2017

Regasification Costs based on Project Start Dates, 2005–2016



**Indicates the size of onshore storage relative to onshore terminal capacity.*

World LNG Estimated Landed Prices: April 2018

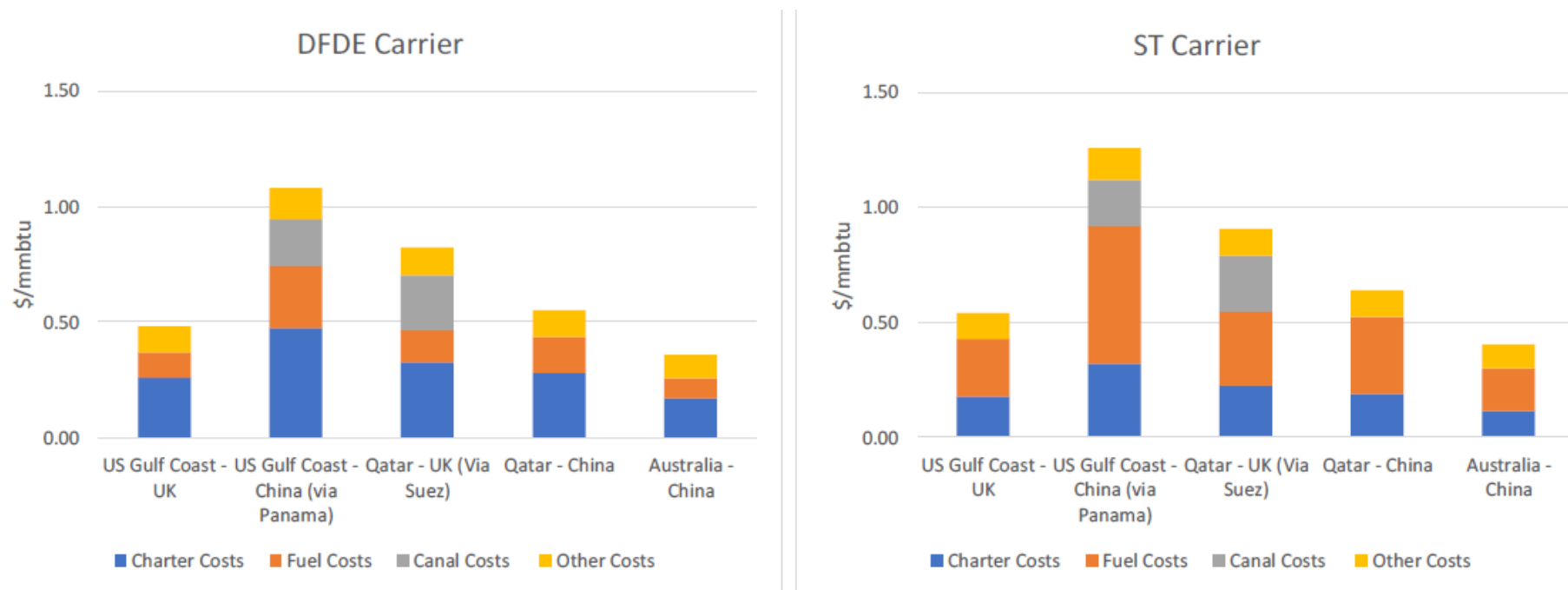


Source: Waterborne Energy, Inc. Data in \$US/MMBtu.

Note: Includes information and Data supplied by IHS Global Inc. and its affiliates ("IHS"); Copyright (publication year) all rights reserved. Prices are the monthly average of the weekly landed prices for the listed month. Landed prices are based on a netback calculation.

