

TSAKOS ENERGY NAVIGATION LTD

Form 20-F

April 06, 2016

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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 20-F

.. REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2015

OR

.. TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

.. SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

**Date of event requiring this shell company report**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

**Commission file number 001-31236**

**TSAKOS ENERGY NAVIGATION LIMITED**

**(Exact name of Registrant as specified in its charter)**

**Not Applicable**

**(Translation of Registrant's name into English)**

**Bermuda**

**(Jurisdiction of incorporation or organization)**

**367 Syngrou Avenue**

**175 64 P. Faliro**

**Athens, Greece**

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(Name, Address, Telephone Number, E-mail and Facsimile Number of Company Contact Person)

**Securities registered or to be registered pursuant to Section 12(b) of the Act:**

<b>Title of each class</b>	<b>Name of each exchange on which registered</b>
Common Shares, par value \$1.00 per share	New York Stock Exchange
Series B Cumulative Redeemable Perpetual Preferred Shares, par value \$1.00 per share	New York Stock Exchange
Series C Cumulative Redeemable Perpetual Preferred Shares, par value \$1.00 per share	New York Stock Exchange
Series D Cumulative Redeemable Perpetual Preferred Shares, par value \$1.00 per share	New York Stock Exchange

**Securities registered or to be registered pursuant to Section 12(g) of the Act: None**

**Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None**

As of December 31, 2015, there were 87,338,652 of the registrant's Common Shares, 2,000,000 Series B Preferred Shares, 2,000,000 Series C Preferred Shares and 3,400,000 Series D Preferred Shares outstanding.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes  No

Note: Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer

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Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP  International Financial Reporting Standards as issued  Other

by the International Accounting Standards Board

If  Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17  Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

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**FORWARD-LOOKING INFORMATION**

All statements in this Annual Report on Form 20-F that are not statements of historical fact are forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995. The disclosure and analysis set forth in this Annual Report on Form 20-F includes assumptions, expectations, projections, intentions and beliefs about future events in a number of places, particularly in relation to our operations, cash flows, financial position, plans, strategies, business prospects, changes and trends in our business and the markets in which we operate. These statements are intended as forward-looking statements. In some cases, predictive, future-tense or forward-looking words such as believe, intend, anticipate, estimate, project, forecast, plan, potential, expect and similar expressions are intended to identify forward-looking statements, but are not the exclusive means of identifying such statements.

Forward-looking statements include, but are not limited to, such matters as:

future operating or financial results and future revenues and expenses;

future, pending or recent business and vessel acquisitions, business strategy, areas of possible expansion and expected capital spending and our ability to fund such expenditure;

operating expenses including the availability of key employees, crew, length and number of off-hire days, dry-docking requirements and fuel and insurance costs;

general market conditions and shipping industry trends, including charter rates, vessel values and factors affecting supply and demand of crude oil and petroleum products;

our financial condition and liquidity, including our ability to make required payments under our credit facilities, comply with our loan covenants and obtain additional financing in the future to fund capital expenditures, acquisitions and other corporate activities;

the overall health and condition of the U.S. and global financial markets, including the value of the U.S. dollar relative to other currencies;

the carrying value of our vessels and the potential for any asset impairments;

our expectations about the time that it may take to construct and deliver new vessels or the useful lives of our vessels;

our continued ability to enter into period time charters with our customers and secure profitable employment for our vessels in the spot market;

the ability and willingness of our counterparties, including our charterers and shipyards, to honor their contractual obligations;

our expectations relating to dividend payments and ability to make such payments;

our ability to leverage to our advantage the relationships and reputation of Tsakos Columbia Shipmanagement within the shipping industry;

our anticipated general and administrative expenses;

environmental and regulatory conditions, including changes in laws and regulations or actions taken by regulatory authorities;

risks inherent in vessel operation, including terrorism, piracy and discharge of pollutants;

potential liability from future litigation;

global and regional political conditions;

tanker, product carrier and LNG carrier supply and demand; and

other factors discussed in the Risk Factors described in Item 3 of this Annual Report on Form 20-F.

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We caution that the forward-looking statements included in this Annual Report on Form 20-F represent our estimates and assumptions only as of the date of this Annual Report on Form 20-F and are not intended to give any assurance as to future results. These forward-looking statements are not statements of historical fact and represent only our management's belief as of the date hereof, and involve risks and uncertainties that could cause actual results to differ materially and inversely from expectations expressed in or indicated by the forward-looking statements. Assumptions, expectations, projections, intentions and beliefs about future events may, and often do, vary from actual results and these differences can be material. There are a variety of factors, many of which are beyond our control, which affect our operations, performance, business strategy and results and could cause actual reported results and performance to differ materially from the performance and expectations expressed in these forward-looking statements. These factors include, but are not limited to, supply and demand for crude oil carriers, product tankers and LNG carriers, charter rates and vessel values, supply and demand for crude oil and petroleum products and liquefied natural gas, accidents, collisions and spills, environmental and other government regulation, the availability of debt financing, fluctuation of currency exchange and interest rates and the other risks and uncertainties that are outlined in this Annual Report on Form 20-F. As a result, the forward-looking events discussed in this Annual Report on Form 20-F might not occur and our actual results may differ materially from those anticipated in the forward-looking statements. Accordingly, you should not unduly rely on any forward-looking statements.

We undertake no obligation to update or revise any forward-looking statements contained in this Annual Report on Form 20-F, whether as a result of new information, future events, a change in our views or expectations or otherwise. New factors emerge from time to time, and it is not possible for us to predict all of these factors. Further, we cannot assess the impact of each such factor on our business or the extent to which any factor, or combination of factors, may cause actual results to be materially different from those contained in any forward-looking statement.

## **PART I**

Tsakos Energy Navigation Limited is a Bermuda company that is referred to in this Annual Report on Form 20-F, together with its subsidiaries, as Tsakos Energy Navigation, the Company, we, us, or our. This report should be read in conjunction with our consolidated financial statements and the accompanying notes thereto, which are included in Item 18 to this report.

### **Item 1. Identity of Directors, Senior Management and Advisers**

Not Applicable.

### **Item 2. Offer Statistics and Expected Timetable**

Not Applicable.

### **Item 3. Key Information**

#### **Selected Consolidated Financial Data and Other Data**

The following table presents selected consolidated financial and other data of Tsakos Energy Navigation Limited for each of the five years in the five-year period ended December 31, 2015. The table should be read together with Item 5. Operating and Financial Review and Prospects. The selected consolidated financial data of Tsakos Energy Navigation



Limited is a summary of, is derived from and is qualified by reference to, our consolidated financial statements and notes thereto which have been prepared in accordance with U.S. generally accepted accounting principles ( US GAAP ).

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Our audited consolidated statements of comprehensive income/(loss), other comprehensive income/(loss), stockholders' equity and cash flows for the years ended December 31, 2015, 2014, and 2013, and the consolidated balance sheets at December 31, 2015 and 2014, together with the notes thereto, are included in Item 18. Financial Statements and should be read in their entirety.

**Selected Consolidated Financial and Other Data**

(Dollars in thousands, except for share and per share amounts and fleet data)

	2015	2014	2013	2012	2011
<b>Income Statement Data</b>					
Voyage revenues	\$ 587,715	\$ 501,013	\$ 418,379	\$ 393,989	\$ 395,162
<b>Expenses</b>					
Voyage expenses	131,878	154,143	132,999	124,012	141,446
Vessel operating expenses(1)	142,117	146,902	131,053	133,281	130,342
Depreciation and amortization	105,931	102,891	100,413	99,250	105,928
General and administrative expenses	21,787	21,029	20,731	20,710	20,710
Net (gain) loss on sale of vessels	(2,078)			1,879	(5,001)
Vessel impairment charge			28,290	13,567	39,434
Operating income (loss)	188,080	76,048	4,893	1,290	(37,697)
<b>Other expenses (income):</b>					
Interest and finance costs, net	30,019	43,074	40,917	51,576	53,571
Interest and investment income	(234)	(498)	(366)	(1,348)	(2,715)
Other, net	(128)	(246)	2,912	118	397
Total other expenses, net	29,657	42,330	43,463	50,346	51,253
<b>Net income (loss)</b>	<b>158,423</b>	<b>33,718</b>	<b>(38,570)</b>	<b>(49,056)</b>	<b>(88,950)</b>
Less: Net (income) loss attributable to non-controlling interest	(206)	(191)	1,108	(207)	(546)
<b>Net income (loss) attributable to Tsakos Energy Navigation Limited</b>	<b>\$ 158,217</b>	<b>\$ 33,527</b>	<b>\$ (37,462)</b>	<b>\$ (49,263)</b>	<b>\$ (89,496)</b>
Effect of preferred dividends	(13,437)	(8,438)	(3,676)		
<b>Net income (loss) attributable to Tsakos Energy Navigation Limited common stockholders</b>	<b>\$ 144,780</b>	<b>\$ 25,089</b>	<b>\$ (41,138)</b>	<b>\$ (49,263)</b>	<b>\$ (89,496)</b>
<b>Per Share Data</b>					
Earnings (loss) per share, basic	\$ 1.69	\$ 0.32	\$ (0.73)	\$ (0.92)	\$ (1.94)
Earnings (loss) per share, diluted	\$ 1.69	\$ 0.32	\$ (0.73)	\$ (0.92)	\$ (1.94)
Weighted average number of shares, basic	85,827,597	79,114,401	56,698,955	53,301,039	46,118,534
	85,827,597	79,114,401	56,698,955	53,301,039	46,118,534

Weighted average number of shares, diluted					
Dividends per common share, paid	\$ 0.24	\$ 0.15	\$ 0.15	\$ 0.50	\$ 0.60
<b>Cash Flow Data</b>					
Net cash provided by operating activities	234,409	106,971	117,923	60,862	45,587
Net cash used in investing activities	(174,754)	(254,307)	(144,437)	(42,985)	(69,187)
Net cash provided by (used in) financing activities	27,914	187,206	44,454	(49,288)	(77,329)

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	2015	2014	2013	2012	2011
<b>Balance Sheet Data (at year end)</b>					
Cash and cash equivalents	\$ 289,676	\$ 202,107	\$ 162,237	\$ 144,297	\$ 175,708
Cash, restricted	15,330	12,334	9,527	16,192	5,984
Investments	1,000	1,000	1,000	1,000	1,000
Advances for vessels under construction	371,238	188,954	58,521	119,484	37,636
Vessels, net book value	2,053,286	2,199,154	2,173,068	2,088,358	2,194,360
Total assets	2,900,697	2,699,097	2,483,899	2,450,884	2,535,337
Long-term debt, including current portion	1,400,094	1,418,336	1,380,298	1,442,427	1,515,663
Total stockholders equity	1,415,072	1,177,912	997,663	926,840	919,158
<b>Fleet Data</b>					
Average number of vessels	49.2	49.0	47.5	47.9	47.8
Number of vessels (at end of period)	49.0	50.0	48.0	46.0	48.0
Average age of fleet (in years)(2)	8.5	7.7	7.1	6.5	7.0
Earnings capacity days(3)	17,970	17,895	17,339	17,544	17,431
Off-hire days(4)	376	406	385	889	502
Net earnings days(5)	17,594	17,489	16,954	16,655	16,929
Percentage utilization(6)	97.9%	97.7%	97.8%	94.9%	97.1%
Average TCE per vessel per day(7)	\$ 25,940	\$ 19,834	\$ 16,957	\$ 16,430	\$ 15,203
Vessel operating expenses per ship per day(8)	\$ 7,933	\$ 8,209	\$ 7,651	\$ 7,756	\$ 7,633
Vessel overhead burden per ship per day(9)	\$ 1,212	\$ 1,175	\$ 1,196	\$ 1,180	\$ 1,188

- (1) Vessel operating expenses are costs that vessel owners typically bear, including crew wages and expenses, vessel supplies and spares, insurance, tonnage tax, routine repairs and maintenance, quality and safety costs and other direct operating costs.
- (2) The average age of our fleet is the age of each vessel in each year from its delivery from the builder, weighted by the vessel's deadweight tonnage ( dwt ) in proportion to the total dwt of the fleet for each respective year.
- (3) Earnings capacity days are the total number of days in a given period that we own or control vessels.
- (4) Off-hire days are days related to repairs, dry-dockings and special surveys, vessel upgrades and initial positioning after delivery of new vessels. In 2012, excluding *La Prudencia* and *La Madrina*, which were unemployed during most of the year being held for sale, off-hire days for the rest of the fleet were 337.
- (5) Net earnings days are the total number of days in any given period that we own vessels less the total number of off-hire days for that period.
- (6) Percentage utilization represents the percentage of earnings capacity days that the vessels were actually employed, i.e., net earnings days as a percentage of earnings capacity days. In 2012, excluding *La Prudencia* and *La Madrina*, which were unemployed during most of the year being held for sale, percentage utilization was 98%.
- (7) The shipping industry uses time charter equivalent, or TCE, to calculate revenues per vessel in dollars per day for vessels on voyage charters. The industry does this because it does not commonly express charter rates for vessels

on voyage charters in dollars per day. TCE allows vessel operators to compare the revenues of vessels that are on voyage charters with those on time charters. TCE is a non-GAAP measure. For vessels on voyage charters, we calculate TCE by taking revenues earned on the voyage and deducting the voyage expenses (bunker fuel, port expenses, canal dues, charter commissions) and dividing by the actual number of voyage days. For vessels on bareboat charter, for which we do not incur either voyage or operation costs, we calculate TCE by taking revenues earned on the charter and adding a representative amount for vessel operating expenses. TCE differs from average daily revenue earned in that TCE is based on revenues after voyage expenses and does not take into account off-hire days.

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Derivation of time charter equivalent per day (amounts in thousands except for days and per day amounts):

	2015	2014	2013	2012	2011
Voyage revenues	\$ 587,715	\$ 501,013	\$ 418,379	\$ 393,989	\$ 395,162
Less: Voyage expenses	(131,878)	(154,143)	(132,999)	(124,012)	(141,446)
Add: Representative operating expenses for bareboat charter (\$10,000 daily)	560		2,110	3,660	3,650
Time charter equivalent revenues	456,397	346,870	287,490	273,637	257,366
Net earnings days	17,594	17,489	16,954	16,655	16,929
Average TCE per vessel per day	\$ 25,940	\$ 19,834	\$ 16,957	\$ 16,430	\$ 15,203

- (8) Vessel operating expenses per ship per day represents vessel operating expenses divided by the earnings capacity days of vessels incurring operating expenses. Earnings capacity days of vessels on bareboat or chartered-in have been excluded.
- (9) Vessel overhead burden per ship per day is the total of management fees, management incentive awards, stock compensation expense and general and administrative expenses divided by the total number of earnings capacity days.

#### Ratio of Earnings to Fixed Charges and Preference Dividends

The following table sets forth our ratio of earnings to fixed charges and preference dividends for the periods presented:

	Year Ended December 31,				
	2015	2014	2013 <sup>(2)</sup>	2012 <sup>(2)</sup>	2011 <sup>(2)</sup>
Ratio of earnings to fixed charges and preference dividends <sup>(1)</sup>	4.1x	1.6x			

- (1) For purposes of calculating the ratios of earnings to fixed charges and preference dividends (none in 2012 and 2011):

earnings consist of net income (loss) before minority interest plus interest expensed and amortization of loan fees and capitalized interest;

fixed charges represent interest expensed and capitalized, the interest portion of charter hire expense, and amortization of loan fees and capitalized interest; and

preference dividends refers to the amount of net income (loss) that is required to pay the cash dividends on outstanding preference securities and is computed as the amount of (x) the dividend divided by (y) the result

of 1 minus the effective applicable income tax rate.

