RIM FOB Singapore Oil Products Price Assessment Methodology

Price Assessment Principle

RIM price assessments indicate the current range in which a standard spot transaction could take place on the day of publication.

RIM understands values of commodities change even in the absence of deals. RIM defines prices as measures to indicate fluctuating values of commodities.

RIM understands values of commodities are determined by a variety of factors such as supply-demand fundamentals, production costs, conditions in other markets and players' speculation.

RIM understands the latest transactions, bids/offers and buying/selling interest represent current values of commodities.

RIM understands values of commodities are determined by competition among sellers and competition among buyers. RIM considers higher bids to be closer to the current values than lower bids. RIM considers lower offers to be the closer to current values than higher offers.

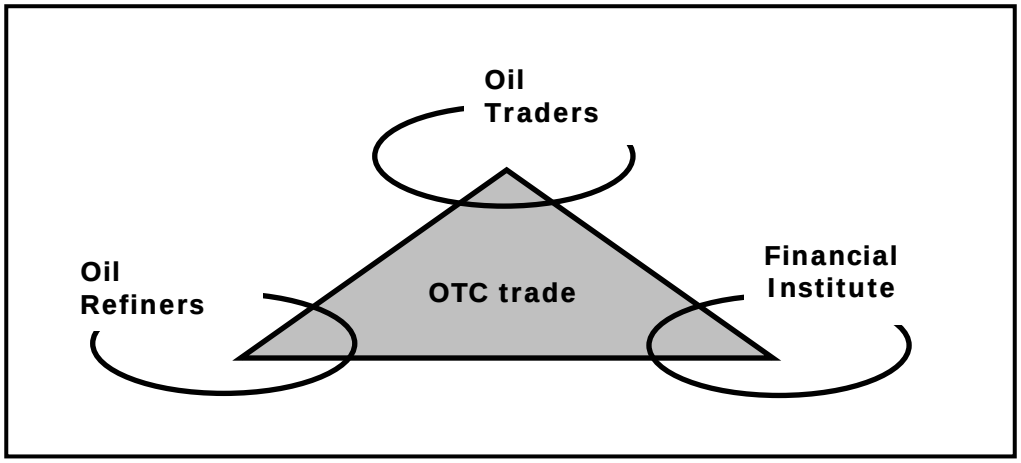
RIM understands prices for each transaction reported from any party are to be translated into prices based on standard terms and conditions such as cargo sizes, timing of delivery or loading, product specifications and payment terms.

CONTENTS

SINGAPORE PRODUCTS PAPER SWAPS VALUES

RIM assesses values of Singapore products paper swaps once a day at 5:30 PM Tokyo time. All values are for available swaps contracts for periodical average settlements based on daily price quotations for physical cargo assessments by Platts, a price reporting service. All prices are assessed based on information collected in the course of market research by RIM reporters each business day.

STRUCTURE of the SINGAPORE PRODUCTS PAPER SWAP MARKETS



RIM understands that the Singapore Products Paper Swaps market is structured with three groups of business parties: Financial Institutes, Oil Traders and Oil Refiners. RIM assesses values of Singapore Products Paper Swaps at which a standard transaction could take place through "over-the-counter" method of trade. Trade takes place as buying interest and selling interest match with each other.

RIM defines the three Singapore Products Paper Swaps market business parties as follows:

Oil Trader	A company that trades physical oil products as its main trading item and the Singapore Products Paper Swaps as a hedging tool against risks associated with its trading of physical oil products.
Oil Refiner	A company that produces and sells oil products as its main business operation and trades the Singapore Products Paper Swaps as a hedging tool against risks associated with its production and sales of physical oil products. Oil refiners also buy oil products to cover occasional shortfalls and trade the Singapore Products Paper Swaps to hedge against risks associated with purchases of physical oil products.
Financial Institute	A company that trades the Singapore Products Paper Swaps as one of its trading items. A Financial Institute that trades the Singapore Products Paper Swaps typically holds positions in physical oil products markets as well.

Assessment Window	RIM's assessment window for Singapore products paper swaps values closes at 5:30 PM Tokyo time.
Price Unit	Values for naphtha, jet/kerosene, gasoil, regrade are in $/bbl on an FOB Singapore basis. Values for 180 HSFO are in $/mt on an FOB Singapore basis.
Time Window	RIM assesses values of Singapore products paper swaps for three forward months. The front month reflects the same month as the first day of the RIM physical cargo price assessment window. Ex: the January swaps contract is no longer assessed when the front of the delivery window for physical cargoes becomes Feb 1.
Standard Size	Values of Singapore products paper swaps are for a contract for 50,000bbl, which RIM considers standard. Values for contracts for smaller or larger volumes are to be translated into estimated values that the contract could be worth if the contracts were for the standard volume.

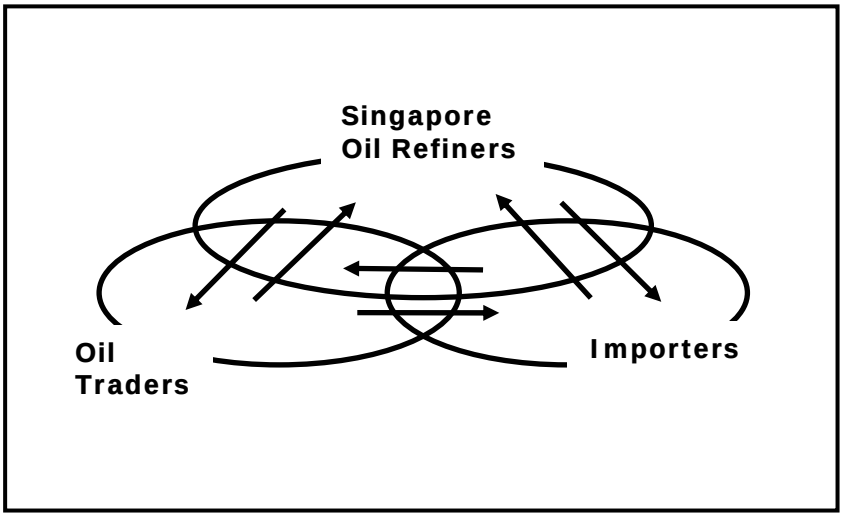
FOB SINGAPORE SPOT PRICES

RIM assesses FOB Singapore spot prices for physical cargoes of gasoline, naphtha, kerosene/A1 jet fuel, gasoil, fuel oil on a fixed price basis and a floating price basis.

In the absence of information of deals, bids and offers on a fixed price basis, the fixed price assessments indicate the price range in which a transaction on a floating price basis could be locked into with available derivative products, such as futures contracts and paper swaps based on periodical average of published quotations.

All prices are assessed based on information collected in the course of market research by RIM reporters each business day.

STRUCTURE of the FOB SINGAPORE SPOT MARKET



RIM understands that the FOB Singapore Physical Oil Products Market is structured with three groups of business parties: Singapore oil refiners, Oil traders and Asian importers/refiners. RIM assesses physical oil product prices at which a standard spot transaction could take place.

RIM defines the three business parties in the FOB Singapore Physical Oil Products Market as follows:

Singapore Refiner	A company that produces and sells oil products at its refining facilities in Singapore, and also buys oil products to cover occasional shortfalls.
Oil Trader	A company that buys and sells oil products in the international market.
Importer	A company outside of Singapore that buys on an FOB Singapore basis for resale into respective domestic markets. Refiners of countries other than Singapore are also considered to be importers.

RIM defines a standard FOB Singapore spot market transaction as follows:

Case 1	A Singapore refiner sells an oil products cargo to a trader on a spot basis.
Case 2	A Singapore refiner sells an oil products cargo to an importer on a spot basis.
Case 3	A Singapore refiner sells an oil products cargo to another Singapore refiner on a spot basis.
Case 4	A trader sells an oil products cargo to a Singapore refiner on a spot basis.
Case 5	A trader sells an oil products cargo to an importer on a spot basis.
Case 6	A trader sells an oil products cargo to another trader on a spot basis.
Case 7	An importer sells an oil products cargo to a Singapore refiner on a spot basis.
Case 8	An importer sells an oil products cargo to a trader on a spot basis.
Case 9	An importer sells an oil products cargo to another importer on a spot basis.

<Gasoline>

RIM assesses FOB Singapore spot gasoline prices for 92 research octane number grade, 95 RON grade and 97 RON grade. The premiums are to periodical average of daily assessments for FOB Singapore spot naphtha prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB Singapore spot gasoline prices closes at 5:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>FOB Singapore spot gasoline prices are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB Singapore spot gasoline prices are for cargoes to be loaded during the period from 20 to 35 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB Singapore spot gasoline prices are for an MR-size cargo, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were with the standard volumes.</td></tr>
<tr><td>Loading Port</td><td>FOB Singapore spot gasoline prices are for cargoes to be loaded at major ports in Singapore.</td></tr>
<tr><td>Quality Specifications</td><td>FOB Singapore spot gasoline prices are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td colspan="2">Research Octane Number</td><td>92, 95, 97</td></tr>
<tr><td colspan="2">Lead Content</td><td>Max 0.013gpb/l</td></tr>
<tr><td rowspan="5">Distillation Temperature;</td><td>10% evaporated</td><td>Max 74 degree C</td></tr>
<tr><td>50%</td><td>Max 127 degree C</td></tr>
<tr><td>90%</td><td>Max 190 degree C</td></tr>
<tr><td>Final Boiling Point</td><td>Max 225 degree C</td></tr>
<tr><td>Residue</td><td>Max 2.0%</td></tr>
<tr><td colspan="2">Copper Corrosion 3h at 50 degree C</td><td>Max 1</td></tr>
<tr><td colspan="2">Sulfur Content</td><td>Max 0.05%</td></tr>
<tr><td colspan="2">Existent Gum</td><td>Max 4mg/100ml</td></tr>
<tr><td colspan="2">Benzene Content</td><td>Max 5%</td></tr>
<tr><td colspan="2">MTBE Content</td><td>Max 10%</td></tr>
<tr><td colspan="2">Color</td><td>Undyed, orange</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Naphtha>
FOB Singapore spot naphtha prices are calculated based on RIM CFR Japan spot naphtha price assessments. The formula is as follows:

FOB Singapore spot naphtha prices =
[(CFR Japan naphtha)–(*freight rates for the Singapore-Japan route)] / 9
*The freight rates are for an MR tanker on the Singapore-Japan route.

The differential between the netback fixed prices from CFR Japan prices and the swap values are considered to be relevant premiums for the day of publication.

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB Singapore spot naphtha prices closes at 6:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>FOB Singapore spot naphtha prices are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB Singapore spot naphtha prices in the publications released during the period from the first day to the 15th of a month are for cargoes to be loaded during the period from the 9th to the 24th of the next month from the current month. FOB Singapore spot naphtha prices in the publications released during the period from the 16th to last day of a month are for cargoes to be loaded during the period from the 25th of the next month to the 8th of a month after the next from the current month.</td></tr>
<tr><td>Standard Size</td><td>FOB Singapore spot naphtha prices are for MR-size cargoes, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were with the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>FOB Singapore spot gasoline prices are for cargoes to be loaded at major ports in Singapore.</td></tr>
<tr><td>Quality Specifications</td><td>FOB Singapore spot naphtha prices are for cargoes of which quality is equivalent to “the open specifications”.

<table><tr><td>Paraffin Content</td><td>Min 65%</td></tr><tr><td>Sulfur Content</td><td>Max 650ppm</td></tr><tr><td>Olefin Content</td><td>Max 1%</td></tr><tr><td>Specific Gravity at 60 degree F</td><td>0.65-0.74</td></tr></table>Extract from the open specification
*Specifications for other properties are to meet specifications that are commonly required in international trading.

REFERENCE: Full-range naphtha<table><tr><td>Paraffin Content</td><td>78-82%</td></tr><tr><td>Olefin Content</td><td>Max 1%</td></tr><tr><td>Specific Gravity at 60 degree F</td><td>0.68-0.70</td></tr></table></td></tr>
</table>

*Planned Changes:
RIM plans for Feb 3 2003 to discontinue assessment of FOB Singapore light naphtha prices.

<Jet/Kerosene>
RIM assesses FOB Singapore spot kerosene and A1 jet fuel prices. The premiums are to periodical average of daily assessments for FOB Singapore spot A1 jet fuel prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB Singapore spot A1 Jet fuel/Kerosene prices closes at 5:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>FOB Singapore spot kerosene prices are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB Singapore spot A1 jet fuel/kerosene prices are for cargoes to be loaded during the period from 20 to 35 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB Singapore spot A1 jet fuel/kerosene prices are for MR-size cargoes, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were with the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>FOB Singapore spot A1 jet fuel/kerosene prices are for cargoes to be loaded at major ports in Singapore.</td></tr>
<tr><td>Quality Specifications</td><td>FOB Singapore spot A1 jet fuel/kerosene prices are for cargoes of which quality is equivalent to the Joint Fuel System Check List, also known as Jet A-1 Check List. The JFSCL is issued by International Air Transport Association.