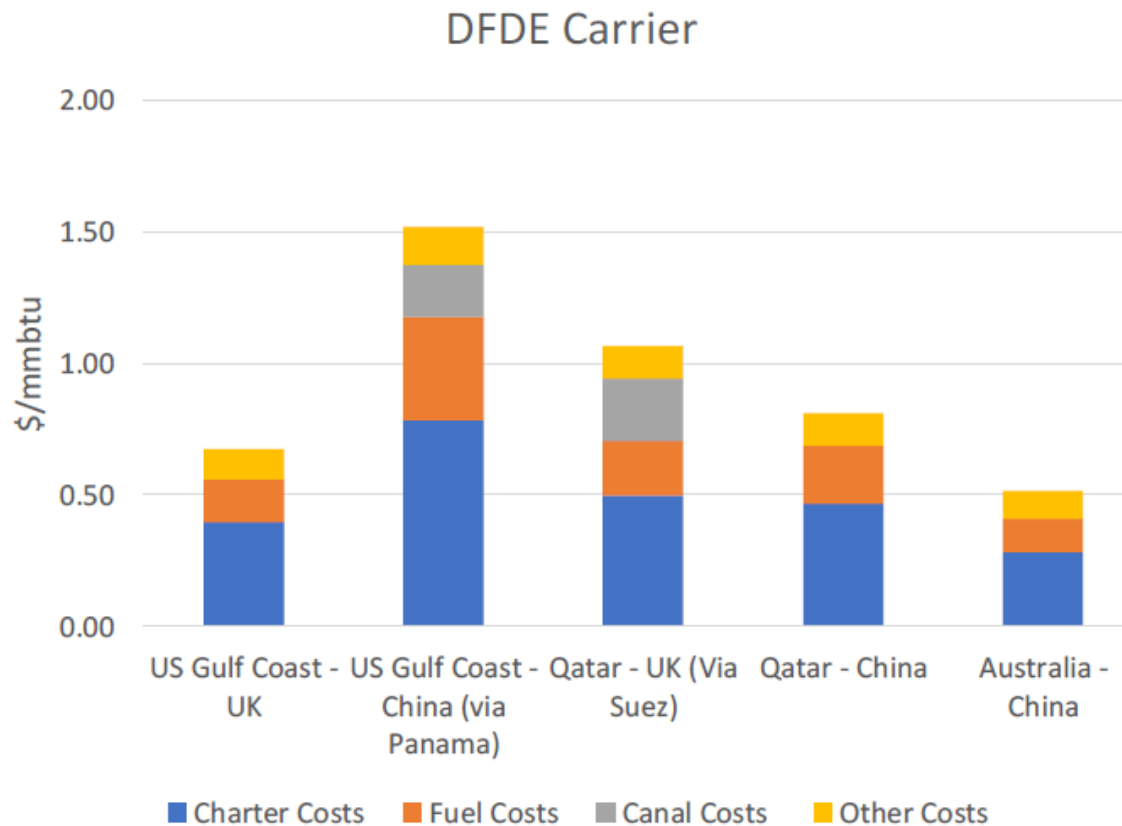
Source: FERC

LNG Transport Costs by Category, July 2017

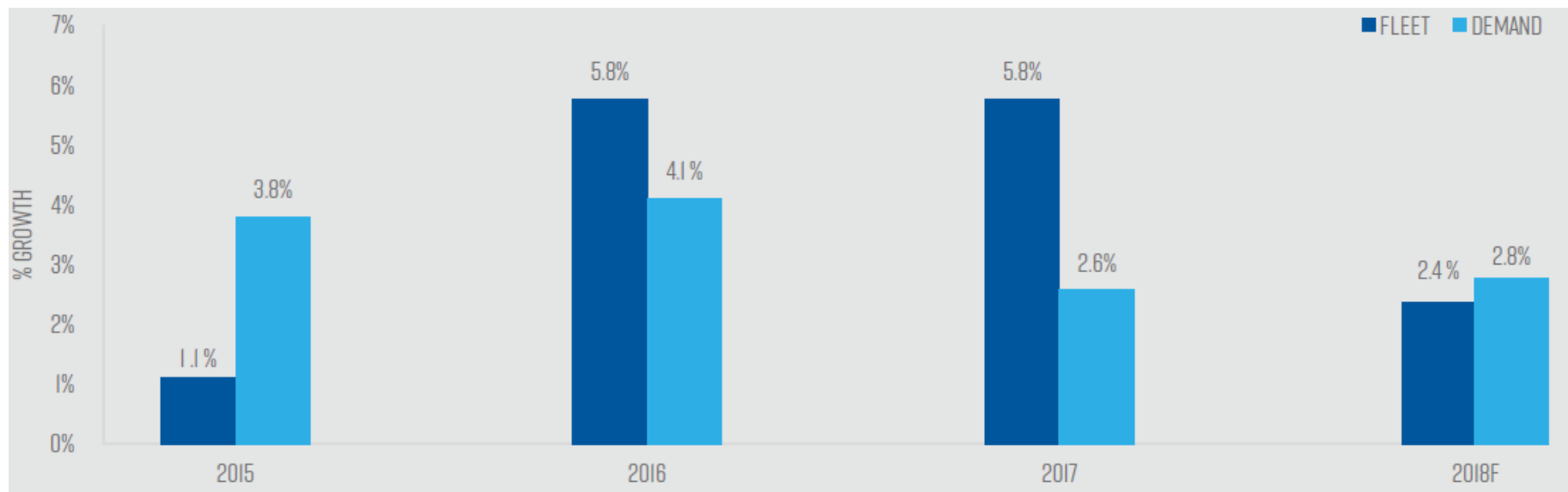


