

SUBMISSION COVER SHEET

IMPORTANT: Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 18-072 (5 of 11)

Organization: New York Mercantile Exchange, Inc. ("NYMEX")

Filing as a: DCM SEF DCO SDR

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 03/23/18 Filing Description: Initial Listing of Eleven (11) Freight Route (Baltic) Balance-of-Month Futures Contracts

SPECIFY FILING TYPE

Please note only ONE choice allowed per Submission.

Organization Rules and Rule Amendments

- Certification § 40.6(a)
- Approval § 40.5(a)
- Notification § 40.6(d)
- Advance Notice of SIDCO Rule Change § 40.10(a)
- SIDCO Emergency Rule Change § 40.10(h)

Rule Numbers:

New Product

Please note only ONE product per Submission.

- Certification § 40.2(a)
- Certification Security Futures § 41.23(a)
- Certification Swap Class § 40.2(d)
- Approval § 40.3(a)
- Approval Security Futures § 41.23(b)
- Novel Derivative Product Notification § 40.12(a)
- Swap Submission § 39.5

Official Product Name: See filing.

Product Terms and Conditions (product related Rules and Rule Amendments)

- Certification § 40.6(a)
- Certification Made Available to Trade Determination § 40.6(a)
- Certification Security Futures § 41.24(a)
- Delisting (No Open Interest) § 40.6(a)
- Approval § 40.5(a)
- Approval Made Available to Trade Determination § 40.5(a)
- Approval Security Futures § 41.24(c)
- Approval Amendments to enumerated agricultural products § 40.4(a), § 40.5(a)
- "Non-Material Agricultural Rule Change" § 40.4(b)(5)
- Notification § 40.6(d)

Official Name(s) of Product(s) Affected:

Rule Numbers:

March 23, 2018

VIA ELECTRONIC PORTAL

Mr. Christopher J. Kirkpatrick
Office of the Secretariat
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, D.C. 20581

Re: CFTC Regulation 40.2(a) Certification. Notification Regarding the Initial Listing of Eleven (11) Freight Route (Baltic) Balance-of-Month Futures Contracts. NYMEX Submission No. 18-072 (5 of 11)

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is notifying the Commodity Futures Trading Commission (“CFTC” or “Commission”) that it is self-certifying the initial listing of eleven (11) Freight Route (Baltic) Balance-of-Month (“BALMO”) futures contracts (the “Contracts”) for trading on the CME Globex electronic trading platform and for submission for clearing via CME ClearPort, effective on Sunday, April 8, 2018 for trade date Monday, April 9, 2018, as set forth below.

Contract Title	Rulebook Chapter	Commodity Code
Freight Route Liquid Petroleum Gas BALMO Futures	877	FLB
Freight Route TC2 (Baltic) BALMO Futures	878	TMB
Freight Route TC6 (Baltic) BALMO Futures	880	T6B
Freight Route TC9 (Baltic) BALMO Futures	881	T9B
Freight Route TC12 (Baltic) BALMO Futures	882	TB2
Freight Route TC14 (Baltic) BALMO Futures	883	T4B
Freight Route TC15 (Baltic) BALMO Futures	884	T5B
Freight Route TD3C (Baltic) BALMO Futures	885	TLB
Freight Route TD7 (Baltic) BALMO Futures	886	TKB
Freight Route TD8 (Baltic) BALMO Futures	887	T8B
Freight Route TD20 (Baltic) BALMO Futures	888	T2B

Please note that in NYMEX Submission No. 18-132 dated March 23, 2018, the Exchange is also self-certifying amendments to the spot month position limits for four (4) existing freight route (Baltic) futures and option contracts, effective concurrent with this submission on trade date Monday, April 9, 2018 and

commencing with the April 2018 contract month and beyond. Three (3) newly-listed BALMO contracts noted below shall aggregate into the existing futures contracts (the Parent Contract), as also noted below. (The position limits for the related option contract, the Freight Route TC2 (Baltic) Average Price Option contract (Code: TCW, Rulebook Chapter 947) shall also aggregate into the Freight Route TC2 (Baltic) futures contract.)

Contract Title	Rulebook Chapter	Clearing Code	Parent Contract Title	Parent Contract Commodity Code
Freight Route TC2 (Baltic) BALMO Futures	878	TMB	Freight Route TC2 (Baltic) Futures	TM
Freight Route TC6 (Baltic) BALMO Futures	880	T6B	Freight Route TC6 (Baltic) Futures	TC6
Freight Route TC12 (Baltic) BALMO Futures	882	TB2	Freight Route TC12 (Baltic) Futures	FRS

The position limits of the Contracts shall aggregate into the existing respective Freight Route (Baltic) Futures contracts, and are set forth in the table below.

Contract Title	Rulebook Chapter	Clearing Code	Spot Month Limit	Parent Contract Title	Parent Contract Commodity Code
Freight Route Liquid Petroleum Gas (Baltic) BALMO Futures	877	FLB	300	Freight Route Liquid Petroleum Gas (Baltic) Futures	FLP
Freight Route TC2 (Baltic) BALMO Futures	878	TMB	450	Freight Route TC2 (Baltic) Futures	TM
Freight Route TC6 (Baltic) BALMO Futures	880	T6B	150	Freight Route TC6 (Baltic) Futures	TC6
Freight Route TC9 (Baltic) BALMO Futures	881	T9B	1,000	Freight Route TC9 (Baltic) Futures	TC9
Freight Route TC12 (Baltic) BALMO Futures	882	TB2	200	Freight Route TC12 (Baltic) Futures	FRS
Freight Route TC14 (Baltic) BALMO Futures	883	T4B	200	Freight Route TC14 (Baltic) Futures	FRC
Freight Route TC15 (Baltic) BALMO Futures	884	T5B	150	Freight Route TC15 (Baltic) Futures	T5C
Freight Route TD3C (Baltic) BALMO Futures	885	TLB	2,500	Freight Route TD3C (Baltic) Futures	TL
Freight Route TD7 (Baltic) BALMO Futures	886	TKB	1,000	Freight Route TD7 (Baltic) Futures	TK

Freight Route TD8 (Baltic) BALMO Futures	887	T8B	500	Freight Route TD8 (Baltic) Futures	TD8
Freight Route TD20 (Baltic) BALMO Futures	888	T2B	800	Freight Route TD20 (Baltic) Futures	T2D

TRADING AND CLEARING HOURS

CME Globex and CME ClearPort	Sunday - Friday 6:00 p.m. - 5:00 p.m. Eastern Time/ET (5:00 p.m. - 4:00 p.m. Central Time/CT) with a 60-minute break each day beginning at 5:00 p.m. ET (4:00 p.m. CT)
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Exchange Fees	Member	Non-Member	International Incentive Programs (IIP/IVIP)
CME Globex	\$2.60	\$3.25	\$2.90
EFP	\$2.60	\$3.25	
Block	\$2.60	\$3.25	
EFR/EOO	\$2.60	\$3.25	

Processing Fees	Member	Non-Member
Cash Settlement	\$0.50	\$0.50
Other Fees		
Facilitation Fee		\$0.60
Give-Up Surcharge		\$0.05
Position Adjustment/Transfer		\$0.10

The Contracts are look-alike contracts to eleven existing futures contracts, with a variation only in the final settlement calculation methodology, and consequently, the Exchange will aggregate the spot month position limits of these new contracts with the existing contracts.

In the existing futures contracts, the final settlement price is based on a simple average of the daily assessments during the contract month. In the new look-alike contracts, the final settlement price is based on the average of the balance-of-month daily assessments during the contract month.

The Exchange is also notifying the CFTC that it is self-certifying the insertion of the terms and conditions for the Contracts into the Position Limit, Position Accountability and Reportable Level Table and Header Notes located in the Interpretations and Special Notices Section of Chapter 5 of the NYMEX Rulebook in relation to the listing of the new contracts. These terms and conditions establish the all month/any one month accountability levels, expiration month position limit, reportable level, and aggregation allocation for the new contracts. Please see Appendix B, attached under separate cover. Appendix B also provides the amendments to NYMEX Submission No. 18-132 dated March 23, 2018 as detailed above.

NYMEX is also notifying the CFTC that it is self-certifying block trading on the Contracts with a minimum block threshold level of five (5) contracts for each of the BALMO contracts. These block levels align with the Exchange's existing wet freight route futures contracts (Commodity Codes: FLP, TM, TC6, TC9, FRS, FRC, T5C, TL, TK, TD8, T2D and TH).

