SCB Economic Intelligence Center

Note by EIC

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A deep dive in aluminium industry and important factors to keep an eye on

Highlight

- Global aluminium demand is expected to grow by 4%CAGR between 2018-2020, driven by construction and automotive manufacturing in China. On the other hand, global aluminium production capacity is expected to shrink by 4 million tonnes or 7% of total production. Consequently, the price of aluminium is expected to rise by 3%CAGR between 2018-2020.
- In Thailand, EIC forecasts that rising automotive production, the expansion of private construction, especially condominiums and office buildings, as well as growth in the beer, soft drink, and energy drink markets will lead to a 5%CAGR increase in demand for aluminium between 2018-2020.
- Price fluctuation, surging imports of finished products, and the imposition of import tariffs by the US are three important factors that aluminium producers and users must monitor closely as these factors will directly impact operations.

Global aluminium demand is expected to increase by 4%CAGR between 2018-2020 with rising demand in China the main contributor. Steel is often the first metal that comes to mind when considering the most commonly used metal in manufacturing and other industries. This is because steel is a versatile metal with reasonable costs. Nevertheless, aluminium also has attractive properties, including the fact that it is two thirds lighter than steel but with comparable strength, as well as being more resistant to corrosion. Because of these advantages, aluminium sees widespread usage in several industries, including automotive parts, window and door frames, aluminium composite panel and cans for food and beverages.

Since 2011, global aluminium demand has risen by 40% to 63 million tonnes in 2017, with over 80% of the expansion coming from China. EIC predicts that the upward trend of residential and office construction in China alongside growing automotive production will be the crucial contributor towards 4%CAGR global demand growth in 2018-2020.

Nevertheless, oversupply from rapid capacity growth in China has seen the Chinese government imposing measures to curb production that could increase aluminium prices. Chinese aluminium production capacity growing faster than consumption resulted in an oversupply, from 900

thousand tonnes in 2011 to 1.3 million tonnes in 2017. The Chinese government tried to solve this problem by ordering the closure of illegal aluminium capacities (Document 656) and controlling the production utilization of high emission industries (Policy 2+26) such as coal, steel, and aluminium in Beijing, Tianjin, and other twenty-six cities during the winter season (Nov - Mar) of the year. Consequently, these two measures will reduce the production capacity of aluminium by 4 million tonnes or 7% of global production capacity. Under this situation, surging demand and shrinking supply will result in a price rise of 3%CAGR between 2018-2020

In the case of Thailand, EIC estimates that the demand for aluminium will increase by 5%YOY to over 1 million tonnes in 2018, with continuous growth in the medium-term. This trend is driven by the growth of three major industries which consume more than 80% of the aluminium used in Thailand, including 1) Aluminium used in the automotive industry will increase in line with automotive production, along with a recovery of purchasing power both domestic and export market. Meanwhile, the aluminium content of each automotive is also on the increase due to efforts to reduce weight and improve engine performance. 2) Aluminium in the construction industry will grow due to new condominiums being built along the new BTS and MRT routes and new office building projects to support increasing demand for these types of buildings. In these construction projects aluminium will be used for window frames, aluminium sheet for ceilings, as well as composite aluminium sheet for wall façades. 3) Aluminium in the food and beverage industry will see demand increase following the expected expansion of the beer, soft drink, and energy drink markets, requiring increased aluminium usage for canned products.

However, price fluctuations and a surge in imported finished product are two factors that aluminium producers and users have to monitor closely as these factors can impact to thier businesses directly. Frist, in comparison of the movement between aluminium prices and steel prices between 2012 to present date, EIC found that monthly aluminium prices fluctuated by an average of 4%MOM, while steel fluctuated by 5%MOM, showing that there aren't massive differences in price fluctuation between the two metals. Second, over the past five years finished aluminium imported into Thailand has been expanding two times faster than imported semi-finished products, such as unwrought aluminium and scrap. This statistic highlights the intensifying competition between local producers and cheaper imports, especially from China, the country that benefitted from having high economies of scale, accounting for over 50% of global production capacity. Furthermore, Chinese aluminium producers also receive a 13-15% export tax rebate from the government, making their products 10-30% cheaper than aluminium produced in Thailand.