<table>
<tr><td>Distillation Temperature;
Initial Boiling Point
10% Evaporated</td><td>Max 205 degree C</td></tr>
<tr><td>Flash Point</td><td>Max 40 degree C</td></tr>
<tr><td>Sulfur Content</td><td>Max 0.3%</td></tr>
<tr><td>Smoke Point with naphthalene content of maximum 3.0%</td><td>Minimum 19</td></tr>
<tr><td>Copper corrosion 2h at 100 degree C</td><td>Maximum 1.0</td></tr>
<tr><td>Saybolt color</td><td>Minimum 18</td></tr>
</table>
Extract from IATA's JFSCL
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Gasoil>
RIM assesses FOB Singapore spot gasoil prices for grades with a sulfur content of 0.001%, 0.05% and 0.5%. The premiums are to periodical average of daily assessments for FOB Singapore spot gasoil (0.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB Singapore spot gasoil prices closes at 5:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>FOB Singapore spot gasoil prices are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB Singapore spot gasoil prices are for cargoes to be loaded during the period from 20 to 35 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB Singapore spot gasoil prices are for MR-size cargoes, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were with the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>FOB Singapore spot gasoil prices are for cargoes to be loaded at major ports in Singapore.</td></tr>
<tr><td>Quality Specifications</td><td>FOB Singapore spot gasoil prices are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td colspan="2">Flash Point</td><td>Min 50 degree C</td></tr>
<tr><td colspan="2">Distillation Temperature; 90% evaporated</td><td>Max 360 degree C</td></tr>
<tr><td colspan="2">Pour Point</td><td>Max 5 degree C</td></tr>
<tr><td colspan="2">Cold Filter Plugging Point</td><td>Max –1 degree C</td></tr>
<tr><td colspan="2">Carbon Residue (10% btms)</td><td>Max 0.1%</td></tr>
<tr><td colspan="2">Cetane Index</td><td>Min 48</td></tr>
<tr><td colspan="2">Kinematic Viscosity at 40 degree C</td><td>Max 4.5 mm2/sec</td></tr>
<tr><td rowspan="3">Sulfur Content</td><td>0.001%S</td><td>Max 0.001%</td></tr>
<tr><td>0.05%S</td><td>Max 0.05%</td></tr>
<tr><td>0.5%S</td><td>Max 0.5%</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Fuel Oil>
RIM assesses FOB Singapore spot fuel oil prices for the following grades; 180cst HSFO (3.5% sulfur) and 380cst HSFO (3.5% sulfur). The premiums are to periodical average of daily assessments for FOB Singapore spot 180cst HSFO (3.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB Singapore spot fuel oil prices closes at 5:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>FOB Singapore spot fuel oil prices are in $/mt.</td></tr>
<tr><td>Time Window</td><td>FOB Singapore spot fuel oil prices are for cargoes to be loaded during the period from 20 to 35 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
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<tr><td>Quality Specifications</td><td>FOB Singapore spot fuel oil prices are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td>Sulfur Content</td><td>HSFO</td><td>Max 3.5%</td></tr>
<tr><td>Flash Point</td><td>All Grades</td><td>Min 66 degree C</td></tr>
<tr><td>Pour Point</td><td>All Grades</td><td>Max 24 degree C</td></tr>
<tr><td rowspan="2">Carbon Residue</td><td>180cst</td><td>Max 16%</td></tr>
<tr><td>380cst</td><td>Max 18%</td></tr>
<tr><td>Water Content</td><td>All Grades</td><td>Max 0.5%</td></tr>
<tr><td>Ash Content</td><td>All Grades</td><td>Max 0.1%</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

RIM FOB South Korea Oil Products Price Assessment Methodology

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CONTENTS

FOB SOUTH KOREA SPOT PRICES

RIM assesses FOB South Korea spot prices for MR-size cargoes and small-tanker cargoes (5,000-6,000mt). Grades that are assessed are as follows:

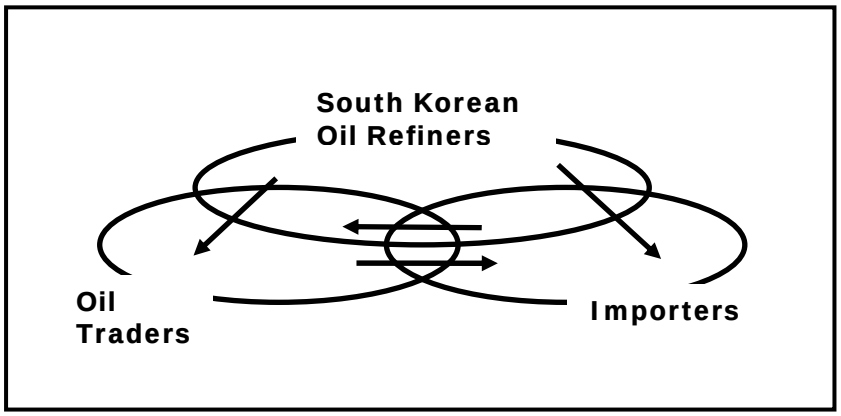
MR-size cargo	Small tanker cargo
92RON gasoline	91RON gasoline
Jet/Kerosene	Kerosene
Gasoil-0.001%S	Gasoil-0.001%S
Gasoil-0.05%S	A-fuel oil
Gasoil-0.2%S	LS A-fuel oil
Gasoil-0.5%S	LSFO-0.3%S
Fuel oil-3.5%S (180cst)	
Fuel oil-Straight Run (180cst)	
LSFO-0.3%S	

In the absence of information of deals, bids and offers on a fixed price basis, the fixed price assessments indicate the price range in which a transaction on a floating price basis could be locked into with available derivative products, such as futures contracts and paper swaps based on periodical average of published quotations.

All prices are assessed based on information collected in the course of market research by RIM reporters each business day.

<MR-size Cargo Price Assessment>

STRUCTURE of the FOB SOUTH KOREA MR-size CARGO MARKET



RIM understands that the FOB South Korea MR-size cargo oil products market is structured with three groups of business parties: South Korean oil refiners, Oil traders and Importers. RIM assesses FOB South Korea MR-size cargo prices at which a standard spot transaction could take place.

RIM defines the three business parties in the FOB South Korea oil products market as follows:

South Korean Refiner	A company of South Korea that produces and exports oil products at/from its refining facilities in South Korea.
Oil Trader	A company that buys and sells oil products in the international market.
Importer	A company that imports oil products and resell into domestic markets. Refiners of countries other than South Korea are also considered to be importers.

RIM defines a standard FOB South Korea MR-size cargo spot market transaction as follows:

Case 1	A South Korean refiner sells an oil products cargo to a trader on a spot basis.
Case 2	A South Korean refiner sells an oil products cargo to an importer on a spot basis.
Case 3	A South Korean refiner sells an oil products cargo to another South Korean refiner on a spot basis.
Case 4	A trader sells an oil products cargo to a South Korean refiner on a spot basis.
Case 5	A trader sells an oil products cargo to an importer on a spot basis.
Case 6	A trader sells an oil products cargo to another trader on a spot basis.
Case 7	An importer sells an oil products cargo to a South Korean refiner on a spot basis.
Case 8	An importer sells an oil products cargo to a trader on a spot basis.
Case 9	An importer sells an oil products cargo to another importer on a spot basis.

<Gasoline>

RIM assesses FOB South Korea spot gasoline prices for MR-size cargoes of the 92 research octane number grade. The premiums are to periodical average of daily assessments for FOB Singapore spot 92RON gasoline prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore 92RON Gasoline Prices = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB South Korea spot gasoline prices for MR-size cargoes closes at 5:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB South Korea spot gasoline prices for MR-size cargoes are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB South Korea spot gasoline prices for MR-size cargoes are for cargoes to be loaded during the period from 25 to 40 days ahead from the publication day. The premiums are to Singapore 92RON gasoline prices in RIM Singapore physical cargoes assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB South Korea spot gasoline prices for MR-size cargoes are for cargoes with a 25,000-35,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were with the standard volumes.</td></tr>
<tr><td>Loading Port</td><td>FOB South Korea spot gasoline prices for MR-size cargoes are for cargoes to be loaded at major ports in South Korea.</td></tr>
<tr><td>Quality Specifications</td><td>FOB South Korea spot gasoline prices for MR-size cargoes are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td colspan="2">Lead Content</td><td>Max 0.013gpb/l</td></tr>
<tr><td colspan="2">Density at 15 degree C</td><td>Min 0.783 mg/cm3</td></tr>
<tr><td rowspan="5">Distillation Temperature</td><td>10% evaporated</td><td>Max 70 degree C</td></tr>
<tr><td>50% evaporated</td><td>Max 125 degree C</td></tr>
<tr><td>90% evaporated</td><td>Max 175 degree C</td></tr>
<tr><td>Final Boiling Point</td><td>Max 225 degree C</td></tr>
<tr><td>Residue</td><td>Max 2.0%</td></tr>
<tr><td colspan="2">Copper Corrosion 3h at 50 degree C</td><td>Max 1</td></tr>
<tr><td colspan="2">Sulfur Content</td><td>Max 0.005%</td></tr>
<tr><td colspan="2">Vapor Pressure at 37.8 degree C</td><td>0.45-0.80 Kgf/cm2</td></tr>
<tr><td colspan="2">Existent Gum</td><td>Max 5mg/100ml</td></tr>
<tr><td colspan="2">Benzene Content</td><td>Max 1%</td></tr>
<tr><td colspan="2">Color</td><td>Yellow</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Jet/Kerosene>

RIM assesses FOB South Korea spot A1 jet fuel/kerosene prices for MR-size cargoes. The premiums are to periodical average of daily assessments for FOB Singapore spot A1 jet fuel prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB South Korea spot jet/kerosene prices for MR-size cargoes closes at 5:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB South Korea spot jet/kerosene prices for MR-size cargoes are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB South Korea spot jet/kerosene prices for MR-size cargoes are for cargoes to be loaded during the period from 25 to 40 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
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<tr><td>Delivery Port</td><td>FOB South Korea spot jet/kerosene prices for MR-size cargoes are for cargoes to be loaded at major ports in South Korea.</td></tr>
<tr><td>Quality Specifications</td><td>FOB South Korea spot jet/Kerosene prices for MR-size cargoes are for cargoes of which quality is equivalent to the Joint Fuel System Check List, also known as Jet A-1 Check List. The JFSCL is issued by International Air Transport Association.

<table>
<tr><td>Distillation Temperature;
Initial Boiling Point
10% Evaporated</td><td>Max 205 degree C</td></tr>
<tr><td>Flash Point</td><td>Max 40 degree C</td></tr>
<tr><td>Sulfur Content</td><td>Max 0.3%</td></tr>
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Extract from IATA's JFSCL
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<Gasoil>

RIM assesses FOB South Korea spot gasoil prices for MR-size cargoes of the grades with a sulfur content of 0.001%, 0.05%, 0.2% and 0.5%. The premiums are to periodical average of daily assessments for FOB Singapore spot (0.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

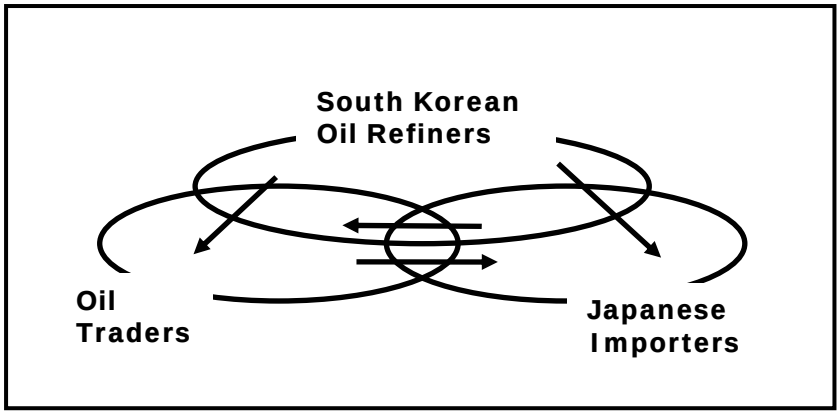
<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB South Korea spot gasoil prices for MR-size cargoes closes at 5:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB South Korea spot gasoil prices for MR-size cargoes are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB South Korea spot gasoil prices for MR-size cargoes are for cargoes to be loaded during the period from 25 to 40 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB South Korea spot gasoil prices for MR-size cargoes are for cargoes with a 25,000-35,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.</td></tr>
<tr><td>Loading Port</td><td>FOB South Korea spot gasoil prices for MR-size cargoes are for cargoes to be loaded at major ports in South Korea.</td></tr>
<tr><td>Quality Specifications</td><td>FOB South Korea spot gasoil prices for MR-size cargoes are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td colspan="2">Flash Point</td><td>Min 50 degree C</td></tr>
<tr><td colspan="2">Distillation Temperature; 90% evaporated</td><td>Max 360 degree C</td></tr>
<tr><td colspan="2">Pour Point</td><td>Max 5 degree C</td></tr>
<tr><td colspan="2">Cold Filter Plugging Point</td><td>Max –1 degree C</td></tr>
<tr><td colspan="2">Carbon Residue (10% btms)</td><td>Max 0.1%</td></tr>
<tr><td colspan="2">Cetane Index</td><td>Min 48</td></tr>
<tr><td colspan="2">Kinematic Viscosity at 40 degree C</td><td>Max 4.5 mm2/sec</td></tr>
<tr><td rowspan="4">Sulfur Content</td><td>0.001%S</td><td>Max 0.001%</td></tr>
<tr><td>0.05%S</td><td>Max 0.05%</td></tr>
<tr><td>0.2%S</td><td>Max 0.2%</td></tr>
<tr><td>0.5%S</td><td>Max 0.5%</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Fuel Oil>
RIM assesses FOB South Korea spot fuel oil prices for MR-size cargoes of the three grades; 180cst HSFO with a sulfur content of less than 3.5%, 180cst SRFO (Straight-Run Fuel Oil) with a sulfur content of less than 3.5%, and 180cst LSFO with a sulfur content of less than 0.3%. The premiums are to periodical average of daily assessments for FOB Singapore spot 180cst HSFO (3.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB South Korea spot fuel oil prices for MR-size cargoes closes at 5:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB South Korea spot fuel oil prices for MR-size cargoes are in $/mt.</td></tr>
<tr><td>Time Window</td><td>FOB South Korea spot fuel oil prices for MR-size cargoes are for cargoes to be loaded during the period from 25 to 40 days ahead from the publication day. The premiums are to Singapore paper swaps (180cst 3.5%S HSFO) for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB South Korea spot fuel oil prices for MR-size cargoes are for cargoes with a 25,000-35,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.</td></tr>
<tr><td>Loading Port</td><td>FOB South Korea spot fuel oil prices for MR-size cargoes are for cargoes to be loaded at major ports in South Korea.</td></tr>
<tr><td>Quality Specifications</td><td>FOB South Korea spot fuel oil prices for MR-size cargoes are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td rowspan="3">Sulfur Content</td><td>HSFO</td><td>Max 3.5%</td></tr>
<tr><td>SRFO</td><td>Max 3.5%</td></tr>
<tr><td>LSFO</td><td>Max 0.3%</td></tr>
<tr><td>Flash Point</td><td>All Grades</td><td>Min 66 degree C</td></tr>
<tr><td>Kinematic Viscosity at 50 degree C</td><td>All Grades</td><td>Max 180cst</td></tr>
<tr><td>Pour Point</td><td>All Grades</td><td>Max 24 degree C</td></tr>
<tr><td>Carbon Residue</td><td>All Grades</td><td>Max 16%</td></tr>
<tr><td>Water Content</td><td>All Grades</td><td>Max 0.5%</td></tr>
<tr><td>Ash Content</td><td>All Grades</td><td>Max 0.1%</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Small-Tanker Cargo Price Assessment>

STRUCTURE of the FOB SOUTH KOREA Small-tanker CARGO MARKET



RIM understands that the FOB South Korea small-tanker cargo oil products market is structured with three groups of business parties: South Korean oil refiners, Oil traders and Japanese importers. RIM assesses FOB South Korea small-tanker cargo prices at which a standard spot transaction could take place.

