

Emergence of LNG portfolio players

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Introduction

Portfolio players - in the LNG industry in this century - have contributed and are expected to continue contributing to development of more flexible LNG markets by handing over and receiving cargoes at different locations around the world responding to market signals.

An *LNG portfolio player* is defined as a company who holds a portfolio of LNG supply from different regions as well as various shipping, storage and regasification assets. And this is not a one-size-fits-all definition, as different LNG players have different business strategies and business models with each other, as well as different degrees of diversification of supply sources and market outlets.

LNG volumes controlled by portfolio players have increased not only in the short-term sales but also in the long-term contracts markets. More recently, an increasing number of and different types of LNG market players are trying to do portfolio activities these days.

On the other hand, "emergence of LNG portfolio players" does not necessarily mean there are many portfolio players. It is not so simple.

Perhaps the author can say "there are a handful of genuine portfolio players" and "More players try to increase portfolio activities." Sometimes the number of portfolio players may decrease due to very nature of portfolio model. In order to take maximum advantage of their portfolios, players often make alliance deals between them, including asset transactions, in some cases, corporate deals, including outright mergers and transfers of LNG assets. In fact, the LNG industry has seen in recent years deals amongst the biggest players (Shell / BG, Total / Engie).

There may be legitimate concern from LNG consumers that the future larger LNG market may be dominated by smaller number of more powerful LNG sellers, even though such powerful sellers could offer deals very attractive to consumers thanks to their power - including different pricing arrangements and more flexible delivery conditions.

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Factors promoting LNG portfolio players

There have been LNG sales and purchase contracts that stipulates only a seller, without specifying specific supply sources, indicating that volumes will be supplied from the seller's global portfolio. Not only genuine portfolio players but also other players these days are trying to act as a portfolio player by arranging similar secondary sales arrangements with other LNG buyers. There are several factors that have promoted portfolio models.

There are large players with multiple supply sources and market positions, as well as an increasing number of smaller end-use LNG buyers in different regions in the world. At the same time long-term contracts for large volumes with end users (such as city gas suppliers and power generators) are becoming difficult. Destination restrictions for volumes are decreasing, especially at FOB loading points, so that players can sell them to different markets. There are expectations from end-use markets of LNG that portfolio players - and other players with multiple supply options and market positions - could manage their supply and assets in a way that allows them to take advantage of market opportunities while still acting as reliable suppliers.

Shipping is important among portfolio of assets

In fact, there are only a handful players that many people agree to regard as genuine LNG portfolio players. Furthermore, the number of portfolio players sometimes decrease, as assets owned by a portfolio player are bought up by another.

An LNG portfolio player should have a portfolio of LNG supply sources from different regions, as well as various shipping, storage and regasification assets. But different LNG players have different degrees of diversification of supply sources and market outlets. By optimizing its supply and infrastructure, an LNG portfolio player should be able to provide LNG to end users as well as to participants in short- and medium-term markets more efficiently. In order to do so, controlling shipping is playing a crucial role, especially because LNG assets are spread around the world in different regions and commodity prices are relatively low, squeezing margins, compared to the period between 2011 and 2014, when regional price differences were large and provided a lot of arbitrage opportunities.

