



# CRA Insights: Energy

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## LNG market trends – a deeper dive

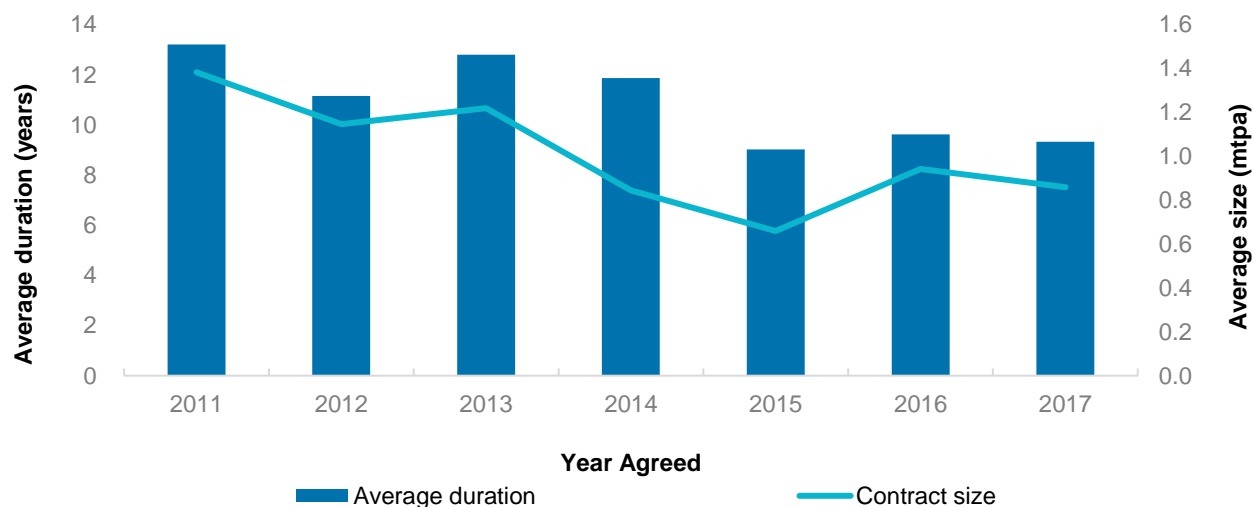
The development of a short-term market in LNG has been widely discussed. Since 2011, there has been a downward trend in the average size and duration of liquefied natural gas (LNG) contracts. However, by conducting a more detailed analysis, we show that this trend is not universal. In particular, for sales to the Asia-Pacific region, the destination for the vast majority of new contracts, contract terms have remained largely unchanged since 2011.

In this first in a series of articles, we explore developments in the global LNG industry. We aim to explain current LNG market dynamics, as well as assess potential directions that the LNG market could take.

### A clear global trend

On average, more than 30 new LNG contracts have been agreed each year since 2011. In these contracts, the majority of buyers have been utilities and state-owned companies in the Asia-Pacific region,<sup>1</sup> although there have also been a significant number of sales in to the portfolios of major oil and gas companies (such as Shell, BP, and Total). Unlike utilities who tend to buy to meet demand in their own markets, portfolio companies act as both global buyers and sellers and are much less active in downstream gas markets.

**Figure 1: Average duration and size of LNG contracts by year agreed**



Source: CRA analysis of data from GIIGNL (the International Group of Liquefied Natural Gas Importers) annual reports

<sup>1</sup> Asia Pacific = Japan, South Korea, Thailand, Malaysia, Indonesia, Taiwan, Singapore.

In the period following 2014, there was a substantial reduction in the average length of LNG contracts being agreed. Globally, average duration in new contracts fell by 24%, from 12.3 years between 2011 and 2014 to 9.3 years between 2015 and 2017. Average contract size also fell from 1.4 mtpa in 2011 to 0.9 mtpa in 2017, a 36% decrease.