RIM defines the three business parties in the FOB South Korea oil products market as follows:

South Korean Refiner	A company of South Korea that produces and exports oil products at/from its refining facilities in South Korea.
Oil Trader	A company that buys and sells oil products in the international market.
Japanese Importer	A Japanese company, such as trading houses and refiners, that imports oil products and resell into domestic markets.

RIM defines a standard FOB South Korea small-tanker cargo spot market transaction as follows:

Case 1	A South Korean refiner sells an oil products cargo to a trader on a spot basis.
Case 2	A South Korean refiner sells an oil products cargo to a Japanese importer on a spot basis.
Case 3	A South Korean refiner sells an oil products cargo to another South Korean refiner on a spot basis.
Case 4	A trader sells an oil products cargo to a South Korean refiner on a spot basis.
Case 5	A trader sells an oil products cargo to a Japanese importer on a spot basis.
Case 6	A trader sells an oil products cargo to another trader on a spot basis.
Case 7	A Japanese importer sells an oil products cargo to a South Korean refiner on a spot basis.
Case 8	A Japanese importer sells an oil products cargo to a trader on a spot basis.
Case 9	A Japanese importer sells an oil products cargo to another Japanese importer on a spot basis.

<CFR Japan Equivalent Values>

RIM indicates CFR Japan equivalent values, based on the small tanker cargo prices and assessment of spot freight rates of a 5,000-6,000mt clean tanker for the South Korea-to-Nagoya route. RIM also makes assessment of spot freight rates for the following routes as reference.

RIM 5,000-6,000mt Clean Tanker Freight Assessment

Benchmark	Reference
(South Korea to) **Nagoya**	(South Korea to) **Tomakomai (Hokkaido, North Japan)** **Keihin (Tokyo Bay)** **Kanmon (Kyushu, South Japan)**

The CFR Japan equivalent values are calculated into Yen/kl, based on the following formula.

Gasoline

CFR Japan Equivalent Value =
[(FOB S Korea small-tanker prices) + (Freight)] x (Yen/$) x 6.2898
+ (Petroleum tax of Yen 2,040/kl) + (Import duty of Yen 995/kl)

Kerosene

CFR Japan Equivalent Value =
[(FOB S Korea small-tanker prices) + (Freight)] x (Yen/$) x 6.2898
+ (Petroleum tax of Yen 2,040/kl) + (Import duty of Yen 375/kl)

Gasoil

CFR Japan Equivalent Value =
[(FOB S Korea small-tanker prices) + (Freight)] x (Yen/$) x 6.2898
+ (Petroleum tax of Yen 2,040/kl) + (Import duty of Yen 819/kl)

A-fuel oil

CFR Japan Equivalent Value =
[(FOB S Korea small-tanker prices) + (Freight)] x (Yen/$) x 6.2898

<Gasoline>

RIM assesses FOB South Korea spot gasoline prices for small-tanker cargoes of the 91 research octane number grade. The premiums are to periodical average of daily assessments for FOB Singapore spot 92RON gasoline prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore 92RON Gasoline Prices = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB South Korea spot gasoline prices for small-tanker cargoes closes at 5:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB South Korea spot gasoline prices for small-tanker cargoes are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB South Korea spot gasoline prices for small-tanker cargoes are for cargoes to be loaded during the period from 20 to 35 days ahead from the publication day. The premiums are to Singapore 92RON gasoline prices in RIM Singapore physical cargoes assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB South Korea spot gasoline prices for small-tanker cargoes are for cargoes with a 5,000-6,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were with the standard volumes.</td></tr>
<tr><td>Loading Port</td><td>FOB South Korea spot gasoline prices for small-tanker cargoes are for cargoes to be loaded at major ports in South Korea.</td></tr>
<tr><td>Quality Specifications</td><td>FOB South Korea spot gasoline prices for small-tanker cargoes are for cargoes of which quality is equivalent to the Japan Industrial Standard (JIS) K-2202 specification. The research octane number for gasoline that RIM assesses is greater than 91 and MTBE content of nil, levels that are widely accepted in Japan's oil industry as the standard.

<table>
<tr><td colspan="2">Lead Content</td><td>Max 0.013gpb/l</td></tr>
<tr><td colspan="2">Density at 15 degree C</td><td>Min 0.783 mg/cm3</td></tr>
<tr><td rowspan="5">Distillation Temperature;</td><td>10% evaporated</td><td>Max 70 degree C</td></tr>
<tr><td>50%</td><td>75-110 degree C</td></tr>
<tr><td>90%</td><td>Max 180 degree C</td></tr>
<tr><td>Final Boiling Point</td><td>Max 220 degree C</td></tr>
<tr><td>Residue</td><td>Max 2.0%</td></tr>
<tr><td colspan="2">Copper Corrosion 3h at 50 degree C</td><td>Max 1</td></tr>
<tr><td colspan="2">Sulfur Content</td><td>Max 0.001%</td></tr>
<tr><td colspan="2">Vapor Pressure at 37.8 degree C</td><td>0.45-0.80 Kgf/cm2</td></tr>
<tr><td colspan="2">Existent Gum</td><td>Max 5mg/100ml</td></tr>
<tr><td colspan="2">Benzene Content</td><td>Max 1%</td></tr>
<tr><td colspan="2">Color</td><td>Undyed, orange</td></tr>
</table>
Extract from JIS K-2202
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Kerosene>

RIM assesses FOB South Korea spot kerosene prices for small-tanker cargoes. The premiums are to periodical average of daily assessments for FOB Singapore spot A1 jet fuel prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB South Korea spot kerosene prices for small-tanker cargoes closes at 5:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB South Korea spot kerosene prices for small-tanker cargoes are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB South Korea spot kerosene prices for small-tanker cargoes are for cargoes to be loaded during the period from 20 to 35 days ahead from the publication day. The premiums are to Singapore paper swaps (A1 jet fuel) for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB South Korea spot kerosene prices for small-tanker cargoes are for cargoes with a 5,000-6,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.</td></tr>
<tr><td>Loading Port</td><td>FOB South Korea spot kerosene prices are for cargoes to be loaded at major ports in South Korea.</td></tr>
<tr><td>Quality Specifications</td><td>FOB South Korea spot kerosene prices for small-tanker cargoes are for cargoes of which quality is equivalent to the Japan Industrial Standard (JIS) K-2203 specification. The Saybolt color scale for kerosene that RIM assesses is greater than 30, a level that is widely accepted in Japan's oil industry as the standard.

<table>
<tr><td>Flash Point</td><td>Min 40 degree C</td></tr>
<tr><td>Distillation Temperature;
95% evaporated</td><td>Max 270 degree C</td></tr>
<tr><td>Sulfur Content</td><td>Max 0.005%</td></tr>
<tr><td>Smoke Point</td><td>Min 23mm</td></tr>
<tr><td>Copper Corrosion 3h at 50 degree C</td><td>Max 1</td></tr>
</table>
Extract from JIS K-2203
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Gasoil>

RIM assesses FOB South Korea spot gasoil prices for small-tanker cargoes of the grade with a sulfur content of 0.001%. The premiums are to periodical average of daily assessments for FOB Singapore spot gasoil (0.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB South Korea spot gasoil prices for small-tanker cargoes closes at 5:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB South Korea spot gasoil prices for small-tanker cargoes are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB South Korea spot gasoil prices for small-tanker cargoes are for cargoes to be loaded during the period from 20 to 35 days ahead from the publication day. The premiums are to Singapore paper swaps (0.5%S gasoil) for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB South Korea spot gasoil prices for small-tanker cargoes are for cargoes with a 5,000-6,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.</td></tr>
<tr><td>Loading Port</td><td>FOB South Korea spot gasoil prices are for cargoes to be loaded at major ports in South Korea.</td></tr>
<tr><td>Quality Specifications</td><td>FOB South Korea spot gasoil prices for small-tanker cargoes are for cargoes of which quality is equivalent to the Japan Industrial Standard (JIS) K-2204 specification for No1 and No2 grades.

<table>
<tr><td colspan="2">Flash Point</td><td>Min 50 degree C</td></tr>
<tr><td colspan="2">Distillation Temperature;
90% evaporated</td><td>Max 360 degree C</td></tr>
<tr><td colspan="2">Pour Point</td><td>Max 5 degree C</td></tr>
<tr><td colspan="2">Cold Filter Plugging Point</td><td>Max –1 degree C</td></tr>
<tr><td colspan="2">Carbon Residue (10% btms)</td><td>Max 0.1%</td></tr>
<tr><td colspan="2">Cetane Index</td><td>Min 48</td></tr>
<tr><td colspan="2">Kinematic Viscosity at 40 degree C</td><td>Max 4.5 mm2/sec</td></tr>
<tr><td>Sulfur Content</td><td>0.001%S</td><td>Max 0.001%</td></tr>
</table>
Extract from JIS K-2204
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<A-Fuel Oil>

RIM assesses FOB South Korea spot A-fuel oil prices for small-tanker cargoes of the two grades categorized by sulfur content: AFO (with a sulfur content less than 1.0%) and Low-sulfur AFO (with a sulfur content less than 0.1%). The premiums are to periodical average of daily assessments for FOB Singapore spot gasoil (0.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula:

Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB South Korea spot A-fuel oil prices for small-tanker cargoes closes at 5:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB South Korea spot A-fuel oil prices for small-tanker cargoes are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB South Korea spot A-fuel oil prices for small-tanker cargoes are for cargoes to be loaded during the period from 20 to 35 days ahead from the publication day. The premiums are to Singapore paper swaps (0.5%S gasoil) for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB South Korea spot A-fuel oil prices for small-tanker cargoes are for cargoes with a 5,000-6,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.</td></tr>
<tr><td>Loading Port</td><td>FOB South Korea spot A-fuel oil prices are for cargoes to be loaded at major ports in South Korea.</td></tr>
<tr><td>Quality Specifications</td><td>FOB South Korea spot A-fuel oil prices for small-tanker cargoes are for cargoes of which quality is equivalent to the Japan Industrial Standard (JIS) K-2205 specification for category 1. The sulfur level for A-fuel that RIM assesses is less than 1.0% for AFO and less than 0.1% for LSAFO, levels that are widely accepted in Japan's oil industry as the standard.

<table>
<tr><td>Flash Point</td><td>Min 60 degree C</td></tr>
<tr><td>Kinematic Viscosity at 50 degree C</td><td>Max 20cst</td></tr>
<tr><td>Pour Point</td><td>Max 5 degree C</td></tr>
<tr><td>Carbon Residue</td><td>Max 4%</td></tr>
<tr><td>Water Content</td><td>Max 0.3%</td></tr>
<tr><td>Ash Content</td><td>Max 0.05%</td></tr>
</table>
Extract from JIS K-2204 Category 1
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Fuel Oil>

RIM assesses FOB South Korea spot fuel oil prices for small-tanker cargoes of 180cst LSFO with a sulfur content of less than 0.3%. The premiums are to periodical average of daily assessments for FOB Singapore spot 180cst HSFO (3.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

Assessment Window	RIM's assessment window for FOB South Korea spot fuel oil prices for small-tanker cargoes closes at 5:30 PM Tokyo local time.
Price Unit	FOB South Korea spot fuel oil prices for small-tanker cargoes are in $/mt.
Time Window	FOB South Korea spot fuel oil prices for small-tanker cargoes are for cargoes to be loaded during the period from 20 to 35 days ahead from the publication day. The premiums are to Singapore paper swaps (180cst 3.5%S HSFO) for the front month in RIM Singapore paper swaps assessment.
Standard Size	FOB South Korea spot fuel oil prices for small-tanker cargoes are for cargoes with a 5,000-6,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.
Loading Port	FOB South Korea spot fuel oil prices for small-tanker cargoes are for cargoes to be loaded at major ports in South Korea.
Quality Specifications	FOB South Korea spot fuel oil prices for small-tanker cargoes are for cargoes of which quality is equivalent to the Japan Industrial Standard (JIS) K-2205 specification for category 3. The sulfur level for fuel oil that RIM assesses is less than 0.3%.

Flash Point	Min 66 degree C
Kinematic Viscosity at 50 degree C	Max 180cst
Pour Point	Max 24 degree C
Carbon Residue	Max 16%
Water Content	Max 0.5%
Ash Content	Max 0.1%

*Specifications for other properties are to meet specifications that are commonly required in international trading.

RIM CFR Japan Oil Products Price Assessment Methodology

Price Assessment Principle

RIM price assessments indicate the current range in which a standard spot transaction could take place on the day of publication.

RIM understands values of commodities change even in the absence of deals. RIM defines prices as measures to indicate fluctuating values of commodities.

RIM understands values of commodities are determined by a variety of factors such as supply-demand fundamentals, production costs, conditions in other markets and players' speculation.

RIM understands the latest transactions, bids/offers and buying/selling interest represent current values of commodities.

RIM understands values of commodities are determined by competition among sellers and competition among buyers. RIM considers higher bids to be closer to the current values than lower bids. RIM considers lower offers to be the closer to current values than higher offers.

RIM understands prices for each transaction reported from any party are to be translated into prices based on standard terms and conditions such as cargo sizes, timing of delivery or loading, product specifications and payment terms.

CONTENTS

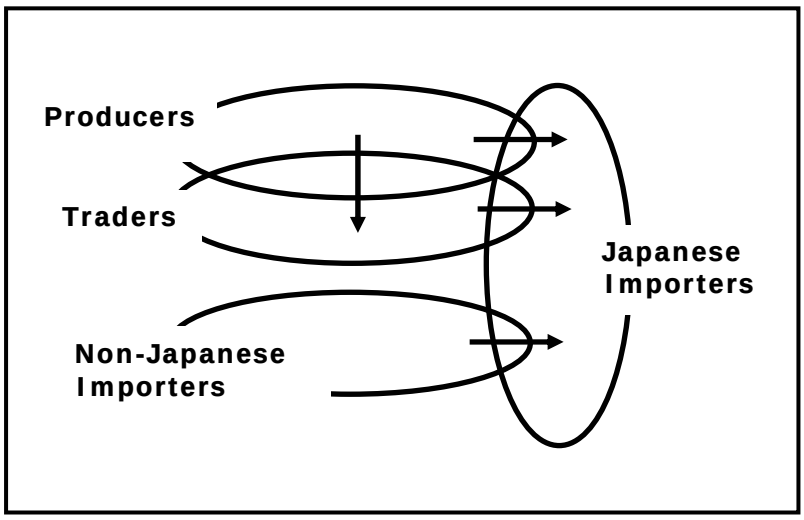
CFR JAPAN SPOT PRICES

RIM assesses CFR Japan spot prices for physical cargoes of naphtha, kerosene, gasoil, low-sulfur waxy residue, and fuel oil on a fixed price basis and a floating price basis.