The Exchange reviewed the designated contract market core principles ("Core Principles") as set forth in the Commodity Exchange Act ("CEA") and staff identified that the Contract may have some bearing on the following Core Principles:

- **Compliance with Rules:** Trading in the Contracts will be subject to all NYMEX Rules, including prohibitions against fraudulent, noncompetitive, unfair and abusive practices as outlined in NYMEX Rule Chapter 4, the Exchange's trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the NYMEX Rulebook, and the dispute resolution and arbitration procedures of NYMEX Rule Chapter 6. As with all products listed for trading on one of CME Group's designated contract markets, trading activity in the Contracts will be subject to monitoring and surveillance by CME Group's Market Regulation Department. The Market Regulation Department has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.
- **Contracts Not Readily Subject to Manipulation:** The Contracts are not readily subject to manipulation as a result of the deep liquidity and robustness of the underlying cash and futures market and the settlement index. Pursuant to the Exchange's obligations under this core principle, the final settlement indices are published by Net Energy and sub-licensed to the Exchange.
- **Prevention of Market Disruption:** Trading in the Contracts will be subject to the Rules of the Exchange, which include prohibitions on manipulation, price distortion, and disruption to the cash settlement process. As with any new product listed for trading on a CME Group designated contract market, trading activity in the futures contracts proposed herein will be subject to monitoring and surveillance by CME Group's Market Regulation Department.
- **Position Limitations or Accountability:** The speculative position limits for the Contracts as demonstrated in this submission are consistent with the Commission's guidance.
- **Availability of General Information:** The Exchange will publish on its website information in regard to contract specifications, terms, and conditions, as well as daily trading volume, open interest, and price information for the Contracts.
- **Daily Publication of Trading Information:** The Exchange will publish contract trading volumes, open interest levels, and price information daily on its website and through quote vendors for the Contracts.
- **Execution of Transactions:** The Contracts will be listed for trading on the CME Globex electronic trading platform and New York Trading Floor, and for clearing through the CME ClearPort platform. The CME Globex trading venue provides for competitive and open execution of transactions. CME Globex affords the benefits of reliability and global connectivity. The CME ClearPort platform provides a competitive, open and efficient mechanism for novating transactions that are competitively executed by brokers.
- **Trade Information:** All requisite trade information for the Contracts will be included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.

- **Financial Integrity of Contracts**: The Contracts will be cleared by the CME Clearing House, a derivatives clearing organization registered with the Commodity Futures Trading Commission and subject to all CFTC regulations related thereto.
- **Protection of Market Participants**: NYMEX Rulebook Chapters 4 and 5 set forth multiple prohibitions that preclude intermediaries from disadvantaging their customers. These rules apply to trading in all of the Exchange's competitive trading venues.
- **Disciplinary Procedures**: Chapter 4 of the Rulebook contains provisions that allow the Exchange to discipline, suspend or expel members or market participants that violate the Rulebook. Trading in these contracts will be subject to Chapter 4, and the Market Regulation Department has the authority to exercise its enforcement power in the event rule violations in these products are identified.
- **Dispute Resolution**: Disputes with respect to trading in the Contracts will be subject to the arbitration provisions set forth in Chapter 6 of the Rulebook. Chapter 6 allows all nonmembers to submit a claim for financial losses resulting from transactions on the Exchange to arbitration. A member named as a respondent in a claim submitted by a nonmember is required to participate in the arbitration pursuant to Chapter 6. Additionally, the Exchange requires that members resolve all disputes concerning transactions on the Exchange via arbitration.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.2(a), the Exchange hereby certifies that the listing of the Contracts complies with the Act, including regulations under the Act. There were no substantive opposing views to the listing of the Contracts.

The Exchange certifies that this submission has been concurrently posted on the CME Group website at <http://www.cmegroup.com/market-regulation/rule-filings.html>.

Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or via e-mail at CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/ Christopher Bowen
 Managing Director and Chief Regulatory Counsel

Attachments: Appendix A: NYMEX Rulebook Chapters
 Appendix B: Position Limit, Position Accountability, and Reportable Level Table in Chapter 5 of the NYMEX Rulebook (attached under separate cover)
 Appendix C: NYMEX Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”) Table
 Appendix D: Cash Market Overview and Analysis of Deliverable Supply

APPENDIX A

NYMEX Rulebook

Chapter 877 Freight Route Liquid Petroleum Gas (Baltic) BALMO Futures

877100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

877101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance-of-month arithmetic average of the BLPG price assessment (for 44,000 metric tons for Ras Tanura to China) published by the Baltic Exchange that is published during the contract settlement period, as stated in paragraph 877102.E of these rules, starting from the selected start date through the end of the contract month.

If for any reason the Baltic Exchange cannot provide any rate required for establishing the Floating Price, then the Forward Freight Agreement Brokers Association (FFABA) may be instructed by either party to form a panel to establish any rate which will be binding on both parties.

877102. TRADING SPECIFICATIONS

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

877102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

877102.B. Trading Unit

The contract quantity shall be 1,000 metric tons. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

877102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per metric ton. The minimum price fluctuation shall be \$0.001 per metric ton.

877102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

877102.E. Settlement Period

For contract months referenced to a calendar month January to November inclusive, the Settlement Period shall be the full calendar month. For contract months referenced to the December calendar month, the Settlement Period shall be the period from and including the 1st calendar day of the month through to and including the 24th calendar day of the month.

877102.F. Termination of Trading

The contract shall terminate at the close of trading on the last business day of the contract month.

877103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

877104. DISCLAIMER

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The Baltic Exchange licenses the New York Mercantile Exchange, Inc. ("NYMEX") to use various Baltic Exchange price assessments in connection with the trading or posting of the contracts. Baltic Exchange does not sponsor, endorse, sell or promote the contract and makes no recommendations concerning the advisability of investing in the contract.

Chapter 878 Freight Route TC2 (Baltic) BALMO Futures

878100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

878101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance-of-month arithmetic average of the rates for each business day that the TC2 Tanker Route (for 37,000 metric tons for Continent Europe to USAC) is published by the Baltic Exchange over the contract month, as described in paragraph 878102.E of these rules, starting from the selected start date through the end of the contract month.

If for any reason the Baltic Exchange cannot provide any rate required for establishing the Floating Price, then the Forward Freight Agreement Brokers Association (FFABA) may be instructed by either party to form a panel to establish any rate which will be binding on both parties.

878102. TRADING SPECIFICATIONS

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

878102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

878102.B. Trading Unit

The contract quantity shall be 1,000 metric tons. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

878102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per metric ton. The minimum price fluctuation shall be \$0.0001 per metric ton.

878102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

878102.E. Settlement Period

For contract months referenced to a calendar month January to November inclusive, the Settlement Period shall be the full calendar month. For contract months referenced to the December calendar month, the Settlement Period shall be the period from and including the 1st calendar day of the month through to and including the 24th calendar day of the month.

878102.F. Termination of Trading

The contract shall terminate at the close of trading on the last business day of the contract month.

878103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

878104. DISCLAIMER

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The Baltic Exchange licenses the New York Mercantile Exchange, Inc. ("NYMEX") to use various Baltic Exchange price assessments in connection with the trading or posting of the contracts. Baltic Exchange does not sponsor, endorse, sell or promote the contract and makes no recommendations concerning the advisability of investing in the contract.

Chapter 880 Freight Route TC6 (Baltic) BALMO Futures

880100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

880101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance-of-month arithmetic average of the rates for each business day that the TC6 Tanker Route (for 30,000 metric tons for Algeria to Euromed) is published by the Baltic Exchange over the contract month, as described in paragraph 880102.E of these rules, starting from the selected start date through the end of the contract month.

If for any reason the Baltic Exchange cannot provide any rate required for establishing the Floating Price, then the Forward Freight Agreement Brokers Association (FFABA) may be instructed by either party to form a panel to establish any rate which will be binding on both parties.

880102. TRADING SPECIFICATIONS

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

880102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

880102.B. Trading Unit

The contract quantity shall be 1,000 metric tons. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

880102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per metric ton. The minimum price fluctuation shall be \$0.0001 per metric ton.

880102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

880102.E. Settlement Period

For contract months referenced to a calendar month January to November inclusive, the Settlement Period shall be the full calendar month. For contract months referenced to the December calendar month, the Settlement Period shall be the period from and including the 1st calendar day of the month through to and including the 24th calendar day of the month.

880102.F. Termination of Trading

The contract shall terminate at the close of trading on the last business day of the contract month.

880103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

880104. DISCLAIMER

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The Baltic Exchange licenses the New York Mercantile Exchange, Inc. ("NYMEX") to use various Baltic Exchange price assessments in connection with the trading or posting of the contracts. Baltic Exchange does not sponsor, endorse, sell or promote the contract and makes no recommendations concerning the advisability of investing in the contract.

Chapter 881 Freight Route TC9 (Baltic) BALMO Futures

881100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

881101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance-of-month arithmetic average of the rates for each business day that the TC9 Tanker Route (for 30,000 metric tons for Baltic to UK-Continent (Primorsk to Le Havre)) is published by the Baltic Exchange over the contract month, as described in paragraph 881102.E of these rules, starting from the selected start date through the end of the contract month.

If for any reason the Baltic Exchange cannot provide any rate required for establishing the Floating Price, then the Forward Freight Agreement Brokers Association (FFABA) may be instructed by either party to form a panel to establish any rate which will be binding on both parties.

881102. TRADING SPECIFICATIONS

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

881102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

881102.B. Trading Unit

The contract quantity shall be 1,000 metric tons. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

881102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per metric ton. The minimum price fluctuation shall be \$0.0001 per metric ton.

881102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

881102.E. Settlement Period

For contract months referenced to a calendar month January to November inclusive, the Settlement Period shall be the full calendar month. For contract months referenced to the December calendar month, the Settlement Period shall be the period from and including the 1st calendar day of the month through to and including the 24th calendar day of the month.

881102.F. Termination of Trading

The contract shall terminate at the close of trading on the last business day of the contract month.

881103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

881104. DISCLAIMER

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Chapter 882 Freight Route TC12 (Baltic) BALMO Futures

882100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

882101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance-of-month arithmetic average of the rates for each business day that the TC12 Tanker Route (for 35,000 metric tons for Sikka, West Coast India to Chiba, Japan) is published by the Baltic Exchange over the contract month, as described in paragraph 882102.E of these rules, starting from the selected start date through the end of the contract month.