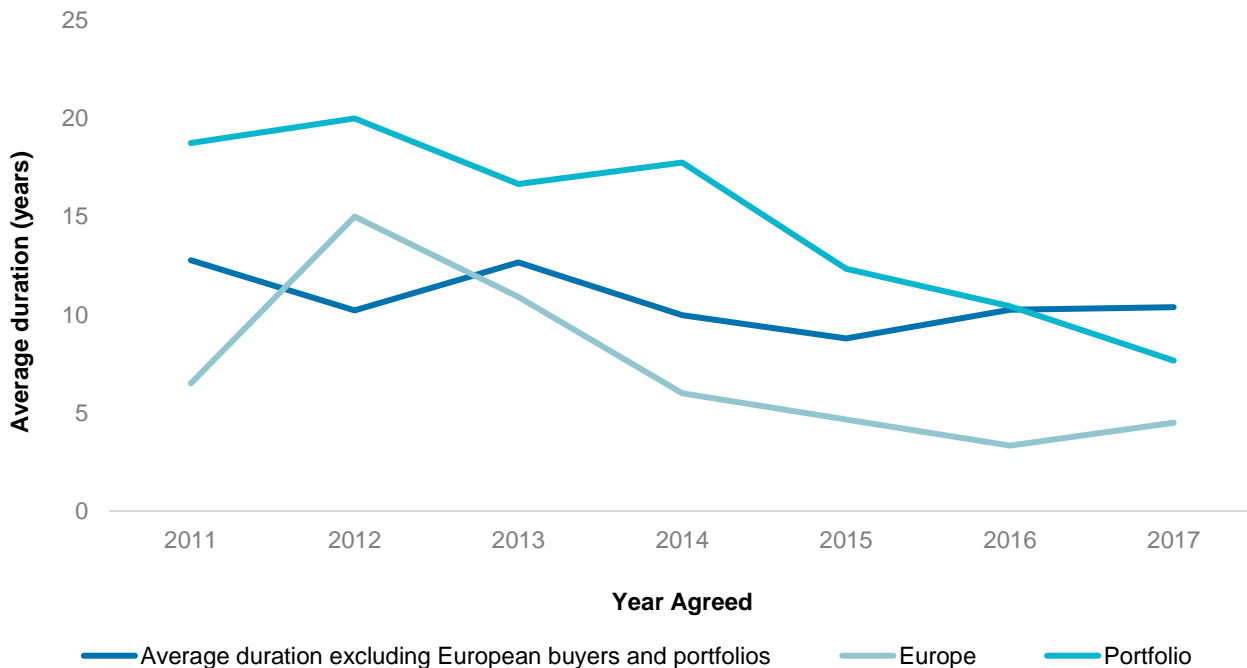
The increasingly competitive LNG and gas market environment is one common explanation for the decrease in contract size and duration. Indeed, with the US and Australia becoming major exporters of LNG and forecasted oversupply, buyers have increased bargaining power. Depending on their appetite for risk, buyers are able to enter into shorter, smaller supply agreements and react again to future market conditions with new contracts. Further, the advanced development of LNG infrastructure internationally means that some sellers may no longer need long-term contracts to mitigate risk and secure financing.

While this is generally true, the regional data show that this explanation only holds strongly for a small subset of buyers. Focusing on the global trend ignores fundamental regional differences that may have a large impact on future LNG contracting.