- (2) The ratio of earnings to fixed charges and preference dividends (none in 2012 and 2011) for this period was less than 1.0x. The deficiency in earnings to fixed charges and preference dividends for the years ended December 31, 2013, 2012 and 2011 was approximately \$42.8 million, \$49.5 million and \$90.1 million, respectively.

**Capitalization**

The following table sets forth our (i) cash and cash equivalents, (ii) restricted cash and (iii) consolidated capitalization as of December 31, 2015 on:

an actual basis; and

as adjusted basis giving effect to (i) debt repayments of \$76.1 million, (ii) the payment of newbuilding installments of \$29.9 million, (iii) the payment of \$4.0 million of preferred share dividends, (iv) debt drawdowns of \$105.8 million, and (v) our repurchase of 1,187,089 of our common shares for an aggregate of \$6.7 million, all of which occurred after December 31, 2015 and as of the date of this Annual Report.

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Other than these adjustments, there has been no material change in our capitalization from debt or equity issuances, re-capitalization or special dividends between December 31, 2015 and April 5, 2016.

This table should be read in conjunction with our consolidated financial statements and the notes thereto, and Item 5. Operating and Financial Review and Prospects, included elsewhere in this Annual Report.

<i>In thousands of U.S. Dollars</i>	<b>As of December 31, 2015</b>		
	<b>Actual</b>	<b>Adjustments (Unaudited)</b>	<b>Adjusted (Unaudited)</b>
<b>Cash</b>			
Cash and cash equivalents	\$ 289,676	(68,361)	221,315
Restricted cash	15,330	(6,472)	8,858
Total cash	305,006	(74,833)	230,173
<b>Capitalization</b>			
<b>Debt:</b>			
Long-term secured debt obligations (including current portion)	\$ 1,400,094	29,740	1,429,834
<b>Stockholders equity:</b>			
Preferred shares, \$1.00 par value; 15,000,000 authorized and 2,000,000 Series B Preferred Shares and 2,000,000 Series C Preferred Shares and 3,400,000 Series D Preferred Shares issued and outstanding at December 31, 2015 on an actual and as adjusted basis	7,400		7,400
Common shares, \$1.00 par value; 185,000,000 shares authorized; 87,338,652 shares issued and outstanding at December 31, 2015 on an actual basis and 87,338,652 shares issued and 86,151,563 shares issued and outstanding on an as adjusted basis	87,339	(1,187)	86,152
Additional paid-in capital	752,001	(5,560)	746,441
Accumulated other comprehensive loss	(10,727)		(10,727)
Retained earnings	567,464	(3,969)	563,495
Non-controlling interest	11,595		11,595
Total stockholders equity	1,415,072	(10,716)	1,404,356
Total capitalization	\$ 2,815,166	19,024	2,834,190

**Reasons For the Offer and Use of Proceeds**

Not Applicable.

**General Market Overview World Oil Demand / Supply and Trade (Howe Robinson)**

*All of the statistical data and other information presented in this section entitled General Market Overview World Oil Demand / Supply and Trade, including the analysis of the various sectors of the oil tanker industry, has been provided by Howe Robinson Partners (UK) Ltd ( Howe Robinson ). Howe Robinson has advised that the statistical*



*data and other information contained herein are drawn from its database and other sources. In connection therewith, Howe Robinson has advised that: (a) certain information in Howe Robinson's database is derived from estimates or subjective judgments; (b) the information in the databases of other maritime data collection agencies may differ from the information in Howe Robinson's database; and (c) while Howe Robinson has taken reasonable care in the compilation of the statistical and other information and believes it to be accurate and correct, data compilation is subject to limited audit and validation procedures.*

**General Market Overview**

*(All text, data and charts provided by Howe Robinson)*

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**World Oil Demand/Supply and the Tanker Market**

The tanker market enjoyed its highest earnings in over seven years in 2015, benefitting directly from lower oil prices. The sharp decline in the price of oil since the second half of 2014 was this time driven by a global crude oversupply, rather than a decline in demand which was the driver behind the last sharp drop in oil prices during the financial crisis of 2008-2009. The crude surplus and low oil prices of 2015 triggered a multitude of beneficial demand factors for the tanker market which included record consumption growth in some parts of the world, strategic and commercial crude and oil product stockbuilding demand, floating storage plays, exceptionally high refining runs, infrastructure bottlenecks leading to vessel delivery delays and many more. The added demand for tanker tonnage also allowed tanker owners to hold on to the benefit of the lower cost of bunker fuels (which are highly correlated with crude oil). Furthermore, this strong upward shift in tanker demand occurred during a year of low fleet growth in most sectors, which allowed for freight rates to rise sharply.

Brent crude lost approximately 77% of its value from its \$115/bbl peak in June 2014 to a low of just above \$26/bbl in mid-January 2016. Despite a temporary resurgence in both Brent and WTI prices during Q2-2015, at the end of June world powers and Iran reached an agreement that would see sanctions soon lifted on the country which, combined with rising crude supply elsewhere, triggered a pronounced sell-off that tailed off into 2016. US crude production remained unexpectedly high, while OPEC's two largest members, Saudi Arabia and Iraq, boosted their combined production by over 1 million bpd over the year. Concerns of a weakening Chinese economy has also brought the price of oil under pressure, particularly in August 2015, as oil prices traded below \$40/bbl for the first time since early 2009 and again in late December after periods of high volatility on the Shanghai Stock Exchange. The lifting of sanctions on Iran became effective in mid-January 2016, eventually pushing prices down further to bottom out below \$30/bbl.

**Global Oil Prices and WTI-Brent Differential**

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WTI switched to trade at a premium to Brent during the last days of 2015, following the lifting of the 40-year old US crude export ban. As a slightly higher quality crude in terms of API gravity and sulphur content, WTI should logically trade at a premium to Brent, but its landlocked nature amid booming domestic production has led it to trade at a discount since the so-called shale revolution. The WTI discount to Brent has been re-established as the US crude has yet to emerge as a major export grade. Export infrastructure in the US Gulf coast, the natural crude export hub for US crude, falling US crude production, and a lack of demand amid the ongoing crude surplus has limited US crude's global reach and has for now kept it largely landlocked. Possible crude export markets for US crude could be Latin America, particularly Venezuela for blending purposes, Europe where it could compete with light, sweet West African crude and potentially Asia where both US condensate and some very high quality crude can be used for condensate splitting. The greater the export demand for the crude, the more WTI will appreciate in value relative to other grades. US domestic refineries, however, would prefer for the WTI discount to remain to continue providing them with a feedstock cost advantage relative to their international competitors.

The IEA estimates that the crude oversupply in 2015 averaged 2m bpd, with a global crude stockbuilding rate estimated at around 1.4 million bpd (all IEA data captured last from the February 2016 report). Stocks in some areas approached near capacity; for example in Cushing, US, stocks rose to 64.2 million bbls only 0.8 million bbls below the operational capacity of the Cushing storage facilities. Stocks in other areas, notably China and India, were expanded as part of a long-term strategic plan but the low crude prices also helped to encourage that strategic and other commercial stockbuilding. As of the February update, the IEA is estimating that the crude surplus will remain at around 2 million bpd in Q1-2016, fall to 1.5 million bpd in Q2-2016 and then sharply narrow in the second half of the year to average 0.3 million bpd leaving the year with an average surplus of approximately 1 million bpd.

Total OECD crude stocks reached 1,119.3 million barrels at the end of 2015, nearly a 15% year-on-year increase from 2014. The largest build was witnessed in the OECD Americas where stocks built by 93.2 million bbls. Stocks in OECD Europe rose by 36.5 million bbls and by 25 million bbls in OECD Asia Oceania. Middle distillate stocks rose by 87 million bbls in all OECD regions, the largest gain was in Europe but this was closely followed by the Americas, amid slowing global demand growth for the fuel and high output from refiners who raised their products output in order to capture firmer gasoline margins but leaving large surpluses of middle distillates to be stockpiled. Gasoline stocks were the only type to fall year-on-year as demand growth accelerated - since the primary buyers of gasoline are individual consumers for passenger car use this makes the fuel much more elastic (i.e. demand will respond to lower prices) than gasoil, which relates more to industrial demand. OECD fuel oil stocks also rose by a smaller 16.4 million bbls.

In 2015, Chinese stockbuilding reached its highest level yet at an average of 670,000 bpd for the year. This jump in stockbuilding activity was attributable to a one-time build in refinery stocks after the government issued a rule whereby refineries had to maintain crude oil inventories of at least 15 days when international crude prices are below \$130/bbl and at least 10 days of inventory when prices exceed \$130/bbl. This boosted stockbuilding activity by approximately 200,000 bpd, while the remainder of stockbuilding was for commercial facilities and SPRs that came online during the year. Months of very strong imports during the year marked moments when stockbuilding took place, notably Chinese crude imports rose to a record 7.89m bpd in December. However, imports only two months prior were more than 1.5 million bpd less at 6.26 million bpd in October, highlighting the powerful effect that stockbuilding has on Chinese crude import levels and, by extension, crude tanker demand.

OPEC production rose by 1.07 million bpd in 2015 as the organization agreed in November 2014 and re-affirmed in June 2015 not to cut production to lift prices. At the most recent OPEC bi-annual meeting in December 2015 the organization decided to forgo a production ceiling altogether as they welcomed back Indonesia and as the uncertainty surrounding Iranian production growth following the lifting of sanctions raised questions over the correct level of the ceiling. This decision was largely viewed as symbolic as OPEC had been pumping well above its 30 million bpd

ceiling for many months. Recently, Saudi Arabia, Bahrain, Venezuela, Qatar and Russia agreed to freeze production at January 2016 levels which, at the time of writing, has done little to stifle a rise in oil prices as oil production from those countries was not expected to rise much above January 2016 levels anyway in the year, or in some cases was expected to even fall. Iran and Iraq have so far not committed to an output freeze.

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Iraq accounted for over 60% of production growth among the OPEC countries, despite ongoing violence in the northwest. Iraqi output rose by approximately 660,000 bpd to reach an average output of 3.99 million bpd for 2015 but production had climbed month on month to 4.3 million bpd by December 2015. The jump in Iraqi production was driven by two developments. First, the benchmark Basrah crude was split into a Heavy and Light grade in May which improved the consistency of the oil Iraq sent to its customers and enabled a rise in the Heavy stream outflow. Second, with support from improved pipeline infrastructure and greater autonomy, production from the autonomous Kurdistan region grew from an average of 200,000 bpd in 2012 and 2013 to average 550,000 bpd in 2015. Saudi Arabia was the second-largest contributor to OPEC production growth with output rising year-on-year by 450,000 bpd in 2015. The UAE and Angola were the only other OPEC members (apart from Iran) to boost year-on-year output, by 100,000 bpd and 120,000 bpd respectively.

Production fell relatively minimally for most of other OPEC members. Algeria and Indonesia continue to experience a long-term decline in their output, while internal disruptions caused Nigeria production to fall by 100,000 bpd year-on-year. Output in Libya rose temporarily at the start of March 2015 to over 500,000 bpd but fell only a couple of months later following the closure of the eastern port of Zueitina while nearly all the countries' export infrastructure remains closed or is under force majeure in early 2016. Kuwaiti production fell by only 20,000 bpd, but was lower throughout the year due in part to the shut in of the 500,000 bpd Neutral Zone production that the Emirate shares with Saudi Arabia following a dispute over its development.

At the end of June 2015, Iran and the P5+1 negotiating countries came to a final agreement to end international sanctions on Iran given that they fulfilled a number of nuclear neutralizing requirements. After fulfilling those requirements, international sanctions were effectively lifted in mid-January 2016, however US sanctions tied to non-nuclear related issues remain on a number of Iranian entities and individuals. Subsequently, Iran has vehemently promised to boost crude output by 500,000 bpd within months of sanctions being lifted in the hopes of restoring output to pre-sanction levels of just below 4 million bpd from a 2015 average of 2.86 million bpd. The IEA expects Iranian output to rise by around 600,000 bpd in 2016, further boosting OPEC's market share as non-OPEC output is projected to fall this year.

Non-OPEC production demonstrated its resilience in the face of tumbling oil prices as output only began to show steady declines after peaking in October 2015 at 57.89 million bpd. Output in major non-OPEC producing nations is now expected to fall by approximately 600,000 bpd in 2016 after rising by 1.4 million bpd in 2015. However, the forecasted decline in non-OPEC production will be more than offset by an expected rise in OPEC production driven by Iran. OPEC production is expected to rise by more than 700,000 bpd in 2016, leaving total global crude production relatively flat year-on-year at 96.5 million bpd - roughly 100,000 bpd higher than 2015 output. On the other hand, the IEA expects demand growth to average 1.2 million bpd in 2015, down from 1.6 million bpd last year, which leaves the 2016 average crude surplus at around 1 million bpd, as previously mentioned.

US crude output peaked in April 2015 at 13.24 million bpd, and averaged 12.92 million bpd for the year. Output in the US is expected to fall by about 500,000 bpd this year as the resilient US oil industry, populated by many independent producers, only began to see consecutive month-on-month declines at the very end of 2015. Buoyant production from the US Gulf of Mexico delayed the fall in total US production; output in the Gulf of Mexico rose by 142,000 bpd in 2015 with similar growth expected again this year. By mid-January 2016 the total number of active rigs in the US stood at 515, 68% below the peak in October 2014. Meanwhile production from new wells drilled has fallen to less than 240,000 bpd which is behind legacy declines of more than 350,000 bpd. The lifting of the crude export ban is not expected to lead to a rise in US crude production for export while global oil prices remain low and there is a persistent oversupply. The decline in US crude production, however, is expected to boost seaborne imports into the country. The small and entrepreneurial independent producers that characterize much of the US shale oil industry are likely to boost output again at the first sign of a rise in oil prices which makes a large part of US production very elastic.

Conversely, Canadian production is expected to rise in 2016 by 100,000 bpd, 20,000 bpd more than it rose in 2015, to reach 4.46 million bpd as fields and projects invested in years ago come to fruition. However, investment in the region, and therefore output in the longer term, has plunged due to the very high cost nature of

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in-situ bitumen and oil sands production. In addition, Canadian oil prospects have been further inundated by the blocking of the 830,000 bpd Keystone XL pipeline by President Obama in 2015 and further delays and public concern over the 1.1 million bpd Energy East pipeline, 890,000 bpd Trans Mountain pipeline and the 520,000 bpd Northern Gateway pipeline projects.

