ONYX
CAPITAL GROUP

Asian Transport Fuel Benchmark: Methodology

Abstract

As of 2019, 68% of end user consumption of oil was for transportation purposes. This illustrates the importance of transport fuels in global oil markets. Currently no one product exists that enables market participants to hedge their exposure to Asian transport fuel products. This document considers the available contracts, their liquidity, their proportion of global demand and their appropriateness to act as a representation of fair prices. The Onyx Global Transport Asian Fuel Benchmark uses a basket of contracts which provides a more comprehensive method for market participants to appropriately hedge their exposure to and express their view on Asian Transport Fuel Prices.

Introduction

Currently, in order to hedge exposure to or express a view on the on the price of transport fuel, market participants face choices that are significantly less representative, liquid and carry vulnerabilities to product-specific risks. They must either hedge with individual product contracts or crude.

In 2019, Asian countries accounted for 29% of global oil product demand whilst China alone accounted for 14.4% of global oil product demand. Furthermore, China's oil consumption growth accounted for an estimated two thirds of the incremental global oil consumption in 2019. This vast, and still growing, demand has large influence over global transport fuel markets.

Annually, more than 130,000 ships call at Singapore making it one of, if not the most important, global ports. So the prices at the port represent those with the closest relationship to the physical price that many of the biggest transporters pay.

A basket of products is far more robust to changes in regulation. The IMO 2020 regulations are a perfect example of this. IMO 2020 had an enormous effect on the shipping fuels market, where forward demand for high sulphur fuel oil fell significantly and the very low sulphur fuel oils had to take its place. Our benchmark is far less vulnerable to regulatory change than holding positions in outright products.

We have constructed the benchmark with motivations for products' inclusions and proportions with regard to the liquidities, demand and ability to represent a range of other products. These are outlined in the justification.

Proposal

Onyx Asian Transport Fuel Benchmark = 27% 92 RON Gasoline + 50% Singapore 10ppm Gasoil + 7.5% 380 Singapore HSFO + 7.5% Singapore 0.5 VLSFO + 8% Singapore Jet Kerosene

Justification

To best represent Asian transport fuel prices, we consider three factors:

1. **Consumption and Demand**. Global and Asia consumption data directly reflect the market size of each product type. Therefore, it is a straightforward measurement for product portions in our benchmark. Additionally, China and India are the primary oil consumers in Asian markets, so our benchmark also reflects the demand breakdown of the two countries.

2. **Asian Refinery Output**. Refinery Economics play a crucial role in global oil markets and particularly transport fuel supply. For a transport fuel benchmark to adequately represent the supply side impact of refinery outputs it must consider the proportion of each transport fuel in refinery output.

3. **Reliability and Liquidity of Underlying Contracts**. Paper markets serve an important role in deciding market price for each product, and it reflect market interest on different product types. Open interest is the total number of outstanding contracts, so it represents the liquidity a product has. As a result, our benchmarks can better reflect market interest and product liquidities with open interest data.

Consumption and Demand

In the following table, we can see that Asia's consumption proportion on Motor Gasoline is consistent with global level Gasoline demand levels. The main difference is demand is in Gas/Diesel. Relatively Asia consumes more Diesel and less Jet Kerosene and Fuel Oil.

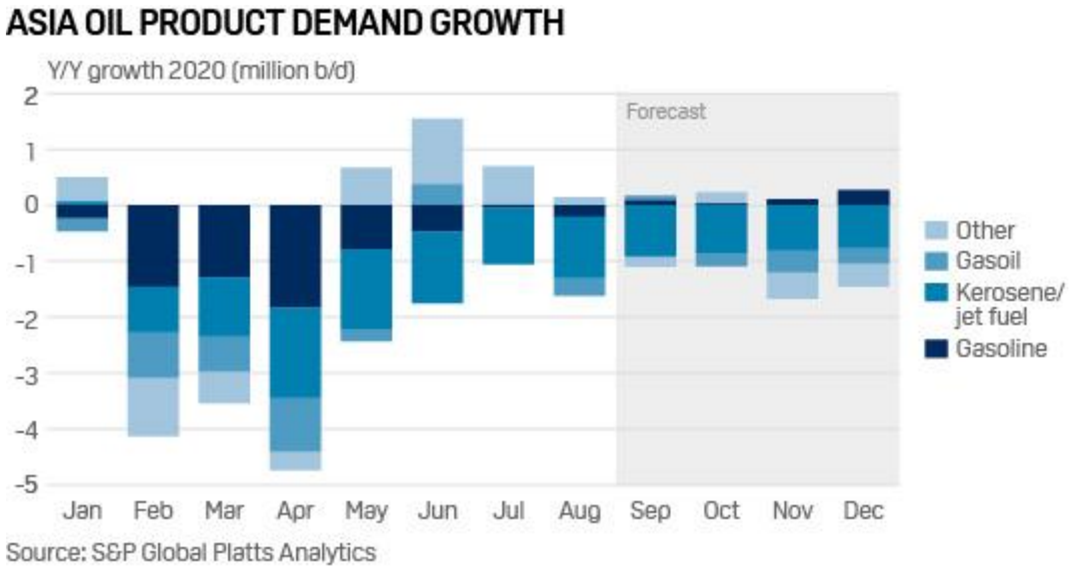
IEA Global Consumption Data

Motor Gasoline	Jet Kerosene	Gas/Diesel	Fuel Oil
36%	11%	44%	9%

IEA Asia Pacific Consumption Data

Motor Gasoline	Jet Kerosene	Gas/Diesel	Fuel Oil
36%	5%	54%	5%

Moreover, in the Asia Oil product demand growth table, demand for all product type fell this year. However, since May and June, demands on Gasoline and Gasoil recovered to the level for the same month last year while demand on Jet Kerosene being till lower. The data of demand growth was in line with our previous finding: Asia has firmer demand on Gasoil and Gasoline but weaker demand of Jet Kerosene. Thus, a higher weight on Gasoil and a lower weight was assigned to the Asian benchmark.