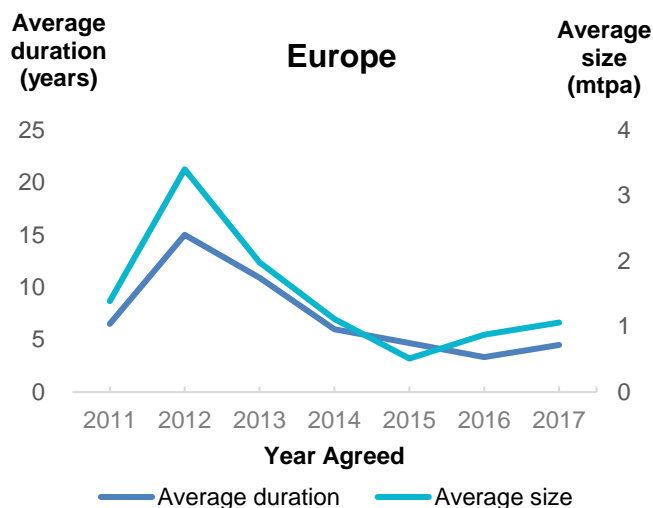
### Stark regional differences

In the analysis below, we explore regional trends in LNG contracting. The decrease in overall average contract size and duration is largely explained by changes in purchases by European buyers and sales into the portfolios of major oil and gas companies, which on average make up 30% of contracts agreed during the analyzed period. This traditional story is true for these established LNG markets. However, differences in regional market conditions, such as competitiveness and price-setting strategies, mean that buyers in the Asia-Pacific region have not reacted in the same way.

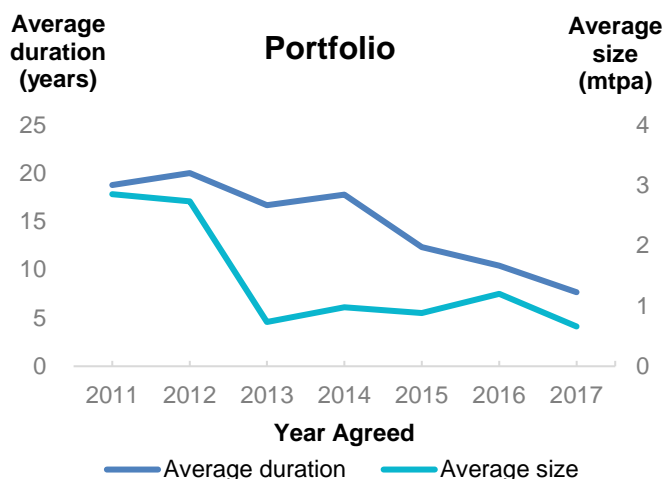
**Figure 2: Average duration of contracts agreed by European buyers and portfolio companies compared to the rest of the world**



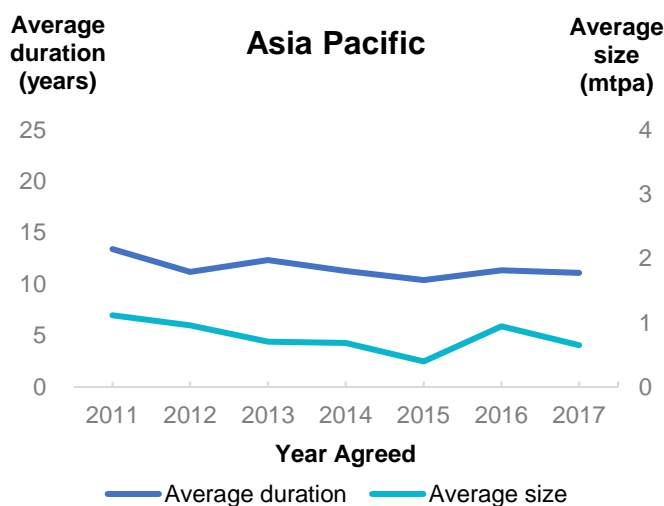
Source: CRA analysis of data from GIIGNL annual reports



- European buyers (mainly utilities and oil and gas companies) have become comfortable with their ability to manage current alternative gas supplies from natural gas markets such as UK NBP, Dutch TTF, and German NCG, adding to supply security.
- While contracts at the start of the period were to large markets, in recent years there has been a rise in sales to smaller, less developed gas markets (such as Turkey, Lithuania, and Poland) looking to increase or diversify supplies.