In the absence of information of deals, bids and offers on a fixed price basis, the fixed price assessments indicate the price range in which a transaction on a floating price basis could be locked into with available derivative products, such as futures contracts and paper swaps based on periodical average of published quotations.

All prices are assessed based on information collected in the course of market research by RIM reporters each business day.

STRUCTURE of the CFR JAPAN OIL PRODUCTS MARKET



RIM understands that the CFR Japan market is structured with four groups of business parties: Producers, Traders, Non-Japanese Importers and Japanese importers. RIM assesses physical oil product prices at which a standard spot transaction could take place.

RIM defines the four business parties in the CFR Japan oil products market as follows:

Producer	A company that produces and exports oil products.
Trader	A company that buys and sells oil products in the international market.
Non-Japanese Importer	A company outside of Japan that imports oil products for resale into respective domestic markets, and also sells oil products on a CFR Japan basis with an aim to reduce its stocks or to yield profit from the sales.
Japanese Importer	A company of Japan that imports oil products to meet its demanded supply into the domestic markets.

RIM defines a standard CFR Japan oil products market transaction as follows:

Case 1	A producer sells an oil products cargo to a Japanese importer on a spot basis.
Case 2	A producer sells an oil products cargo to a trader on a spot basis.
Case 3	A trader sells an oil products cargo to a Japanese importer on a spot basis.
Case 4	A non-Japanese importer sells an oil products cargo to a Japanese importer on a spot basis.

<Naphtha>
RIM assesses CFR Japan spot naphtha prices for the open-spec naphtha.

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for CFR Japan spot naphtha prices closes at 7:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>CFR Japan spot naphtha prices are in $/mt.</td></tr>
<tr><td>Time Window</td><td>CFR Japan spot naphtha prices and premiums are for cargoes to be delivered during the period in 3, 4 and 5 half-months ahead from the current half month.</td></tr>
<tr><td>Standard Size</td><td>CFR Japan spot naphtha prices are for MR-size cargoes, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>CFR Japan spot naphtha prices are for cargoes to be delivered into main ports in Japan, such as Tokyo, Osaka, Nagoya.</td></tr>
<tr><td>Quality Specifications</td><td>CFR Japan spot naphtha prices are for cargoes of which quality is equivalent to "the open specifications".

<table><tr><td>Paraffin Content</td><td>Min 65%</td></tr><tr><td>Sulfur Content</td><td>Max 650ppm</td></tr><tr><td>Olefin Content</td><td>Max 1%</td></tr><tr><td>Specific Gravity at 60 degree F</td><td>0.65-0.74</td></tr></table>Extract from the open specification
*Specifications for other properties are to meet specifications that are commonly required in international trading.

REFERENCE: Full-range naphtha<table><tr><td>Paraffin Content</td><td>78-82%</td></tr><tr><td>Olefin Content</td><td>Max 1%</td></tr><tr><td>Specific Gravity at 60 degree F</td><td>0.68-0.70</td></tr></table></td></tr>
</table>

<Jet/Kerosene>
RIM assesses CFR Japan spot A1 jet fuel/kerosene prices. The premiums are to the periodical average of daily assessments for FOB Singapore spot A1 jet fuel prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula:

Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for CFR Japan spot jet/kerosene prices closes at 5:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>CFR Japan spot jet/kerosene prices are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>CFR Japan spot jet/kerosene prices are for cargoes to be delivered during the period from 30 to 45 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>CFR Japan spot jet/kerosene prices are for MR-size cargoes, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>CFR Japan spot jet/kerosene prices are for cargoes to be delivered into main ports in Japan, such as Tokyo, Osaka, Nagoya.</td></tr>
<tr><td>Quality Specifications</td><td>CFR Japan spot jet/kerosene prices are for cargoes of which quality is equivalent to the Joint Fuel System Check List, also known as Jet A-1 Check List. The JFSCL is issued by International Air Transport Association.

<table>
<tr><td>Distillation Temperature;
Initial Boiling Point
10% Evaporated</td><td>Max 205 degree C</td></tr>
<tr><td>Flash Point</td><td>Max 40 degree C</td></tr>
<tr><td>Sulfur Content</td><td>Max 0.3%</td></tr>
<tr><td>Smoke Point with naphthalene content of maximum 3.0%</td><td>Minimum 19</td></tr>
<tr><td>Copper corrosion 2h at 100 degree C</td><td>Maximum 1.0</td></tr>
<tr><td>Saybolt color</td><td>Minimum 18</td></tr>
</table>
Extract from IATA's JFSCL
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Gasoil>

RIM assesses CFR Japan spot gasoil prices for gasoil with a sulfur content of 0.001%. The premiums are to the periodical average of daily assessments for FOB Singapore spot gasoil (0.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula:

Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for CFR Japan spot gasoil prices closes at 5:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>CFR Japan spot gasoil prices are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>CFR Japan spot gasoil prices are for cargoes to be delivered during the period from 30 to 45 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>CFR Japan spot gasoil prices are for MR-size cargoes, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>CFR Japan spot gasoil prices are for cargoes to be delivered into main ports in Japan, such as Tokyo, Osaka, Nagoya.</td></tr>
<tr><td>Quality Specifications</td><td>CFR Japan spot gasoil prices are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td colspan="2">Flash Point</td><td>Min 50 degree C</td></tr>
<tr><td colspan="2">Distillation Temperature;
90% evaporated</td><td>Max 360 degree C</td></tr>
<tr><td colspan="2">Pour Point</td><td>Max –2.5 degree C</td></tr>
<tr><td colspan="2">Cold Filter Plugging Point</td><td>Max –1 degree C</td></tr>
<tr><td colspan="2">Carbon Residue (10% btms)</td><td>Max 0.1%</td></tr>
<tr><td colspan="2">Cetane Index</td><td>Min 45</td></tr>
<tr><td colspan="2">Kinematic Viscosity at 40 degree C</td><td>Max 4.5 mm2/sec</td></tr>
<tr><td>Sulfur Content</td><td>0.001%S</td><td>Max 0.001%</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Low-Sulfur Waxy Residue>
RIM assesses CFR Japan spot cracked low-sulfur waxy residue prices for the grades with a sulfur content of 0.2%.

***The premiums are to the so-called Pertamina Price Formula for the assessment window as transactions are typically settled at a floating price based on the benchmark. RIM assesses the expected PPF for the delivery window. The expected values are determined based on market research that RIM conducts each business day. (SEE RIM FOB Indonesia LSWR Price Assessment Methodology)**

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for CFR Japan spot cracked LSWR prices closes at 6:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>CFR Japan spot cracked LSWR prices are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>CFR Japan spot cracked LSWR prices are for cargoes to be delivered during the period from 40-50 days ahead from the publication day. The premiums are to expected PPF for the FOB Indonesia LSWR prices assessment window (40-50 days out).</td></tr>
<tr><td>Standard Size</td><td>CFR Japan spot cracked LSWR prices are for 10,000mt to 40,000mt cargoes, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>CFR Japan spot cracked prices are for cargoes to be delivered into main ports in Japan, such as Tokyo, Osaka, Nagoya.</td></tr>
<tr><td>Quality Specifications</td><td>CFR Japan spot cracked LSWR prices are for cargoes of which quality is equivalent to the following specifications.

<table>
<tr><td>Specific Gravity at 60 degree F</td><td>0.8789-0.9309</td></tr>
<tr><td>API Gravity at 60 degree F</td><td>20.5-29.5</td></tr>
<tr><td>Viscosity at 140 degree F</td><td>100-350</td></tr>
<tr><td>Pour Point</td><td>Max 120 degree F</td></tr>
<tr><td>Sulfur Content</td><td>Max 0.2%</td></tr>
<tr><td>Carbon Residue</td><td>Max 8.0%</td></tr>
<tr><td>Water Content</td><td>Max 0.5%</td></tr>
<tr><td>Ash Content</td><td>Max 0.1%</td></tr>
<tr><td>Flash Point</td><td>Min 166 degree F</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Fuel Oil>

RIM assesses CFR Japan spot fuel oil prices for 180cst HSFO with a sulfur content of 3.5% and 180cst LSFO with a sulfur content of 0.3%. The premiums are to the periodical average of daily assessments for FOB Singapore spot 180cst HSFO (3.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula:

Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for CFR Japan spot fuel oil prices closes at 5:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>CFR Japan spot fuel oil prices are in $/mt.</td></tr>
<tr><td>Time Window</td><td>CFR Japan spot fuel oil prices are for cargoes to be loaded during the period from 30 to 45 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>CFR Japan spot fuel oil prices are for MR-size cargoes, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were with the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>CFR Japan spot fuel oil prices are for cargoes to be delivered into main ports in Japan, such as Tokyo, Osaka, Nagoya.</td></tr>
<tr><td>Quality Specifications</td><td>CFR Japan spot fuel oil prices are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td rowspan="2">Sulfur Content</td><td>3.5%S</td><td>Max 3.5%</td></tr>
<tr><td>0.3%S</td><td>Max 0.3%</td></tr>
<tr><td colspan="2">Flash Point</td><td>Min 66 degree C</td></tr>
<tr><td colspan="2">Pour Point</td><td>Max 24 degree C</td></tr>
<tr><td colspan="2">Carbon Residue</td><td>Max 16%</td></tr>
<tr><td colspan="2">Water Content</td><td>Max 0.5%</td></tr>
<tr><td colspan="2">Ash Content</td><td>Max 0.1%</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

RIM FOB Japan Oil Products Price Assessment Methodology

Price Assessment Principle

RIM price assessments indicate the current range in which a standard spot transaction could take place on the day of publication.

RIM understands values of commodities change even in the absence of deals. RIM defines prices as measures to indicate fluctuating values of commodities.

RIM understands values of commodities are determined by a variety of factors such as supply-demand fundamentals, production costs, conditions in other markets and players' speculation.

RIM understands the latest transactions, bids/offers and buying/selling interest represent current values of commodities.

RIM understands values of commodities are determined by competition among sellers and competition among buyers. RIM considers higher bids to be closer to the current values than lower bids. RIM considers lower offers to be the closer to current values than higher offers.

RIM understands prices for each transaction reported from any party are to be translated into prices based on standard terms and conditions such as cargo sizes, timing of delivery or loading, product specifications and payment terms.

CONTENTS

FOB JAPAN SPOT PRICES

RIM assesses FOB Japan spot prices for MR-size cargoes. Grades that are assessed are as follows:

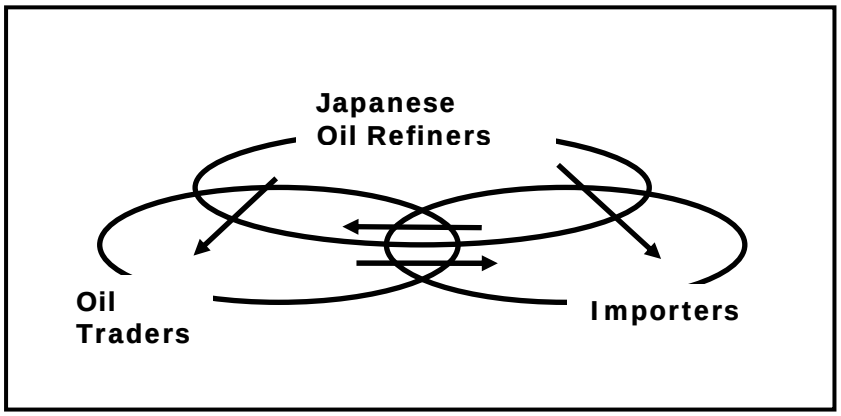
MR-size cargo	
Jet/Kerosene Gasoil CARB DIESEL Gasoil-0.001%S HSFO 180cst 3.5%S	

In the absence of information of deals, bids and offers on a fixed price basis, the fixed price assessments indicate the price range in which a transaction on a floating price basis could be locked into with available derivative products, such as futures contracts and paper swaps based on periodical average of published quotations.

All prices are assessed based on information collected in the course of market research by RIM reporters each business day.

<MR-size Cargo Price Assessment>

STRUCTURE of the FOB JAPAN MR-size CARGO MARKET



RIM understands that the FOB Japan MR-size cargo oil products market is structured with three groups of business parties: Japanese oil refiners, Oil traders and Importers. RIM assesses FOB Japan MR-size cargo prices at which a standard spot transaction could take place.

RIM defines the three business parties in the FOB Japan oil products market as follows:

Japanese Refiner	A company of Japan that produces and exports oil products at/from its refining facilities in Japan.
Oil Trader	A company that buys and sells oil products in the international market.
Importer	A company that imports oil products and resell into domestic markets. Refiners of countries other than Japan are also considered to be importers.

RIM defines a standard FOB Japan MR-size cargo spot market transaction as follows:

Case 1	A Japanese refiner sells an oil products cargo to a trader on a spot basis.
Case 2	A Japanese refiner sells an oil products cargo to an importer on a spot basis.
Case 3	A Japanese refiner sells an oil products cargo to another Japanese refiner on a spot basis.
Case 4	A trader sells an oil products cargo to a Japanese refiner on a spot basis.
Case 5	A trader sells an oil products cargo to an importer on a spot basis.
Case 6	A trader sells an oil products cargo to another trader on a spot basis.
Case 7	An importer sells an oil products cargo to a Japanese refiner on a spot basis.
Case 8	An importer sells an oil products cargo to a trader on a spot basis.
Case 9	An importer sells an oil products cargo to another importer on a spot basis.