Despite grappling with a combination of economic sanctions and low oil prices, Russian production rose year-on-year by 150,000 bpd in 2015 to reach a post-Soviet record of 10.73 million bpd, but its pace of supply growth is expected to slow in 2016. Reportedly, the Russian oil industry is able to keep functioning with the recent low oil prices, however, government income has felt a sharper pinch. An ongoing debate for raising export levies and crude extraction taxes on production to bolster the national budget may reduce the country's oil output according to some commentators. North Sea production also remained resilient in 2015, production from Norway and the UK rose by a combined 140,000 bpd in 2015 after reaching a peak of 3.03 million bpd in Q4-2015 although the region is drilling new wells at a 50-year low. Production is now expected to fall going forward, it is estimated that successive declines this year will leave output averaging 2.82 million bpd. The North Sea oil industry has been hit hard by the plunge in oil prices, with a recent report estimating that 150 oil platforms (25%) could be lost in UK waters within the next 10 years; unless the industry adapts it could see these fields shut down permanently. Finally, despite a national oil workers protest at the end of the year, Brazilian production rose almost 200,000 bpd to 2.53 million bpd by virtue of a rise in output at the offshore Lula pre-salt field by 200,000 bpd to 380,000 bpd throughout the year. However, the state-owned oil company Petrobras cut its capital spending projections by 25% for the 2015-2019 period at the start of 2016, warning that production may not grow as expressed previously due to the continued low oil price and the devaluation of the nation's currency.

### **Global Oil Supply and Demand YoY Growth**

The drop in oil prices during 2015 was welcomed by consumers as year-on-year demand growth almost doubled in 2015 compared to 2014 from 0.88 million bpd to 1.61 million bpd. Due to the price sensitivity of gasoline as an end-consumer product, as opposed to middle distillates which are driven by stickier industrial consumption, the transportation fuel experienced the largest demand growth in many parts of the world. As the price of oil slipped throughout the year, demand likewise accelerated particularly during Q3-2015 when it stood at 95.38 million bpd over 2 million bpd higher than in the same period of 2014. This was a result of a very robust

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US summer driving season where US drivers drove a record 280 billion miles in July, in addition to vigorous gasoline demand growth in China, India, and elsewhere. The fall in crude prices also widened refining margins, leading many refineries to delay maintenance and thus keep refining demand for crude abnormally high throughout the year even if this has translated into a building of undesirable middle distillate stocks.

Indian oil demand growth overtook that of China in 2015, expanding at a pace of 5.8% versus 5.3% for China to levels of 3.98m bpd and 11.18 million bpd respectively. Demand in India is expected to rise by a similar percentage this year, while Chinese oil demand growth is expected to fall below 3%. A weak monsoon season during Q3-2015 aided diesel demand in India, while India's total products demand reached a five-month high in October with the onset of the festival season pushing passenger car sales to jump by 22%. Meanwhile, a slowdown in Chinese industrial growth has seen diesel demand rise by only 14,000 bpd, or 0.4%, compared to a rise in gasoline consumption of 193,000 bpd, or 8.6%, as the economy becomes increasingly consumer driven.

In the wake of low oil prices, many countries took advantage of this position to either reduce subsidies or increase environmental disincentives for oil consumption as the low oil price reduced clean energy's cost competitiveness and induced heavy oil demand growth that if left unabated could cause serious pollution damage. These measures can be considered as artificial demand caps, reducing otherwise natural demand growth. Some examples include a handful of Mideast Gulf countries (Saudi Arabia, Bahrain, the UAE) reducing their generous fuel subsidies to bring relief to their strained budgets, India and Indonesia sharply reducing or completely removing fuel subsidies, China imposing a freeze on fuel prices when crude oil falls below \$40/bbl, India banning new luxury diesel vehicles in Delhi and imposing a green tax on commercial vehicles in the city and more recently Venezuela relaxing its heavy fuel subsidies. The IEA advises that the expected demand growth risk is tilted towards the downside amid weak emerging and oil producing nation economies and an expected steady rise in oil, and fuel, prices as the year progresses. That being said, other industry watchers have a more optimistic view and it would not be the first time early year forecasts would prove overly pessimistic.

Chinese oil demand rose to an average of 11.18 million bpd this past year, an increase of 570,000 bpd or approximately 5.3% from 2014. This outpaced demand growth in 2014 of 300,000 bpd, but is in line with recent annual growth of 3-5% since growing by 11% in 2010 and at similar levels in prior years. Demand is expected to slow in 2016 to a growth rate of 3%, reflecting decelerating GDP growth and a number of government efforts (mentioned previously as artificial demand caps) that are stemming oil demand growth in an effort to reduce pollution. Chinese refining capacity expanded by approximately 650,000 bpd in 2015, this comprised of three state-owned refineries each totaling 100,000 bpd and 350,000 bpd of teapot expansions. Most Chinese refinery expansions in 2016 have been delayed as refiners instead focus on upgrading capacity to meet the 2017 change in domestic fuel specifications to the China 5 standard and amid a domestic fuel glut that has seen product exports surge towards the end of the year.

An important development this past year worth mentioning is independent, or teapot, refineries being given the ability to process and directly import crude in place of fuel oil. A reported total of 12 independent refiners have been given crude processing quotas by February 2016 totaling just over 1 million bpd, while most have also been allocated direct crude import quotas. In order to receive these quotas the independent refiners had to reduce inefficient capacity, build a certain level of stocks, and comply with other efficiency-promoting requirements. The independent refiners constitute a new source of crude demand, but they are at the mercy of reduced fuel oil demand as fuel oil was their previous feedstock, and will therefore add to Chinese crude demand this year as they did at the latter end of 2015. However, independent refineries have a lower utilization on average than their state-owned counterparts, despite utilization with crude oil feedstock an improvement from fuel oil, and so it is doubtful that the full quotas will be utilized.





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**Chinese Crude Imports and Stock Building**

In their February 2016 update the IMF has estimated global GDP growth for 2015 at 3.0%, reducing it from earlier forecasts of 3.3% amid an uneven and modest recovery in advanced economies and a challenging outlook for emerging economies. In tune with expectations for growth in 2014, the IMF restated that risks remain tilted to the downside with a rebalancing of China's economy, lower commodity prices, a slowdown among emerging countries and the slow, yet fragile, exit of accommodative monetary policy by the US as most other advanced economies look instead towards easing monetary conditions.

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**GDP and Oil Demand Growth vs. Tanker Earnings**

Growth in emerging and developing markets declined for the fifth consecutive year, with many of those economies drawing a large portion of their finances from commodities, while advanced economies continued to embark on a slow recovery. The fall in oil prices driven by the oversupply should supposedly support global demand as a result of the higher propensity to spend in oil importing countries relative to oil exporting countries, but a number of factors have reduced the otherwise positive impact. The IMF cited financial woes in many oil exporters limiting their ability to smoothen the shock of the drop in oil prices, leading to a significant fall in their domestic demand. The fall in oil price has sharply reduced an entire industry's level of investment, itself a contribution to global demand growth. The IMF expects global GDP growth to pick up to 3.4% in 2016 and 3.6% in 2017. In the long term, the lower for longer oil price phenomenon has reduced oil industry investment to a point where the global economy could witness skyrocketing oil prices later down the line.

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**Crude Tanker Tonne-Miles and Select Crude Imports**

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As importing regions, China and India continued to be the driving force behind crude ton-mile demand growth. The approximate 540,000 bpd year-on-year rise in Chinese seaborne volumes in 2015 came from a combination of Middle Eastern, east coast South American and Russian volumes (only a small portion of the rise in total Russian flows was non-seaborne). Saudi Arabia only met 4% of China's increase in crude appetite last year, with Kuwait, Iraq and Oman gaining more of a foothold boosting their shipments by 80,000 bpd, 70,000 bpd and 50,000 bpd respectively. Russian exports to the far eastern nation rose by an equivalent amount to Middle Eastern volumes (excluding Saudi Arabia) this was in large part due to rising Kozmino ESPO crude loadings and China's independent refineries' healthy appetite for the grade. Previously limited to Aframaxes, the Kozmino export terminal began loading Suezmaxes in November 2015 with loadings at the terminal reportedly climbing more than 20% year-on-year. Generating the greatest boost in ton-mile growth, however, would be the 140,000 bpd year-on-year gain in east coast South America flows to China which was wholly provided for by Brazil as Argentinean flows remained flat at 10,000 bpd. The greatest annual fall in volumes occurred from West Africa, a fall of 90,000 bpd, due to a decline in imports from Angola, Congo, Equatorial Guinea and Nigeria as Europe took more West African crude to feed their surge in refining runs but also as West Africa struggled to sell their crude amid the global oil glut.

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The rise in Indian ton-miles was a result of increased flows from Mexico, Saudi Arabia and West Africa but mileage growth was certainly impeded by a 90,000 bpd year-on-year fall in volumes from the Caribs in 2015. Overall, Indian crude imports grew only 2% year-on-year to 3.92 million bpd, but in 2014 import volumes actually fell year-on-year and so 2015 volumes were less than 1% or 20,000 bpd higher than in 2013. A lack of new Indian refining capacity was behind the low growth in crude volumes flowing into India, the 300,000 bpd Paradip refinery was scheduled to come online in 2015, after being delayed from 2013, but is now coming online in March 2016. The refinery is expected to take 60% Mexican Mayan crude, but is also thought to be capable of taking West African grades. India was a consistent buyer of West African crudes, particularly as they were depressed this year with a number of cargoes leftover at the end of each month attracting favorable discounts. India was also a strong buyer of Iraqi volumes, the country's imports from Basrah rose by 170,000 bpd as reportedly the 9.7 million bbl Visakhapatnam SPR on the western coast of the country was filled with predominantly Iraqi crude.

2015 saw also a noticeable pick up in European crude ton-mile demand growth as refiners there greatly benefitted from the fall in crude prices relative to the pick-up in products demand. The EU28 seaborne volumes rose almost 6% to 9.38 million bpd while Russian pipeline volumes to the region only rose by 70,000 bpd. European refining runs rose by just under 700,000 bpd with the surge in refining margins bringing long-awaited relief to the region's ailing downstream sector. The 510,000 bpd rise in seaborne imports was predominantly due to a rise in flows from the Middle East Gulf, the Eastern Mediterranean and West Africa. Iraqi flows into the EU28 rose by an astounding 270,000 bpd as volumes from Libya and Saudi Arabia waned. Angola was the primary benefactor in West Africa from the boost in runs, while in the East Mediterranean the EU28 took 120,000 bpd of more crude from Azerbaijan and in Latin America Mexico was the only country to see year-on-year export growth to the EU28 of 70,000 bpd.

Although US domestic production began to fall in 2015, seaborne imports continued to trend downwards, albeit at a slower pace than in 2014, falling 200,000 bpd year-on-year. Imports from Canada to the US, however, continued to grow, to the detriment of seaborne volumes, rising by almost 200,000 bpd. Other rises in crude flows into the US were from Latin America, principally Colombia and Ecuador, while imports continued to fall from the Mideast Gulf and West Africa although volumes from Iraq more than doubled in Q4-2015 to average 350,000 bpd while imports from Angola rose 60,000 bpd in Q3-2015 and another 30,000 bpd in Q4-2015. Going forward, US seaborne imports are poised to rise as domestic output is expected to fall in 2016 while WTI could strengthen relative to Brent as domestic output falls.

2015 was an extraordinary year for crude flows by virtue of the immense oversupply, this however has only temporarily delayed the long-term trend of refinery closures in major importing regions including Europe, Japan, and Australia in place of more efficient refineries in the Mideast Gulf and Asia. In the case of the Mideast Gulf, the area is expected to increasingly see higher value-added product exports in place of crude exports. However, in the short-term refining runs in crude importing regions remain relatively supported by the continued low oil price and healthy oil demand. The healthy oil demand included stockbuilding activity, while low oil prices also dramatically encouraged competitive and opportunistic buying and increased trading/blending activity, supporting ton-mile growth. Meantime, in line with long-term strategies, Asian crude buyers continue to widen their buying palate away from the Mideast Gulf to longer-haul destinations, particularly Latin America, which supported crude tanker ton-mile growth.

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**US Oil Product Imports and Exports**

Retail gasoline prices in the US have fallen by over 50% from July 2014, incentivizing Americans to drive a record 283.749 billion miles in July 2015. Consequently, US gasoline imports during the third quarter were 747,000 bpd, almost 40% higher than during the same period last year despite domestic refineries running at full capacity. There were also slight upticks in distillate and kerosene imports in 2015 compared to 2014, which was aided by cold winter weather in Q1-2015 despite refineries shoveling significant amounts into storage towards the end of the year as the warmer than usual winter weather in Q4-2015 did not generate enough demand growth. Despite Europe being inundated by diesel imports from the Middle East, Russia and Asia along with their own surging output due to high refining runs the US managed to also boost distillate exports to the region, however at the start of 2016 the arbitrage had come under increasing pressure due to an oversupply of distillates on both sides of the Atlantic.

Perhaps the most notable event of the past year for the US downstream sector occurred at the end of 2015 with the lifting of the US crude export ban. The refining industry has been against a lifting of the crude ban as it would make US crude grades exportable, thereby removing their landlocked discount propagated by the US shale revolution and eroding US refiners advantageous feedstock cost. As mentioned, WTI switched to trade at a premium to Brent for a few weeks following the lifting of the ban, but by the time of writing it had switched back to trade at a discount to Brent. Reasons for this include limited ability for US crude exports to be realized due to insufficient export infrastructure, and an already oversupplied crude market and therefore little demand opportunity, while many US grades have a very light, sweet quality which makes it more likely to be sold in smaller cargoes (in addition to export infrastructure limiting cargo size). Moreover, it is only reasonable to expect a decline in US refining runs in the case of a decline in US oil demand growth however this is not forecasted to be the case yet. Oil demand in Latin America, to which the US sends most of its product exports, will also prevent a decline in runs. Therefore, it can be expected that the US will continue to see greater product exports in place of imports, as it has since the shale oil revolution, although in the longer term US refineries will be subject to competition from the more efficient, modern refineries coming online in the Mideast Gulf and Asia.

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Refining margins peaked in the summer, reaching an average of \$9.75/bbl on the US Gulf coast in July and \$6.97/bbl in Europe their highest monthly averages since at least 2012. European refiners were particularly pleased after many months in recent years of negative margins in the region, as reported by the IEA. As a result, European refinery autumn refinery maintenance fell to its lowest in nine years, averaging just over 200,000 bpd compared to a 2007-2013 average of almost 1m bpd. Autumn refinery maintenance was also reduced in 2014 to under 600,000 bpd. The two years of delays will inevitably spell a very heavy maintenance period in the near future perhaps at a time when the market can least afford it, i.e. this could lead to a larger than usual reduction in European crude demand during autumn seasonal maintenance at a time when the crude tanker market is weak.

