

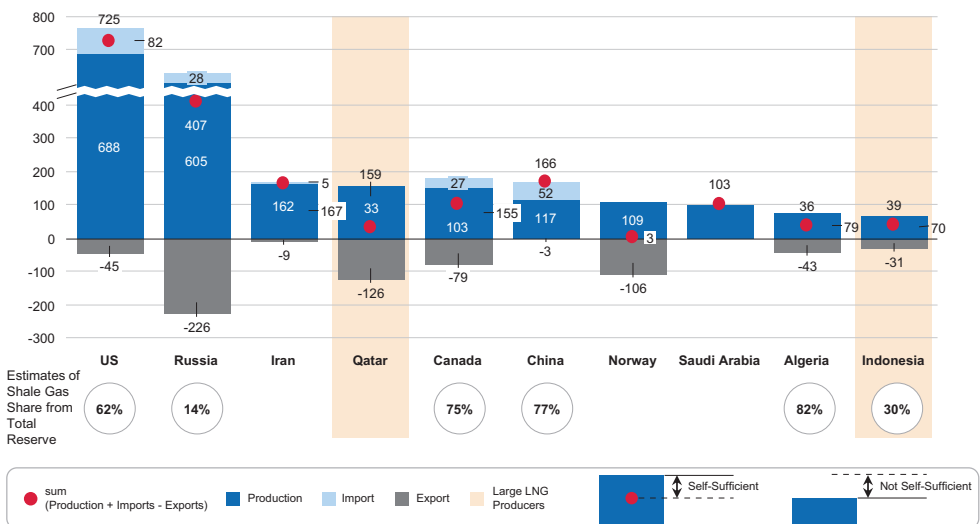
LNG CHANGES NATURAL GAS MARKET DYNAMICS



THE US HAS RETAINED ITS LEADING POSITION IN GAS PRODUCTION and is forecast to become a net exporter by 2016

The majority of US gas is produced from shale gas wells. The shale boom has allowed the US to become the largest gas producer in the world. In fact, according to BP, shale gas will transform North America from a net importer today into a net exporter by 2016. Despite its shale gas bounty, the US is not self-sufficient in this area and is still importing some gas.

Natural Gas Top Producers and Self Sufficiency⁽¹⁾
(In Billion Cubic Meters, 2013)

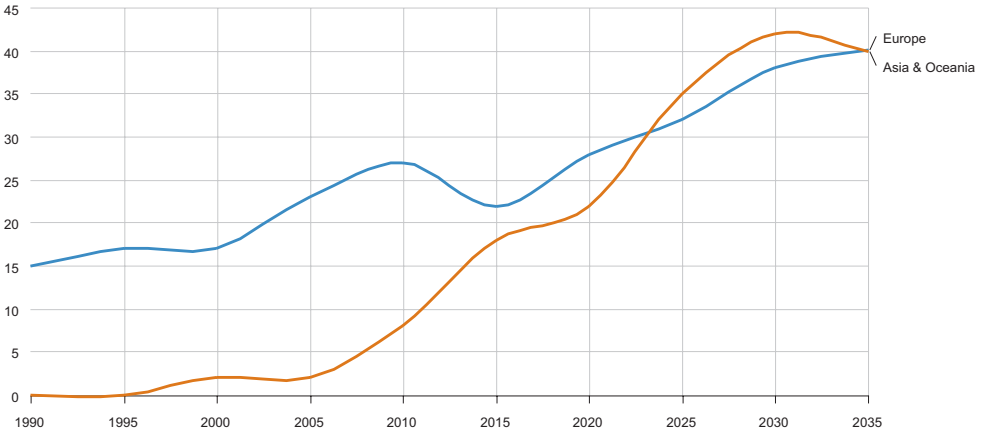


Note: (1) Self-sufficiency formula is: Production / (Production + Imports - Exports)
Source: "Statistical Review of the World Energy", BP, 2014

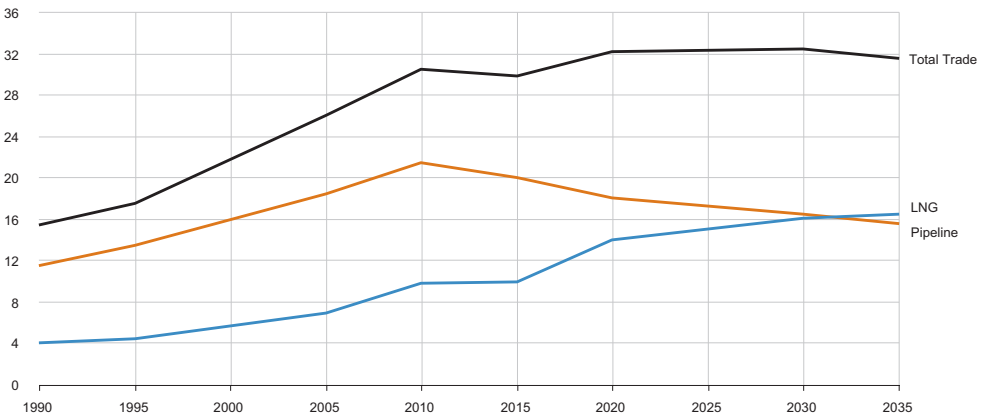
ASIA PACIFIC OVERTAKES EUROPE AS THE LARGEST IMPORTER OF NATURAL GAS, which in turn leads to higher LNG imported gas