<Jet/Kerosene>
RIM assesses FOB Japan spot A1 jet fuel/kerosene prices for MR-size cargoes. The premiums are to periodical average of daily assessments for FOB Singapore spot A1 jet fuel prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB Japan spot jet/kerosene prices for MR-size cargoes closes at 5:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB Japan spot jet/kerosene prices for MR-size cargoes are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB Japan spot jet/kerosene prices for MR-size cargoes are for cargoes to be loaded during the period from 25 to 40 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB Japan spot jet/kerosene prices for MR-size cargoes are for cargoes with a 25,000-35,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>FOB Japan spot jet/kerosene prices for MR-size cargoes are for cargoes to be loaded at major ports in Japan.</td></tr>
<tr><td>Quality Specifications</td><td>FOB Japan spot jet/kerosene prices for MR-size cargoes are for cargoes of which quality is equivalent to the Joint Fuel System Check List, also known as Jet A-1 Check List. The JFSCL is issued by International Air Transport Association.

<table>
<tr><td>Distillation Temperature;
Initial Boiling Point
10% Evaporated</td><td>Max 205 degree C</td></tr>
<tr><td>Flash Point</td><td>Max 40 degree C</td></tr>
<tr><td>Sulfur Content</td><td>Max 0.3%</td></tr>
<tr><td>Smoke Point with naphthalene content of maximum 3.0%</td><td>Minimum 19</td></tr>
<tr><td>Copper corrosion 2h at 100 degree C</td><td>Maximum 1.0</td></tr>
<tr><td>Saybolt color</td><td>Minimum 18</td></tr>
</table>
Extract from IATA's JFSCL
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Gasoil>

RIM assesses FOB Japan spot gasoil prices for MR-size cargoes of CARB DIESEL and gasoil with a sulfur content of 0.001%. The premiums are to periodical average of daily assessments for FOB Singapore spot (0.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB Japan spot gasoil prices for MR-size cargoes closes at 5:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB Japan spot gasoil prices for MR-size cargoes are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB Japan spot gasoil prices for MR-size cargoes are for cargoes to be loaded during the period from 25 to 40 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB Japan spot gasoil prices for MR-size cargoes are for cargoes with a 25,000-35,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.</td></tr>
<tr><td>Loading Port</td><td>FOB Japan spot gasoil prices for MR-size cargoes are for cargoes to be loaded at major ports in Japan.</td></tr>
<tr><td>Quality Specifications</td><td>FOB Japan spot gasoil prices for MR-size cargoes are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td colspan="2">Flash Point</td><td>Min 50 degree C</td></tr>
<tr><td colspan="2">Distillation Temperature;
90% evaporated</td><td>Max 360 degree C</td></tr>
<tr><td colspan="2">Pour Point</td><td>Max 5 degree C</td></tr>
<tr><td colspan="2">Cold Filter Plugging Point</td><td>Max –1 degree C</td></tr>
<tr><td colspan="2">Carbon Residue (10% btms)</td><td>Max 0.1%</td></tr>
<tr><td rowspan="2">Cetane Index</td><td>CARB DIESEL</td><td>Min 53</td></tr>
<tr><td>0.001%S</td><td>Min 48</td></tr>
<tr><td colspan="2">Kinematic Viscosity at 40 degree C</td><td>Max 4.5 mm2/sec</td></tr>
<tr><td rowspan="2">Sulfur Content</td><td>CARB DIESEL</td><td>Max 0.0008%</td></tr>
<tr><td>0.001%S</td><td>Max 0.001%</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Fuel Oil>
RIM assesses FOB Japan spot fuel oil prices for MR-size cargoes of the 180cst HSFO with a sulfur content of less than 3.5%. The premiums are to periodical average of daily assessments for FOB Singapore spot 180cst HSFO (3.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

Assessment Window	RIM's assessment window for FOB Japan spot fuel oil prices for MR-size cargoes closes at 5:30 PM Tokyo local time.
Price Unit	FOB Japan spot fuel oil prices for MR-size cargoes are in $/mt.
Time Window	FOB Japan spot fuel oil prices for MR-size cargoes are for cargoes to be loaded during the period from 25 to 40 days ahead from the publication day. The premiums are to Singapore paper swaps (180cst 3.5%S HSFO) for the front month in RIM Singapore paper swaps assessment.
Standard Size	FOB Japan spot fuel oil prices for MR-size cargoes are for cargoes with a 25,000-35,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.
Loading Port	FOB Japan spot fuel oil prices for MR-size cargoes are for cargoes to be loaded at major ports in Japan.
Quality Specifications	FOB Japan spot fuel oil prices for MR-size cargoes are for cargoes of which quality is equivalent to the following specifications. Sulfur Content: Max 3.5% Flash Point: Min 66 degree C Pour Point: Max 24 degree C Carbon Residue: Max 16% Water Content: Max 0.5% Ash Content: Max 0.1% *Specifications for other properties are to meet specifications that are commonly required in international trading.

RIM FOB Indonesia LSWR Price Assessment Methodology

Price Assessment Principle

RIM price assessments indicate the current range in which a standard spot transaction could take place on the day of publication.

RIM understands values of commodities change even in the absence of deals. RIM defines prices as measures to indicate fluctuating values of commodities.

RIM understands values of commodities are determined by a variety of factors such as supply-demand fundamentals, production costs, conditions in other markets and players' speculation.

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CONTENTS

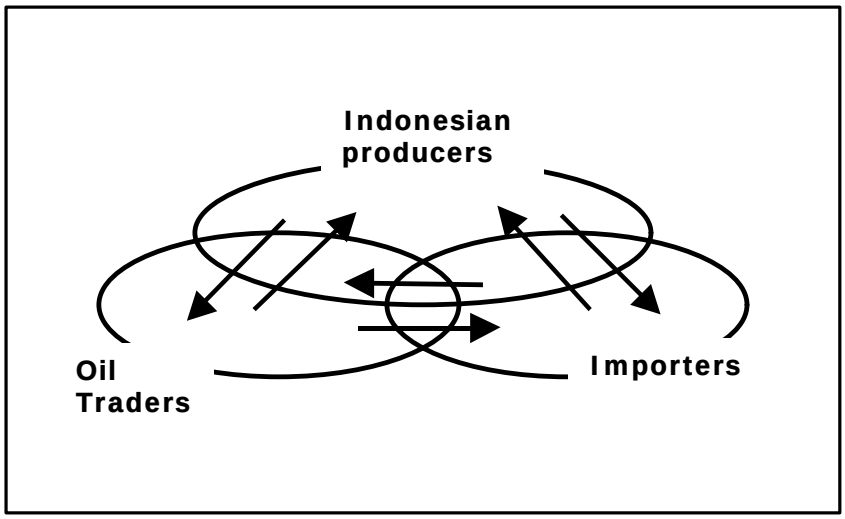
FOB Indonesia LSWR

FOB INDONESIA SPOT LSWR PRICES

RIM assesses FOB Indonesia spot mixed/cracked low-sulfur waxy residue prices on a fixed price basis and a floating price basis.

All prices are assessed based on information collected in the course of market research by RIM reporters each business day.

STRUCTURE of the FOB INDONESIA SPOT LSWR MARKET



RIM understands that the FOB Indonesia spot LSWR Market is structured with three groups of business parties: Indonesian producers, oil traders, importers. RIM assesses physical LSWR prices at which a standard spot transaction could take place.

RIM defines the three business parties in the FOB Indonesia mixed/cracked LSWR market as follows:

Indonesian Producer	A company that produces and sells mixed/cracked LSWR at its refining facilities in Indonesia. Indonesia's state-owned Pertamina is considered to be the dominant producer of cracked LSWR. Equity holders that receive mixed/cracked LSWR through concession rights are also considered to be Indonesian producers.
Oil Trader	A company that buys and sells oil products in the international market.
Importer	A company outside of Indonesia that imports mixed/cracked LSWR on an FOB Indonesia basis for its own use or resale into other parties in the domestic market. Refiners that buys mixed/cracked LSWR as feedstock for its refining facilities are also considered to be an importer.

RIM defines a standard FOB Indonesia mixed/cracked LSWR market transaction as follows:

Case 1	An Indonesian producer sells a mixed/cracked LSWR cargo to a trader on a spot basis.
Case 2	An Indonesian producer sells a mixed/cracked LSWR cargo to an importer on a spot basis.
Case 3	An Indonesian producer sells a mixed/cracked LSWR cargo to another Indonesian producer on a spot basis.
Case 4	A trader sells a mixed/cracked LSWR cargo to an Indonesian producer on a spot basis.
Case 5	A trader sells a mixed/cracked LSWR cargo to an importer on a spot basis.
Case 6	A trader sells a mixed/cracked LSWR cargo to another trader on a spot basis.
Case 7	An importer sells a mixed/cracked LSWR cargo to an Indonesian producer on a spot basis.
Case 8	An importer sells a mixed/cracked LSWR cargo to a trader on a spot basis.
Case 9	An importer sells a cracked LSWR cargo to another importer on a spot basis.

UNDERSTANDING of PERTAMINA PRICE FORMULA

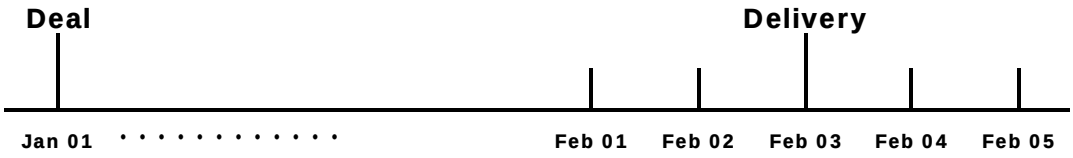
Spot transactions for FOB Indonesia mixed/cracked LSWR are typically settled on a floating basis using the Pertamina Price Formula (PPF). In a transaction between parties other than Pertamina, the PPF refers to a formulated price by the parties similar to the method used by Pertamina. The Pertamina pricing method is widely understood as follows:

PPF = (Average of daily assessments by price reporting services) + 65cts/bbl

Mixed/cracked LSWR cargoes ex-Indonesia are typically priced at a premium of $1.00/bbl to the PPF. In most cases, PPF in the floating prices are the averaged value of daily price assessments published over a five-day period; two days before the loading day, the loading day, and two days after the loading day (two-one-two).

(Example)

Premise:
On Jan 1, a spot deal takes place at "PPF+$1.00/bbl" for delivery on Feb 3. The buyer and seller agrees to take the two-one-two period for the PPF in the floating price deal.



RIM's Assessment Window

Publication Day	Loading Period of cargoes to be assessed
Jan 1	Jan 31 – Feb 10
/ /	/ /
Feb 1	Mar 3 – Mar 13
Feb 2	Mar 4 – Mar 14
Feb 3	Mar 5 – Mar 15
Feb 4	Mar 6 – Mar 16
Feb 5	Mar 7 – Mar 17

RIM understands the PPF in the deal price is calculated based on the average of daily price assessments published during the period from Feb 1 through Feb 5. This case could be interpreted that the buyer and seller on Jan 1 agreed that the value of a mixed/cracked LSWR cargo loaded on Feb 3 was $1.00/bbl higher than values of a cargo to be loaded in early-to-mid March.

Expected PPF for the Window

For fixed values from indicated premiums, RIM assesses the expected PPF for the delivery window. The expected values are determined based on market research that RIM conducts each business day. Prices for Indonesian crude oil are also factored into the expected value of PPF for the delivery window since price trends for the two products are closely related.

RIM considers that a floating price based on PPF is equivalent to the fixed value derived from the following formula:

Premium to PPF+ expected PPF for the window = Fixed Value

In the example case, the equivalent fixed value as of Jan 1 to the floating deal price of PPF+$1.00/bbl is to be $26.00/bbl, if the PPF for the window is expected at $25.00/bbl.

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB Indonesia spot mixed/cracked LSWR prices closes at 6:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>FOB Indonesia spot mixed/cracked LSWR prices are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB Indonesia spot mixed/cracked LSWR prices are for cargoes to be loaded during the period from 30 to 40 days ahead from the publication day. The premiums are to expected PPF for the window.</td></tr>
<tr><td>Standard Size</td><td>FOB Indonesia spot mixed/cracked LSWR spot prices are for an MR-size cargo, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were with the standard volumes.</td></tr>
<tr><td>Loading Port</td><td>FOB Indonesia spot mixed/cracked LSWR prices are for cargoes to be loaded at major ports in Indonesia.</td></tr>
<tr><td>Quality Specifications</td><td>FOB Indonesia spot mixed/cracked LSWR prices are for cargoes of which quality is equivalent to the following specifications.

<table>
<tr><td>Specific Gravity at 60 degree F</td><td>0.8789-0.9309</td></tr>
<tr><td>API Gravity at 60 degree F</td><td>20.5-29.5</td></tr>
<tr><td>Viscosity at 140 degree F</td><td>100-350</td></tr>
<tr><td>Pour Point</td><td>Max 120 degree F</td></tr>
<tr><td>Sulfur Content</td><td>Max 0.2%</td></tr>
<tr><td>Carbon Residue</td><td>Max 8.0%</td></tr>
<tr><td>Water Content</td><td>Max 0.5%</td></tr>
<tr><td>Ash Content</td><td>Max 0.1%</td></tr>
<tr><td>Flash Point</td><td>Min 166 degree F</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

RIM FOB Taiwan Oil Products Price Assessment Methodology

Price Assessment Principle

RIM price assessments indicate the current range in which a standard spot transaction could take place on the day of publication.

RIM understands values of commodities change even in the absence of deals. RIM defines prices as measures to indicate fluctuating values of commodities.

RIM understands values of commodities are determined by a variety of factors such as supply-demand fundamentals, production costs, conditions in other markets and players' speculation.

RIM understands the latest transactions, bids/offers and buying/selling interest represent current values of commodities.

RIM understands values of commodities are determined by competition among sellers and competition among buyers. RIM considers higher bids to be closer to the current values than lower bids. RIM considers lower offers to be the closer to current values than higher offers.

RIM understands prices for each transaction reported from any party are to be translated into prices based on standard terms and conditions such as cargo sizes, timing of delivery or loading, product specifications and payment terms.