The boost in margins has lent itself to temporarily relieve the long ailing and oversupplied European refining sector, but the long-term reduction in capacity has not been avoided. Total is still planning to halve capacity at its 222,000 bpd Lindsey refinery in 2016, while despite union protests their 153,000 bpd La Mede refinery, outside Marseille, will be converted into France's first bio-refinery of 10,000 bpd and will stop refining crude oil at the end of 2016. ENI will also convert its 100,000 bpd Gela refinery in Sicily into a bio-refinery which is expected to be completed in 2016 with the first production of biodiesel. Finally, it has recently been announced that Phillip's 66 is again looking for a buyer for its 71,000 bpd Whitegate refinery on the south coast of Ireland, if no buyer is found it may close. In Australia, BP closed the 102,000 bpd Bulwer refinery in Brisbane which leaves the country with four refineries at a combined capacity of 444,000 bpd, from a countrywide capacity of 844,000 bpd in 2003. In Asia, CPC closed the 220,000 bpd Kaohsiung refinery in Taiwan which removed substantial gasoil supplies from the Asia-Pacific region. Finally, a long-term refinery reduction plan that continues apace is that of Japan. Petrobras closed their 100,000 bpd Nishihara refinery in 2015, while the country needs to close another 400,000 bpd of capacity to reduce Japan's total refining capacity to 3.45 million bpd under a government mandate to reconcile the downstream sector with dwindling domestic oil demand. To address the remaining 400,000 bpd closures, Japan's top refineries have announced merger plans with each other and streamlining of adjacent refineries.

Two giant refineries in the Middle East Gulf came online nearly simultaneously during the summer of 2015, although both suffered some minor intermittent start-up problems. The two refineries boosted volumes for particularly LR tonnage out of the region destined for Europe, Asia and Australia as the country became more reliant on product imports following the refinery closures. The two refineries were the 416,000 bpd Ruwais expansion in the UAE and the 400,000 bpd Yanbu Yasref refinery on the Red Sea. The Yanbu refinery processes crude from a new oil field, thereby not reducing crude export volumes, and has become a major supplier of high specification diesel to Europe. Further expanding Middle Eastern refining muscle are two projects in Iran, the first was a small 30,000 bpd expansion at the 320,000 bpd Bandar Abbas refinery at the end of 2015 while a new 300,000 bpd refinery is due in Q2-2015 also in Bandar Abbas called the Persian Gulf Star that will produce mainly gasoline, Iran's only net product import. NNPC, the state-owned Nigerian oil company, has also been eagerly expanding domestic refining capacity in an effort to cut the country's product import bill. Three existing refineries, the 210,000 bpd Port Harcourt, 125,000 bpd Warri and 110,000 bpd Kaduna refinery have however been plagued by a number of start-up problems for several months and so remain out of commission which will support product imports into the country from primarily Europe, but also the US.

High refinery output in the west, encouraged by lofty margins, kept the west in surplus of naphtha and continued to support the west/east naphtha trade. Arb volumes, and freight demand, was particularly strong during the summer months, peaking in August just short of 2 million tons, as refineries in the west were running at near full capacity as margins reached their peaks for the year on the back of strong gasoline demand. In September, arb volumes dropped sharply in part due to problems at some petrochemical facilities in the Far East, weaker gasoline margins and as seasonal maintenance in the Far East set in. Despite west/east naphtha arb volumes climbing well above August highs of 2 million tons in January, the backlog of tonnage in the Middle East Gulf has prevented a similar strengthening in freight as it did in the summer. Far eastern demand for naphtha is expected to continue coming from China as they add



an estimated 296,000 bpd of reforming capacity this year to meet China 5 fuel standards by the start of 2017, while runs in the west are expected to remain relatively high

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which will help to keep west/east arbitrage economics supported, although west/east naphtha, as always, remains in competition with LPG as an alternative feedstock and with regional condensate splitting capacity in Asia-Pacific.

**World Tanker Fleet**

VLCC fleet growth remained low in 2015, growing at a year-on-year rate of 2.8% after rising by 2.4% in 2014 and 2.1% in 2013. Years of consecutive low fleet growth have enabled a more pronounced freight response to the recent changes in demand. Lower fleet growth in 2015 was attributable to a low level of additions at only 18 vessels while 3 VLCCs were removed from the trading fleet which were all converted to floating storage units – this is less than the 9 and 17 vessels that were removed in 2013 and 2014, respectively, as the tight market found employment for several older vessels while the buoyant market and dropping scrap steel prices dissuaded scrapping. Slippage in 2015 was 25%, slightly less than the 2009-2014 average of 27.6%, as the well performing markets encouraged ships to be taken on time. The removal of the three floating storage units ( FSUs ) from the fleet were under 20 years old – with one under 10 years of age – doing little to change the average age of the fleet, which currently stands at 19 years of age. As of the 1<sup>st</sup> of January 2016 there were 70 VLCCs scheduled for delivery for the year – applying the average slippage of the past six years of 27.3% this would imply expected additions of 51 VLCCs into the fleet this year and expected removals of 7, pushing fleet growth up to 6.7% - the highest since 2011. The current orderbook translates into heavy fleet growth over the next couple of years as well, with a reasonable expectation for heavy removals towards the end of the decade as many VLCCs turn over the age of 20.

Suezmax fleet growth is also expected to have experienced its last consecutive year of low fleet growth of 1.4% after contracting in 2014 at a rate of -0.2%. The low fleet growth this past year was due to a very low delivery figure of only 9 Suezmaxes against 3 removals, however for the second year in a row more than 10 orders were cancelled during the year. Excluding the cancellations, slippage for 2015 was a low 10% compared to the 2009-2014 average of 43%. The average age of the 3 removed Suezmaxes was 18 years old, although one ship was less than 10 years old and was the only one not to be scrapped but converted into an FSU. Considering the few deliveries made during the year the age of the fleet in fact rose by 1 year to average 9 years old as at the 1<sup>st</sup> of January 2016. Similar to the VLCC fleet growth outlook, Suezmax fleet growth in 2016 is poised to jump markedly with 48 scheduled deliveries for 2016 as at the 1<sup>st</sup> of January 2016, using the slippage average since 2009 approximately 31 of the scheduled deliveries are actually expected to deliver against 5 removals leaving fleet growth somewhere in the range of 6%. Suezmax fleet growth is expected to experience peak fleet growth come 2017 according to the orderbook, fleet growth will then ease from there but likely not back to the lows seen in 2014 and 2015.

Aframax fleet growth in 2015 rose to 2.9% from -1.2% in 2014 on the back of relatively high deliveries of 31 and very low removals compared to earlier years as the fleet had already cleared itself of older tonnage, although the average age of the fleet remains at 20 years as it was for end-2014. At the start of 2015 there were 45 Aframax scheduled to deliver, of which 31 did deliver during the year, equating to a slippage rate of 26.2%. Nearly all the Aframax deliveries were fully coated. Four of the six Aframaxes that were removed were scrapped and averaged an age of 23, while the remaining two were converted to an FSU and a heavy load carrier and together averaged an age of 23.5. Fleet growth is expected to accelerate in 2016 with 69 Aframaxes scheduled to deliver this year as at the 1<sup>st</sup> of January 2016, two thirds of which are fully coated, removals are also expected to trend back up to the long-term average as older tonnage remains especially after scrapping was delayed this year to take advantage of the tight market, but it should be noted that the cut-off trading age for Aframaxes is more flexible than it is for VLCCs and Suezmaxes. Using the average slippage since 2009 of 31.9%, additions are expected to reach 47 with 15 vessels expected to be removed from the fleet in 2016. Overall, expected deliveries and removals will translate into an estimate fleet growth in 2016 of 3.6%, which will further accelerate come 2017 with 77 vessels scheduled to deliver that year as at the 1<sup>st</sup> of January 2016. This past year saw a marked movement of coated vessels switching to trading Dirty Petroleum Product ( DPP ) from trading Clean Petroleum Product ( CPP ), due to the attractive Aframax earnings.

The percentage of the fleet trading DPP increased from ~32.5% at the

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start of 2015 to over 35% at the end of the year. Approximately 21 vessels switched to dirty while 5 vessels cleaned up in 2015, equating to a net dirty up 16. So far in 2016 there have been a net dirty up of 4 vessels as benchmark Aframax earnings have retained a slim lead over benchmark LR earnings.

Panamax fleet growth contracted by 2% in 2015, following a contraction of 1% in 2014, as only 3 vessels delivered during the year against removals of 11 vessels. All but one of the Panamaxes that were removed were scrapped, the remainder was converted to FSUs. two of the Panamaxes removed were older than 30 years old, the average age of the total 11 Panamaxes removed from the fleet in 2015 was 24 years old the average age for the fleet is now just under 10 years. At the start of 2015 there were 11 Panamaxes on order, the majority of which were fully coated, while only 2 fully coated and 1 uncoated Panamax delivered during the year which brings slippage to 66.7% compared to a 2009-2014 average of 42%. As at the 1<sup>st</sup> of January 2016, the orderbook for 2016 stood at 30 Panamaxes, 5 of which are uncoated, of this total it is estimated that 16 will deliver using average slippage since 2009 of 45.5% and as removals are easing off we expect positive fleet growth of just under 3% - the highest fleet growth since 2011. As with Aframaxes, fleet growth on the Panamaxes is poised to peak in 2017 at an estimated 7%. Switching of fully coated trading capacity between CPP and DPP was not as pronounced on the LR1s, in 2015 approximately 10 LR1s switched to dirty while 8 switched to clean trading, however as with the LR2s there was a much more marked switch to DPP in the first half of the year.

In 2015, MR (45,000 dwt – 55,000 dwt) fleet growth reached a six-year high of 9.1% as 108 vessels were added to the fleet and only 1 vessel was removed which was converted to long-term storage. 2015 slippage for MR deliveries was much lower than the 2009-2014 average of 32.2% at 19.4% as, like other vessel classes, higher earnings encouraged deliveries to occur on time. This past year was expected to be the large delivery year for the eco-MR ordering spree of 2013, expected additions to the fleet is now anticipated to fall by more than 30% this coming year and stay at a lower level going forward into the next few years. MR fleet growth is expected to ease off in 2016 to just above 5% with 106 scheduled deliveries as at the 1<sup>st</sup> of January 2016, applying the average slippage rate since 2009 of 30.4% this equates to expected fleet additions of 74 against expected removals of 5, fleet growth for later years is expected at a slightly lower pace given higher removals due to ageing.

Handy product tanker fleet growth (27,000 dwt – 45,000 dwt) broke its five-year contraction streak in 2015, growing at a rate of 2.3%. In 2015 there was both a rise in additions and a fall in removals compared to 2014; 39 ships were added to the fleet with 20 removed which equates to a net fleet growth of 19 vessels. Slippage in 2015 was a very low 2.5%, only 1 vessel slipped into 2016, this compares to an average slippage between 2009-2014 of 33.3%. As at the 1<sup>st</sup> of January 2016, the orderbook for the current year stood at 54 vessels, applying average slippage since 2009 of 28.9% this translates into an expected 2016 delivery schedule of 38 which, against expected removals of 20 driven mainly by age, leads to a similar net fleet growth in 2016 of 2.2%. As additions to the fleet fall slightly going forward and as removals accelerate due to the aging fleet (about 14% of the fleet is over 20 years old, although Handy trading is flexible in terms of age), fleet growth is, unlike the crude and LR sectors, expected to continue to fall but remain positive over the next few years.

**Newbuildings****Newbuilding Tanker Prices (South Korea)**

	Jan-05	Jan-06	Jan-07	Jan-08	Jan-09	Jan-10	Jan-11	Jan-12	Jan-13	Jan-14	Jan-15	Jan-16
CC	\$ 120.0m	\$ 122.0m	\$ 130.0m	\$ 146.0m	n/a	\$ 100.0m	\$ 105.0m	\$ 100.0m	\$ 90.0m	\$ 92.0m	\$ 98.0m	\$ 93.0m
ezmax	\$ 74.0m	\$ 73.0m	\$ 80.5m	\$ 86.0m	n/a	\$ 60.0m	\$ 65.0m	\$ 62.0m	\$ 60.0m	\$ 67.0m	\$ 65.0m	\$ 65.0m
	\$ 62.5m	\$ 61.0m	\$ 65.5m	\$ 72.0m	n/a	\$ 51.0m	\$ 57.0m	\$ 52.0m	\$ 48.0m	\$ 53.0m	\$ 54.0m	\$ 53.0m

amax coated)													
k dwt oxy ated)	\$ 41.0m	\$ 43.5m	\$ 47.0m	\$ 51.0m	n/a	\$ 32.0m	\$ 37.0m	\$ 34.5m	\$ 32.0m	\$ 37.0m	\$ 36.0m	\$ 35.3	

Price assessments were suspended in late 2008 and early 2009 due to a lack of liquidity in the tanker sale and purchase markets.

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In 2015, a total of 73 VLCCs were ordered – the most in at least the past four years. Over half of the orders were made in the second half of the year as earnings continued to strengthen, newbuilding prices remained attractive and as the impending IMO Tier III engine standard that came into place at the start of 2016 would add an extra cost of \$2-\$4 million, encouraging purchases in 2015 that may have otherwise been made later. 3 VLCCs were ordered in the first month of 2016, bringing the total orderbook to 138 against a fleet of 656 at the time of writing.

Similarly, strong crude earnings encouraged heavy Suezmax ordering in 2015 with a total of 79 orders as at the end of 2015 that will deliver on the back of the smaller Suezmax fleet, which at the time of writing totals 435 vessels. Over a third of the orders were made in the fourth quarter of the year with mainly South Korean shipbuilders throughout 2015, although almost a third were made with Chinese shipbuilders during the year. Despite the marked fall in VLCC (South Korean) newbuilding prices, Suezmax newbuilding prices stayed relatively stable throughout the year – dipping to \$64m for two months in September and ending the year back at \$65m. So far in 2016, Suezmax ordering continues to outpace VLCC ordering with a total of 4 Suezmaxes ordered in the first month of the year, bringing the total orderbook up to 129 vessels at the time of writing.

Aframax ordering in 2015 was no different, a total of 30 uncoated and 99 coated LR2s were ordered. In 2014 a total of 9 uncoated and 15 coated LR2s were put on order, but the high LR2 figure is not completely stand alone as 85 coated LR2s were ordered during 2013. Aframax ordering jumped in Q2-2015 and stayed high for the rest of the year as average annual earnings were almost double levels from 2014 and as (South Korean) newbuilding prices fell by \$1 million, although keeping in mind the effect of the USD appreciation throughout 2015. Most recently, newbuilding prices have fallen by a further \$1 million since the start of the year, 5 Aframaxes (believed to be uncoated) have since been ordered during January 2016 bringing the total orderbook to 192 against a fleet of 901 vessels (coated and uncoated) at the time of writing. Even though the majority of orders are specified as fully coated vessels, uncoated vessels can still be switched to fully coated before construction ends while for a short time uncoated vessels can trade clean for their very first voyages, although they will have to revert to dirty trades so as the refined products do not significantly erode their uncoated tanks.

MR ordering in 2015 was non-existent in Q1-2015, and only showed a total of 3 orders in Q2-2015 as the market took a breather from the vigorous eco-MR driven ordering from 2013 when 226 vessels were ordered. Despite the absence of newbuilding orders, prices actually increased in February 2015 to \$37 million but shortly later sunk down to \$36.5 million where they remained until July, they only declined later in the year to fall by \$0.7m year-on-year as the market instead seemed to favor secondhand vessels. Earnings in the first three quarters of 2015 were at least double than during the same period last year which must have encouraged some orders despite the intense focus there seems to have been on crude ordering during the year. Throughout 2015, a total of 98 MRs were ordered, 95 of which were ordered in the second half of the year. There were only 2 MR orders in January 2016, which brings the orderbook to tally at 202 against a fleet of 1301 at the time of writing.