Different players sell and buy spot LNG cargoes

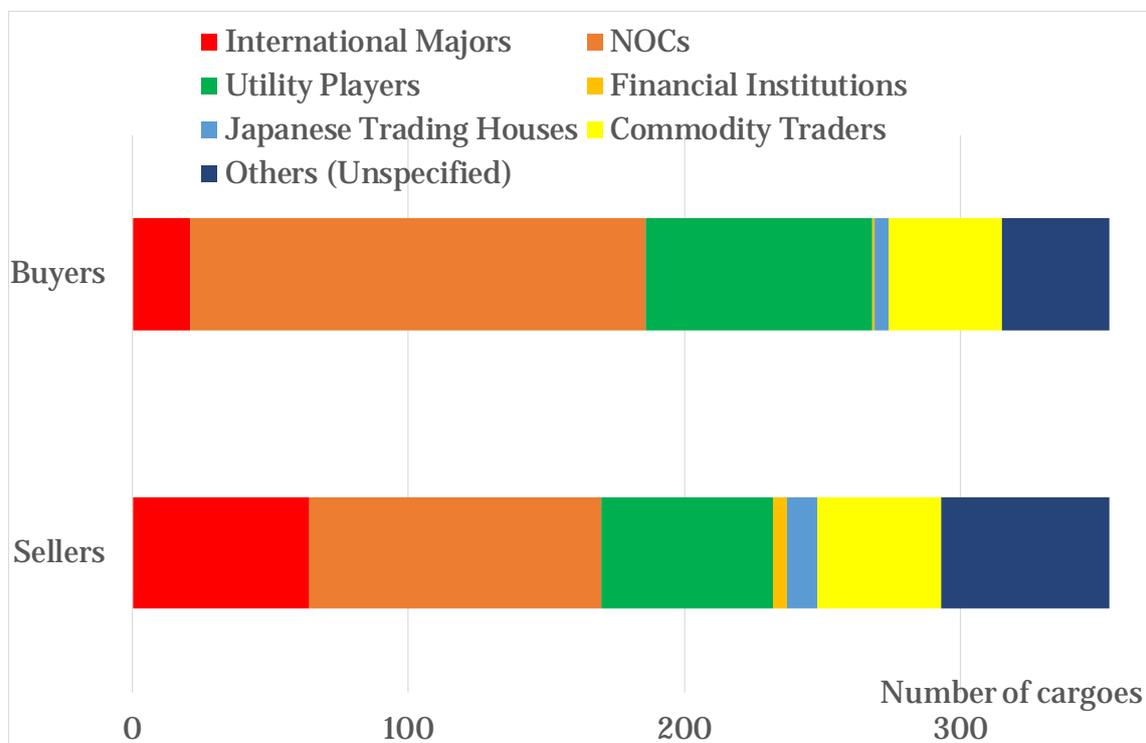
260 million tonnes of LNG, or on average eleven or twelve cargoes per day were exported and imported in 2016¹. Out of them, estimated one cargo per day was traded on spot basis. *Figure 1* is a breakdown of spot LNG sales in 2016, by type of sellers and buyers.

¹ Nearly 300 million tonnes of LNG was traded in 2017.

Out of more than 350 cargoes sold under spot arrangements, a large number of them were suspected to be sold as secondary sales from primary buyers (represented by cargoes sold by specific companies other than project companies in the 'Sellers' column in the chart). The trend toward portfolio models have promoted the increase in numbers of spot LNG cargoes and players in the spot LNG market.

Some cargoes were bought under term contracts and resold on spot basis. Other cargoes were bought on spot basis and resold under term contracts (Some companies make term-sale commitment into an end-use market first and look for spot cargoes to cover the short positions). Not only upstream stake holders but also utility buyers act as a portfolio player these days, by making secondary sales from their primary procured LNG volumes.

Figure 1 Spot LNG cargoes sold and bought in 2016



(Note) Only identified cargoes are included.

(Sources) Compiled by the author based on data from multiple industry publications.

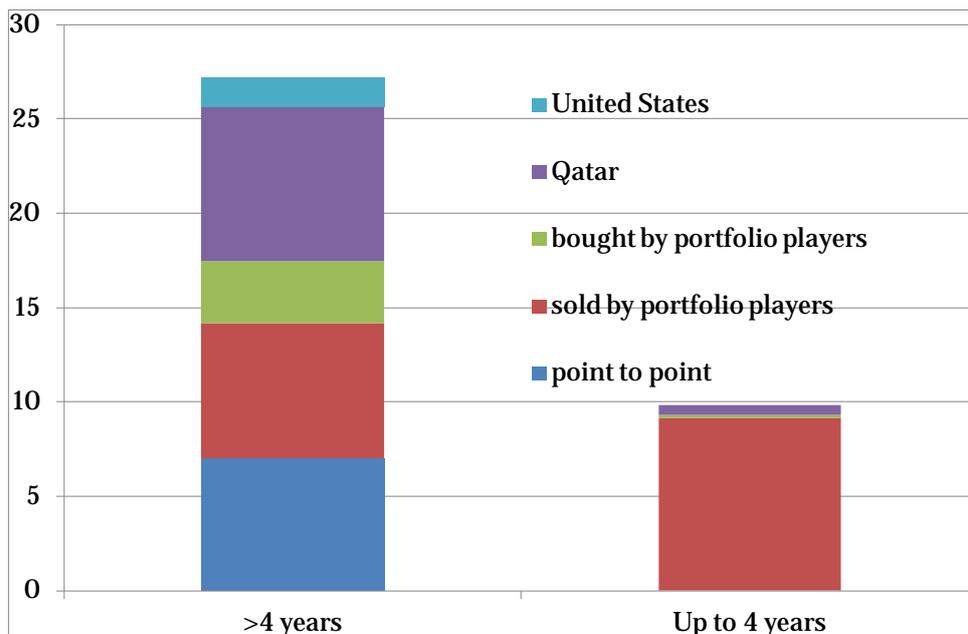
Secondary term sales also increase

Not only for the spot market, but portfolio deals are now common for term contracts. *Figure 2* is a breakdown of term contracts, long-term, which are longer than four years, and shorter-term ones. Some volumes were suspected to be bought for secondary portfolio sales from the outset (green in the chart). Other volumes were sold as specifically portfolio sales