CONTENTS

FOB TAIWAN SPOT PRICES

RIM assesses FOB Taiwan spot prices for MR-size cargoes. Grades that are assessed are as follows:

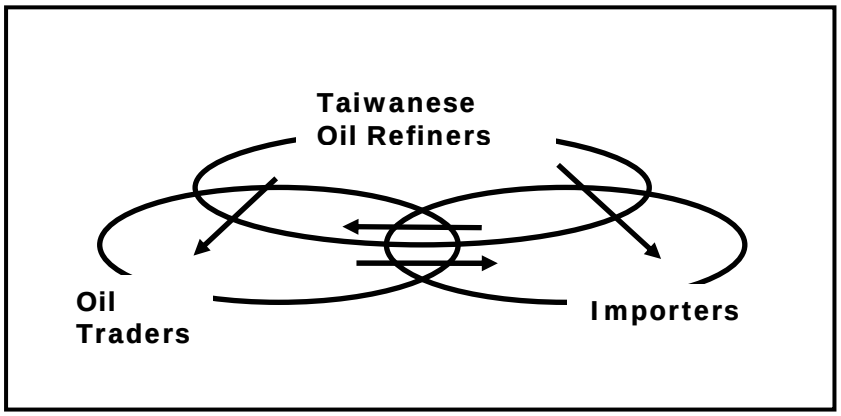
MR-size cargo	
Jet/Kerosene Gasoil-0.001%S Gasoil-0.05%S Gasoil-0.2%S Gasoil-0.5%S	

In the absence of information of deals, bids and offers on a fixed price basis, the fixed price assessments indicate the price range in which a transaction on a floating price basis could be locked into with available derivative products, such as futures contracts and paper swaps based on periodical average of published quotations.

All prices are assessed based on information collected in the course of market research by RIM reporters each business day.

<MR-size Cargo Price Assessment>

STRUCTURE of the FOB TAIWAN MR-size CARGO MARKET



RIM understands that the FOB Taiwan MR-size cargo oil products market is structured with three groups of business parties: Taiwanese oil refiners, Oil traders and Importers. RIM assesses FOB Taiwan MR-size cargo prices at which a standard spot transaction could take place.

RIM defines the three business parties in the FOB Taiwan oil products market as follows:

Taiwanese Refiner	A company of Taiwan that produces and exports oil products at/from its refining facilities in Taiwan.
Oil Trader	A company that buys and sells oil products in the international market.
Importer	A company that imports oil products and resell into domestic markets. Refiners of countries other than Taiwan are also considered to be importers.

RIM defines a standard FOB Taiwan MR-size cargo spot market transaction as follows:

Case 1	A Taiwanese refiner sells an oil products cargo to a trader on a spot basis.
Case 2	A Taiwanese refiner sells an oil products cargo to an importer on a spot basis.
Case 3	A Taiwanese refiner sells an oil products cargo to another Taiwanese refiner on a spot basis.
Case 4	A trader sells an oil products cargo to a Taiwanese refiner on a spot basis.
Case 5	A trader sells an oil products cargo to an importer on a spot basis.
Case 6	A trader sells an oil products cargo to another trader on a spot basis.
Case 7	An importer sells an oil products cargo to a Taiwanese refiner on a spot basis.
Case 8	An importer sells an oil products cargo to a trader on a spot basis.
Case 9	An importer sells an oil products cargo to another importer on a spot basis.

<Jet/Kerosene>
RIM assesses FOB Taiwan spot A1 jet fuel/kerosene prices for MR-size cargoes. The premiums are to periodical average of daily assessments for FOB Singapore spot A1 jet fuel prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB Taiwan spot jet/kerosene prices for MR-size cargoes closes at 6:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB Taiwan spot jet/kerosene prices for MR-size cargoes are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB Taiwan spot jet/kerosene prices for MR-size cargoes are for cargoes to be loaded during the period from 25 to 40 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB Taiwan spot jet/kerosene prices for MR-size cargoes are for cargoes with a 25,000-35,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>FOB Taiwan spot jet/kerosene prices for MR-size cargoes are for cargoes to be loaded at major ports in Taiwan.</td></tr>
<tr><td>Quality Specifications</td><td>FOB Taiwan spot jet/kerosene prices for MR-size cargoes are for cargoes of which quality is equivalent to the Joint Fuel System Check List, also known as Jet A-1 Check List. The JFSCL is issued by International Air Transport Association.

<table>
<tr><td>Distillation Temperature;
Initial Boiling Point
10% Evaporated</td><td>Max 205 degree C</td></tr>
<tr><td>Flash Point</td><td>Max 40 degree C</td></tr>
<tr><td>Sulfur Content</td><td>Max 0.3%</td></tr>
<tr><td>Smoke Point with naphthalene content of maximum 3.0%</td><td>Minimum 19</td></tr>
<tr><td>Copper corrosion 2h at 100 degree C</td><td>Maximum 1.0</td></tr>
<tr><td>Saybolt color</td><td>Minimum 18</td></tr>
</table>
Extract from IATA's JFSCL
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Gasoil>

RIM assesses FOB Taiwan spot gasoil prices for MR-size cargoes of the grades with a sulfur content of 0.001%, 0.05%, 0.2% and 0.5%. The premiums are to periodical average of daily assessments for FOB Singapore spot (0.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula: Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for FOB Taiwan spot gasoil prices for MR-size cargoes closes at 6:30 PM Tokyo local time.</td></tr>
<tr><td>Price Unit</td><td>FOB Taiwan spot gasoil prices for MR-size cargoes are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>FOB Taiwan spot gasoil prices for MR-size cargoes are for cargoes to be loaded during the period from 25 to 40 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>FOB Taiwan spot gasoil prices for MR-size cargoes are for cargoes with a 25,000-35,000mt lot, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were within the standard volumes.</td></tr>
<tr><td>Loading Port</td><td>FOB Taiwan spot gasoil prices for MR-size cargoes are for cargoes to be loaded at major ports in Taiwan.</td></tr>
<tr><td>Quality Specifications</td><td>FOB Taiwan spot gasoil prices for MR-size cargoes are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td colspan="2">Flash Point</td><td>Min 50 degree C</td></tr>
<tr><td colspan="2">Distillation Temperature; 90% evaporated</td><td>Max 360 degree C</td></tr>
<tr><td colspan="2">Pour Point</td><td>Max 5 degree C</td></tr>
<tr><td colspan="2">Cold Filter Plugging Point</td><td>Max –1 degree C</td></tr>
<tr><td colspan="2">Carbon Residue (10% btms)</td><td>Max 0.1%</td></tr>
<tr><td colspan="2">Cetane Index</td><td>Min 48</td></tr>
<tr><td colspan="2">Kinematic Viscosity at 40 degree C</td><td>Max 4.5 mm2/sec</td></tr>
<tr><td rowspan="4">Sulfur Content</td><td>0.001%S</td><td>Max 0.001%</td></tr>
<tr><td>0.05%S</td><td>Max 0.05%</td></tr>
<tr><td>0.2%S</td><td>Max 0.2%</td></tr>
<tr><td>0.5%S</td><td>Max 0.5%</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

RIM CFR China Oil Products Price Assessment Methodology

Price Assessment Principle

RIM price assessments indicate the current range in which a standard spot transaction could take place on the day of publication.

RIM understands values of commodities change even in the absence of deals. RIM defines prices as measures to indicate fluctuating values of commodities.

RIM understands values of commodities are determined by a variety of factors such as supply-demand fundamentals, production costs, conditions in other markets and players' speculation.

RIM understands the latest transactions, bids/offers and buying/selling interest represent current values of commodities.

RIM understands values of commodities are determined by competition among sellers and competition among buyers. RIM considers higher bids to be closer to the current values than lower bids. RIM considers lower offers to be the closer to current values than higher offers.

RIM understands prices for each transaction reported from any party are to be translated into prices based on standard terms and conditions such as cargo sizes, timing of delivery or loading, product specifications and payment terms.

CONTENTS

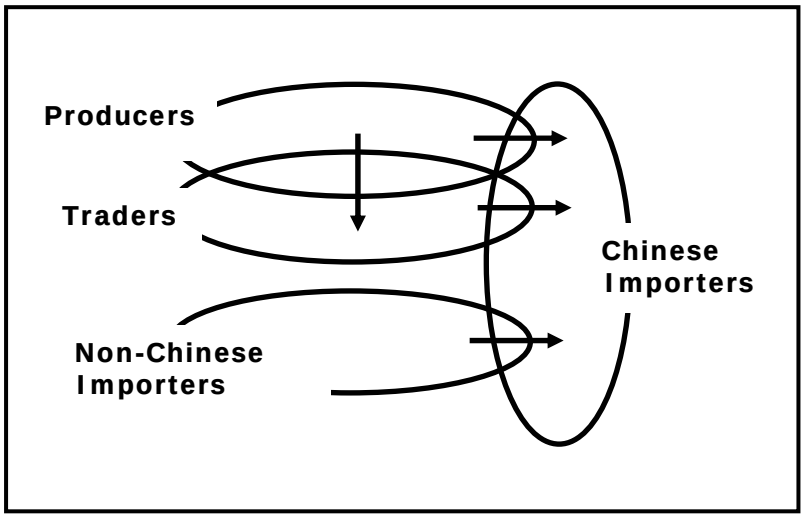
CFR CHINA SPOT PRICES

RIM assesses CFR China spot prices for physical cargoes of gasoil and fuel oil on a fixed price basis and a floating price basis.

In the absence of information of deals, bids and offers on a fixed price basis, the fixed price assessments indicate the price range in which a transaction on a floating price basis could be locked into with available derivative products, such as futures contracts and paper swaps based on periodical average of published quotations.

All prices are assessed based on information collected in the course of market research by RIM reporters each business day.

STRUCTURE of the CFR CHINA OIL PRODUCTS MARKET



RIM understands that the CFR China market is structured with four groups of business parties: Producers, Traders, Non-Chinese Importers and Chinese importers. RIM assesses physical oil product prices at which a standard spot transaction could take place.

RIM defines the four business parties in the CFR China oil products market as follows:

Producer	A company that produces and exports oil products.
Trader	A company that buys and sells oil products in the international market.
Non-Chinese Importer	A company outside of China that imports oil products for resale into respective domestic markets, and also sells oil products on a CFR China basis with an aim to reduce its stocks or to yield profit from the sales.
Chinese Importer	A company of China that imports oil products to meet its demanded supply into the domestic markets.

RIM defines a standard CFR China oil products market transaction as follows:

Case 1	A producer sells an oil products cargo to a Chinese importer on a spot basis.
Case 2	A producer sells an oil products cargo to a trader on a spot basis.
Case 3	A trader sells an oil products cargo to a Chinese importer on a spot basis.
Case 4	A non-Chinese importer sells an oil products cargo to a Chinese importer on a spot basis.

<Gasoline>

RIM assesses CFR China spot gasoline prices for the 93 research octane number grade. The premiums are to periodical average of daily assessments for FOB Singapore spot prices of 92RON gasoline by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula:

Premium + Value of Singapore 92RON gasoline prices = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for CFR China spot gasoline prices closes at 6:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>CFR China spot gasoline prices are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>CFR China spot gasoline prices are for cargoes to be delivered during the period from 25 to 40 days ahead from the publication day. The premiums are to FOB Singapore spot prices of 92RON gasoline in RIM Singapore physical cargoes assessment.</td></tr>
<tr><td>Standard Size</td><td>CFR China spot gasoline prices are for MR-size cargoes, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>CFR China spot gasoline prices are for cargoes to be delivered into main ports in east and south China.</td></tr>
<tr><td>Quality Specifications</td><td>CFR China spot gasoline prices are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td colspan="2">Research Octane Number</td><td>93</td></tr>
<tr><td colspan="2">Lead Content</td><td>Max 0.005gpb/l</td></tr>
<tr><td rowspan="5">Distillation Temperature;</td><td>10% evaporated</td><td>Max 70 degree C</td></tr>
<tr><td>50%</td><td>Max 120 degree C</td></tr>
<tr><td>90%</td><td>Max 190 degree C</td></tr>
<tr><td>Final Boiling Point</td><td>Max 205 degree C</td></tr>
<tr><td>Residue</td><td>Max 2.0%</td></tr>
<tr><td colspan="2">Copper Corrosion 3h at 50 degree C</td><td>Max 1</td></tr>
<tr><td colspan="2">Sulfur Content</td><td>Max 0.015%</td></tr>
<tr><td colspan="2">Vapor Pressure at 37.8 degree C</td><td>0.75-0.90 Kgf/cm2</td></tr>
<tr><td colspan="2">Existent Gum</td><td>Max 5mg/100ml</td></tr>
<tr><td colspan="2">Olefin Content</td><td>Max 35.0%</td></tr>
<tr><td colspan="2">Aromatics Content</td><td>Max 40.0%</td></tr>
<tr><td colspan="2">Oxygen Content</td><td>Max 2.7%</td></tr>
<tr><td colspan="2">Benzene Content</td><td>Max 2.0%</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Gasoil>
RIM assesses CFR China spot gasoil prices for gasoil with a sulfur content of 0.05%, supplied mainly from South Korea. The premiums are to the periodical average of daily assessments for FOB Singapore spot gasoil (0.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula:

Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for CFR China spot gasoil prices closes at 6:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>CFR China spot gasoil prices are in $/bbl.</td></tr>
<tr><td>Time Window</td><td>CFR China spot gasoil prices are for cargoes to be delivered during the period from 25 to 40 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>CFR China spot gasoil prices are for MR-size cargoes, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>CFR China spot gasoil prices are for cargoes to be delivered into main ports in east and south China.</td></tr>
<tr><td>Quality Specifications</td><td>CFR China spot gasoil prices are for cargoes of which quality is equivalent to the following specifications.
<table>
<tr><td>Flash Point</td><td>Min 55 degree C</td></tr>
<tr><td>Distillation Temperature; 90% evaporated</td><td>Max 355 degree C</td></tr>
<tr><td>Pour Point</td><td>Max 0 degree C</td></tr>
<tr><td>Cold Filter Plugging Point</td><td>Max 4 degree C</td></tr>
<tr><td>Carbon Residue (10% btms)</td><td>Max 0.3%</td></tr>
<tr><td>Cetane Index</td><td>Min 45</td></tr>
<tr><td>Acidity</td><td>Max 7mgKOH/100ml</td></tr>
<tr><td>Kinematic Viscosity at 20 degree C</td><td>Min 3.0, Max 8.0 mm2/sec</td></tr>
<tr><td>Sulfur Content</td><td>Max 0.05%</td></tr>
</table>
*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

<Fuel Oil>

RIM assesses CFR China spot fuel oil prices for the 180cst HSFO (3.5% sulfur) grade, supplied mainly from Singapore. The premiums are to the periodical average of daily assessments for FOB Singapore spot 180cst HSFO (3.5% sulfur) prices by reporting services. RIM considers that a floating price based on the periodical average equals the fixed value based on the following formula:

Premium + Value of Singapore Paper Swaps = Fixed Value

<table>
<tr><td>Assessment Window</td><td>RIM's assessment window for CFR China spot fuel oil prices closes at 6:30 PM Tokyo time.</td></tr>
<tr><td>Price Unit</td><td>CFR China spot fuel oil prices are in $/mt.</td></tr>
<tr><td>Time Window</td><td>CFR China spot fuel oil prices are for cargoes to be loaded during the period from 25 to 40 days ahead from the publication day. The premiums are to Singapore paper swaps for the front month in RIM Singapore paper swaps assessment.</td></tr>
<tr><td>Standard Size</td><td>CFR China spot fuel oil prices are for LR-size cargoes, which RIM considers standard. Prices for smaller or larger cargoes are to be translated into estimated values that the prices could be if the cargoes were with the standard volumes.</td></tr>
<tr><td>Delivery Port</td><td>CFR China spot fuel oil prices are for cargoes to be delivered into main ports in south China.</td></tr>
<tr><td>Quality Specifications</td><td>CFR China spot fuel oil prices are for cargoes of which quality is equivalent to the following specifications.