Despite the vast majority of annual tanker earnings in 2015 reaching their highest level since 2008, the same magnitude of rise was not reflected in newbuilding prices which lent itself to encourage high level of particularly crude and LR ordering witnessed last year. It could be argued that market players were intent instead on capturing the current market which limited the price appreciation on vessels that would not be delivering for another two years at least. In addition, it has been shown that years of strong earnings typically lead to years of high ordering, while the introduction of the IMO Tier III engine standard come 2016 also may have pushed some orders to happen in 2015 that may have otherwise happened later. Conversions from the dry bulk market into tanker orders also continued in 2015, there were estimated to be almost 40 dry conversions in 2015 and a handful of LNG conversions into tanker orders.



**Table of Contents****Second-hand Prices****5-Year Old Tanker Prices**

	Jan-05	Jan-06	Jan-07	Jan-08	Jan-09	Jan-10	Jan-11	Jan-12	Jan-13	Jan-14	Jan-15	Jan-16
<b>VLCC</b>	\$ 110.0m	\$ 120.0m	\$ 117.0m	\$ 138.0m	n/a	\$ 77.0m	\$ 80.0m	\$ 55.0m	\$ 51.0m	\$ 60.8m	\$ 77.0m	\$ 78.0m
<b>Suezmax</b>	\$ 75.0m	\$ 76.0m	\$ 80.0m	\$ 96.0m	n/a	\$ 55.0m	\$ 56.0m	\$ 43.0m	\$ 37.0m	\$ 38.0m	\$ 55.8m	\$ 60.0m
<b>Aframax</b>												
<b>(Uncoated)</b>	\$ 59.0m	\$ 65.0m	\$ 65.0m	\$ 73.0m	n/a	\$ 39.0m	\$ 41.0m	\$ 32.0m	\$ 27.0m	\$ 29.5m	\$ 42.5m	\$ 44.0m
<b>7k dwt</b>												
<b>Epoxy Coated)</b>	\$ 40.0m	\$ 47.0m	\$ 47.0m	\$ 52.0m	n/a	\$ 24.5m	\$ 26.0m	\$ 25.5m	\$ 22.0m	\$ 28.0m	\$ 26.4m	\$ 28.0m

Price assessments were suspended in late 2008 and early 2009 due to a lack of liquidity in the tanker sale and purchase markets

Secondhand vessels, unlike newbuildings, could be used immediately for trading which is partly the reason behind their price appreciation this past year, and importantly since 2014, amid the resurgent market since late-2014. VLCC 5-year old prices rose \$1 million throughout the year, but this marks a 30% rise in price since January 2014 which was first brought on by the contango storage play possibility towards the end of 2014. Suezmax prices similarly rose only minimally year-on-year but represent a \$22 million increase in price since January 2014. Aframax secondhand prices rose by \$1.5 million, and with the decline in newbuilding prices the spread between the two narrowed to \$9 million the lowest since 2008 when they were priced above newbuildings. Finally, MR 5-year old prices also rose in value by \$1.6 million while newbuild prices declined, reflecting the market's demand to acquire vessels immediately in order to capture the 2015 market earnings spike.

**Vessel earnings**

On the whole, tanker earnings had an extraordinary earnings streak last year due to a combination of surging demand for oil, and thus tankers, in the low price environment, low fleet supply growth in most sectors and a lower bunker cost. Year-on-year, VLCC earnings doubled (basis TD3 Middle East/Japan), Suezmax earnings rose 78% (basis TD20 West Africa/Northwest Europe) and Aframax earnings rose 47% (basis the HRP Aframax composite). Apart from January 2015 on the HRP Aframax Composite, earnings on the three crude benchmarks averaged higher every month of 2015 than the corresponding 2014 month. Both a cold early winter in early 2015 and the continuation of a low oil price environment following OPEC's pivotal meeting at the end of November 2014 kept crude tanker earnings on their upward march that had started in Q4-2014. Q2-2015 was the strongest quarter-on-quarter earnings period - usually the spring months are a seasonal lull for crude tankers while refinery maintenance is in full swing in Europe and Asia, however, this time all three crude tanker benchmarks were more than double from Q2-2014 earnings as refineries worked to run near full capacity and capture booming gasoline demand growth during the peak demand season. This also led to surpluses of fuel oil among other products to be carried on tankers. Earnings again trended higher during the third quarter, but largely due to a very strong July as earnings then seasonally fell with refinery maintenance limiting demand later that quarter. Exceptional earnings in October and December on the VLCCs, and consistently strong earnings on the Suezmaxes and Aframaxes ensured a strong finish to the year for crude tanker earnings which were up almost 50% on the VLCCs, and over 15% on Suezmaxes and Aframaxes year-on-year compared to the also strong Q4-2014.

As already explained, the low oil price environment sparked a multitude of positive demand factors for the tanker market but in addition it has also led to a reduction in the primary voyage cost for shipowners: bunkers. Bunker



prices fell to an annual low at the very end of the year but then have continued to fall to a 12-year low around mid-January 2016 of just above \$100/ton (Rotterdam IFO380) as Brent fell below \$30/bbl. The reduction in bunkers from their highs of over \$600/ton in the first half of 2014 to well under \$200/ton at the end of 2015 reduced the percentage of bunkers over gross freight (basis TD3 Middle East/Japan) from over 80% to under 20%, which means that after paying for bunker costs, shipowners had 80% or more leftover to cover other costs and hold as profit as opposed to under 20% which was the case when bunker prices were above \$600/ton in 2013-14. The importance of the fall in bunker price in relation to earnings cannot be highlighted enough. The low

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bunker prices last year related to a low oil price which in this case stemmed from excess oil and lead to higher oil demand, all positive factors for demand for tankers throughout 2015 this meant that vessel utilization increased and owners were able to hold on to the benefit of the declining bunker costs and inflate their profit margins.

Although supply growth is picking up in 2016 and for the next couple of years thereafter, fleet growth at the moment remains supportive as heavy deliveries on VLCCs, the first sector to reach peak fleet growth, are not expected to impact the market until the end of the year and into early 2017. Therefore, earnings this year will remain supported by slowly building crude supply growth, continued strong oil demand growth and low bunker prices. That being said, the crude oil oversupply is projected to narrow come Q3-2016 and so oil prices, and by extension bunker prices, are expected to steadily pick up eventually eating into tanker earnings. In addition, the boon in oil prices that was propagated from the plunge in oil prices has now been factored into demand growth, oil prices cannot fall by another \$50/bbl when they are already at ~\$30/bbl. This, among other factors such as lower demand in oil producing nations, lower industrial demand, removal of subsidies in some countries, etc. has lowered the oil demand growth outlook for 2016 and onwards. Floating storage remains a possibility pending a widening of both the crude and now products contango, in Northwest Europe the gasoil contango has strengthened markedly since the build-up of supply due to a mild winter, low Rhine water levels keeping the product trapped along the coast and an influx of cargoes from the Mideast Gulf, Russia, the US and Asia. If floating storage once again becomes viable, it will act as a floor to the market. Finally, the possibility of slowing down tanker speed to stem fleet supply growth is for the most part out of the question as low bunker prices do not justify slowing down until the market reaches very low levels.

The products sector likewise started out on a strong note in 2015 as earnings for the year were approximately \$10,000/day higher on the HRP MR Selected Composite and similar annual gains were made in the LR market. The two new Middle Eastern refineries that came online provided significant cargo volume for LRs, while a cold start to 2015 and strong gasoline demand globally kept the fleet busy from the start of the year to the end of summer. However, this annual gain would have been higher without the weakness exhibited in Q4-2015, which was the only quarter to record lower earnings compared to the same quarter in 2014. Product earnings did also receive a boost from the lower bunker price while Worldscale rates stagnated at lower levels due to a number of factors including a build-up in LR tonnage in the Middle East Gulf after a strong naphtha arbitrage during the summer, limiting any breakaways in LR freight from the region, a build-up in product stocks on both sides of the Atlantic bringing both the diesel and gasoline arbitrages between the regions under pressure, and of course the immense MR fleet growth in 2015 which did not bring earnings crashing down but certainly added to supply during the year. As DPP earnings rose relative to CPP earnings the percentage of fully coated vessels trading DPP inched during 2015, exhibiting the ability of switching to act as a cap to earnings on both sides of the market.

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**Table of Contents****VLCC Time Charter Equivalent Spot Market Earnings****VLCC**

Buoyed by a spur storage play excitement, VLCC earnings (TD3 Middle East/Japan) rose slightly from December 2014 to average just over \$73,000/day in January 2015 as 1-year TC rates rose to \$42,500/day in the third week of the month. A lot of floating storage interest was generated when the Brent 12-month contango widened to above \$10/bbl, prompting many to include a storage option in their TC arrangements or take vessels specifically to store. All of the earnings stated above and in subsequent comments are basis the HRP standard speed and consumption assumptions ~ 12-13 knots which we also refer to as Slow Steaming. The market fell seasonally in February and March, leaving earnings for the quarter to average over \$58,000/day. Earnings in Q2 were extremely robust, averaging almost \$63,000/day almost four times the Q2-2014 average especially considering it is a seasonally weak period of the year for the VLCC market. The strength continued into Q3-2015 where earnings averaged above \$57,115/day as refineries in most parts of the world, particularly in the US and Europe, ran at as high utilization rates as possible to capture high refining margins. VLCC earnings, however, dropped quite sharply in August as Chinese buying dropped by about 1 million bpd with a sharp fall in implied stockbuilding activity, and in fact a very slight drawdown in crude stocks. A notable tightness in prompt supply in the Mideast Gulf in October boosted earnings for the month, which was later explained by a record for the year Chinese imports for the month of December, which would be roughly when the vessels would arrive from the Middle East. Meanwhile, the increasing amount of crude that is being transported around the world has congested infrastructure in many parts of the world, tying up supply and then contributing to temporary shortages of available vessels. These port delays, as opposed to weather delays, again helped to push TD3 to average over \$100,000/day in December 2015 bringing the seasonally strong Q4-2015 average above \$83,000/day. Once again the explanation for the rush of demand transpired with a new record high import level being set for Chinese imports arriving in February at 8 million bpd.

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The fall in oil prices encouraged strong stockbuilding activity yet again in China, and coincided with minimal stockbuilding in India with the opening of the Visakhapatnam SPR on the west coast. Overall, the low oil price invigorated the global seaborne oil trade: sometimes aggressive pricing by producing nations led regions to import certain grades of crude they would not otherwise purchase, purchasing became more opportunistic and experimental, while lower oil prices continued to support strong refinery demand. VLCC crude and DPP seaborne volumes rose in 2015 to the tune of 4.7%, or 900,000 bpd, from a decline of -130,000 bpd in 2014 mainly related to DPP (mainly Fuel Oil).

Overall, 2015 VLCC (TD3 Middle East/Japan) earnings averaged \$65,923/day more than twice the average of 2014. So far this year, VLCC earnings have averaged only slightly down after December's high as refinery maintenance in North America and a pullback in buying in January ahead of Chinese New Year has taken some steam out of the market. A slowly rising fleet growth this year and lower, yet still robust oil demand growth, is poised to support healthy VLCC earnings in 2015, although earnings are not expected to reach the extraordinary highs of 2015 even though the market will still draw upon many of those factors which aided it last year.

### **Suezmax Time Charter Equivalent Spot Market Earnings**

#### **Suezmax**

Similar to the VLCC market, the Suezmax composite (basis 70% ex-WAF and 30% Black Sea/Med) experienced an uncharacteristically strong Q2-2015, enveloped by high earnings on either side at the start and end of the year. Earnings rose strongly in January 2015, aided by the strength of the VLCC market and as OECD European runs in February rose above 12 million bpd for the first time since July 2013 which is significant seeing as runs during the summer months are typically the highest of the year. The fall in crude oil prices and somewhat delayed reaction on retail fuel prices met to create high refining margins that European refineries had not been

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accustomed to for decades, leading to an influx of crude imports to feed their renewed appetite. As a result, the Suezmax composite averaged over \$47,000/day in Q1-2015, rising \$7,000/day from the quarter earlier. The strength continued into Q2-2015 which was almost four times as high as the same quarter in 2014 at nearly \$43,000/day earnings were particularly strong in June as the first signs of record US gasoline consumptions began to trickle through, certifying that refineries should keep running at breakneck pace.

Earnings sunk in the third quarter as the summer demand tailed off and refineries underwent maintenance, although European refiners for the second year in a row delayed a considerable amount of maintenance compared to the historical average which aided Suezmax tanker demand. After averaging almost \$35,000/day in Q3-2015, earnings rose as they usually do seasonally to average over \$47,500/day in Q4. A fall in prompt supply in West Africa encouraged a rally at the end of November, and the very strong VLCC market during December helped to keep supply somewhat tight ex-West Africa as supply moved to capture the spike ex-Mideast Gulf, keeping earnings high at \$67,000/day. Overall, the Suezmax composite averaged \$43,089/day in 2015 basis our standard assumptions. With the removal of the US crude export ban and fall in US production towards the end of the year, there has been renewed crude purchasing from West Africa by the US, bringing the phased out TD5 West Africa/US Atlantic Coast trade somewhat back into play. US refineries will look to import crude when the cost of bringing domestic volumes by train is more expensive. If WTI traded at a premium to Brent consistently (as it did immediately following the lifting of the ban) this would bode well for Suezmax demand. So far in 2016, earnings have averaged less than the 2015 annual average at the time of writing, although the market has picked up from its low at the start of February which is historically a weak month. High refining runs in Europe, and in other regions, a low delivery schedule until the end of 2016 and a strong VLCC market translates into healthy expectations for 2016.

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**Aframax Time Charter Equivalent Spot Market Earnings**

**Aframax**

The Aframax composite (a straight average of six worldwide voyages) rose more than 20% from the final quarter of 2014 to average above \$39,000/day in Q1-2015, propelled by very strong earnings in northern Europe which can be quite weather-sensitive during the winter months. TD17 Baltic/UK Continent averaged almost \$75,000/day in January, while TD7 North Sea/UK Continent rose above \$50,000/day during the same month amid a particularly cold winter in northern Europe. Similar to the other crude benchmarks, the Aframax composite remained unusually high in Q2-2015 almost three times the level it was during Q2-2014 to average over \$40,000/day with marked strength in all six routes comprising the benchmark particularly in June, as exhibited with the Suezmaxes. Earnings fell in the third quarter to under \$30,000/day due to notable weakness in TD11 Cross-Med which fell to under \$18,000/day as the tonnage list outweighed cargo activity during the period.

Earnings recovered in the fourth quarter to average almost \$39,000/day, near where they started the year as the Mediterranean market recovered but also as the weather-sensitive routes picked up despite a mild start to the winter. Overall, the Aframax composite averaged \$37,262/day in 2015 as quarterly earnings established at consistently higher levels than in 2014. Despite fleet growth in 2016 for the Aframax sector rising only slightly, the sector will be hurt by the supply growth on larger vessels and the newbuild coated Aframax tonnage pushing more (likely older) coated vessels into crude/fuel oil trades instead. Year-on-year earnings will be lower in 2016 but will still reach healthy levels given expectations of robust oil demand continuing for at least the first half of this year.