According to BP, Asia Pacific will overtake Europe as the largest importing region early in the next decade. The expansion of trade will be driven by Asia net imports which will more than triple. LNG will become the most-used method for gas trade by the early 2030s, overtaking pipeline. Pipeline will decline as a share of total trade due to lower demand in Europe and less need for imports in the US

Europe and Asia & Oceania Regional Natural Gas Trade Imbalances⁽¹⁾
(In Billion Cubic Feet per Day, 1990-2035)



Total Natural Gas Trade by Channel
(In % of Global Gas Consumption, 1990-2035)

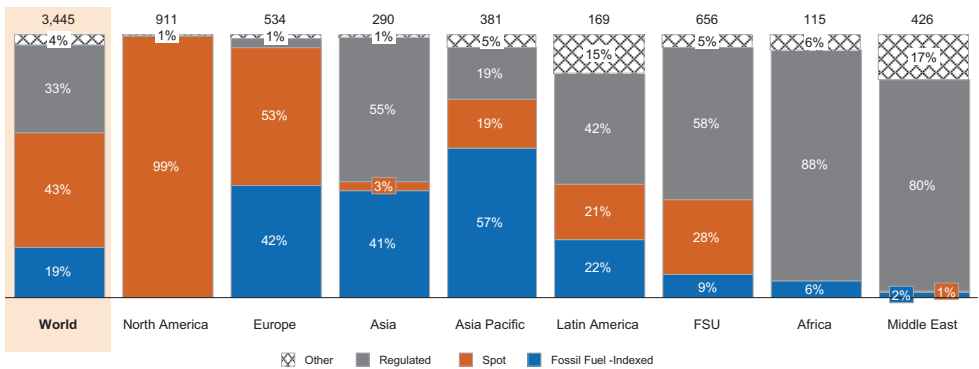


Note: (1) Refers to inter-regional trade imbalances. Both Europe and Asia & Oceania are net importers
Source- Upper and Lower Charts: "Energy Outlook 2035", BP, 2015

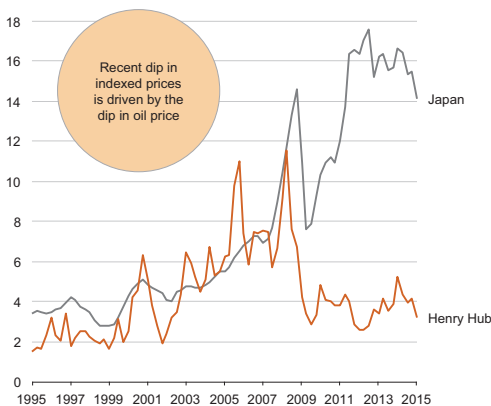
DUE TO LIMITATIONS IN TRANSPORTATION, GAS PRICE DIFFERENTIALS REMAIN though this is likely to change with increased LNG trading

Globally, market-based pricing is the most common pricing mechanism, followed by regulated pricing (the latter being prevalent in developing markets). The regional disparities in gas prices have stemmed from the difficulty in transporting gas (unlike oil) and its capital intensive nature. However, with more LNG gas trading there is more room for unification of markets and the disparity in prices is likely to narrow as more gas is transported across regions

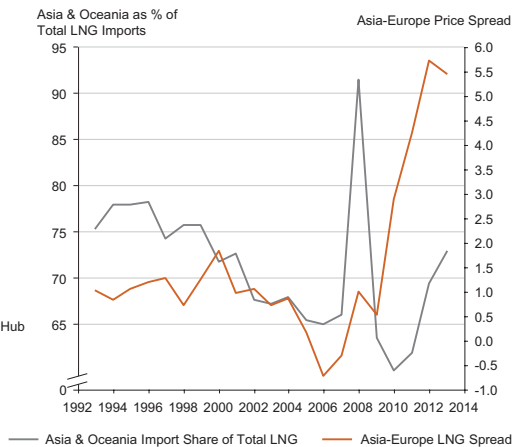
Gas Pricing Mechanism by Region
(In Billion Cubic Meters and In % of Total Consumption, 2013)