<table><tr><td>Sulfur Content</td><td>Max 3.5%</td></tr><tr><td>Flash Point</td><td>Min 66 degree C</td></tr><tr><td>Pour Point</td><td>Max 24 degree C</td></tr><tr><td>Carbon Residue</td><td>Max 16%</td></tr><tr><td>Water Content</td><td>Max 0.5%</td></tr><tr><td>Ash Content</td><td>Max 0.1%</td></tr></table>*Specifications for other properties are to meet specifications that are commonly required in international trading.</td></tr>
</table>

RIM Japan Domestic Oil Products Price Assessment Methodology

Price Assessment Principle

RIM price assessments indicate the current range in which a standard spot transaction could take place on the day of publication.

RIM understands values of commodities change even in the absence of deals. RIM defines prices as measures to indicate fluctuating values of commodities.

RIM understands values of commodities are determined by a variety of factors such as supply-demand fundamentals, production costs, conditions in other markets and players' speculation.

RIM understands the latest transactions, bids/offers and buying/selling interest represent current values of commodities.

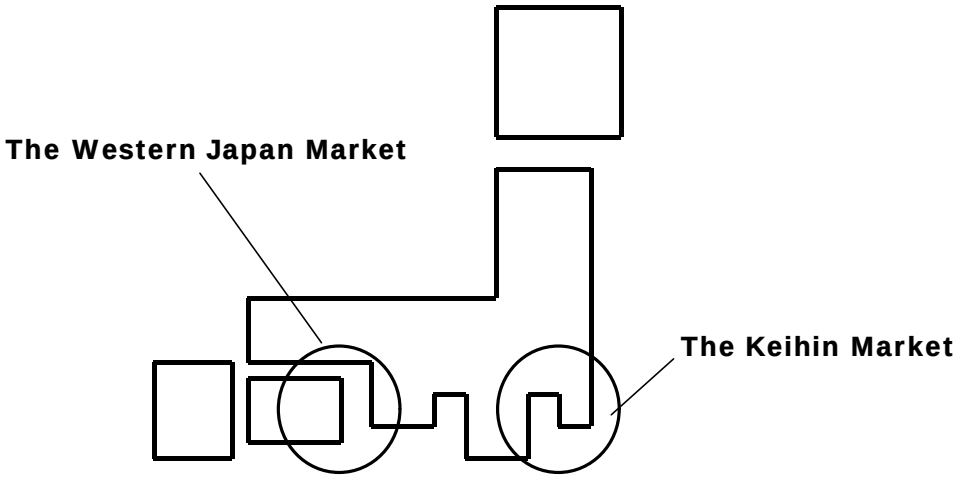
RIM understands values of commodities are determined by competition among sellers and competition among buyers. RIM considers higher bids to be closer to the current values than lower bids. RIM considers lower offers to be the closer to current values than higher offers.

RIM understands prices for each transaction reported from any party are to be translated into prices based on standard terms and conditions such as cargo sizes, timing of delivery or loading, product specifications and payment terms.

CONTENTS

Japan Domestic Waterborne Market Price Assessments

RIM assesses wholesale prices for physical cargoes that are transported with coastal tankers in two locations: the Keihin market and the Western Japan market. RIM assesses spot prices for gasoline, kerosene, gasoil, A-fuel oil, low-sulfur A-fuel oil, C-fuel oil and low-sulfur C-fuel oil. All prices are assessed based on information collected in the course of market research by RIM reporters each business day.

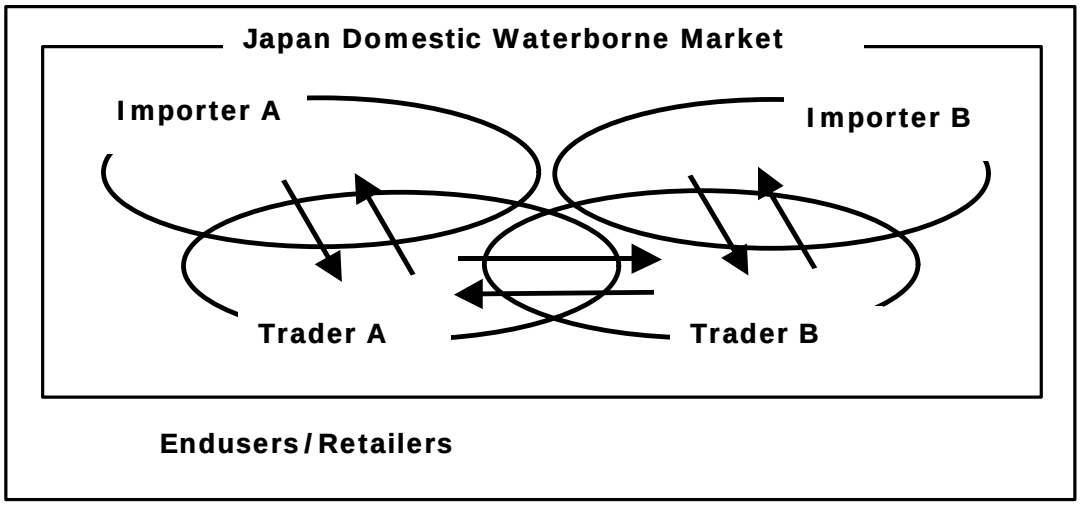


KEIHIN MARKET
The Keihin market, as defined by RIM, includes Metropolitan Tokyo, Kanagawa Prefecture, Chiba Prefecture and Ibaraki Prefecture. All prices are for cargoes to be loaded at refineries, primary storage facilities and secondary storage facilities located in the above-mentioned prefectures.

WESTERN JAPAN MARKET
The Western Japan market, as defined by RIM, includes Wakayama Prefecture, Hyogo Prefecture, Osaka Prefecture, Okayama Prefecture, Kagawa Prefecture and Ehime Prefecture. All prices are for cargoes to be loaded at refineries, primary storage facilities and secondary storage facilities located in the above-mentioned prefectures.

[Note]
All RIM Japan domestic waterborne market prices are cargoes to be traded on an ex-pipe basis (The same as ex-refinery, ex-tank storage). Prices in deals, bids and offers on a delivered basis are to be translated into estimated values that the prices could be if the deals, bids and offers were on an ex-pipe basis. Prices for cargoes to be loaded at ports that are excluded from RIM's definition of the Keihin and Western Japan markets are taken into account as an indicator to show condition of supply and demand throughout Japan.

STRUCTURE of the JAPAN DOMESTIC WATERBORNE MARKET



RIM understands that the Japan domestic waterborne market is structured with two groups of business parties: Importers and Traders. RIM assesses Japan domestic wholesale waterborne market prices at which a standard spot transaction could take place.

RIM defines a standard Japan domestic waterborne market spot transaction as follows:

Case 1	An refiner sells a cargo to a trader on a spot basis.
Case 2	A trader sells a cargo to another trader on a spot basis.
Case 3	A trader sells a cargo to a refiner on a spot basis.

RIM defines the two business parties in the Japan domestic waterborne market as follows:

Importer	A company that imports a cargo and resells into the domestic wholesale markets.
Trader	A company that sells a cargo on behalf of an importer and buys a waterborne cargo on behalf of an enduser/retailer.

Reference:

Enduser	A company that buys a cargo to consume in its business operation.
Retailer	A company that buys a cargo and resells into consumers in the household and other sectors.

EVALUATION of FLOATING PRICE

RIM takes floating prices of transactions, bids/offers and buying/selling interest into account for its daily price assessment based on the understanding of floating prices as indicated below.

[Understanding of floating prices]
In the Japan domestic oil products market, cargoes are typically traded at a floating price based on the monthly average of RIM's daily price assessment (RIM monthly average), unless traded on a fixed price basis.

<Monthly Average of RIM Price Assessment>
In principle, RIM estimates the monthly average based on the assumption that prices for each day in remainder of the month would be on par with the latest price assessment (previous day's published price).

(Example)
Today : Apr 16

Date	Price	Date	Price	Date	Price
Apr 1	25,000	Apr 11	25,100	Apr 21	25,200
Apr 2	25,100	Apr 12	25,200	Apr 22	25,200
Apr 3	25,100	Apr 13	25,300	Apr 23	25,200
Apr 4	25,300	Apr 14	25,300	Apr 24	25,200
Apr 5	25,200	Apr 15	25,200	Apr 25	25,200
Apr 6	25,200	Apr 16	25,200	Apr 26	25,200
Apr 7	25,100	Apr 17	25,200	Apr 27	25,200
Apr 8	25,100	Apr 18	25,200	Apr 28	25,200
Apr 9	25,000	Apr 19	25,200	Apr 29	25,200
Apr 10	25,100	Apr 20	25,200	Apr 30	25,200

Price unit: Yen/kl

On Apr 16, prices for each remaining day of the month (Apr 16-Apr 30) are assumed to be Yen 25,200/kl, on par with the price assessment of Apr 15. The monthly average for April is estimated based on the actual assessment for the days assessed (Apr 1-15) and the assumed prices for the remaining days of the month (Apr 16-30).

In the event that paper swaps for RIM monthly average are actively traded on JOX (J-Oil Exchange) , RIM incorporates those active trades in the RIM monthly average estimate.

<Premiums and Discounts>

RIM understands that day-on-day changes in premiums and discounts to RIM monthly average in transactions, bids/offers and buying/selling interest equate to day-on-day changes in fixed prices.

(Example)

Date	Floating Price	Change	Fixed Price
Apr 1	RIM + Yen 500/kl		Yen 80,000/kl
Apr 2	RIM + Yen 400/kl	- Yen 100/kl	(Yen 80,000/kl – Yen 100/kl) = Yen 79,900/kl
Apr 3	RIM + Yen 500/kl	+ Yen 100/kl	(Yen 79,900/kl + Yen 100/kl) = Yen 80,000/kl

EVALUATION of FORWARD TRADE PRICES

RIM takes values of forward trading (Japan Oil Forwards) on JOX into account of daily price assessments based on the understanding of Tokyo Oil Forward as indicated below.

[Understanding of Forward Trade]
Forward trade of oil products, also know as Japan Oil Forwards (JOF), on JOX (J-Oil Exchange) is based on loading in the Keihin and Western Japan markets.

Currently, the following oil products are listed for JOF on JOX: gasoline, kerosene, A-fuel oil (not low-sulfur grade), high-sulfur C-fuel, low-sulfur C-fuel.

RIM considers that deal prices, bids and offers for JOF indicate values of physical cargoes. During the period from the 11th to the 25th of a month, RIM takes values of the front month JOF into account for daily price assessment of physical cargoes. During the period from the 26th of a month to the 10th of the next month, RIM takes values of the second month JOF into account for daily price assessment of physical cargoes.

[Assessment Window]
RIM takes deal prices concluded by 5:30:00 PM (Tokyo time) for the front month JOF on JOX based on bids and deals cast by 4:29:59 PM on the same day. RIM takes bids and offers for the front month JOF cast on JOX by 4:29:59 PM into account of daily price assessment of each publication day.

<Gasoline>

Assessment Window	RIM's assessment window for Japan domestic spot waterborne gasoline prices opens at 10:00 AM and closes at 7:00 PM Tokyo time.
Price Unit	Japan domestic spot waterborne gasoline prices are in Yen/kiloliter on an ex-pipe basis. The indicated prices in the RIM Products Report and other RIM media include the gasoline tax of Yen 53,800/kiloliter.
Time Window	Japan domestic spot waterborne gasoline prices in the publications released during the period from the first day to the 25th of a month are for cargoes to be loaded in the current month. In the publication released during the period from the 26th to the last day of a month, the prices are for the cargoes to be loaded in the next month.
Standard Size	Japan domestic spot waterborne gasoline prices are for cargoes larger than 200 kiloliters, which RIM considers standard. Prices for smaller cargoes are to be translated into estimated values that the prices could be if the cargoes were the standard volume.
Quality Specifications	Japan domestic spot waterborne gasoline prices are for cargoes of which quality is equivalent to the Japan Industrial Standard (JIS) K-2202 specification (research octane number greater than 89 and MTBE less than 7%). The research octane number for gasoline that RIM assesses is greater than 90 and MTBE content of nil, levels that are widely accepted in Japan's oil industry as the standard.

<Kerosene>

Assessment Window	RIM's assessment window for Japan domestic spot waterborne kerosene prices opens at 10:00 AM and closes at 7:00 PM Tokyo time.
Price Unit	Japan domestic spot waterborne kerosene prices are in Yen/kiloliter on an ex-pipe basis.
Time Window	Japan domestic spot waterborne kerosene prices in the publications released during the period from the first day to the 25th of a month are for cargoes to be loaded in the current month. In the publication released during the period from the 26th to the last day of a month, the prices are for the cargoes to be loaded in the next month.
Standard Size	Japan domestic spot waterborne kerosene prices are for cargoes larger than 200 kiloliters, which RIM considers standard. Prices for smaller cargoes are to be translated into estimated values that the prices could be if the cargoes were the standard volume.
Quality Specifications	Japan domestic spot waterborne kerosene prices are for cargoes of which quality is equivalent to the Japan Industrial Standard (JIS) K-2203 specification (Saybolt color scale greater than 25). The Saybolt color scale kerosene that RIM assesses is greater than 30, a level that is widely accepted in Japan's oil industry as the standard.