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**MR Time Charter Equivalent Spot Market Earnings**

**MR**

The MR Composite (a straight average of six worldwide voyages) retained its strength going into 2016, marking up average earnings of close to \$24,000/day in Q1-2016, pulling on strength particularly in the west with the cross-Mediterranean and Atlantic triangulation routes. As with the crude benchmarks, MR earnings during Q2-2015 also rose, despite it usually being a market lull during refinery maintenance, with jumps in both April and June particularly on the western routes mentioned already. The MR Composite reached a yearly high in July, at the height of summer gasoline demand, pushing Q3-2015 to also be the highest quarter for MR earnings during the year at around \$27,500/day.

Earnings in Q4-2015 averaged under \$20,000/day as the Mediterranean market toppled from its highs earlier in the season, leading MRs from the region looking to ballast north to where the ex-UKC market was still performing relatively well. Overall, the MR Composite averaged \$23,697/day in 2015 compared to an annual average in 2014 of \$13,954/day. Fleet supply growth is finally tapering off on the MRs. Arguably, to an extent in 2015 any jumps in freight were still limited by the heavy fleet supply growth during the year, particularly towards the end of the year. Another summer of high gasoline demand is expected, which should lift the west MR trades despite refineries being much more prepared this year with high stock levels, while robust oil demand growth of over 5% remains supportive for MR earnings.

**The LNG Market**

Asian 2015 LNG imports totaled 170.9 million tons, a 6.5% fall from last year's record 180.9 million tons. The region accounted for 71% of total LNG flows, down from 75% in 2014, as consumption in Japan and South Korea slid following the restart of a number of nuclear facilities in Japan, and the opening of new facilities in

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South Korea. European LNG imports grew 4% to reach 39.6 million tons, while the world's third largest import demand center in Latin America fell to 18.2 million tons while North American imports almost doubled to reach 3.9 million tons for the year. While the Middle East retained its spot as the world's largest LNG exporter by a closely trailing Australia, imports more than doubled to the region to total 8.8 million tons in 2015. Despite a fall in prices due to the nature of many LNG contracts (linked to the price of Brent), this failed to stifle import demand growth in the trade's most important demand center, Asia, while a mild winter for the second year in a row limited import growth towards the end of the year. Overall, import demand growth in Europe, North America and the Mideast Gulf marginally outweighed declines in Asia and Latin America to register a year-on-year growth of 0.06% or 1.4 million tons to reach a total of 239.7 million tons in 2015.

**Global LNG Imports by Region**

Global LNG exports rose by over 10% in Australasia to approximately 80 million tons with the start-up of BG Group's QCLNG Train 2 in mid-2015 on Australia's eastern Curtis Island, with the first shipment at the start of July, and a continued growth in exports from ExxonMobil's LNG project in Papua New Guinea. Middle Eastern LNG exports fell year-on-year as the region marked an increase in imports. Yemen's 6.7 million tonne Balhaf plant was shut down early in the year and remains closed due to conflict in the region. Exports from Africa, Europe and the Americas were also down slightly year-on-year as project start-ups were delayed.



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**Global LNG Exports by Region**

Since the start of 2014, LNG prices in the east have more than halved due to their predominant nature of being linked to the price of Brent. Whereas LNG prices in the UK and the US, linked instead usually to natural gas hubs, have only fallen marginally in the past two years. In Asia, the lack of demand response from the fall in LNG prices can be linked to the re-emergence of nuclear power in the region, a direct competitor to LNG. Japanese prices have fallen to well under \$10/mmbtu from just over \$20/mmbtu during the start of 2014. The country restarted two Sendai Nuclear units in 2015 and will restart another two Takahama nuclear plants in Q1-2016, while a mild start to the winter saw a further fall in price. South Korea started two nuclear units last June and July, the next unit is not expected until April 2016 but an expected build in LNG storage by the South Korean electricity provider Kepco will keep LNG demand growing in 2016 despite the nuclear threat.

LNG supply in 2016 is expected to rise by an estimated 10% year-on-year, or 24.5 million metric tons, with more than three quarters of the rise coming from the Australasia region as the Yemeni plant is expected to remain offline due to a struggling UN peace process in the country. The second 4.5 million tons per annum ( mtpa ) train at Conoco Phillip s Australia Pacific s LNG facility loaded its first cargoes in January and is expected to start commercial operations by the end of Q1-2016, while Chevron s 15.6 mtpa Gorgon project on Australia s Barrow Island has started the commissioning process with the first cargo set to be loaded in February or March. In West Africa, the Angola LNG export project was reported to have started recommissioning at the end of January, meaning that commercial exports from the plant may start at the end of Q2-2015 while in Nigeria ENI has lifted a force majeure from mid-December on loadings from the 22 mtpa Bonny LNG terminal. Other major supply developments are longer term, however there are expectations that investment will now switch to the demand side, meaning regasification facilities in import regions, particularly in South Asia, as opposed to liquefaction projects.

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**LNG Tankers In Service and On Order**

A total of 420 LNG tankers were on the water as at the end of 2015, a year-on-year gain of 24 vessels and a gain of 60 vessels from the start of 2013. The orderbook totals 106 LNG tankers, one vessel lower than at the end of 2014. Freight to Japan trended down throughout 2016, while the arbs from Qatar and the Caribs spent the year under \$2/mmbtu after swinging between \$10/mmbtu and \$3/mmbtu between 2011 to mid-2014. LNG tanker earnings east of Suez are down to \$29,000/day, a year-on-year fall of 50%, while voyages west of Suez are also down 55% to \$29,000/day. One-year term charters as a result are much softer, falling to \$35,000/day a year-on-year decline of 38%. Overall, the outlook is limited as scrapping remains low and the orderbook is healthy, but new liquefaction trains coming online this year, which will bring more LNG supply into the market, is expected to provide for a modest recovery in freight in 2016.

**Risk Factors**

**Risks Related To Our Industry**

**Charter rates are cyclical and can be volatile. A return to the poor charter markets for crude oil carriers and product tankers which existed from 2008 to 2015 could affect our future revenues, earnings and profitability.**

After reaching highs during the summer of 2008, charter rates for crude oil carriers and product tankers fell dramatically thereafter, with only occasional temporary seasonal or regional rate spikes until the end of 2014 when charter rates began to stabilize at higher levels in response to the steep decline in the price of oil. The year 2015 was the strongest year for tanker charter rates since 2008.

As of April 5, 2016, 22 of the vessels owned by our subsidiary companies were employed under spot charters, and 13 of the vessels were employed on time charters which, if not extended, are scheduled to expire on various dates between August 2016 and June 2028. In addition, 15 of our subsidiaries' vessels have profit sharing provisions in their time charters that are based upon prevailing market rates. If low rates in the charter market return and continue for any significant period in 2016, it will affect the charter revenue we will receive from these vessels, which could have an adverse effect on our revenues, profitability and cash flows. Declines in prevailing charter rates also affect the value of our vessels, which follows the trends of charter rates and earnings on our charters, and could affect our ability to comply with our loan covenants.

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### **Disruptions in world financial markets and the resulting governmental action in the United States and in other parts of the world could have a further material adverse impact on our results of operations, financial condition, cash flows and share price.**

Global financial markets and economic conditions have been severely disrupted and volatile in recent years and remain subject to significant vulnerabilities, such as the deterioration of fiscal balances and the rapid accumulation of public debt, continued deleveraging in the banking sector and a limited supply of credit. While there are indications that the global economy is improving, it is doing so at different rates in different part of the world and concerns over debt levels of certain European Union member states, poor liquidity of European banks and attempts to find appropriate solutions are expected to lead to continued slow growth in most of Europe in 2016. There can be no assurance that the global recession will not return and tight credit markets will not continue or become more severe.

In addition, the continuing sovereign debt crises in various Eurozone countries, including Greece, as well as continued turmoil and hostilities in the Middle East and North Africa or potential hostilities between North and South Korea or between Ukraine and Russia, could contribute to volatility in the global financial markets. These circumstances, along with the re-pricing of credit risk and the reduced participation or withdrawal of certain financial institutions from financing of the shipping industry, will likely continue to affect the availability, cost and terms of vessel financing. If financing is not available to us when it is needed, or is available only on unfavorable terms, our business may be adversely affected, with corresponding effects on our profitability, cash flows and ability to pay dividends.

Moreover, as a result of the ongoing economic crisis in Greece and the related austerity measures implemented by the Greek government, as well as the capital controls in effect in Greece since mid-2015, our operations may be subjected to new regulations that may require us to incur new or additional compliance or other administrative costs and may require that we pay to the Greek government new taxes or other fees or that dividends we pay be subject to withholding taxes. Furthermore, the commitments by the Greek government to the nations' creditors and potential shift in its policies may potentially lead to Greece's exit from the Eurozone, if not satisfied, which could affect our technical and commercial managers' operations located in Greece.

### **The tanker industry is highly dependent upon the crude oil and petroleum products industries.**

The employment of our subsidiaries' vessels is driven by the availability of and demand for crude oil and petroleum products, the availability of modern tanker capacity and the scrapping, conversion or loss of older vessels. Historically, the world oil and petroleum markets have been volatile and cyclical as a result of the many conditions and events that affect the supply, price, production and transport of oil, including:

increases and decreases in the demand and price for crude oil and petroleum products;

availability of crude oil and petroleum products;

demand for crude oil and petroleum product substitutes, such as natural gas, coal, hydroelectric power and other alternate sources of energy that may, among other things, be affected by environmental regulation;

actions taken by OPEC and major oil producers and refiners;

political turmoil in or around oil producing nations;

global and regional political and economic conditions;

developments in international trade;

international trade sanctions;

environmental factors;

natural catastrophes;

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terrorist acts;

weather; and

changes in seaborne and other transportation patterns.

Despite turbulence in the world economy in recent years, there has been some rebound in worldwide demand for oil and oil products, which industry observers forecast will continue. In the event that this rebound falters, the production of and demand for crude oil and petroleum products will again encounter pressure which could lead to a decrease in shipments of these products and consequently this would have an adverse impact on the employment of our vessels and the charter rates that they command. However, if the recent reduction in oil prices continues in 2016, it may lead to declining output. In particular, the charter rates that we earn from our vessels employed on spot charters, under pool arrangements and contracts of affreightment, and on time-charters with profit-share may decline and remain at low levels for a prolonged period of time.

### **Our operating results are subject to seasonal fluctuations.**

The tankers owned by our subsidiary companies operate in markets that have historically exhibited seasonal variations in tanker demand, which may result in variability in our results of operations on a quarter-by-quarter basis. Tanker markets are typically stronger in the winter months as a result of increased oil consumption in the northern hemisphere, but weaker in the summer months as a result of lower oil consumption in the northern hemisphere and refinery maintenance. As a result, revenues generated by the tankers in our fleet have historically been weaker during the fiscal quarters ended June 30 and September 30. However, there may be periods in the northern hemisphere, such as in the winter of 2011/2012, when the expected seasonal strength does not materialize to the extent required to support sustainable profitable rates due to tanker overcapacity.

### **An increase in the supply of vessels without an increase in demand for such vessels could cause charter rates to decline, which could have a material adverse effect on our revenues and profitability.**

Historically, the marine transportation industry has been cyclical. The profitability and asset values of companies in the industry have fluctuated based on certain factors, including changes in the supply and demand of vessels. The supply of vessels generally increases with deliveries of new vessels and decreases with the scrapping of older vessels and/or the removal of vessels from the competitive fleet either for storage purposes or for utilization in offshore projects. The newbuilding order book equaled approximately 15% of the existing world tanker fleet at March 31, 2016, by number of vessels. No assurance can be given that the order book will not increase further in proportion to the existing fleet. If supply increases, and demand does not match that increase, the charter rates for our vessels could decline significantly. In addition, any decline of trade on specific long-haul trade routes will effectively increase available capacity with a detrimental impact on rates. A return to weak charter rates could have a material adverse effect on our revenues and profitability.

### **The global tanker industry is highly competitive.**

We operate our fleet in a highly competitive market. Our competitors include owners of VLCC, suezmax, aframax, panamax, handymax and handysize tankers, as well as owners in the shuttle tanker and LNG markets, which are other independent tanker companies, as well as national and independent oil companies, some of which have greater financial strength and capital resources than we do. Competition in the tanker industry is intense and depends on price, location, size, age, condition, and the acceptability of the available tankers and their operators to potential charterers.

**Acts of piracy on ocean-going vessels, although recently declining in frequency, could still adversely affect our business.**

Despite a decline in the frequency of pirate attacks on seagoing vessels in the western part of the Indian Ocean, such attacks remain prevalent off the west coast of Africa and between Malaysia and Indonesia. If piracy

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attacks result in regions in which our vessels are deployed being characterized by insurers as war risk zones, as the Gulf of Aden has been, or Joint War Committee (JWC) war and strikes listed areas, premiums payable for such insurance coverage could increase significantly and such insurance coverage may be more difficult to obtain. Crew costs, including those due to employing onboard security guards, could increase in such circumstances. In addition, while we believe the charterer remains liable for charter payments when a vessel is seized by pirates, the charterer may dispute this and withhold charter hire until the vessel is released. A charterer may also claim that a vessel seized by pirates was not on-hire for a certain number of days and it is therefore entitled to cancel the charter party, a claim that we would dispute. We may not be adequately insured to cover losses from these incidents, which could have a material adverse effect on us. In addition, hijacking as a result of an act of piracy against our vessels, or an increase in cost, or unavailability of insurance for our vessels, could have a material adverse impact on our business, financial condition, results of operations and cash flows.

**Terrorist attacks, international hostilities, economic and trade sanctions and the economic situation in the Eurozone can affect the tanker industry, which could adversely affect our business.**

Major oil and gas producing countries in the Middle East have become involved militarily in the widening conflicts in Iraq, Syria and Yemen. Armed conflicts with insurgents and others continue, as well, in Libya, another major oil exporting country. Any of these hostilities could seriously disrupt the production of oil or LNG and endanger their export by vessel or pipeline, which could put our vessels at serious risk and impact our operations and our revenues, expenses, profitability and cash flows in varying ways that we cannot now project with any certainty.

The increasing number of terrorist attacks throughout the world, longer-lasting wars, international incidents such as that between Turkey and Russia or international hostilities, such as in the Ukraine, Afghanistan, Iraq, Syria, Libya and Yemen, could damage the world economy and adversely affect the availability of and demand for crude oil and petroleum products and negatively affect our investment and our customers' investment decisions over an extended period of time. In addition, sanctions against oil exporting countries such as Iran, Sudan, Syria and Russia may also impact the availability of crude oil which would increase the availability of tankers, thereby negatively impacting charter rates. We conduct our vessel operations internationally and despite undertaking various security measures, our vessels may become subject to terrorist acts and other acts of hostility like piracy, either at port or at sea. Such actions could adversely impact our overall business, financial condition and results of operations. In addition, terrorist acts and regional hostilities around the world in recent years have led to increases in our insurance premium rates and the implementation of special war risk premiums for certain trading routes.