Source: The Oxford Institute for Energy Studies

LNG Transport Costs by Category, 2020

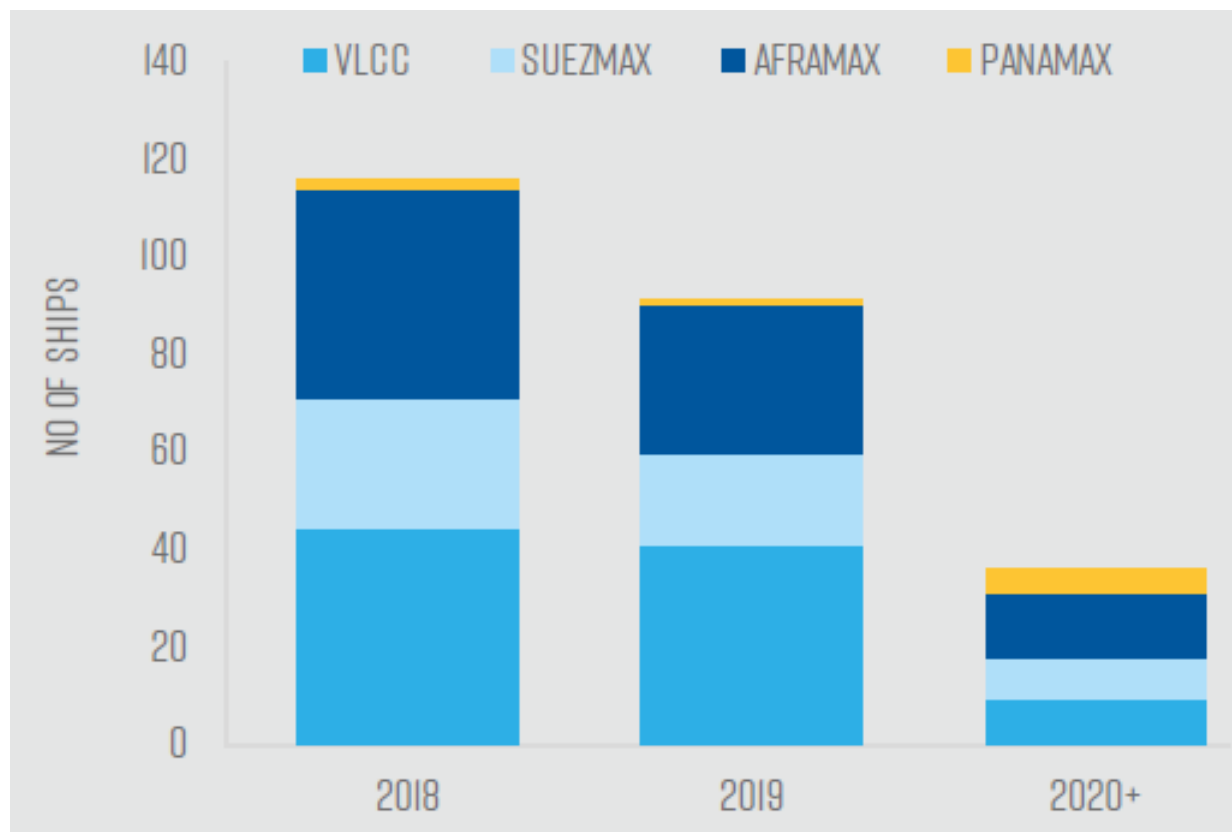