If for any reason the Baltic Exchange cannot provide any rate required for establishing the Floating Price, then the Forward Freight Agreement Brokers Association (FFABA) may be instructed by either party to form a panel to establish any rate which will be binding on both parties.

882102. TRADING SPECIFICATIONS

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

882102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

882102.B. Trading Unit

The contract quantity shall be 1,000 metric tons. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

882102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per metric ton. The minimum price fluctuation shall be \$0.0001 per metric ton.

882102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

882102.E. Settlement Period

For contract months referenced to a calendar month January to November inclusive, the Settlement Period shall be the full calendar month. For contract months referenced to the December calendar month, the Settlement Period shall be the period from and including the 1st calendar day of the month through to and including the 24th calendar day of the month.

882102.F. Termination of Trading

The contract shall terminate at the close of trading on the last business day of the contract month.

882103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

882104. DISCLAIMER

NEITHER NYMEX, ITS AFFILIATES, NOR THE BALTIC EXCHANGE GUARANTEES THE ACCURACY AND/OR COMPLETENESS OF THE INDEX OR ANY OF THE DATA INCLUDED THEREIN. NYMEX, ITS AFFILIATES AND THE BALTIC EXCHANGE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, AS TO THE RESULTS TO BE OBTAINED BY ANY PERSON OR ENTITY FROM USE OF THE INDEX, TRADING BASED ON THE INDEX, OR ANY DATA INCLUDED THEREIN IN CONNECTION WITH THE TRADING OF THE CONTRACTS, OR, FOR ANY OTHER USE. NYMEX, ITS AFFILIATES AND THE BALTIC EXCHANGE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, AND HEREBY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE WITH RESPECT TO THE INDEX OR ANY DATA INCLUDED THEREIN. WITHOUT LIMITING ANY OF

THE FOREGOING, IN NO EVENT SHALL NYMEX, ITS AFFILIATES OR THE BALTIC EXCHANGE HAVE ANY LIABILITY FOR ANY LOST PROFITS OR INDIRECT, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGE.

The Baltic Exchange licenses the New York Mercantile Exchange, Inc. ("NYMEX") to use various Baltic Exchange price assessments in connection with the trading or posting of the contracts. Baltic Exchange does not sponsor, endorse, sell or promote the contract and makes no recommendations concerning the advisability of investing in the contract.

Chapter 883 Freight Route TC14 (Baltic) BALMO Futures

883100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

883101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance-of-month arithmetic average of the rates for each business day that the TC14 Tanker Route (for 38,000 metric tons for US Gulf to Continent Europe) is published by the Baltic Exchange over the contract month, as described in paragraph 883102.E of these rules, starting from the selected start date through the end of the contract month.

If for any reason the Baltic Exchange cannot provide any rate required for establishing the Floating Price, then the Forward Freight Agreement Brokers Association (FFABA) may be instructed by either party to form a panel to establish any rate which will be binding on both parties.

883102. TRADING SPECIFICATIONS

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

883102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

883102.B. Trading Unit

The contract quantity shall be 1,000 metric tons. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

883102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per metric ton. The minimum price fluctuation shall be \$0.0001 per metric ton.

883102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

883102.E. Settlement Period

For contract months referenced to a calendar month January to November inclusive, the Settlement Period shall be the full calendar month. For contract months referenced to the December calendar month, the Settlement Period shall be the period from and including the 1st calendar day of the month through to and including the 24th calendar day of the month.

883102.F. Termination of Trading

The contract shall terminate at the close of trading on the last business day of the contract month.

883103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

883104. DISCLAIMER

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CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGE.

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Chapter 884 Freight Route TC15 (Baltic) BALMO Futures

884100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

884101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance-of-month arithmetic average of the rates for each business day that the TC15 Tanker Route (for 80,000 metric tons for Mediterranean to Far East (Skikda to Chiba) is published by the Baltic Exchange over the contract month, as described in paragraph 884102.E of these rules, starting from the selected start date through the end of the contract month. Baltic Exchange publishes rates for the TC15 Tanker Route on a lumpsum basis, therefore rates published the Baltic Exchange shall be divided by the stated route tonnage in order to determine the Floating Price.

If for any reason the Baltic Exchange cannot provide any rate required for establishing the Floating Price, then the Forward Freight Agreement Brokers Association (FFABA) may be instructed by either party to form a panel to establish any rate which will be binding on both parties.

884102. TRADING SPECIFICATIONS

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

884102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

884102.B. Trading Unit

The contract quantity shall be 1,000 metric tons. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

884102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per metric ton. The minimum price fluctuation shall be \$0.0001 per metric ton.

884102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

884102.E. Settlement Period

For contract months referenced to a calendar month January to November inclusive, the Settlement Period shall be the full calendar month. For contract months referenced to the December calendar month, the Settlement Period shall be the period from and including the 1st calendar day of the month through to and including the 24th calendar day of the month.

884102.F. Termination of Trading

The contract shall terminate at the close of trading on the last business day of the contract month.

884103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

884104. DISCLAIMER

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Chapter 885 Freight Route TD3C (Baltic) BALMO Futures

885100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

885101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance-of-month arithmetic average of the rates for each business day that the TD3C Tanker Route (for 270,000 metric tons for Middle East Gulf to China) is published by the Baltic Exchange over the contract month, as described in paragraph 885102.E of these rules, starting from the selected start date through the end of the contract month.

If for any reason the Baltic Exchange cannot provide any rate required for establishing the Floating Price, then the Forward Freight Agreement Brokers Association (FFABA) may be instructed by either party to form a panel to establish any rate which will be binding on both parties.

885102. TRADING SPECIFICATIONS

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

885102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

885102.B. Trading Unit

The contract quantity shall be 1,000 metric tons. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

885102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per metric ton. The minimum price fluctuation shall be \$0.0001 per metric ton.

885102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

885102.E. Settlement Period

For contract months referenced to a calendar month January to November inclusive, the Settlement Period shall be the full calendar month. For contract months referenced to the December calendar month, the Settlement Period shall be the period from and including the 1st calendar day of the month through to and including the 24th calendar day of the month.

885102.F. Termination of Trading

The contract shall terminate at the close of trading on the last business day of the contract month.

885103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

885104. DISCLAIMER

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HAVE ANY LIABILITY FOR ANY LOST PROFITS OR INDIRECT, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGE.

The Baltic Exchange licenses the New York Mercantile Exchange, Inc. ("NYMEX") to use various Baltic Exchange price assessments in connection with the trading or posting of the contracts. Baltic Exchange does not sponsor, endorse, sell or promote the contract and makes no recommendations concerning the advisability of investing in the contract.

Chapter 886 Freight Route TD7 (Baltic) BALMO Futures

886100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

886101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance-of-month arithmetic average of the rates for each business day that the TD7 Tanker Route (for 80,000 metric tons for North Sea to UK-Continent) is published by the Baltic Exchange over the contract month, as described in paragraph 886102.E of these rules, starting from the selected start date through the end of the contract month.

If for any reason the Baltic Exchange cannot provide any rate required for establishing the Floating Price, then the Forward Freight Agreement Brokers Association (FFABA) may be instructed by either party to form a panel to establish any rate which will be binding on both parties.

886102. TRADING SPECIFICATIONS

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

886102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

886102.B. Trading Unit

The contract quantity shall be 1,000 metric tons. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

886102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per metric ton. The minimum price fluctuation shall be \$0.0001 per metric ton.

886102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

886102.E. Settlement Period

For contract months referenced to a calendar month January to November inclusive, the Settlement Period shall be the full calendar month. For contract months referenced to the December calendar month, the Settlement Period shall be the period from and including the 1st calendar day of the month through to and including the 24th calendar day of the month.

886102.F. Termination of Trading

The contract shall terminate at the close of trading on the last business day of the contract month.

886103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

886104. DISCLAIMER

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HAVE ANY LIABILITY FOR ANY LOST PROFITS OR INDIRECT, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS), EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGE.

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Chapter 887 Freight Route TD8 (Baltic) BALMO Futures

887100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

887101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance-of-month arithmetic average of the rates for each business day that the TD8 Tanker Route (for 80,000 metric tons for Kuwait to Singapore) is published by the Baltic Exchange over the contract month, as described in paragraph 887102.E of these rules, starting from the selected start date through the end of the contract month.

If for any reason the Baltic Exchange cannot provide any rate required for establishing the Floating Price, then the Forward Freight Agreement Brokers Association (FFABA) may be instructed by either party to form a panel to establish any rate which will be binding on both parties.

887102. TRADING SPECIFICATIONS

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

887102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

887102.B. Trading Unit

The contract quantity shall be 1,000 metric tons. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

887102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per metric ton. The minimum price fluctuation shall be \$0.0001 per metric ton.

887102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

887102.E. Settlement Period

For contract months referenced to a calendar month January to November inclusive, the Settlement Period shall be the full calendar month. For contract months referenced to the December calendar month, the Settlement Period shall be the period from and including the 1st calendar day of the month through to and including the 24th calendar day of the month.

887102.F. Termination of Trading

The contract shall terminate at the close of trading on the last business day of the contract month.