(red in the chart). The combined volumes (red and green) represented 44% of the total, contracted by those players that (re)sell volumes under portfolio arrangements, not necessarily limited to deals done by genuine portfolio players.

Figure 2 Contracts concluded in 2016

(Unit: million tonnes per year)



(Sources) Compiled by the author based on the data in "The LNG industry - GIIGNL ANNUAL REPORT 2017"

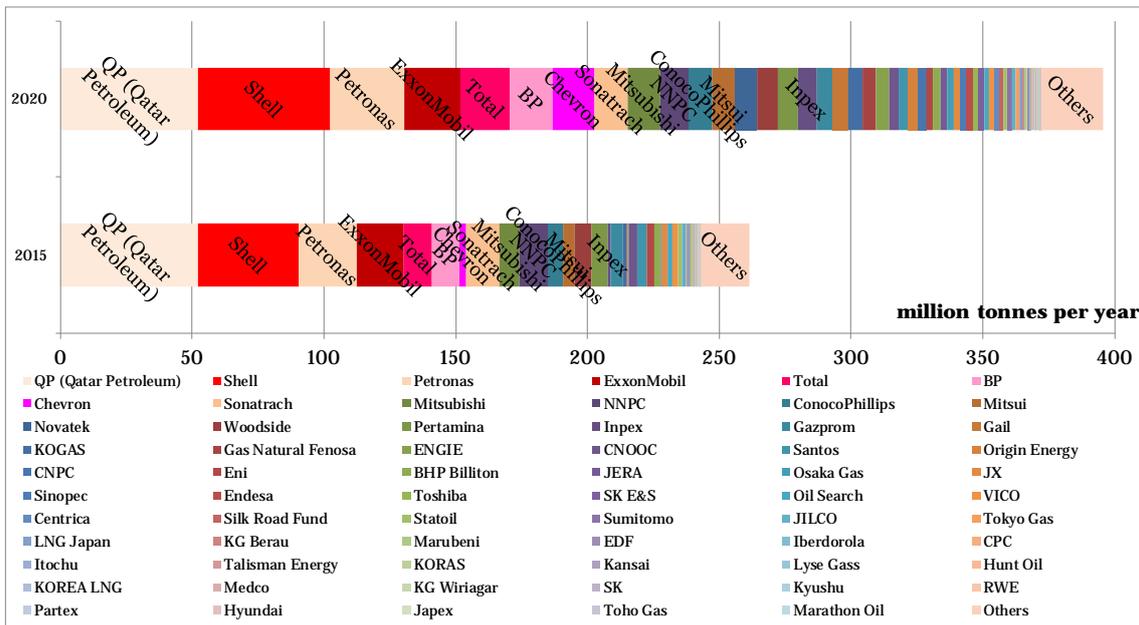
Players increase control over supply

Figure 3 is a breakdown of global LNG supply capacity control by players, comparing those numbers in 2015 and 2020, mostly based on equity control in LNG export projects, but for some projects based on contracted capacity or volumes. The biggest players are expected to expand their portfolios even larger. More players are acquiring LNG supply assets. Others are combining their assets, including outright mergers and transfers of assets between them.