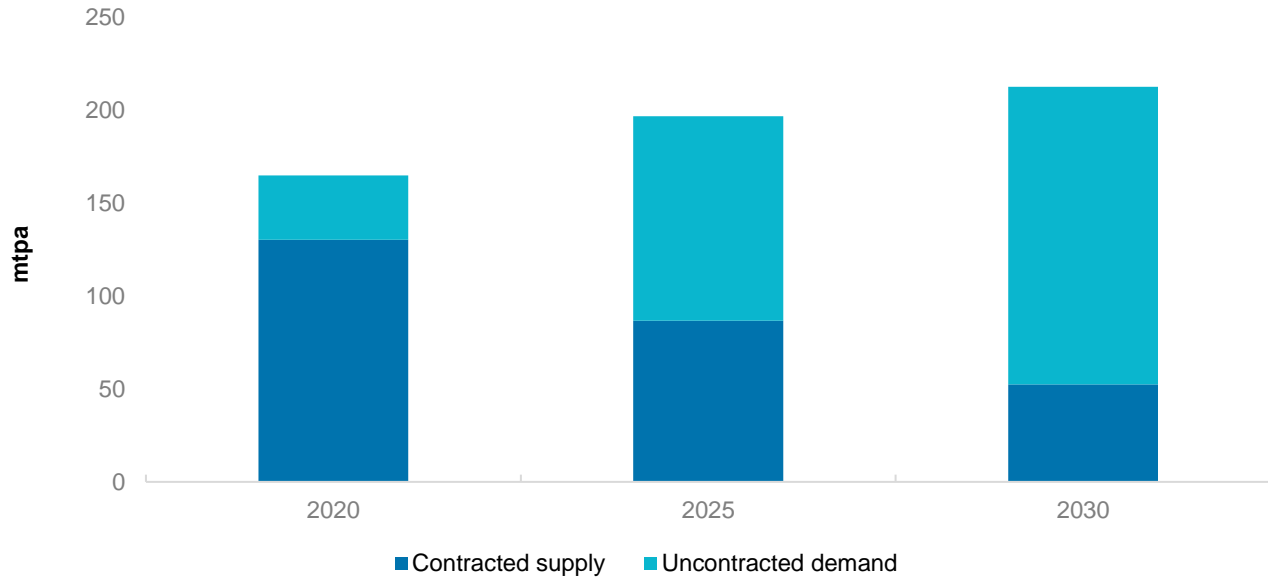
- Until 2014, agreements by portfolio companies were dominated by large long-term contracts from the US. This supported the initial wave of major US export projects being developed.
- A decrease in contract volume over time has been caused by the method of expansion in US export projects. Newer contracts match the size of smaller liquefaction units being added to existing projects.
- Portfolio companies have experience, and are comfortable with, managing supply outside of large contract structures and can readily access spot markets to trade excess volumes.



- In Asia Pacific, there has been less change. Average contract duration remains above 10 years, and size around 1mtpa.
- There is a much less developed spot market for reliable sourcing of alternative gas supply.
- Indeed, Asian buyers have traditionally been able to pass through the cost of LNG into their rate base, so there have been only limited incentives to trade spot for anything other than optimization.
- Rather than buying incremental volumes from project expansions, recent contracts have largely been from portfolio companies to utilities securing supply.

An important change in LNG contracting in the Asia-Pacific region actually occurred well before the 2010s. LNG contracts agreed in the 1990s and 2000s generally had a term of 20 or more years. Contracts agreed in the 2010s averaged a much lower 12-year term. This has inflated the portion of gas demand in this region that will not be met by current contracts in the coming decade.

**Figure 3: Contracted v. uncontracted demand in the Asia-Pacific region**



*Source: CRA analysis of GIIGNL contract data, BP Energy Outlook 2018 forecast OECD Asia and Emerging Asia gas demand*

This uncontracted demand could be met if mid- or long-term contracts are agreed or extended in the next few years, creating interesting opportunities for innovative contractual solutions. However, it also opens up the space for the development of a significant short-term or spot market in the region. If this is developed soon, Asia-Pacific buyers will be comfortable leaving substantial portions of demand uncontracted, able to source and sell LNG cargoes on the open market. We will discuss the development of a spot market in the Asia-Pacific region in our next article.

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