**Our charterers may direct one of our vessels to call on ports located in countries that are subject to restrictions imposed by the U.S. government, which could negatively affect the trading price of our common shares.**

On charterers' instructions, our subsidiaries' vessels may be requested to call on ports located in countries subject to sanctions and embargoes imposed by the U.S. government, the UN or the EU and countries identified by the U.S. government, the UN or the EU as state sponsors of terrorism. The U.S., UN- and EU- sanctions and embargo laws and regulations vary in their application, as they do not all apply to the same covered persons or proscribe the same activities, and such sanctions and embargo laws and regulations may be amended or strengthened over time.

On January 16, 2016, Implementation Day for the Iran Joint Comprehensive Plan of Action (JCPOA), the United States lifted its secondary sanctions against Iran which prohibited certain conduct by non-U.S. companies and individuals that occurred entirely outside of U.S. jurisdiction involving specified industry sectors in Iran, including the energy, petrochemical, automotive, financial, banking, mining, shipbuilding and shipping sectors. By lifting the secondary sanctions against Iran, the U.S. government effectively removed U.S. imposed restraints on dealings by non-U.S. companies, such as our Company, and individuals with these formerly targeted Iranian business sectors.

Non-U.S. companies continue to be prohibited under U.S. sanctions from (i) knowingly engaging in conduct that seeks to evade U.S. restrictions on transactions or dealings with Iran or that causes the



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export of goods or services from the United States to Iran, (ii) exporting, reexporting or transferring to Iran any goods, technology, or services originally exported from the U.S. and / or subject to U.S. export jurisdiction and (iii) conducting transactions with the Iranian or Iran-related individuals and entities that remain or are placed in the future on OFAC's list of Specially Designated Nationals and Blocked Persons (SDN List), notwithstanding the lifting of secondary sanctions. The U.S. has the ability to reimpose sanctions against Iran, including if, in the future, Iran does not comply with its obligations under the nuclear agreement.

The U.S. government's primary Iran sanctions remain largely unchanged after Implementation Day and, as a consequence, U.S. persons continue to be broadly prohibited from engaging in transactions or dealings in or with Iran or its government. These sanctions broadly restrict U.S. persons from engaging in transactions or dealings with the Government of Iran and Iranian financial institutions, which effectively impacts the transfer of funds to, from, or through the U.S. financial system whether denominated in US dollars or any other currency.

As a result of the lifting of U.S. secondary sanctions (and relevant EU sanctions) relating to Iran, we can anticipate that some of our charterers may direct our vessels to carry cargoes to or from Iran. This could have various effects on us, such as affecting our reputation and our relationships with our investors and financing sources, affecting the cost of our insurance with respect to such voyages, and potentially increase our exposure to foreign currency fluctuations. Investor perception of the value of our shares may also be adversely affected by the consequences of war, the effects of terrorism, civil unrest and governmental actions in these and surrounding countries.

The U.S. also maintains embargoes on Cuba, North Korea, Sudan and Syria. We can anticipate that some of our charterers may request our vessels to call on ports located in these countries. Although we believe that we are in compliance with all applicable sanctions and embargo laws and regulations, and intend to maintain such compliance, there can be no assurance that we will be in compliance in the future, particularly as the scope of certain laws may be unclear and may be subject to changing interpretations. Any such violation could result in fines or other penalties and could result in some investors deciding, or being required, to divest their interest, or not to invest, in us. Additionally, some investors may decide to divest their interest, or not to invest, in us simply because we do business with companies that do lawful business in sanctioned countries. Moreover, our charterers may violate applicable sanctions and embargo laws and regulations as a result of actions that do not involve us or our vessels, and those violations could in turn negatively affect our reputation.

### **Failure to comply with the U.S. Foreign Corrupt Practices Act and other anti-bribery legislation in other jurisdictions could result in fines, criminal penalties, contract terminations and an adverse effect on our business.**

We may operate in a number of countries throughout the world, including countries known to have a reputation for corruption. We are committed to doing business in accordance with applicable anti-corruption laws and have adopted a code of business conduct and ethics which is consistent and in full compliance with the U.S. Foreign Corrupt Practices Act of 1977, or the FCPA. We are subject, however, to the risk that persons and entities whom we engage or their agents may take actions that are determined to be in violation of such anti-corruption laws, including the FCPA. Any such violation could result in substantial fines, sanctions, civil and/or criminal penalties, or curtailment of operations in certain jurisdictions, and might adversely affect our business, results of operations or financial condition. In addition, actual or alleged violations could damage our reputation and ability to do business. Furthermore, detecting, investigating, and resolving actual or alleged violations is expensive and can consume significant time and attention of our senior management.

### **Efforts to take advantage of opportunities in pursuit of our growth strategy may result in financial or commercial difficulties.**

A key strategy of management is to continue to renew and grow the fleet by pursuing the acquisition of additional vessels or fleets or companies that are complementary to our existing operations. If we seek to expand through acquisitions, we face numerous challenges, including:

difficulties in raising the required capital;

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depletion of existing cash resources more quickly than anticipated;

assumption of potentially unknown material liabilities or contingent liabilities of acquired companies; and

competition from other potential acquirers, some of which have greater financial resources.

We cannot assure you that we will be able to integrate successfully the operations, personnel, services or vessels that we might acquire in the future, and our failure to do so could adversely affect our profitability.

### **We are subject to regulation and liability under environmental, health and safety laws that could require significant expenditures and affect our cash flows and net income.**

Our business and the operation of our subsidiaries' vessels are subject to extensive international, national and local environmental and health and safety laws and regulations in the jurisdictions in which our vessels operate, as well as in the country or countries of their registration. In addition, major oil companies chartering our vessels impose, from time to time, their own environmental and health and safety requirements. We have incurred significant expenses in order to comply with these regulations and requirements, including the costs of ship modifications and changes in operating procedures, additional maintenance and inspection requirements, contingency arrangements for potential spills, insurance coverage and full implementation of the new security-on-vessels requirements.

Because environmental regulations may become stricter, future regulations may limit our ability to do business, increase our operating costs and/or force the early retirement of our vessels, all of which could have a material adverse effect on our financial condition and results of operations.

International, national and local laws imposing liability for oil spills are also becoming increasingly stringent. Some impose joint, several, and in some cases, unlimited liability on owners, operators and charterers regardless of fault. We could be held liable as an owner, operator or charterer under these laws. In addition, under certain circumstances, we could also be held accountable under these laws for the acts or omissions of Tsakos Shipping & Trading S.A. ( Tsakos Shipping ), Tsakos Columbia Shipmanagement Ltd. ( TCM ) or Tsakos Energy Management Limited ( Tsakos Energy Management ), companies that provide technical and commercial management services for our subsidiaries' vessels and us, or others in the management or operation of our subsidiaries' vessels. Although we currently maintain, and plan to continue to maintain, for each of our subsidiaries' vessels' pollution liability coverage in the amount of \$1 billion per incident (the maximum amount available), liability for a catastrophic spill could exceed the insurance coverage we have available, and result in our having to liquidate assets to pay claims. In addition, we may be required to contribute to funds established by regulatory authorities for the compensation of oil pollution damage or provide financial assurances for oil spill liability to regulatory authorities.

### **Maritime disasters and other operational risks may adversely impact our reputation, financial condition and results of operations.**

The operation of ocean-going vessels has an inherent risk of maritime disaster and/or accident, environmental mishaps, cargo and property losses or damage and business interruptions caused by, among others:

mechanical failure;

human error;

labor strikes;

adverse weather conditions;

vessel off hire periods;

regulatory delays; and

political action, civil conflicts, terrorism and piracy in countries where vessel operations are conducted, vessels are registered or from which spare parts and provisions are sourced and purchased.

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Any of these circumstances could adversely affect our operations, result in loss of revenues or increased costs and adversely affect our profitability and our ability to perform our charters.

### **Our subsidiaries vessels could be arrested at the request of third parties.**

Under general maritime law in many jurisdictions, crew members, tort claimants, vessel mortgagees, suppliers of goods and services and other claimants may lien a vessel for unsatisfied debts, claims or damages. In many jurisdictions a maritime lien holder may enforce its lien by arresting a vessel through court process. In some jurisdictions, under the extended sister ship theory of liability, a claimant may arrest not only the vessel with respect to which the claimant's maritime lien has arisen, but also any associated vessel under common ownership or control. While in some jurisdictions which have adopted this doctrine, liability for damages is limited in scope and would only extend to a company and its ship-owning subsidiaries, we cannot assure you that liability for damages caused by some other vessel determined to be under common ownership or control with our subsidiaries vessels would not be asserted against us.

## **Risks Related To Our Business**

### **Any significant future declines in the values of our vessels could affect our ability to comply with various covenants in our credit facilities unless waived or modified by our lenders.**

Our credit facilities, which are secured by mortgages on our subsidiaries vessels, require us to maintain specified collateral coverage ratios and satisfy financial covenants, including requirements based on the market value of our vessels, such as maximum corporate leverage levels. The appraised value of a ship fluctuates depending on a variety of factors including the age of the ship, its hull configuration, prevailing charter market conditions, supply and demand balance for ships and new and pending legislation. The oversupply of tankers and depressed tanker charter market adversely affected tanker values from the middle of 2008 to late 2013, and despite the young age of our subsidiaries fleet and extensive long-term charter employment on many of the vessels, resulted in a significant decline in the charter-free values of our vessels. Vessel values have recovered since the end of 2013 and may remain at current levels for a prolonged period, decline or rise. We were compliant with all of our loan covenants as at December 31, 2015. If we are unable to comply with the financial and other covenants under our credit facilities, including by repaying outstanding debt or posting additional collateral in the case of loan-to-asset value covenants, and are unable to obtain waivers, our lenders could accelerate our indebtedness. We have paid all of our scheduled loan installments and related loan interest consistently without delay or omission and none of our lenders under our credit facilities has requested such prepayment or additional cash collateral. Because of the cross-default provisions in our loan agreements, any such default could in turn lead to additional defaults under our other loan agreements and the consequent acceleration of the related indebtedness.

### **Charters at attractive rates may not be available when our current time charters expire.**

During 2015, we derived approximately 41% of our revenues from time charters, as compared to 46% in 2014. As our current period charters on four of the vessels owned by our subsidiary companies expire in the remainder of 2016, it may not be possible to re-charter these vessels on a period basis at the attractive rates currently existing. If attractive period charter opportunities are not available, we would seek to charter the vessels owned by our subsidiary companies on the spot market, which is subject to significant fluctuations. In the event a vessel owned by one of our subsidiary companies may not find employment at economically viable rates, management may opt to lay up the vessel until such time that rates become attractive again (an action which our subsidiary companies have never undertaken). During the period of layup, the vessel will continue to incur expenditures such as insurance, reduced crew wages and maintenance costs.



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**We are dependent on the ability and willingness of our charterers to honor their commitments to us for all of our revenues and the failure of our counterparties to meet their obligations under our charter agreements could cause us to suffer losses or otherwise adversely affect our business.**

We derive a substantial portion of our revenues from the payment of charter hire by our charterers. 28 of our 50 vessels are currently employed under time charters including time charters with profit share. We could lose a charterer or the benefits of a time charter if:

the charterer fails to make charter payments to us because of its financial inability, disagreements with us, defaults on a payment or otherwise;

the charterer exercises certain specific limited rights to terminate the charter;

we do not take delivery of a newbuilding vessel we may contract for at the agreed time; or

the charterer terminates the charter because the vessel fails to meet certain guaranteed speed and fuel consumption requirements and we are unable to rectify the situation or otherwise reach a mutually acceptable settlement.

If we lose a time charter, we may be unable to re-deploy the related vessel on terms as favorable to us or at all. We would not receive any revenues from such a vessel while it remained unchartered, but we may be required to pay expenses necessary to maintain the vessel in proper operating condition, insure it and service any indebtedness secured by such vessel.

If our charterers fail to meet their obligations to us or attempt to renegotiate our charter agreements, as part of a court-led restructuring or otherwise, we could sustain significant reductions in revenue and earnings which could have a material adverse effect on our business, financial condition, results of operations and cash flows, as well as our ability to pay dividends, if any, in the future, and comply with the covenants in our credit facilities.

**If our exposure to the spot market increases, our revenues could suffer and our expenses could increase.**

The spot market for crude oil and petroleum product tankers is highly competitive. As of April 5, 2016, 22 of the vessels owned by our subsidiary companies were employed under spot charters. As a result of our increased participation in the spot market, we may experience a lower overall utilization of our fleet through waiting time or ballast voyages, leading to a decline in operating revenue. Moreover, to the extent our vessels are employed in the spot market, both our revenue from vessels and our operating costs, specifically our voyage expenses, will be significantly impacted by adverse movements in the cost of bunkers (fuel). See Fuel prices may adversely affect our profits. Unlike time charters in which the charterer bears all of the bunker costs, in spot market voyages we bear the bunker charges as part of our voyage costs. As a result, while historical movements in bunker charges are factored into the prospective freight rates for spot market voyages periodically announced by World Scale Association (London) Limited and similar organizations, increases in bunker charges in any given period could have a material adverse effect on our cash flow and results of operations for the period in which the increase occurs. In addition, to the extent we employ our vessels pursuant to contracts of affreightment or under pooling arrangements, the rates that we earn from the charterers under those contracts may be subject to reduction based on market conditions, which could lead to

a decline in our operating revenue.

**We depend on Tsakos Energy Management, Tsakos Shipping and TCM to manage our business.**

We do not have the employee infrastructure to manage our operations and have no physical assets. In common with industry practice, our subsidiaries own the vessels in the fleet and the contracts to construct our newbuildings. We have engaged Tsakos Energy Management to perform all of our executive and management functions. Tsakos Energy Management employees directly provide us with financial, accounting and other back-office services, including acting as our liaison with the New York Stock Exchange and the Bermuda Stock Exchange. Tsakos Energy Management, in turn, oversees and subcontracts part of commercial management



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(including treasury, chartering and vessel purchase and sale functions) to Tsakos Shipping, and day-to-day fleet technical management, such as vessel operations, repairs, supplies and crewing, to TCM. As a result, we depend upon the continued services provided by Tsakos Energy Management and Tsakos Energy Management depends on the continued services provided by Tsakos Shipping and TCM.

We derive significant benefits from our relationship with Tsakos Energy Management and its affiliated companies, including purchasing discounts to which we otherwise would not have access. We would be materially adversely affected if any of Tsakos Energy Management, Tsakos Shipping or TCM becomes unable or unwilling to continue providing services for our benefit at the level of quality they have provided such services in the past and at comparable costs as they have charged in the past. If we were required to employ a ship management company other than Tsakos Energy Management, we cannot offer any assurances that the terms of such management agreements would be on terms as favorable to the Company in the long term.

**Tsakos Energy Management, Tsakos Shipping and TCM are privately held companies and there is little or no publicly available information about them.**

The ability of Tsakos Energy Management, Tsakos Shipping and TCM to continue providing services for our and our subsidiaries benefit will depend in part on their own financial strength. Circumstances beyond our control could impair their financial strength and, because each of these companies is privately held, it is unlikely that information about their financial strength would become public. Any such problems affecting these organizations could have a material adverse effect on us.