<Gasoil>

Assessment Window	RIM's assessment window for Japan domestic spot waterborne gasoil prices opens at 10:00 AM and closes at 7:00 PM Tokyo time.
Price Unit	Japan domestic spot waterborne gasoil prices are in Yen/kiloliter on an ex-pipe basis. The indicated prices in the RIM Products Report and other RIM media exclude the gasoil delivery tax of Yen 32,100/kiloliter.
Time Window	Japan domestic spot waterborne gasoil prices in the publications released during the period from the first day to the 25th of a month are for cargoes to be loaded in the current month. In the publication released during the period from the 26th to the last day of a month, the prices are for the cargoes to be loaded in the next month.
Standard Size	Japan domestic spot waterborne gasoil prices are for cargoes larger than 200 kiloliters, which RIM considers standard. Prices for smaller cargoes are to be translated into estimated values that the prices could be if the cargoes were the standard volume.
Quality Specifications	Japan domestic spot waterborne gasoil prices are for cargoes of which quality is equivalent to the Japan Industrial Standard (JIS) K-2204 specification for No1 and No2 grades. The No1 special, No3 and No3 special grades are considered to be traded at discounts and/or premiums to the standard quality.

<A-Fuel Oil>

RIM assesses Japan domestic spot waterborne A-fuel prices for two grades categorized by sulfur content: AFO-1.0%S (with a sulfur content less than 1.0%) and AFO-0.1%S (with a sulfur content less than 0.1%). A-fuel oil cargoes that are traded as bunker fuel for coastal vessels are considered to be a different commodity from spot waterborne A-fuel oil.

Assessment Window	RIM's assessment window for Japan domestic spot waterborne A-fuel oil prices opens at 10:00 AM and closes at 7:00 PM Tokyo time.
Price Unit	Japan domestic spot waterborne A-fuel oil prices are in Yen/kiloliter on an ex-pipe basis.
Time Window	Japan domestic spot waterborne A-fuel oil prices in the publications released during the period from the first day to the 25th of a month are for cargoes to be loaded in the current month. In the publication released during the period from the 26th to the last day of a month, the prices are for the cargoes to be loaded in the next month.
Standard Size	Japan domestic spot waterborne A-fuel oil prices are for cargoes larger than 200 kiloliters, which RIM considers standard. Prices for smaller cargoes are to be translated into estimated values that the prices could be if the cargoes were the standard volume.
Quality Specifications	Japan domestic spot waterborne A-fuel oil prices are for cargoes of which quality is equivalent to the Japan Industrial Standard (JIS) K-2205 specification for category 1 (less than 2.0% for A-fuel oil No2 grade and less than 0.5% for low-sulfur A-fuel No1 grade). The sulfur level for A-fuel that RIM assesses is less than 1.0% for A-fuel oil and less than 0.1% for low-sulfur A-fuel oil, levels that are widely accepted in Japan's oil industry as the standard. RIM considers the so-called "white-A" grade of A-fuel to be a different grade from A-fuel oils assessed by RIM.

<C-Fuel Oil>

RIM assesses Japan domestic spot waterborne C-fuel oil prices for two grades categorized by extent of sulfur content: LSCFO-0.3%S (with a sulfur content in the range of 0.2-0.4%) and HSCFO-3.0% (with a sulfur content of 2.5-3.0%). C-fuel oil cargoes that are traded as bunker fuel for coastal vessels are considered to be a different commodity from spot waterborne C-fuel oil.

Assessment Window	RIM's assessment window for Japan domestic spot waterborne C-fuel oil prices opens at 10:00 AM and closes at 7:00 PM Tokyo time.
Price Unit	Japan domestic spot waterborne C-fuel oil prices are in Yen/Kiloliter on an ex-pipe basis.
Time Window	Japan domestic spot waterborne C-fuel oil prices in the publications released during the period from the first day to the 25th of a month are for cargoes to be loaded in the current month. In the publication released during the period from the 26th to the last day of a month, the prices are for the cargoes to be loaded in the next month.
Standard Size	Japan domestic spot waterborne C-fuel oil prices are for cargoes larger than 1,000 kiloliters, which RIM considers standard. Prices for smaller cargoes are to be translated into estimated values that the prices could be if the cargoes were the standard volume.
Quality Specifications	Japan domestic spot waterborne C-fuel oil prices are for cargoes of which quality is equivalent to the Japan Industrial Standard (JIS) K-2205 specification for category 3. No1 grade (with Kinematic Viscosity at 50 degree Celsius of 250mm2/s) of the category 3 (C-fuel) of the JIS K2205 standard (JIS:Japanese Industrial Standard). The sulfur level for C-fuel that RIM assesses is in the range of 2.5-3.0% for HSCFO and 0.2-0.4% for LSCFO, levels that are widely accepted in Japan's oil industry as the standard.

Japan Products Paper Swaps Assessment Methodology

Price Assessment Principle

RIM price assessments indicate the current range in which a standard spot transaction could take place on the day of publication.

RIM understands values of commodities change even in the absence of deals. RIM defines prices as measures to indicate fluctuating values of commodities.

RIM understands values of commodities are determined by a variety of factors such as supply-demand fundamentals, production costs, conditions in other markets and players' speculation.

RIM understands the latest transactions, bids/offers and buying/selling interest represent current values of commodities.

RIM understands values of commodities are determined by competition among sellers and competition among buyers. RIM considers higher bids to be closer to the current values than lower bids. RIM considers lower offers to be the closer to current values than higher offers.

RIM understands prices for each transaction reported from any party are to be translated into prices based on standard terms and conditions such as cargo sizes, timing of delivery or loading, product specifications and payment terms.

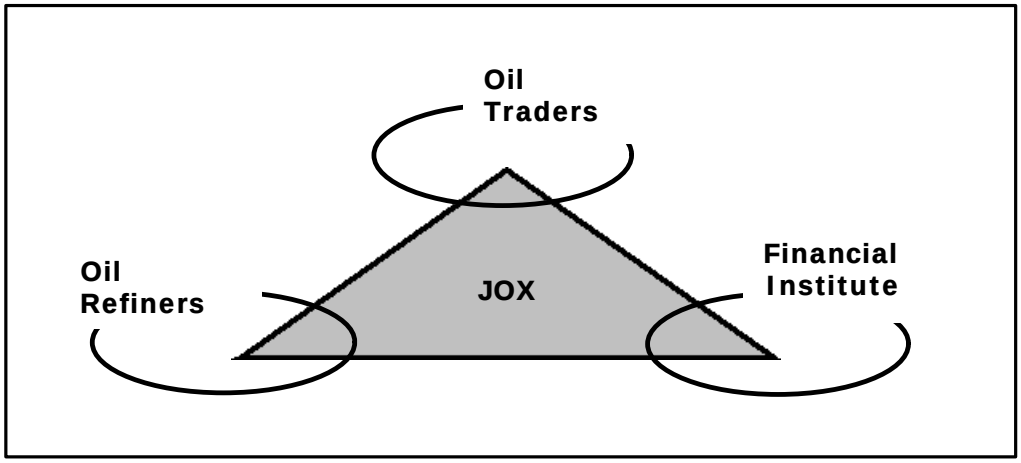
CONTENTS

Japan Products Paper Swaps

JAPAN PRODUCTS PAPER SWAPS VALUES

RIM assesses values of Japan products paper swaps for gasoline, kerosene, gasoil, A-fuel oil, low-sulfur C-fuel oil and high-sulfur C-fuel oil. All values are for swaps contracts, which are listed by J Oil Exchange through its on-line market service, for monthly average settlements based on daily price quotations for physical cargo assessments by RIM. All prices are assessed based on information collected in the course of market research by RIM reporters each business day.

STRUCTURE of the JAPAN PRODUCTS PAPER SWAPS MARKETS



RIM understands that the Japan products paper swaps market is structured with three groups of business parties: Financial Institutes, Oil Traders and Oil Refiners. RIM assesses values of Japan products paper swaps at which a standard transaction could take place on J-Oil Exchange. Trades takes place as buying interest and selling interest match with each other.

RIM defines the three Japan Products Paper Swaps market business parties as follows:

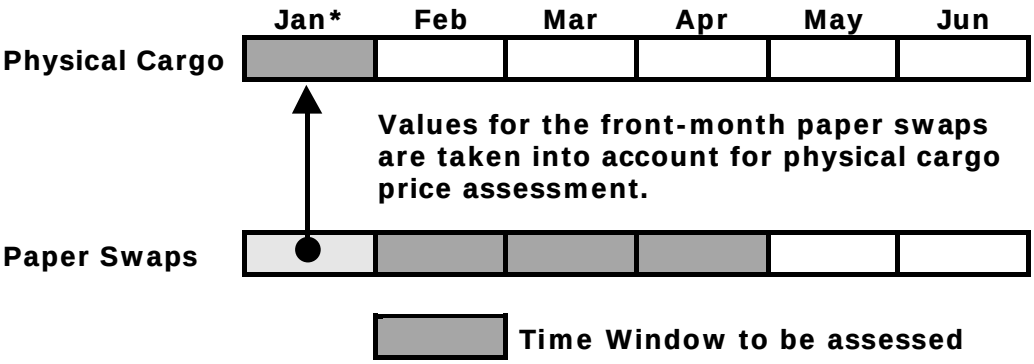
Oil Trader	A company that trades physical oil products as its main trading item and the Japan products paper swaps as a hedging tool against risks associated with its trading of physical oil products.
Oil Refiner	A company that produces and sells oil products as its main business operation and trades the Japan products paper swaps as a hedging tool against risks associated with its production and sales of physical oil products. Oil refiners also buy oil products to cover occasional shortfalls and trade the Japan products paper swaps to hedge against risks associated with purchases of physical oil products.
Financial Institute	A company that trades the Japan products paper swaps as one of its trading items.

Settlement Months to be Assessed

RIM assesses values for the second, third and fourth settlement months in the publication released during the period from the first day to the 20th of a month. In the publication released during the period from the 21st to the last day of a month, RIM assesses values for the third, fourth and fifth settlement months.

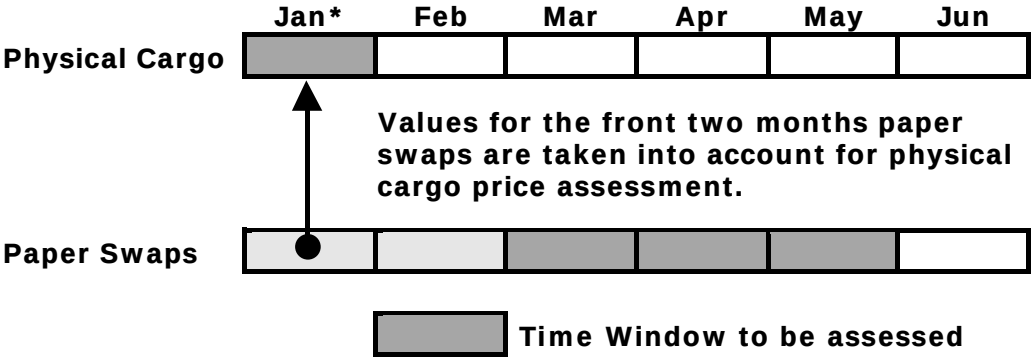
Instead of assessing and publishing values for the front month of Japan products paper swaps, RIM takes values of the settlement month into account for its assessment of the "JAPAN SPOT DOMESTIC SPOT MARKET (physical cargo price assessment)." For the fifth and sixth settlement months, RIM does not assess and nor does it publish the values due to limited trading volume for the periods.

Time Window
Example: Jan 1-20



*For Assessment Window for physical cargo assessment, see Japan Domestic Oil Products Price Assessment Methodology.

Example: Jan 21-31

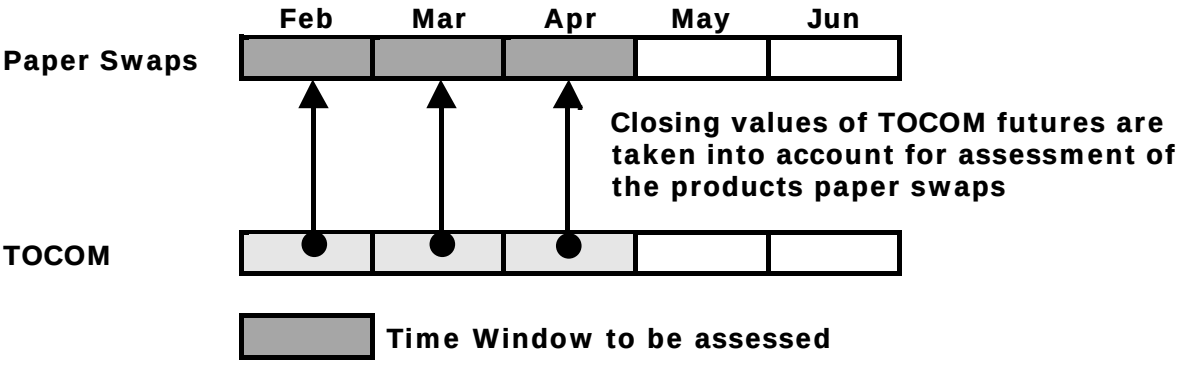


Futures contract prices for Gasoline and Kerosene

RIM takes values of the futures contracts on Tokyo Commodity Exchange (TOCOM) into assessments of Japan products paper swaps for gasoline and kerosene. The values are based on the understanding that participants in the paper swaps trading on JOX tend to participate in the futures contracts trading on TOCOM for the similar business interest; to hedge against risks associated with buying and selling physical positions. RIM considers that paper swaps assessments can reflect what the values are to be more accurately by taking values of TOCOM future contracts into account, as liquidity in the JOX paper swaps trading often falls thin.

RIM's assessment for the products paper swaps for gasoline and kerosene are a 70:30 weighted average of the mean of the keenest bids and offers for the products paper swaps and the closing price of TOCOM futures contracts.

Assessment for Gasoline and Kerosene Paper swaps



Assessment Window	RIM's assessment window for Japan products paper swaps values is between 4:30 PM to 5:30 PM Tokyo time.
Price Unit	Values for all products are in Yen/kl on an ex-pipe Tokyo Bay basis (FOB Tokyo).
Time Window	In the publication released during the period from the first day to the 20th of a month, RIM assesses values of Japan products paper swaps for the second, third and fourth settlement months that are listed on J-Oil Exchange. In the publication released during the period from the 21st to the last day of a month, RIM assesses values for the third, fourth and fifth settlement months that are listed on J-Oil Exchange.
Standard Size	Values of Japan products paper swaps are for a contract for 1,000kl, the standard lot regulated by J-Oil Exchange.