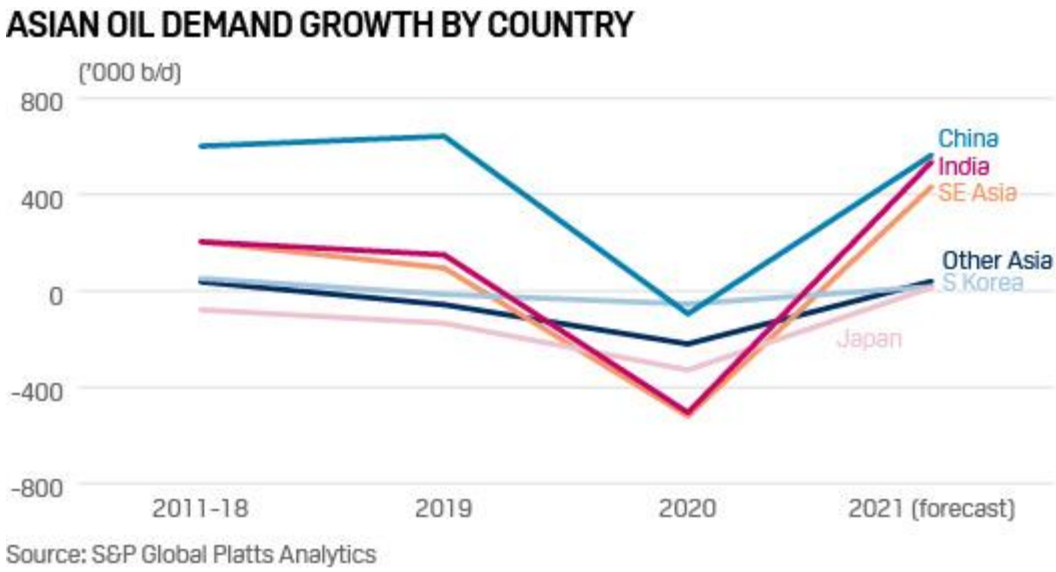


On the other hand, Chinese and Indian demand breakdowns differ. Chinese demand is roughly consistent with Asian consumption data with a slightly higher propensity to consume Fuel Oil. However, India's demand on Motor Gasoline was far lower than the rest of Asia.

Chinese and Indian Demand Breakdown

	Motor Gasoline	**Jet Kerosene**	**Diesel**	**Fuel Oil**
Chinese Demand	30%	6%	45%	19%
Indian Demand	12%	17%	55%	16%

The following chart forecasted that China and India will be drivers of Asian demand, so the breakdown was adjusted accordingly: Gasoline and Diesel weights were revised downward. Jet Kerosene and Fuel Oil weights were adjusted upward.



Asian Refinery Output

Refinery Output in China and India is inline with their respective demand breakdowns. As with the demand breakdown Indian refiners favour Jet Kerosene and Diesel over Gasoline. This is accounted for in the benchmark.

Asian Refinery Outputs

	Motor Gasoline	**Jet Kerosene**	**Diesel**	**Fuel Oil**
Chinese Refinery Output	33%	6%	51%	10%
Indian Refinery Output	15%	14%	57%	14%

Reliability and Liquidity of Underlying Contracts

In the following table, open interests weights of Gasoil/Diesel (Sing10ppm) and Jet Kerosene is in line with what we see in the Asian transport fuel market demand breakdown. On the other hand, although Gasoline (92 RON) has higher demand from Asia than Fuel Oil did, their liquidities on paper market is roughly the same. Therefore, adjustment was made on Gasoline and Fuel Oil to better incorporate liquidity and market interest.

Asian open interest split on ICE (%)

	Sing10ppm	**Jet Kerosene**	**92 RON**	**Fuel Oil**

1Q20	46%	8%	22%	22%
2Q20	47%	13%	21%	19%
3Q20	45%	11%	21%	23%
4Q20	48%	11%	16%	25%

Conclusion

This document discusses the importance of transport fuels in global oil markets and the current lack of products on offer to market participants that allow them to hedge their exposure to and express views on Asian transport fuels. The Onyx Asian Transport Fuel Benchmark considers demand and supply side factors as well as underlying contract liquidity and reliability to provide an accurate representation of European transport fuels that market participants can use to hedge exposure and express views.

References

https://www.investopedia.com/terms/o/openinterest.asp
https://www.eia.gov/energyexplained/oil-and-petroleum-products/refining-crude-oil-inputs-and-outputs.php
https://www.spglobal.com/platts/en/market-insights/blogs/oil/091720-restarting-the-engine-asia-oil-and-coronavirus
https://www.iea.org/data-and-statistics?country=WEOASIAPAC&fuel=Oil&indicator=OilProductsCons

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