Crude Oil Tanker Supply and Demand Forecast

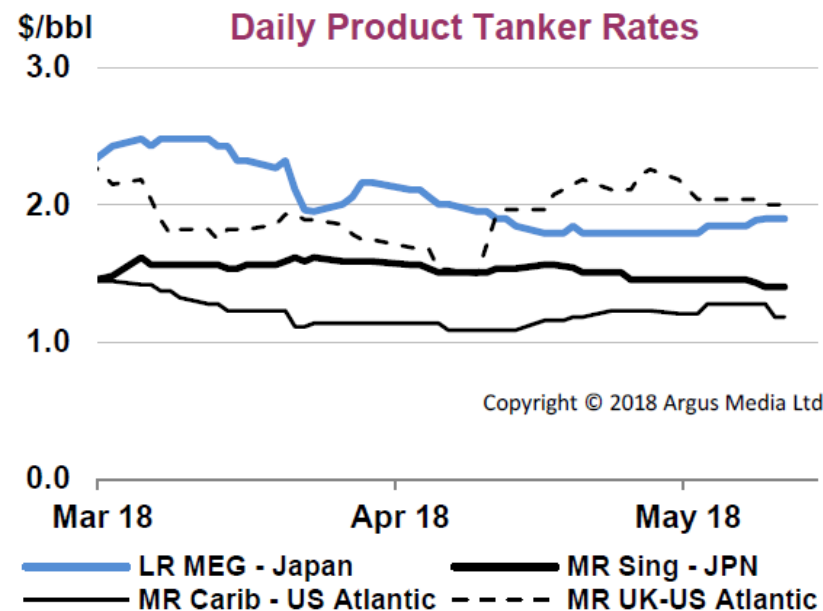
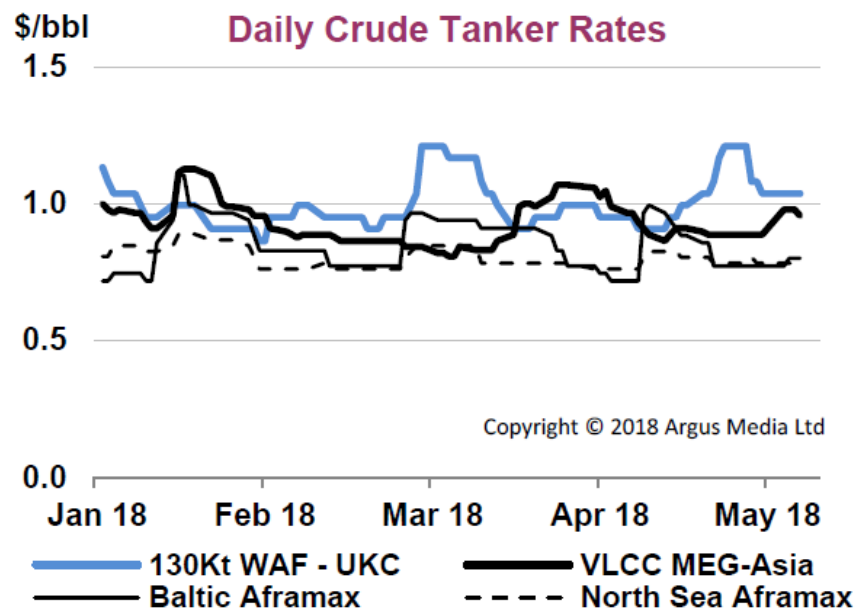