Gas Prices by Benchmark
(In US\$ per Million British Thermal Units, Q1 1995 - Q1 2015)



Asian LNG Imports and Price Differential
(In % of Total and In US\$ per Million British Thermal Units, 1993-2013)

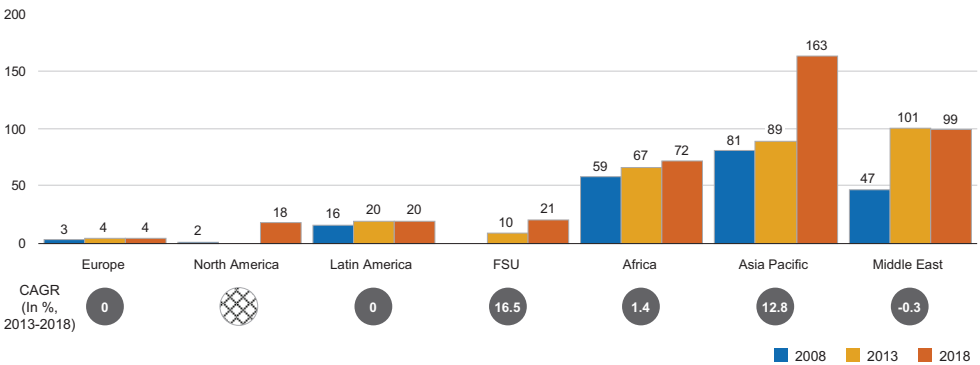


Source- Upper Chart: "Wholesale Gas Price Formation", International Gas Union, 2014
Sources- Lower Left Chart: Bloomberg; Thompson Reuters DataStream; EIA Statistics
Sources- Lower Right Chart: "Energy Outlook 2035", BP, 2015; "Statistical Review of World Energy", BP, 2014

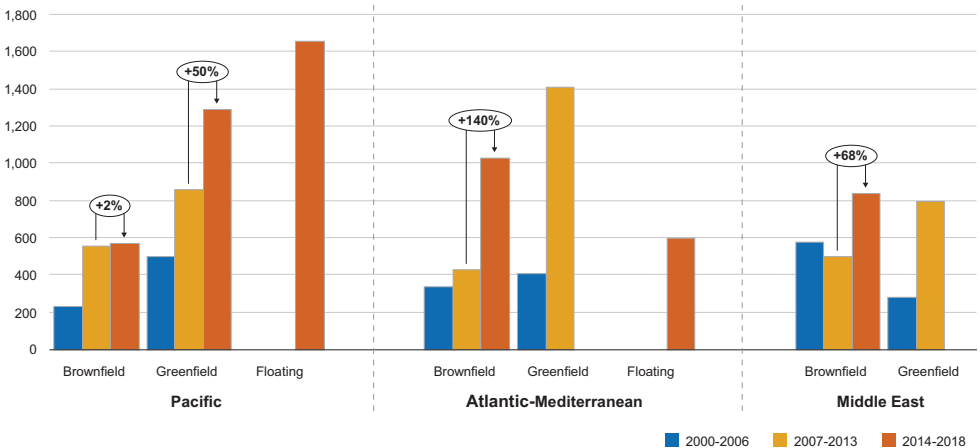
CAPACITY AND PRODUCTION OF LNG WILL INCREASE IN THE NEXT FEW YEARS, but the largest challenge remains the high and rising costs of liquefaction

By 2018, liquefaction capacity will increase the most in Asia Pacific (Australia) and North America (the US). With plans to export LNG, North America is expected to gain significant market share at a CAPEX expenditure of ~US\$ 70 Billion while Australasia's expenditure is estimated at ~US\$ 50 Billion. However, there have been significant cost increases—in some cases involving overruns of as much as 50%—that could threaten the viability of future projects (and keep some projects that have been approved from ever getting off the ground). For projects already under construction, LNG will be produced even with less favorable gas prices in order to recoup the huge financial investments

Liquefaction Capacity by Region
(In Million Tonnes per Annum, 2008, 2013 and 2018)



Average Liquefaction Unit Costs by Basin and Project Type⁽¹⁾
(In US\$ per Tonne, 2000-2006, 2007-2013 and 2014-2018)



Note: (1) Brownfield refers to a land-based project at a site with existing LNG infrastructure, including but not limited to storage tanks, liquefaction facilities and regasification facilities. Greenfield refers to a land-based LNG project at site where no previous LNG infrastructure has been developed
Source- Upper and Lower Charts: "World LNG Report", International Gas Union, 2014