887103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

887104. DISCLAIMER

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Chapter 888 Freight Route TD20 (Baltic) BALMO Futures

888100. SCOPE OF CHAPTER

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

888101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is equal to the balance-of-month arithmetic average of the rates for each business day that the TD20 Tanker Route (for 130,000 metric tons for Bonny, Nigeria to Rotterdam) is published by the Baltic Exchange over the contract month, as described in paragraph 888102.E of these rules, starting from the selected start date through the end of the contract month.

If for any reason the Baltic Exchange cannot provide any rate required for establishing the Floating Price, then the Forward Freight Agreement Brokers Association (FFABA) may be instructed by either party to form a panel to establish any rate which will be binding on both parties.

888102. TRADING SPECIFICATIONS

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

888102.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

888102.B. Trading Unit

The contract quantity shall be 1,000 metric tons. Each contract shall be valued as the contract quantity (1,000) multiplied by the settlement price.

888102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per metric ton. The minimum price fluctuation shall be \$0.0001 per metric ton.

888102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

888102.E. Settlement Period

For contract months referenced to a calendar month January to November inclusive, the Settlement Period shall be the full calendar month. For contract months referenced to the December calendar month, the Settlement Period shall be the period from and including the 1st calendar day of the month through to and including the 24th calendar day of the month.

888102.F. Termination of Trading

The contract shall terminate at the close of trading on the last business day of the contract month.

888103. FINAL SETTLEMENT

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

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APPENDIX B

**Position Limit, Position Accountability, and Reportable Level Table in Chapter 5
of the NYMEX Rulebook**

(attached under separate cover)

APPENDIX C

NYMEX Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”) Table

(additions are underscored)

Instrument Name	Globex Symbol	Globex Non-Reviewable Ranges (NRR)	NRR: Globex Format	NRR: Ticks
<u>Freight Route TC2 (Baltic) BALMO Futures</u>	<u>TMB</u>	<u>\$0.20 per metric ton</u>	<u>2000</u>	<u>2000</u>
<u>Freight Route TC6 (Baltic) BALMO Futures</u>	<u>T6B</u>	<u>\$0.20 per metric ton</u>	<u>2000</u>	<u>2000</u>
<u>Freight Route TC9 (Baltic) BALMO Futures</u>	<u>T9B</u>	<u>\$0.20 per metric ton</u>	<u>2000</u>	<u>2000</u>
<u>Freight Route TC12 (Baltic) BALMO Futures</u>	<u>TB2</u>	<u>\$0.20 per metric ton</u>	<u>2000</u>	<u>2000</u>
<u>Freight Route TC14 (Baltic) BALMO Futures</u>	<u>T4B</u>	<u>\$0.20 per metric ton</u>	<u>2000</u>	<u>2000</u>
<u>Freight Route TC15 (Baltic) BALMO Futures</u>	<u>T5B</u>	<u>\$0.20 per metric ton</u>	<u>2000</u>	<u>2000</u>
<u>Freight Route TD3C (Baltic) BALMO Futures</u>	<u>TLB</u>	<u>\$0.20 per metric ton</u>	<u>2000</u>	<u>2000</u>
<u>Freight Route TD7 (Baltic) BALMO Futures</u>	<u>TKB</u>	<u>\$0.20 per metric ton</u>	<u>2000</u>	<u>2000</u>
<u>Freight Route TD8 (Baltic) BALMO Futures</u>	<u>T8B</u>	<u>\$0.20 per metric ton</u>	<u>2000</u>	<u>2000</u>
<u>Freight Route TD20 (Baltic) BALMO Futures</u>	<u>T2B</u>	<u>\$0.20 per metric ton</u>	<u>2000</u>	<u>2000</u>
<u>Freight Route Liquid Petroleum Gas (Baltic) BALMO Futures</u>	<u>FLB</u>	<u>\$0.20 per metric ton</u>	<u>200</u>	<u>200</u>

APPENDIX D

Cash Market Overview and Analysis of Deliverable Supply

Data Source

The Exchange based its analysis of deliverable supply on data provided by the Review of Maritime Transport¹, British Petroleum's Statistical Review of World Energy, and UN Comtrade.

The Review of Maritime Transport data are compiled by UNCTAD, a permanent inter-governmental body established by the United Nations General Assembly in 1964. The Review of Maritime Transport is one of UNCTAD's flagship publications, published since 1968. The Review provides analyses of structural and cyclical changes affecting seaborne trade, ports and shipping, as well as an extensive collection of statistical information. Its data are published in its Review of Maritime Transport annually, and is a reliable source for those looking to get the most complete and accurate data on the shipping transportation. We have referred to UNCTAD data in our analyses of global seaborne trade of crude oil and refined products.

British Petroleum (BP) is a global energy business operating in more than 70 countries worldwide. It finds and produces oil and gas on land and offshore and moves energy around the globe. The BP Statistical Review of World Energy² provides high-quality objective and globally consistent data on world energy markets. The review is published annually using robust global data, and provides an objective overview of what happened to energy markets. We have referred to the BP data to supplement the UNCTAD data in our analyses of global seaborne trade of crude oil, and the BP data provides further granularity to enable the volumes transported along the specific freight routes to be estimated.

Over 170 reporter countries/areas provide the UN Comtrade (United Nations International Trade Statistics Database) with national international trade statistical data, detailed by commodities countries and partner countries. It contains over 3 billion data records dating back to 1962 and is publicly available on the internet. Commodities are reported in HS codes and classified according to SITC. We have referred to the UN Comtrade data where all the required reporting and partner countries are available, and we have used the available data to take a proportion of the BP reported volumes to represent the deliverable supply volumes on the specific trade routes to be estimated.

The Baltic Exchange (Baltic) is an organization that supports the marketplace for maritime trade. It collates and publishes price assessments on over fifty different shipping routes and indices every day. The methodology for these assessments is contained in its 'Manual for Panelists'. For each freight route, a panel of brokers active in the physical shipping market on that route is appointed to provide price assessments. The obligation of each panelist is to 'assess and report a professional judgement of the prevailing open market level, at their time of reporting on each Baltic index publication day'. The production of freight market information is overseen by the Freight Indices and Futures Committee, a committee responsible to the Board of the Baltic Exchange. Panelists are expected to take into account all available relevant information in the physical market, when making their assessment. Assessments should be made to reflect the specific voyage described in the route definition. As individual transactions will vary in specification, panelists are expected to adjust prices to conform with the standard terms for the route being assessed. The Baltic

¹ United Nations Conference on Trade and Development (UNCTAD) Review of Maritime Transport series [http://unctad.org/en/Pages/Publications/Review-of-Maritime-Transport-\(Series\).aspx](http://unctad.org/en/Pages/Publications/Review-of-Maritime-Transport-(Series).aspx)

² <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>

Exchange calculates the published route assessment based on the average of all assessments reported by panelists. There is both a daily quality control process and a periodic independent audit to assess the performance of panelists, and there are standards of good practice included in the Manual. Panelists are required to make personnel available to the Baltic Exchange to answer any queries relating to their assessment. NYMEX has a license agreement with Baltic Exchange to utilize its pricing data³.

Cash Market Overview

Freight Market Overview

The products referenced in this submission relate to the international seaborne tanker freight market, i.e. the market for providing shipping freight for crude oil and refined oil products.

UNCTAD estimates total international seaborne trade to equal 1,838 million tons for crude oil and 863 million tons for petroleum products in 2016. The 2016 figures represent an increase of 0.7% per annum over the year 2012 for crude oil, and an increase of 3.7% per annum for the same period for refined products. Overall, trade in oil and gas cargoes have grown at 2% per annum from 2012 to 2016.

The chartering of seaborne freight is a privately negotiated activity between the ship owner and the charterer, with each transaction having unique features. However, standards have been established for the marketplace by trade associations, most notably the Baltic Exchange based in London.

The size of a vessel is measured by its deadweight tonnage ('DWT'), which is a measure of the weight in metric tonnes a vessel can safely carry, including cargo, fuel, water etc. Oil tankers are loosely categorized into a range of vessel sizes. Very Large Crude Carrier ('VLCC') is the term given to vessels with a capacity in excess of 250,000 dwt, and the term Ultra Large Crude Carrier ('ULCC') is used for the largest of these vessels – the largest being over 440,000 dwt, the equivalent of over 3 million barrels of oil. These vessels carry crude oil on major trans-ocean routes. Suezmax vessels are smaller in size than VLCCs, typically between 130,000 and 160,000 dwt, and are so named as they represent the largest tankers that can transit the Suez Canal. Aframax vessels are typically between 60,000 and 110,000 dwt. VLCCs, Suezmax and Aframax vessels are typically used for carrying crude oil and dirty petroleum products such as fuel oil, and are referred to in the industry as 'dirty' tankers. Refined oil products are usually transported in smaller vessels referred to as 'clean' tankers. These vessels typically range in size from 20,000 to 80,000 dwt.

There are two main types of vessel charter arrangement. Voyage charters involve the charterer hiring the vessel to carry a cargo between two specified ports. The freight payment for a voyage charter is assessed in terms of dollars per ton of cargo carried. Time charters involve the charterer hiring the vessel for a period of time, during which it can direct the movement of the vessel, although typically the vessel will follow a route between two ports. The freight payment for a time charter is assessed in terms of dollars per day of charter.