Sources: CRS, Hartland Shipping

Crude Oil Tanker Delivery Schedule

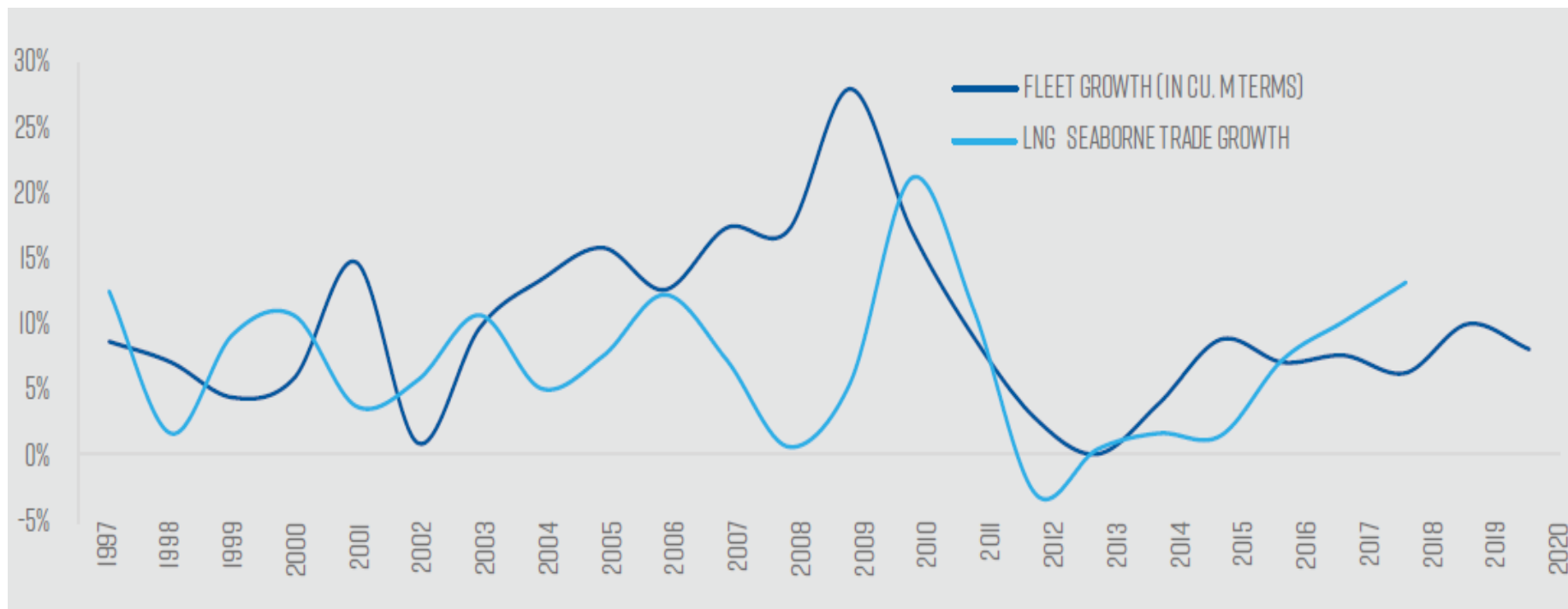