Japan expects more flexible volumes

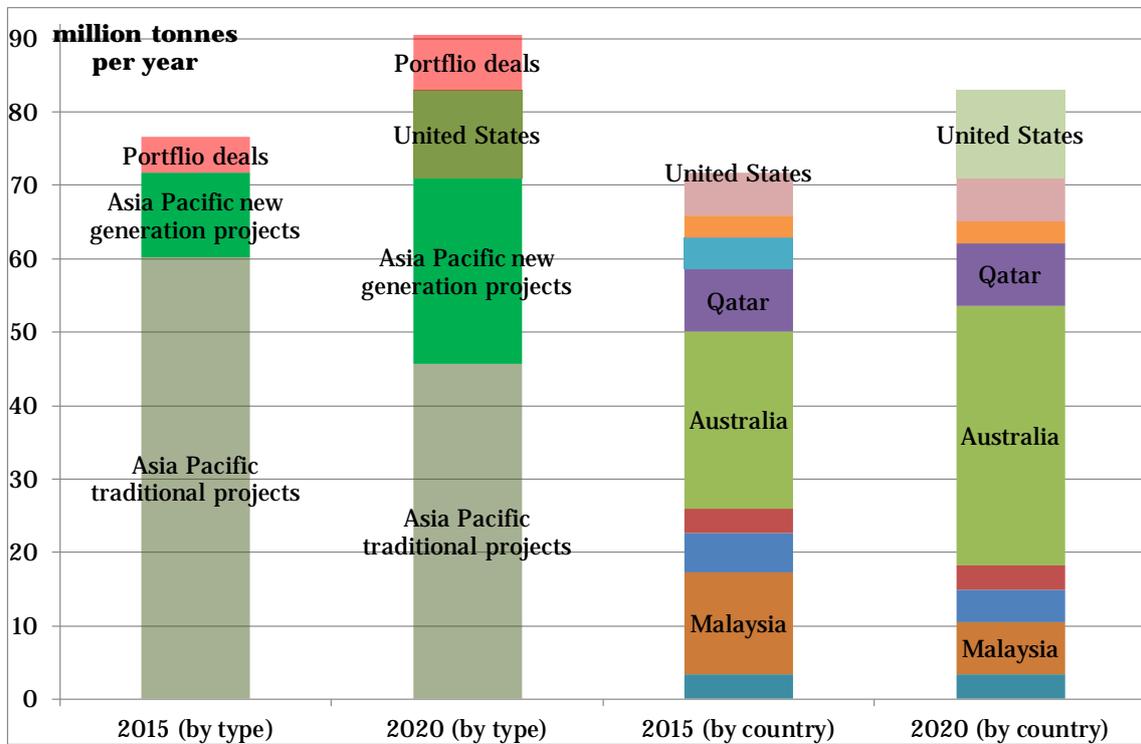
Figure 4 shows Japan's LNG contract compositions categorized by types of deals for the years 2015 and 2020. "New generation projects" mean those starting operation in 2014 and thereafter which in general supposed to be more flexible than traditional (older) ones. This includes some elements of portfolio activities as buyers may be able to sell some of the volumes with greater flexibility in contracts and some equity lifting arrangements.

Figure 3 Various players' control over LNG supply



(Sources) Company announcements and author's estimate

Figure 4 Japan's LNG contract portfolios for the years 2015 and 2020



(Sources) Company announcements and author's estimate

Challenges facing portfolio players

Those who have LNG portfolios - genuine portfolio players and other LNG players with diversified LNG supply sources and market positions - may face challenges. Players have to manage large volumes that do not have final buyers at a time the market is expected to be well supplied for the next few years. New demand creation is important, which will be helped by development of more-liquid short-term and spot markets as well as risk management tools. Or they could sell volumes under long-term contracts at lower prices. Trading margins have already fallen and are not necessarily guaranteed. If those players do not have good risk management, margins could be negative in some cases.

Opportunities ahead

Turning to the more positive side, homeless flexible supply is available in the short-term market to foster liquidity, which could help develop new LNG markets. Over the longer horizon, portfolio players that have not locked in their supply volumes under long-term sales contracts will have available volumes with which to take advantage of higher prices in the years ahead. Advance offtake commitments at the LNG liquefaction projects could help balance the market in the future.

Evolution of trading and offtake models

To summarise, it is good to look back the historical evolution of portfolio models.

Portfolio activities were initially developed from regasification capacity deals in the United States (in the early 2000s), in India, Mexico, Chile, and Singapore (from the 2000s to the 2010s). These created outlets for early portfolio volumes, including offtake deals in Trinidad, Egypt and Equatorial Guinea (from the late 1990s to the late 2000s) which increased volumes that can be sold into different markets. Offtake deals from floating liquefaction projects in Africa (in the 2010s) are expected to expand flexibility of portfolio players further, while helping new entrants in the LNG production segment secure outlets to enable their projects.

At the same time, utility LNG buyers' secondary sales and participation in liquefaction projects (from the 2000s) are enhancing bargaining powers of those LNG buyers as an aggregator. LNG buyers' supportive and more proactive involvements throughout the value chain, not only help development of new LNG production projects, but also will help maintain good balance of power in the market between various LNG players, including buyers, sellers, and LNG portfolio players.

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