Tanker charters are typically voyage charter arrangements. The pricing of the transaction is expressed as percentage of the Worldscale flat rate (officially known as the "New Worldwide Tanker Nominal Freight Scale"), assessed and published by the Worldscale Association. This flat rate represents a fixed value in

³ Baltic Exchange's methodology for assessing the wet freight routes can be found online at <http://www.balticexchange.com/market-information/methodology.shtml>

dollars per metric ton for a specific route. The market convention is to quote current tanker freight prices as a percentage of this figure, rather than an explicit dollar value for each transaction.

In order to develop the functioning of the freight market, the Baltic Exchange has developed standard definitions for freight routes which are frequently chartered. The Baltic Exchange collates market price data from shipbrokers on these specified routes, and publishes market price assessments on a daily basis. Other price reporting agencies also collate and publish market price data, most notably Platts, which is seen as a relevant price reference for certain Pacific Ocean routes.

Specific Freight Routes

The underlying Baltic freight route references for the futures contracts described in the submission, have been developed by the Baltic Exchange, and are described as follows:

Table 1: Description of Freight Routes by Baltic Exchange⁴

Route	Description of Routes assessed by Baltic Exchange
TC2	37,000mt CPP/UNL. Continent to US Atlantic coast (Rotterdam to New York). Laydays/cancelling 10/14 days from index date. Age max 15 yrs. 3.75% total commission.
TC6	30,000mt CPP/UNL. Algeria to European Mediterranean (Skikda to Lavera). Laydays cancelling 7/14 days from index date. Age max 15 yrs. 3.75% total commission.
TC9	30,000mt CPP/UNL/ULSD middle distillate. Baltic to UK-Cont (Primorsk to Le Havre). Laydays /cancelling 5/10 days from index date. Double hull, age max 15 yrs. 3.75% total commission.
TC12	35,000mt naphtha condensate. West coast India to Japan (Sikka (Jamnagar) to Chiba). Laydays/cancelling 7/14 days from index date. Double hull, age max 15 yrs. 3.75% total commission.
TC14	38,000mt CPP/UNL/diesel. US Gulf to Continent (Houston to Amsterdam). Laydays/cancelling 6/12 days from index date. Age max 15 yrs. 3.75% total commission.
TC15	80,000mt naphtha. Med / Far East (Skikda to Chiba). Laydays/cancelling 15/25 days from index date. This route to be reported on a US\$ lumpsum basis. Age max 15 yrs. 2.5% total commission.
BLPG	44,000mt, 5% more or less in owner's option, 1 to 2 grades, fully refrigerated liquefied petroleum gas, Laydays/cancelling 10/40 days from index date. Middle East Gulf to Japan (Ras Tanura to Chiba). Laytime 96 hrs total. Age max 20 yrs. 1.25% total commission.
TD3C	270,000mt. Middle East Gulf to China (Ras Tanura to Ningbo). Laydays/cancelling 15/30 days from index date. Age max 15 yrs. 3.75% total commission.
TD7	80,000mt. North Sea to Continent (Hound Point to Wilhelmshaven). Laydays/cancelling 7/14 days from index date. Age max 15 yrs. 2.5% total commission.
TD8	80,000mt crude and/or DPP, heat 135F. Kuwait to Singapore (Mena al Ahmadi to Singapore). Laydays/cancelling 20/25 days from index date. Double hull, age max 15 yrs. 2.5% total commission.
TD20	130,000mt. West Africa to UK-Continent (offshore terminal Bonny) to Rotterdam. Laydays /cancelling 15-20 days from the index date. Age max 15 years. 82,000grt. 2.5% total commission.

⁴ Source: Baltic Exchange

Freight route TC2 is a benchmark route for refined products, loaded in North West Europe and delivered to the US and Canadian Atlantic Coast⁵. The ports of Rotterdam and New York reflect reference points that are used to assess a Worldscale flat rate. Baltic has been assessing prices for the TC2 route since October 1998. The route was amended to TC2_37 in January 2005, but is still commonly referred to as TC2.

Freight route TC6 is a benchmark route for refined products, loaded in North Africa and delivered to Mediterranean Europe. The ports of Skikda, Algeria and Lavera, France reflect reference points that are used to assess a Worldscale flat rate. Baltic has been assessing prices for the TC6 route since October 2004.

Freight route TC9 is a benchmark route for refined products, such as unleaded gasoline, diesel or other clean products, loaded in the Baltic and delivered to North West Europe. The ports of Primorsk, Russia and Le Havre, France reflect reference points that are used to assess a Worldscale flat rate. Baltic has been assessing prices for the TC9 route since May 2016.

Freight route TC12 is a benchmark route for refined products, loaded in India and delivered to Far East. The ports of Sikka, India and Chiba, Japan reflect reference points that are used to assess a Worldscale flat rate. Baltic has been assessing prices for the TC12 route since March 2011.

Freight route TC14 is a benchmark route for refined products, loaded in the US Gulf⁶ and delivered to Europe. The ports of Houston, USA and Amsterdam, Netherlands reflect reference points that are used to assess a Worldscale flat rate. Baltic has been assessing prices for the TC14 route since April 2012.

Freight route TC15 is a benchmark route for refined products, typically naphtha, loaded in Mediterranean and delivered to Far East. The ports of Skikda, Algeria and Chiba, Japan reflect reference points that are used to assess an all-in charter price in USD. Baltic has been assessing prices for TC15 route since May 2016.

Freight route BLPG is a benchmark route for liquefied petroleum gas, loaded in the Middle East and delivered to the Far East. The ports of Ras Tanura, Saudi Arabia and Chiba, Japan reflect reference points that are used to assess a Worldscale flat rate. Baltic has been assessing prices for the BLPG since 2002.

Freight route TD3C is a benchmark route for crude oil, loaded in the Middle East and delivered to the Far East. The ports of Ras Tanura, Saudi Arabia and Ningbo, China (previously Chiba, Japan when the route was named TD3) reflect reference points that are used to assess a Worldscale flat rate. Baltic has been assessing prices for the old TD3 since April 1998. Baltic ceased reporting the TD3 and replaced it with the TD3C from December 2017 onwards.

Freight route TD7 is a benchmark route for crude oil, loaded in the North Sea and delivered to Continent Europe. The ports of Hound Point, UK and Wilhelmshaven, Germany reflect reference points that are used to assess a Worldscale flat rate. Baltic has been assessing prices for the TD7 route since April 1998.

⁵ The TC2 tanker route passes the ports at Nova Scotia (Canada) before reaching NY harbor. About 22 million MT of oil are exported to US and 4 million MT to Canada.

⁶ Although the US Gulf to Amsterdam route also passes the ports at Nova Scotia, very little Canadian oil is exported directly to Europe, hence US is the only point of origin considered for the TC14. <https://www.neb-one.gc.ca/nrg/ststc/crdlndprlmpdct/stt/crdlsmmr/2016/smmry2016-eng.html>.

Freight route TD8 is a benchmark route for crude oil, loaded in Kuwait and delivered to Singapore. The ports of Mena al Ahmadi and the Port of Singapore reflect reference points that are used to assess a Worldscale flat rate. Baltic has been assessing prices for the TD8 route since July 2000.

Freight route TD20 is a benchmark route for crude oil, loaded in West Africa and delivered to North West Europe. The offshore terminal Bonny, Nigeria and the port of Rotterdam, Netherlands reflect reference points that are used to assess a Worldscale flat rate. Baltic has been assessing prices for the TD20 route since August 2014.

The UNCTAD⁷ estimates of total international seaborne trade for petroleum and gas products in millions of metric tons of cargo are in Table 2. British Petroleum provides more granular details of refined products transported along the routes in its BP Statistical Review of World Energy⁸ reports.

Table 2: International Seaborne Trade, Petroleum Products

Seaborne Trade of Oil Products	Million Metric Tons			
	2014	2015	2016	Average
World ⁹	1,118	1,171	1,218	1,169
Europe to US and Canada East Coast	26.9	25.6	25.4	26.0
North Africa to Europe ¹⁰	7.5	9.3	10.7	9.2
Russia to Europe	103.7	88.9	89.3	94.0
India to World	61.3	59.1	64.7	61.7
US Gulf to Europe	31.9	34.2	33.6	33.2
North Africa to Far East	7.6	9.2	7.0	7.9
Middle East to Far East (LPG)	17.6	17.9	19.8	18.4

Source: UNCTAD, BP Statistical Review of Energy Products

The UNCTAD estimates of total international seaborne trade for crude oil in millions of metric tons of cargo are as in Table 3. British Petroleum provides more granular details of refined products transported along the routes in its BP Statistical Review of World Energy reports.

Table 3: International Seaborne Trade, Crude Oil

Seaborne Trade of Crude Oil	Million Metric Tons			
	2014	2015	2016	Average
World	1,707	1,761	1,838	1,766
Middle East to Far East ¹¹	328.7	310.1	328.5	322.4
North Sea to Europe ¹²	54.2	52.2	52.7	53.0
Middle East to Singapore	53.3	37.5	42.2	44.3
West Africa to Europe	78.4	85.3	64.6	76.1

Source: UNCTAD, BP Statistical Review of Energy Products, UN Comtrade

⁷ [http://unctad.org/en/Pages/Publications/Review-of-Maritime-Transport-\(Series\).aspx](http://unctad.org/en/Pages/Publications/Review-of-Maritime-Transport-(Series).aspx)

⁸ <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>

⁹ The UNCTAD figures were used for World total. BP Statistics figures were used for the regional totals.