Meanwhile, the import tariff on aluminium by the US is likely to increase aluminium flows into Thailand, but it isn't expected a significant impact on Thai aluminium exports. Regarding indirect impacts, the most likely aluminium products that could flow into Thailand as a result of the US tariff increase are unwrought aluminium from Russia and the United Arab Emirates, as well as aluminium sheet and aluminium foil from China. As for direct impacts, EIC predicts that the increased tariff will not have a significant impact on Thai aluminium exports because Thailand exports only THB 7.6 billion in aluminium products to the US in 2017, that equivalent to 40,000 tonnes per year or only 9% of total Thai aluminium exports.

Implications

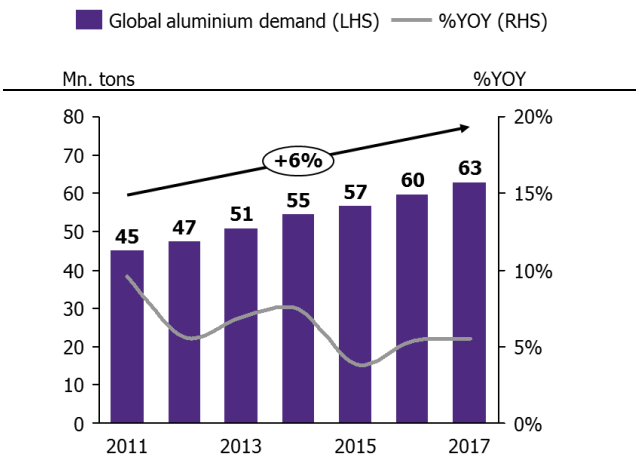
- **Aluminium manufacturers should prepare to increase production capacity to capture rising demand**, especially aluminium frames for construction and aluminium sheet, a raw material for making cans, in response to a likely increase in purchase orders. Aluminium manufacturers who have limited capacity could either consider investing to expand their production capacity or importing finished aluminium products to serve demand.

- **However, aluminium manufacturers and users must closely monitor and manage price fluctuations**, Even though aluminium prices are on an upward trend, there's still a chance that aluminium prices will vary with any movement in demand and supplu as well as speculation. The suitable pairing of purchase orders (order matching) with appropriate stock management will help aluminium manufacturers and users to minimize risks arising from potential stock losses as any consequences from price changes.

Figure 1: Global demand for aluminium increased by 6%CAGR between 2011-2017, with China as the main driver.

Global demand for aluminium between 2011-2017

Unit: Million tonnes (LHS), %YOY (RHS)



Source: EIC analysis based on data from Bloomberg and J.P. Morgan

Demand for aluminium by country

Unit: Million tonnes

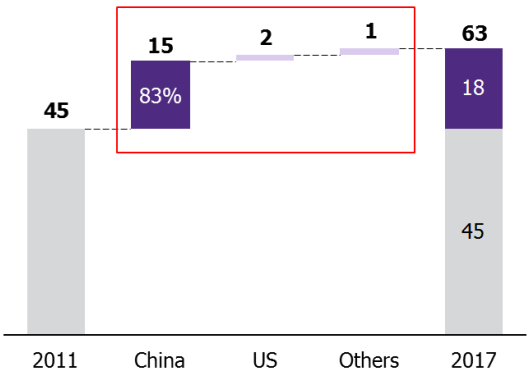
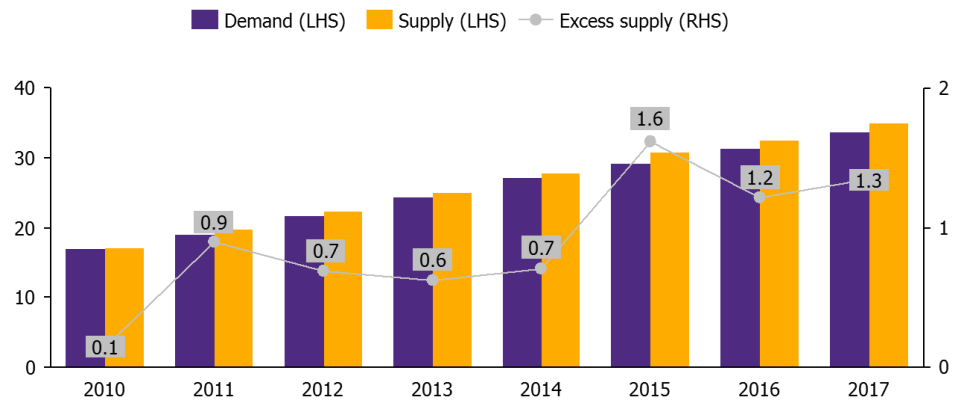