Daily Crude and Product Tanker Rates



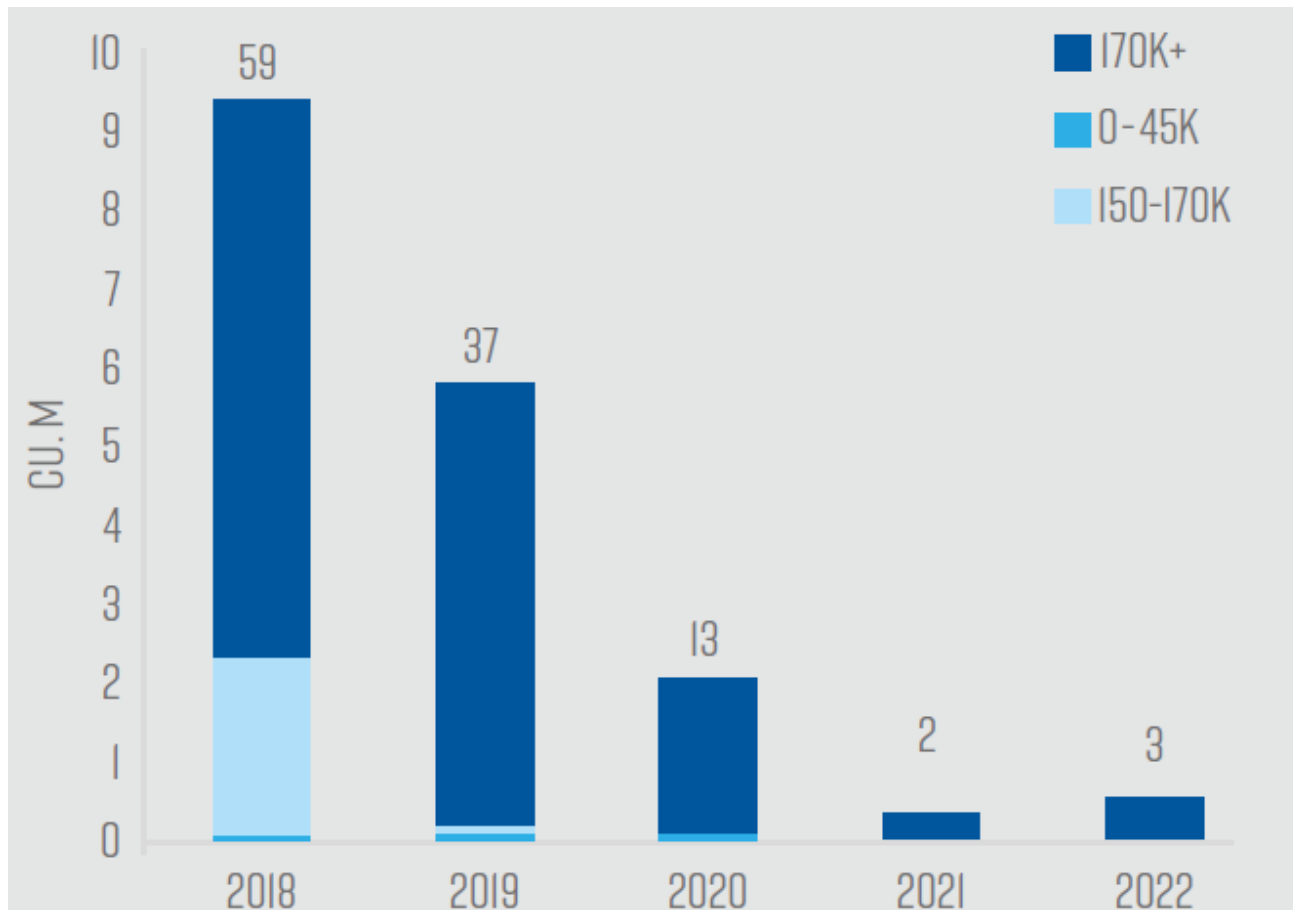
Source: IEA Oil Market Report, May 16, 2018