¹⁰ The data source for this route is from UN Comtrade, as no comparable figures are available from BP Statistics.

¹¹ For purposes of estimating the TD3C routes, the points of origin used (in the BP Statistics tables) included Iraq, Kuwait, Saudi, UAE, and Other Middle East. The destination points included China and Japan.

¹² The data source for this route is from UN Comtrade, as no comparable figures are available from BP Statistics.

Analysis of Deliverable Supply

In deriving the Deliverable Supply, BP Statistics was the primary source of reference data, as information were available for most of the routes for the past three years. The BP statistical data provided a broad estimate of the volumes of oil transported by tankers along the respective regional routes.

However, besides the tankers which ply the regional routes and utilize the Baltic assessments, the BP Statistics would have included other local tanker trade movements. Hence, a suitable proportion was applied to each of these routes in order to derive the deliverable supply relevant to each of the route assessments. Various news and data sources were used to estimate proportions to be applied to the average trade volumes, as shown in Table 4. The detailed estimates are in the Annex to this Appendix.

Table 4: Summary of Estimates of Traded Volumes Along the Baltic Assessed Freight Routes

Seaborne route	Average Trade Volume (million MT) ¹³	Freight Route	Estimated Volume on Freight Route ¹⁴	
			As % of Average Trade Volume	Volume (million MT)
Europe to US/Canada	26.0	TC2	85%	22.1
North Africa to Europe	9.2	TC6	100%	9.2
Russia to Europe	94.0	TC9	68%	63.6
India to World/Far East	61.7	TC12	20%	12.3
US Gulf to Europe	33.2	TC14	60%	19.9
North Africa to Far East	7.9	TC15	100%	7.9
Middle East to Far East	18.4	BLPG	100%	18.4
Middle East to Far East	322.4	TD3C	70%	225.7
North Sea to Europe	53.0	TD7	100%	53.0
Middle East to Singapore	44.3	TD8	70%	31.0
West Africa to Europe	76.1	TD20	59%	44.9

The lot size for all the BALMO Futures contracts are 1,000 MT each. The position limits for the BALMO contracts are aggregated into their respective parent Futures contracts, which are all in 1,000 MT lot sizes. Table 5 provides the volume figures on these routes in equivalent parent contract lots per month, and the proposed position limits as a percentage of the deliverable supply.

Table 5: Proposed Position Limits as a Percentage of Deliverable Supply

Freight Route	Volume in million MT per year	Volume in thousand MT per month	Equivalent contract lots per month	Proposed position limit (lots)	Position limit as % of deliverable supply
TC2	22.1	1,839	1,839	450	24.5%
TC6	9.2	763	763	150	19.7%
TC9	63.6	5,302	5,302	1,000	18.9%
TC12	12.3	1,025	1,025	200	19.5%
TC14	19.9	1,662	1,662	200	12.0%
TC15	7.9	661	661	150	22.7%

¹³ Source: BP Statistical Review of Energy 2015, 2016, 2017

¹⁴ Proportions based on following supplementary sources: UN Comtrade data for the majority of the routes, CIA Factbook 2013 and OPEC Report 2016 for TC15, Singapore Ports data for TD8.

Freight Route	Volume in million MT per year	Volume in thousand MT per month	Equivalent contract lots per month	Proposed position limit (lots)	Position limit as % of deliverable supply
BLPG	18.4	1,536	1,536	300	19.5%
TD3C	225.7	18,809	18,809	2,500	13.3%
TD7	53.0	4,419	4,419	1,000	22.6%
TD8	31.0	2,586	2,586	500	19.3%
TD20	44.9	3,742	3,742	800	21.4%

TC2: The estimated annual deliverable supply of petroleum product exports from Europe to the US and Canada East Coast is 22.1 million MT per year, which is equivalent to 1,839 thousand MT per month, or 1,839 lots of the Freight Route TC2 (Baltic) futures contract (code: TM). The position limit of the expiring month positions is proposed to be 450 lots. This figure represents 24.5% of the oil products exported from Europe to US/Canada East Coast. The Balmo futures contract (code: TMB) is aggregated into TM.

TC6: The estimated annual deliverable supply of petroleum product exports from North Africa to Europe is 9.2 million MT per year, which is equivalent to 763 thousand MT per month, or 763 lots of the Freight Route TC6 (Baltic) futures contract (code: TC6). A position limit is proposed to be 150 lots for the expiring month positions. This figure represents 19.7% of the petroleum products exported from North Africa to Europe. The Balmo futures contract (code: T6B) is aggregated into the TC6.

TC9: The estimated annual deliverable supply of petroleum product exports from Russia to Europe is 63.6 million MT per year, which is equivalent to 5,302 thousand MT per month, or 5,302 lots of the Freight Route TC9 (Baltic) futures contract (code: TC9). The position limit is proposed to be 1,000 lots for the expiring month positions. This figure represents 18.9% of the petroleum products exported from Russia to Europe. The Balmo futures contract (code: T9B) is aggregated into the TC9.

TC12: The estimated annual deliverable supply of petroleum product exports from India to Far East is 11.9 million MT per year, which is equivalent to 990 thousand MT per month, or 990 lots of the Freight Route TC12 (Baltic) futures contract (code: FRS). The position limit is proposed to be 200 lots for the expiring month positions. This figure represents 20.2% of the petroleum products exported from India to Far East. The Balmo futures contract (code: TB2) is aggregated into the FRS.

TC14: The estimated annual deliverable supply of petroleum product exports from US Gulf to Europe is 19.3 million MT per year, which is equivalent to 1,606 thousand MT per month, or 1,606 lots of the Freight Route TC14 (Baltic) futures contract (code: FRC). The position limit is proposed to be 200 lots for the expiring month positions. This figure represents 12.5% of the petroleum products exported from US Gulf to Europe. The Balmo futures contract (code: T4B) is aggregated into the FRC.

TC15: The estimated annual deliverable supply of petroleum product exports from North Africa to Far East is 7.9 million MT per year, which is equivalent to 661 thousand MT per month, or 661 lots of the Freight Route TC15 (Baltic) futures contract (code: T5C). The position limit is proposed to be 150 lots for the expiring month positions. This figure represents 22.7% of the petroleum products exported from North Africa to Far East. The Balmo futures contract (code: T5B) is aggregated into the T5C.

BLPG: The estimated annual deliverable supply of liquefied petroleum gas exports from Middle East to Far East is 18.4 million MT per year, which is equivalent to 1,536 thousand MT per month, or 1,536 lots of the Freight Route Liquid Petroleum Gas (Baltic) futures contract (code: FLP). The position limit is proposed to be 300 lots for the expiring month positions. This figure represents 19.5% of LPG exported from Middle East to Far East. The Balmo futures contract (code: FLB) is aggregated into the FLP.

TD3C: The estimated annual deliverable supply of crude oil exports from Middle East to Far East by large VLCCs is 225.7 million MT per year, which is equivalent to 18,809 thousand MT per month, or 18,809 lots of the Freight Route TD3C (Baltic) futures contract (code: TL). The position limit is proposed to be 2,500 lots for the expiring month positions. This figure represents 13.3% of crude oil exported from Middle East to Far East. The Balmo futures contract (code: TLB) is aggregated into the TL.

TD7: The estimated annual deliverable supply of petroleum product exports from North Sea to Continent Europe is 53.0 million MT per year, which is equivalent to 4,419 thousand MT per month, or 4,419 lots of the Freight Route TD7 (Baltic) futures contract (code: TK). The position limit is proposed to be 1,000 lots for the expiring month positions. This figure represents 22.6% of the petroleum products exported from North Sea to Europe. The Balmo futures contract (code: TKB) is aggregated into the TK.

TD8: The estimated annual deliverable supply of crude oil and condensates exports via medium tankers from Middle East to Singapore is 31.0 million MT per year, which is equivalent to 2,586 thousand MT per month, or 2,586 lots of the Freight Route TD8 (Baltic) futures contract (code: TD8). The position limit is proposed to be 500 lots for the expiring month positions. This figure represents 19.3% of oil exported from Middle East to Singapore via medium tankers. The Balmo futures contract (code: T8B) is aggregated into the TD8.

TD20: The estimated annual deliverable supply of crude oil and condensates exports from West Africa to Europe is 44.9 million MT per year, which is equivalent to 3,744 thousand MT per month, or 3,744 lots of the Freight Route TD20 (Baltic) futures contract (code: T2D). The position limit is proposed to be 800 lots for the expiring month positions. This figure represents 21.4% of oil exported from West Africa to Europe. The Balmo futures contract (code: T2B) is aggregated into the T2D.

ANNEX TO APPENDIX D

DETAILED ESTIMATES OF DELIVERABLE SUPPLY ON THE INDIVIDUAL FREIGHT ROUTES

UN Comtrade data have more granular details, but there are gaps in the data. As such, for consistency in methodology, the BP Statistical data were used as the primary data source, and the UN Comtrade data were consulted in order to apply an appropriate haircut to the BP data, to derive the deliverable supply.