Figure 2: The faster expansion rate of production over consumption created an oversupply in China

Demand and aluminium production capacity in China between 2011-2017

Unit: Million tonnes



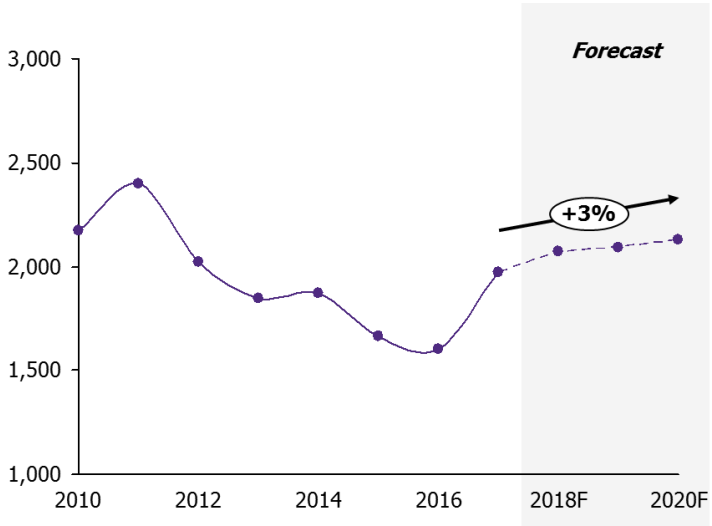
Source: EIC analysis based on data from Bloomberg

Figure 3: EIC expects aluminium prices will increase by 3% CAGR between 2018-2020

Factors driving aluminium prices

Pricing trend of LME - Primary Aluminium

Unit: USD/Tonne

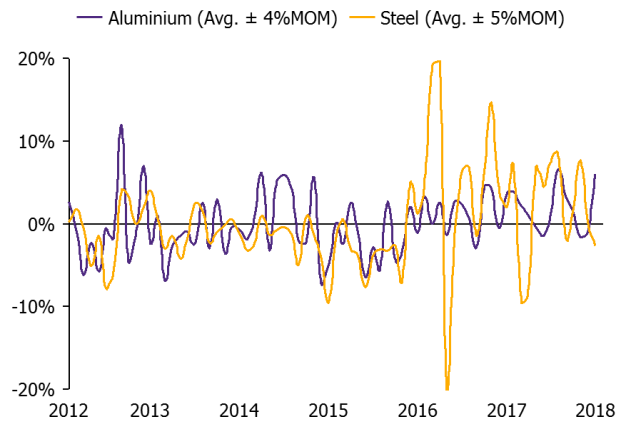


Source: EIC analysis based on data from Bloomberg and J.P. Morgan

Figure 4: Price fluctuations and the rise in imported finished product are factors that need to be followed closely

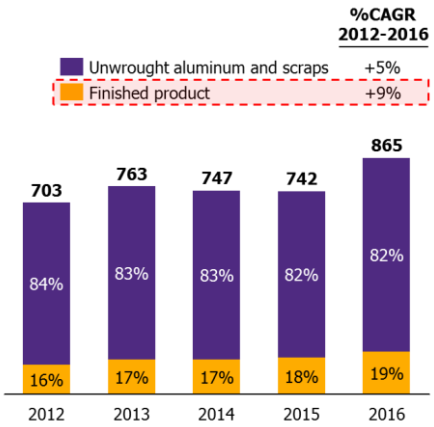
Aluminium prices fluctuate at a similar level to steel

Unit: %MOM



Thailand's imported aluminium by product type

Unit: Million tonnes



Source: EIC analysis based on data from MOC and International Trade Centre

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