LNG Carrier Supply-Demand Growth Forecast

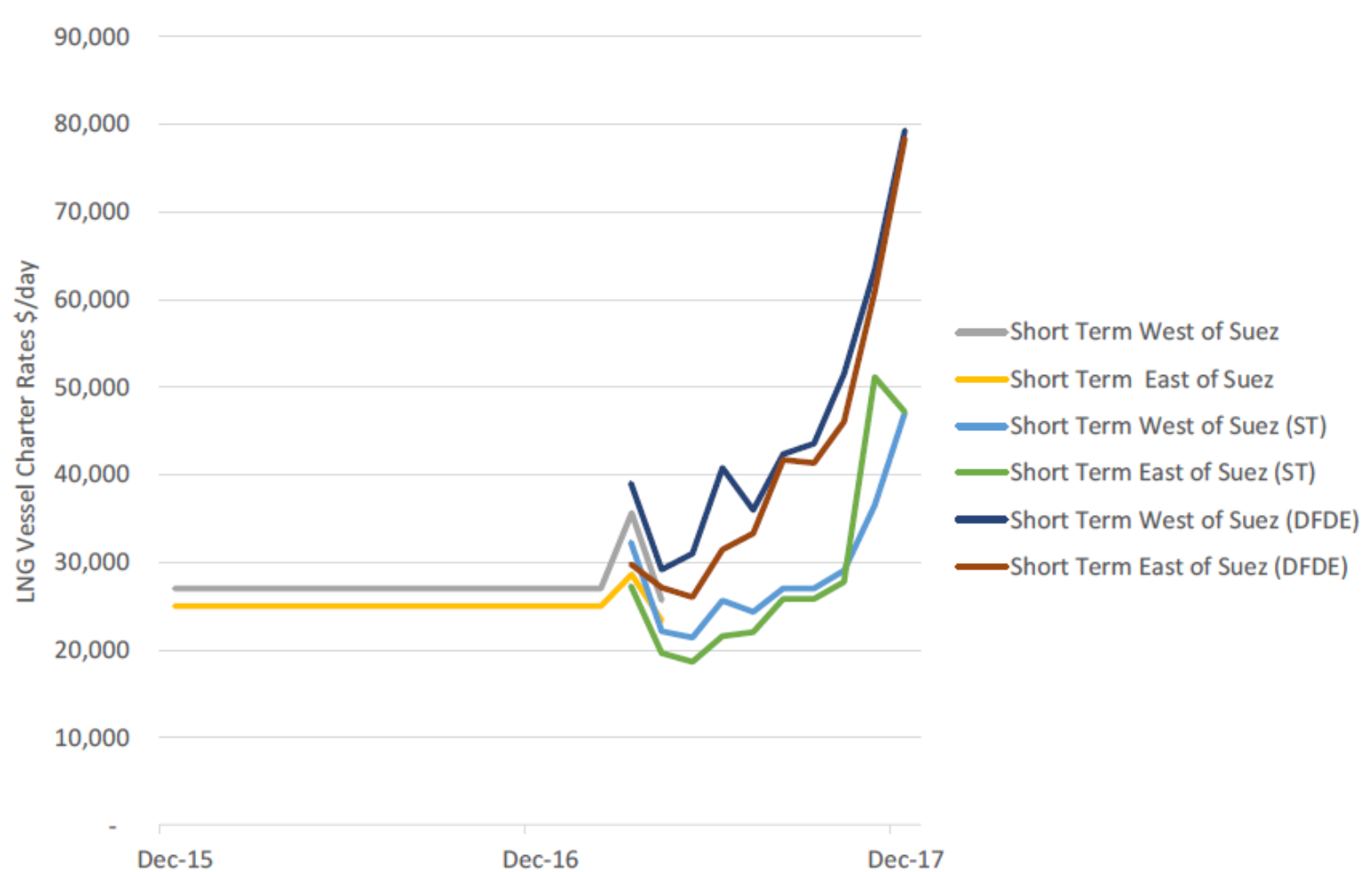


Sources: CRS, Hartland Shipping

LNG Carrier Delivery Schedule

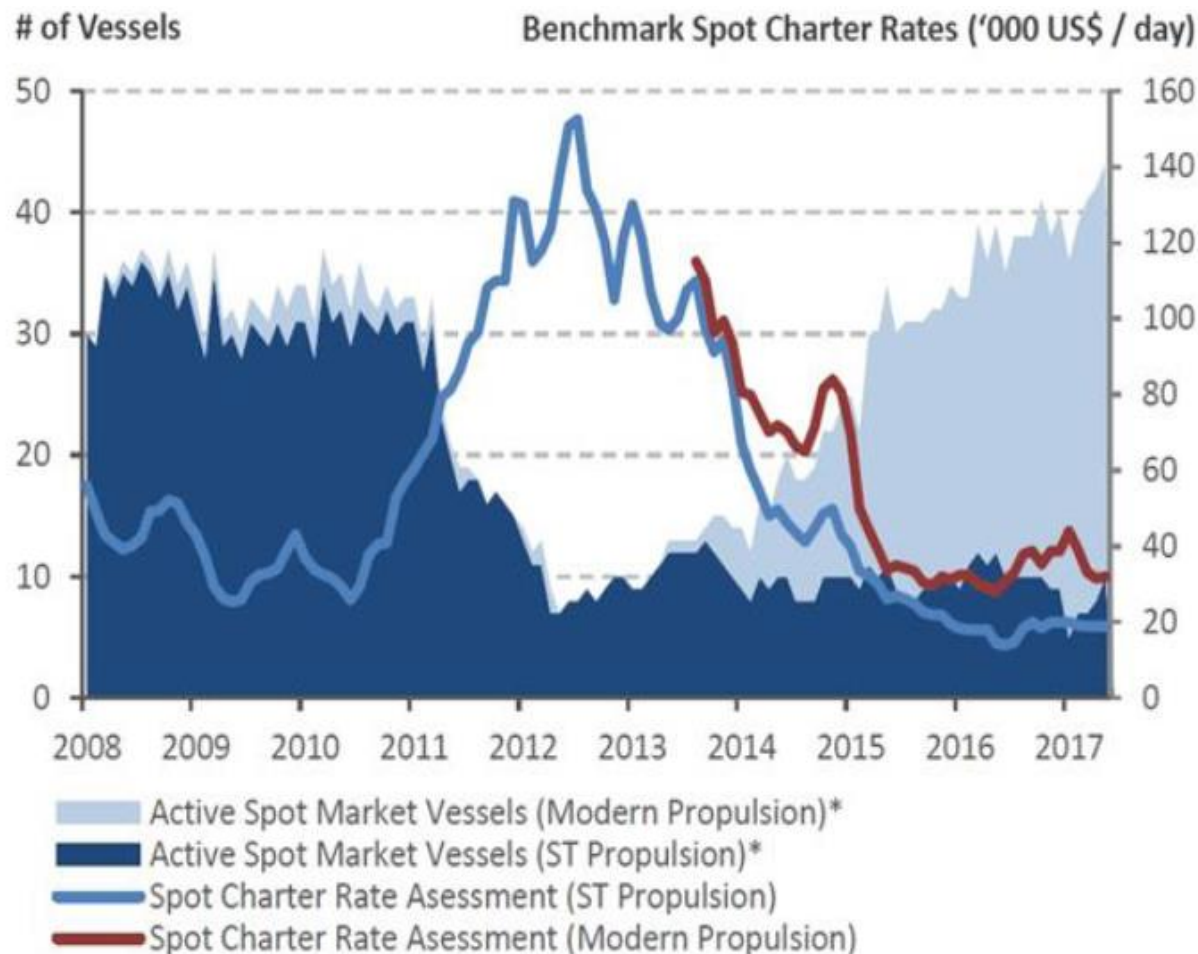


LNG Carrier Short-term Charter Rates (\$/day), December 2015 to December 2017



Source: Argus Global LNG, monthly issues from January 2016 to January 2018

Active Spot Market Vessels vs Headline Spot Charter Rates



Source: Poten and Partners

Poseidon Med II LNG Bunkering Project



Source: DEPA



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**Thank you for
your attention**

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