TC2 Route / TC14 Route

The TC2 route is from Rotterdam to New York ports, and generically represents the oil products transported from Europe to the US and Canada East Coast. The TC2 tanker route passes the ports of Netherlands, UK, Belgium, France, Spain before crossing the Atlantic. On the destination side, the route goes past Nova Scotia (Canada) before reaching NY harbor. Even though most of the oil ends up in US (19 million MT), some (3 million MT) do end up in Canada. Hence the ports of destination included Canada & US

The TC14 route is from Houston to Amsterdam, and generically represents the oil products transported from US Gulf to Europe. The route also passes by Nova Scotia before crossing the Atlantic to Europe. In this case, very little Canadian oil is exported directly to Europe¹⁵, hence US was the only point of origin considered for the TC14.

Europe to US/Canada (kg)	2014	2015	2016	Average
Canada				
Belgium	76,049,982	248,599,548	230,952,397	185,200,642
France	53,479,325	110,605,315	71,470,033	78,518,224
Germany	69,371,548	47,544,216	49,498,000	55,471,255
Netherlands	1,392,464,867	2,138,105,177	2,920,016,029	2,150,195,358
Norway	11,892	114,593,993	182,802,313	99,136,066
Spain	140,622,372	77,679,302	211,875,887	143,392,520
United Kingdom	424,527,771	257,352,610	598,794,060	426,891,480
Canada Total	2,156,527,757	2,994,480,161	4,265,408,719	3,138,805,546
US				
Belgium	3,792,377,809	3,887,719,469	3,200,259,180	3,626,785,486
France	1,378,625,806	1,658,801,128	1,462,916,446	1,500,114,460
Germany	73,236,731	26,367,189	28,454,586	42,686,169
Netherlands	4,680,112,252	3,799,923,752	4,427,610,812	4,302,548,939
Norway	1,649,444,757	2,294,890,526	1,625,755,162	1,856,696,815
Spain	2,800,879,168	3,004,431,754	2,838,806,530	2,881,372,484
United Kingdom	5,197,902,464	4,580,720,901	4,722,050,069	4,833,557,811
US Total	19,572,578,987	19,252,854,719	18,305,852,785	19,043,762,164
US + Canada Total	21,729,106,744	22,247,334,880	22,571,261,504	22,182,567,709

Europe to US/Canada (million MT)

¹⁵ <https://www.neb-one.gc.ca/nrg/sttstc/crdlndprlmprdct/stt/crdlsmmr/2016/smmry2016-eng.html>. Canada continued to have almost complete reliance on the U.S. market for its crude oil exports. In 2016, 99% of exported crude oil went to the U.S. Since 2012, between 97% to 99% of exported crude oil has been exported to the U.S.

BP Statistics	2014	2015	2016	Average
Canada	4.9	3.3	4.0	4.1
US	22.0	23.3	21.4	21.9
US + Canada Total	26.9	25.6	25.4	26.0

TC2 (Europe to US/Canada): Based on UN Comtrade data, Europe exported an average of 22.2 million MT per annum of oil products to US and Canada from 2014 to 2016. A proportion of 85% was applied to the BP Statistics for the Europe to US/Canada volumes to arrive at 22.1 million MT as the deliverable supply represented by the TC2 route.

US Gulf to Europe (kg)	2012	2013	2015	Average
Belgium	657,633,146	1,905,136,432	1,800,794,253	1,454,521,277
Denmark	16,558,965	46,334,114	190,482,738	84,458,606
France	3,905,333,844	5,671,280,552	4,958,844,275	4,845,152,890
Germany	449,534,801	249,002,794	388,245,254	362,260,950
Netherlands	10,954,076,483	10,750,421,221	8,838,235,920	10,180,911,208
Norway	154,710,424	314,871,465	224,888,253	231,490,047
Spain	848,567,937	677,599,032	608,030,235	711,399,068
United Kingdom	1,594,918,073	1,272,069,954	3,256,681,951	2,041,223,326
Total	18,581,333,673	20,886,715,564	20,266,202,879	19,911,417,372

US Gulf to Europe (mil MT)				
BP Statistics	2014	2015	2016	Average
Total	31.9	34.2	33.6	33.2

TC14 (US Gulf to Europe): There were gaps in the US Comtrade for 2014 and 2016. The route has also not been actively traded in the past. A more conservative estimate of deliverable supply was therefore adopted for TC14, until such time that more consistent data becomes available and trading volumes improve. Based on the available data from UN Comtrade, there appears to be enough consistency for an average of 19.9 million MT to be used. As such, a proportion of 60% was applied to the BP Statistical figure in Table 4 to arrive at an estimate of 19.9 million MT as the deliverable supply of oil volumes represented by the TC14 route.

TC6 Route

As there are no comparable figures from BP Statistics for this route, the analysis was based on data from UN Comtrade. TC6 is an assessment for the North Africa to Mediterranean Europe route for 30,000 dwt product tankers. However, it is frequently used for other cross-Mediterranean routes, including the Mediterranean Europe to North Africa routes, and intra-Mediterranean Europe routes. According to UN Comtrade data, the total Algeria to Mediterranean Europe, Mediterranean Europe to Algeria, and cross-Mediterranean Europe trade volumes averaged 9.2 million MT. This figure is used to represent the Deliverable Supply for the TC6 route.

Algeria to Mediterranean Europe (kg)	2014	2015	2016	Average
France	329,837,555	345,406,449	263,979,939	313,074,648

Italy	571,829,163	577,351,688	523,690,266	557,623,706
Spain	791,442,055	423,207,248	478,225,434	564,291,579
Sub-Total	1,693,108,773	1,345,965,385	1,265,895,639	1,434,989,932

Mediterranean Europe to Algeria (kg)	2014	2015	2016	Average
France	278,016,084	565,947,637	456,329,225	433,430,982
Italy	397,042,203	744,237,181	265,008,798	468,762,727
Spain	62,382,433	114,214,555	131,080,111	102,559,033
Sub-Total	737,440,720	1,424,399,373	852,418,134	1,004,752,742

Cross-Mediterranean Europe (kg)	2014	2015	2016	Average
France to Italy/Spain	940,442,772	819,321,221	1,037,238,252	932,334,082
Italy to France/Spain	2,041,363,444	3,199,964,625	4,573,174,108	3,271,500,726
Spain to France/Italy	2,074,423,973	2,509,245,684	2,950,123,365	2,511,264,341
Sub-Total	5,056,230,189	6,528,531,530	8,560,535,725	6,715,099,148
Total	7,486,779,682	9,298,896,288	10,678,849,498	9,154,841,823

Libya produces and exports as much volumes of oil to Europe as Algeria does¹⁶. However, UN Comtrade has no available data on Libya. The 9.2 million MT is therefore a conservative estimate of the volumes represented by TC6.

TC9 Route

The TC9 route from Russia/Norway to France passes by ports in Denmark, Germany, Netherlands, United Kingdom, Belgium and France. Based on UN Comtrade data, Russia/Norway exported 63.6 million MT for the years 2014 to 2016. A proportion of 68% was applied to the BP Statistics for the Russia to Europe volumes to arrive at 63.6 million MT as the deliverable supply represented by the TC9 route.

Baltic to Continent (kg)	2014	2015	2016	Average
Belgium	4,195,500,603	5,056,610,586	4,906,469,118	4,719,526,769
Denmark	2,807,048,530	3,685,580,810	1,921,542,969	2,804,724,103
France	4,223,857,866	4,026,422,073	4,676,982,201	4,309,087,380
Germany	7,570,450,444	7,015,684,106	5,181,563,854	6,589,232,801
Netherlands	41,070,648,398	42,965,513,848	36,402,637,003	40,146,266,416
United Kingdom	5,422,823,607	5,601,312,201	4,141,407,942	5,055,181,250
Total	65,290,329,448	68,351,123,624	57,230,603,087	63,624,018,720

Russia to Europe (million MT)				
BP Statistics	2014	2015	2016	Average
Total	103.7	88.9	89.3	94.0

¹⁶ According to CIA Factbook, Libya exported 1.3 million bpd and Algeria exported 1.1 million bpd in 2013. <https://www.cia.gov/library/publications/the-world-factbook/> , also found in <http://www.indexmundi.com/g/r.aspx?v=95>

TC12 Route

The TC12 route represents oil products transported from India to the Far East, passing through the Straits of Singapore. Granular details from UN Comtrade are not available for 2016, but based on data from 2012, 2014 and 2015, the Far East (including Singapore) accounts for about 20% of India's total oil exports.

India to Far East (kg)	2012	2014	2015
China	385,257,000	1,798,075,984	1,198,329,833
Japan	3,076,216,768	2,335,534,883	2,001,777,289
Rep. of Korea	1,242,945,085	1,865,536,315	987,962,097
Singapore	9,268,310,021	6,210,269,236	6,022,707,359
India to Far East	13,972,728,874	12,809,416,418	10,210,776,578
India to World	58,884,630,241	69,461,172,702	58,530,755,656

We applied a proportion of 20% to the BP Statistical Figures for India to World to arrive an average of 11.9 million MT as the deliverable supply of oil volumes represented by the TC12 route.

India to World (million MT)				
BP Statistics	2014	2015	2016	Average
Total	61.3	55.0	61.9	59.4

TC15 Route

The TC15 route represents the oil products transported from North Africa (predominantly Algeria and Libya) to Asia via the Suez Canal. The TC15 route passes India and China on its way to the designated port in Japan. Based on BP Statistics¹⁷, the volume of oil transported from North Africa to India, China and Japan averaged 7.9 million MT from 2014 to 2016. It was determined that no haircut would be applied to the figure, as explained below.

As explained for the TC6 route, there are gaps in the UN Comtrade historical data on Algeria, and are missing on Libya. CIA Factbook estimated that Algeria exported 1.1 million bpd and Libya exported 1.3 million bpd in 2013¹⁸. On this basis, it was assumed that Libya's exports were similar to Algeria's for purposes of estimating deliverable supply. Historically, Algeria exported 4.0 million MT to the Far East from 2012 to 2014. On this basis, exports from Algeria plus Libya to Far East is likely to be in excess of in excess of BP's figure of 7.9 million MT. Hence the BP figure was used, with no haircut applied, as the estimate of deliverable supply of assessable volumes represented by the TC15 route.

Algeria to Far East (kg)	2012	2013	2014	Average
China	2,974,635,929	2,630,241,309	1,999,494,310	2,534,790,516
India	924,179,590	884,753,848	799,866,159	869,599,866
Japan	694,046,967	621,985,492	557,325,487	624,452,649

¹⁷ <https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>

¹⁸ CIA Factbook 2014, <https://www.cia.gov/library/publications/the-world-factbook/>, also found in <http://www.indexmundi.com/g/r.aspx?v=95>

Far East Total	4,592,862,486	4,136,980,649	3,356,685,956	4,028,843,030
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North Africa to Far East (million MT)				
BP Statistics	2014	2015	2016	Average
China	3.2	3.9	2.6	3.2
India	3.1	4.0	3.8	3.6
Japan	1.3	1.3	0.6	1.1
Far East Total	7.6	9.2	7.0	7.9

BLPG Route

The BLPG route is the Propane and Butane (collectively called Liquefied Petroleum Gas or LPG) route, from the Middle East to the Far East. The main producers in the Middle East represented by the route are Qatar, UAE, Saudi Arabia, Bahrain, Kuwait, Oman and Iran. The main destination countries represented by the route are China, Japan and South Korea. BP Statistics did not have a breakdown of LPG export volumes, and the UN Comtrade figures have been used, with no proportional adjustments, as the deliverable supply represented by the BLPG route.

Middle East to Far East (kg)	2014	2015	2016	Average
China	5,214,819,356	7,509,329,016	10,734,704,012	7,819,617,461
Japan	8,743,957,080	7,169,104,968	6,406,199,992	7,439,754,013
Rep. of Korea	3,671,642,530	3,072,750,993	2,638,032,120	3,127,475,214
Total	17,630,418,966	17,751,184,977	19,778,936,124	18,386,846,689

TD3C Route

TD3C is a crude oil tanker route from the Middle East to the Far East transported by the Very Large Crude Carriers (VLCC, typically 250,000 dwt). While the breakdown between VLCCs and the smaller tankers plying the Middle East to Far East routes are not easily available, the number of tankers docked at the destination ports of the TD3C route can be used as a proxy estimate.

Snapshots of the VLCC versus smaller tankers were taken at the destination ports represented by the TD3C (Ningbo) and the old TD3 (Chiba) routes. Apart from long-haul small tankers carrying oil from the Middle East and calling at these ports, there are also local tankers which transfer oil from the VLCCs arriving at these ports, for redistribution. One VLCC load (2 million barrels) can be transferred to about four local tankers (500,000 barrel). As such, of the 102 small tankers in the table below, an estimated 56 (4 times 14 VLCC) of them are assumed to be domestic transshipment vessels. This means that the Middle East to Far East route is represented by 14 VLCCs and 46 small tankers at these ports. By tonnage, VLCCs (3.5 million dwt) represent about 70% of the cargoes. A 70% proportion was applied to the BP Statistics in Table 4 to derive the deliverable supply represented by the TD3C route.

Ships at Port ¹⁹	VLCC	Small tankers	VLCC (dwt)
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¹⁹ <http://www.marinetraffic.com> Destinations Ningbo and Chiba. Snapshot of ships at port for 23 Jan 2018.

		Total at port	Local ships	Long haul ships		Small tankers (dwt)
Ningbo	8	38	32	6	2,000,000	360,000
Chiba	6	45	24	21	1,500,000	1,260,000
Total	14	102	56	46	3,500,000	1,620,000

By extension, the remaining 30% of the cargoes transported on the Middle East to Far East route are transported by the smaller tankers.

Middle East to Japan/China (million MT)				
BP Statistics	2014	2015	2016	Average
China	171.7	170.4	184.1	175.4
Japan	157.0	139.7	144.4	147.0
Far East Total	328.7	310.1	328.5	322.4

Middle East to Far East Routes	Proportion	Average Trade Volume (mil MT)
VLCCs (TD3C Route)	70%	225.7
Smaller tankers	30%	96.7
Total	100%	322.4

TD7 Route

The TD7 route is the Brent crude production route, from the North Sea to Continent Europe, transported by medium sized tankers. The main countries of origin are Norway and Scotland (United Kingdom) and the route passes the ports in Netherlands, German, France and Spain. As there are no suitable figures from BP Statistics, the figures from UN Comtrade were used, with no proportional adjustments made, to represent the deliverable supply of volumes assessed by the TD7 route.

North Sea to Continent (kg)	2014	2015	2016	Average
Norway				
France	1,590,981,718	1,928,799,000	3,995,827,000	2,505,202,573
Germany	7,231,352,250	6,459,192,009	5,247,251,730	6,312,598,663
Netherlands	16,967,918,278	16,762,577,143	16,295,051,984	16,675,182,468
Spain	840,824,000	1,017,536,000	1,151,004,000	1,003,121,333
Norway Total	26,631,076,246	26,168,104,152	26,689,134,714	26,496,105,037
United Kingdom				
France	4,000,854,242	3,906,870,153	2,625,848,625	3,511,191,007
Germany	9,114,641,914	9,159,969,274	7,063,072,492	8,445,894,560
Netherlands	12,961,165,197	11,127,603,174	14,138,953,849	12,742,574,073
Spain	1,511,417,716	1,831,376,728	2,140,800,457	1,827,864,967
United Kingdom Total	27,588,079,069	26,025,819,329	25,968,675,423	26,527,524,607
Total	54,219,155,315	52,193,923,481	52,657,810,137	53,023,629,644

TD8 Route

The TD8 route is the crude oil route from Middle East to Singapore transported by the medium sized tankers. The 3-year average volume for the Middle East to Singapore route calculated from BP Statistics was 44.3 million MT. While over 70% of the volumes on the Middle East to Japan/China long haul route (TD3C) are undertaken by VLCCs, about half of the crude volumes that break bulk mid-way in Singapore are undertaken by the medium sized Aframax and Suezmax tankers (represented by TD8 route).

Breakdown of Tankers Berthed at Singapore Ports²⁰

Number of tankers berthed	Aframax	Suezmax	VLCC	Ratio of medium sized tankers
Size 000 DWT	70 to 110	130 to 160	Above 200	
Snapshot on 1 December 2017	117	30	59	0.71
Snapshot on 4 December 2017	110	34	62	0.70

Ratio is (Aframax + Suezmax) divided by (Aframax + Suezmax + VLCC)

Based on two snapshots of the tankers berthed at the Singapore ports recently, a proportion of 70% was applied to represent the portion of crude transported by the medium tankers, giving an average of 31.0 million MT per year as the deliverable supply of volumes assessed by the TD8 route.

Middle East to Singapore (million MT)				
BP Statistics	2014	2015	2016	Average
Total	53.3	37.5	42.2	44.3

TD20 Route

The TD20 route is the crude oil route from West Africa (predominantly Nigeria and Angola) to Europe. The route travels past Portugal, Spain, France, the United Kingdom en route to Rotterdam, Netherlands. The 3-year average volume based on BP Statistics was 77.5 million MT.

Export data from UN Comtrade for these routes were incomplete, as shown in the table below. Nevertheless, taking the average figures would derive an estimate of 44.9 million MT (19.3 + 25.6) for the amount of oil transported from Nigeria and Angola along the route represented by TD20. A proportion of 58% was applied to the average volumes calculated from the BP Statistics, to arrive at a 3-year average deliverable supply of 44.9 million MT per year for the TD20 (Bonny to Rotterdam) route.

West Africa to Europe (kg)	2014	2015	2016	Average
Angola				
France	3642853888	5014677504		4,328,765,696
Netherlands	3466829056	3183693568		3,325,261,312
Portugal	3251543040	3631507968		3,441,525,504
Spain	6236204032	6948185600		6,592,194,816
United Kingdom	450557664	2678181376		1,564,369,520
Angola Total	17047987680	21456246016		19,252,116,848

²⁰ Source: <http://marinetraffic.com>; vessel: tankers; destination: Singapore Ports. The small Handymax tankers berthed at Singapore ports were disregarded, as they represented domestic freight, and not relevant to the Middle East to Singapore/Far East routes. There were 314 and 259 Handymax tankers on the respective dates.

Nigeria

France	6251006648	4471830344	5,361,418,496
Netherlands	11524599823	6132155763	8,828,377,793
Portugal	901322844	531057439	716,190,142
Spain	9225004017	5884329058	7,554,666,538
United Kingdom	3519034049	2912139223	3,215,586,636
Nigeria Total	31420967381	19931511827	25,676,239,604

West Africa to Europe (million MT)				
BP Statistics	2014	2015	2016	Average
Total	78.4	85.3	64.6	76.1