**Tsakos Energy Management has the right to terminate its management agreement with us and Tsakos Shipping and TCM have the right to terminate their respective contracts with Tsakos Energy Management.**

Tsakos Energy Management may terminate its management agreement with us at any time upon one year's notice. In addition, if even one director were to be elected to our board without having been recommended by our existing board, Tsakos Energy Management would have the right to terminate the management agreement on 10 days' notice. If Tsakos Energy Management terminates the agreement for this reason, we would be obligated to pay Tsakos Energy Management the present discounted value of all payments that would have otherwise become due under the management agreement until June 30 in the tenth year following the date of the termination plus the average of the incentive awards previously paid to Tsakos Energy Management multiplied by 10. A termination as of December 31, 2015 would have resulted in a payment of approximately \$170.2 million. Tsakos Energy Management's contracts with Tsakos Shipping and with TCM may be terminated by either party upon six months' notice and would terminate automatically upon termination of our management agreement with Tsakos Energy Management.

**Our ability to pursue legal remedies against Tsakos Energy Management, Tsakos Shipping and TCM is very limited.**

In the event Tsakos Energy Management breaches its management agreement with us, we or our subsidiaries could bring a lawsuit against it. However, because neither we nor they are ourselves party to a contract with Tsakos Shipping or TCM, it may be difficult to sue Tsakos Shipping and TCM for breach of their obligations under their contracts with Tsakos Energy Management, and Tsakos Energy Management may have no incentive to sue Tsakos Shipping and TCM. Tsakos Energy Management is a company with no substantial assets and no income other than the income it derives under the management agreement with us. Therefore, it is unlikely that we or our subsidiaries would be able to obtain any meaningful recovery if we or they were to sue Tsakos Energy Management, Tsakos Shipping or TCM on contractual grounds.

**Tsakos Shipping provides chartering services to other tankers and TCM manages other tankers and could experience conflicts of interests in performing obligations owed to us and the operators of other tankers.**

In addition to the vessels that it manages for our fleet, TCM technically manages a fleet of privately owned vessels and wishes to acquire third-party clients. These vessels are operated by the same group of TCM

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employees that manage our vessels, and we are advised that its employees manage these vessels on an ownership neutral basis; that is, without regard to who owns them. It is not impossible that Tsakos Shipping, which provides chartering service for nearly all vessels technically managed by TCM, might allocate charter or spot opportunities to other TCM managed vessels when our subsidiaries' vessels are unemployed. It is also possible that TCM could in the future agree to manage more tankers that might directly compete with the fleet.

### **Clients of Tsakos Shipping have acquired and may acquire additional vessels that may compete with our fleet.**

Tsakos Shipping and we have an arrangement whereby it affords us a right of first refusal on any opportunity to purchase a tanker which is 10 years of age or younger or contract to construct a tanker that is referred to or developed by Tsakos Shipping. Were we to decline any opportunity offered to us, or if we do not have the resources or desire to accept it, other clients of Tsakos Shipping might decide to accept the opportunity. In this context, Tsakos Shipping clients have in the past acquired modern tankers and have ordered the construction of vessels. They may acquire or order tankers in the future, which, if we decline to buy from them, could be entered into charters in competition with our vessels. These charters and future charters of tankers by Tsakos Shipping could result in conflicts of interest between their own interests and their obligations to us.

### **Our chief executive officer has affiliations with Tsakos Energy Management, Tsakos Shipping and TCM which could create conflicts of interest.**

Nikolas Tsakos is the president, chief executive officer and a director of our company and the director and sole shareholder of Tsakos Energy Management. Nikolas Tsakos is also the son of the founder of Tsakos Shipping. These responsibilities and relationships could create conflicts of interest that could result in our losing revenue or business opportunities or increase our expenses.

### **Our commercial arrangements with Tsakos Energy Management and Argosy may not always remain on a competitive basis.**

We pay Tsakos Energy Management a management fee for its services pursuant to our management agreement. We also place our hull and machinery insurance, increased value insurance and loss of hire insurance through Argosy Insurance Company, Guernsey, a captive insurance company affiliated with Tsakos interests. We believe that the management fees that we pay Tsakos Energy Management compare favorably with management compensation and related costs reported by other publicly traded shipping companies and that our arrangements with Argosy are structured at arm's-length market rates. Our board reviews publicly available data periodically in order to confirm this. However, we cannot assure you that the fees charged to us are or will continue to be as favorable to us as those we could negotiate with third parties and our board could determine to continue transacting business with Tsakos Energy Management and Argosy even if less expensive alternatives were available from third parties.

### **We depend on our key personnel.**

Our future success depends particularly on the continued service of Nikolas Tsakos, our president and chief executive officer and the sole shareholder of Tsakos Energy Management. The loss of Mr. Tsakos's services or the services of any of our key personnel could have a material adverse effect on our business. We do not maintain key man life insurance on any of our executive officers.

### **Because the market value of our vessels may fluctuate significantly, we may incur impairment charges or losses when we sell vessels which may adversely affect our earnings.**

The fair market value of tankers may increase or decrease depending on any of the following:

general economic and market conditions affecting the tanker industry;

supply and demand balance for ships within the tanker industry;

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competition from other shipping companies;

types and sizes of vessels;

other modes of transportation;

cost of newbuildings;

governmental or other regulations;

prevailing level of charter rates; and

technological advances.

The global economic downturn that commenced in 2008 resulted in a decrease in vessel values. The decrease in value accelerated during 2013 until the latter part of the year as a result of excess fleet capacity and falling freight rates. Although valuations have since recovered, they may rise further, remain the same or start to fall again depending on market conditions. In addition, although our subsidiaries currently own a modern fleet, with an average age of 8.6 years as of March 31, 2016, as vessels grow older, they generally decline in value.

We have a policy of considering the disposal of tankers periodically. If our subsidiaries' tankers are sold at a time when tanker prices have fallen, the sale may be at less than the vessel's carrying value on our financial statements, with the result that we will incur a loss.

In addition, accounting pronouncements require that we periodically review long-lived assets and certain identifiable intangibles for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. An impairment charge for an asset held for use should be recognized when the estimate of undiscounted cash flows, excluding interest charges, expected to be generated by the use of the asset is less than its carrying amount. Measurement of the impairment charge is based on the fair value of the asset as provided by third parties. Such reviews may from time to time result in asset write-downs, as was the case in 2013 and 2012, which could adversely affect results of operations.

**If TCM is unable to attract and retain skilled crew members, our reputation and ability to operate safely and efficiently may be harmed.**

Our continued success depends in significant part on the continued services of the officers and seamen whom TCM provides to crew the vessels owned by our subsidiary companies. The market for qualified, experienced officers and seamen is extremely competitive and has grown more so in recent periods as a result of the growth in world economies and other employment opportunities. Although TCM has a contract with a number of manning agencies and sponsors various marine academies in the Philippines, Greece and Russia, we cannot assure you that TCM will be successful in its efforts to recruit and retain properly skilled personnel at commercially reasonable salaries. Any failure to do so could adversely affect our ability to operate cost-effectively and our ability to increase the size of the fleet.

**Labor interruptions could disrupt our operations.**

Substantially all of the seafarers and land based employees of TCM are covered by industry-wide collective bargaining agreements that set basic standards. We cannot assure you that these agreements will prevent labor interruptions. In addition, like many other vessels internationally, some of our subsidiaries' vessels operate under so-called 'flags of convenience' and may be vulnerable to unionization efforts by the International Transport Federation and other similar seafarer organizations which could be disruptive to our operations. Any labor interruption or unionization effort which is disruptive to our operations could harm our financial performance.

**The contracts to build our newbuildings present certain economic and other risks.**

As of March 31, 2016, our subsidiaries have a contract for the construction of a newbuilding LNG carrier, to be delivered in 2016, contracts for two VLCCs for delivery in 2016, contracts for the construction of nine

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afamax crude carriers for delivery in 2016 to 2017 and contracts for the construction of two LR1 product carriers for delivery in 2016 and a shuttle tanker for delivery in 2017. Our subsidiaries may also order additional newbuildings. During the course of construction of a vessel, we are typically required to make progress payments. While we typically have refund guarantees from banks to cover defaults by the shipyards and our construction contracts would be saleable in the event of our payment default, we can still incur economic losses in the event that we or the shipyards are unable to perform our respective obligations. Shipyards may periodically experience financial difficulties.

Delays in the delivery of these vessels, or any additional newbuilding or secondhand vessels our subsidiaries may agree to acquire, could delay our receipt of revenues generated by these vessels and, to the extent we have arranged charter employment for these vessels, could possibly result in the cancellation of those charters, and therefore adversely affect our anticipated results of operations. The delivery of newbuilding vessels could be delayed because of, among other things: work stoppages or other labor disturbances; bankruptcy or other financial crisis of the shipyard building the vessel; hostilities or political or economic disturbances in the countries where the vessels are being built, including any escalation of tensions involving North Korea; weather interference or catastrophic events, such as a major earthquake, tsunami or fire; our requests for changes to the original vessel specifications; requests from our customers, with whom our commercial managers arrange charters for such vessels, to delay construction and delivery of such vessels due to weak economic conditions and shipping demand or a dispute with the shipyard building the vessel.

**Credit conditions internationally might impact our ability to raise debt financing.**

Global financial markets and economic conditions have been disrupted and volatile in recent years. At times, the credit markets as well as the debt and equity capital markets were distressed and it was difficult for many shipping companies to obtain adequate financing. The cost of available financing also increased significantly, but for leading shipping companies has since declined. The global financial markets and economic conditions could again experience volatility and disruption in the future.

We have traditionally financed our vessel acquisitions or constructions with our own cash (equity) and bank debt from various reputable national and international commercial banks. In relation to newbuilding contracts, the equity portion usually covers all or part of the pre-delivery obligations while the debt portion covers the outstanding amount due to the shipyard on delivery. More recently, however, we have arranged pre-delivery bank financing to cover much of the installments due before delivery, and, therefore, we would be required to provide part of our equity at delivery. In addition, several of our existing loans will mature over the next few years, including the current year. In the event that the related vessels are not sold, or we do not wish to use existing cash for paying the final balloon payments, then re-financing of the loans for an extended period beyond the maturity date will be necessary. Current and future terms and conditions of available debt financing, especially for older vessels without time charter could be different from terms obtained in the past and could result in a higher cost of capital, if available at all. Any adverse development in the credit markets could materially alter our current and future financial and corporate planning and growth and have a negative impact on our balance sheet.

**The future performance of our subsidiaries LNG carriers depends on continued growth in LNG production and demand for LNG and LNG shipping.**

The future performance of our subsidiaries LNG carriers will depend on continued growth in LNG production and the demand for LNG and LNG shipping. A complete LNG project includes production, liquefaction, storage, re-gasification and distribution facilities, in addition to the marine transportation of LNG. Increased infrastructure investment has led to an expansion of LNG production capacity in recent years, but material delays in the construction

of new liquefaction facilities could constrain the amount of LNG available for shipping, reducing ship utilization. The rate of growth in global LNG demand has fluctuated due to several factors, including the global economic crisis and continued economic uncertainty, fluctuations in the price of



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natural gas and other sources of energy, the continued acceleration in natural gas production from unconventional sources in regions such as North America and the highly complex and capital intensive nature of new or expanded LNG projects, including liquefaction projects. Growth in LNG production and demand for LNG and LNG shipping could be negatively affected by a number of factors, including:

increases in the cost of natural gas derived from LNG relative to the cost of natural gas generally;

increases in the production levels of low-cost natural gas in domestic natural gas consuming markets, which could further depress prices for natural gas in those markets and make LNG uneconomical;

increases in the production of natural gas in areas linked by pipelines to consuming areas, the extension of existing, or the development of new pipeline systems in markets we may serve, or the conversion of existing non-natural gas pipelines to natural gas pipelines in those markets;

decreases in the consumption of natural gas due to increases in its price, decreases in the price of alternative energy sources or other factors making consumption of natural gas less attractive;

any significant explosion, spill or other incident involving an LNG facility or carrier;

infrastructure constraints such as delays in the construction of liquefaction facilities, the inability of project owners or operators to obtain financing or governmental approvals to construct or operate LNG facilities, as well as community or political action group resistance to new LNG infrastructure due to concerns about the environment, safety and terrorism;

labor or political unrest or military conflicts affecting existing or proposed areas of LNG production or re-gasification;

decreases in the price of LNG, which might decrease the expected returns relating to investments in LNG projects; or

negative global or regional economic or political conditions, particularly in LNG consuming regions, which could reduce energy consumption or its growth.

The existing LNG carrier has been seeking employment since mid-February 2016 in the spot market and there is no charter arrangement for the LNG carrier newbuilding with expected delivery in late May 2016. Reduced demand for LNG or LNG shipping, or any reduction or limitation in LNG production capacity, could have a material adverse effect on our ability to secure future multi-year time charters for the LNG carriers, or for any new LNG carriers our subsidiaries may acquire, which could harm our business, financial condition, results of operations and cash flows, including cash available for dividends to our shareholders.

**Demand for LNG shipping could be significantly affected by volatile natural gas prices and the overall demand for natural gas.**

Gas prices are volatile and are affected by numerous factors beyond our control, including but not limited to the following:

the supply and cost of crude oil and petroleum products;

worldwide demand for natural gas;

the cost of exploration, development, production, transportation and distribution of natural gas;

expectations regarding future energy prices for both natural gas and other sources of energy;

the level of worldwide LNG production and exports;

government laws and regulations, including but not limited to environmental protection laws and regulations;

local and international political, economic and weather conditions;

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political and military conflicts; and

the availability and cost of alternative energy sources, including alternate sources of natural gas in gas importing and consuming countries.

**An oversupply of LNG carriers may lead to a reduction in the charter hire rates we are able to obtain when seeking charters in the future.**

Driven in part by an increase in LNG production capacity, the market supply of LNG carriers has been increasing as a result of the construction of new ships. According to World Shipyard Monitor Database, during the period from 2005 to 2010, the global fleet of LNG carriers grew by an average of 14% per year due to the construction and delivery of new LNG carriers. From 2010, contracting accelerated with 53 orders in 2011, 39 in 2013, 63 in 2014, 31 in 2015 by which time the total LNG carrier order book was 142 vessels, representing 34.2% of the total fleet, with the majority of the newbuildings scheduled for delivery in 2016 and 2017. This and any future expansion of the global LNG carrier fleet that cannot be absorbed by existing or future LNG projects may have a negative impact on charter rates, ship utilization and ship values. Such impact could be amplified if the expansion of LNG production capacity does not keep pace with fleet growth.

**Hire rates for LNG carriers may fluctuate substantially and have recently declined significantly. If rates remain low when we are seeking a new charter, our revenues and cash flows may decline.**

The significant fall in oil prices over the past 24 months and the milder than expected Far Eastern winter have led to substantial declines in the price of LNG, which coupled with delays in liquefaction and regasification facilities under construction around the world and a higher order book particularly with vessel ordered on speculation, have led to declines in average rates for new spot and shorter-term LNG charters. Unless LNG charter market conditions improve over the next several months, we may have difficulty in securing new charters at attractive rates and durations for the *Neo Energy*, whose time charter expired in February 2016 and is currently seeking employment in the spot market, and for the *Maria Energy*, a newbuilding that is scheduled to be delivered in May 2016 for which employment has yet to be arranged.

**We depend upon Hyundai Ocean Services to manage our LNG carrier.**

Tsakos Energy Management has subcontracted all technical management of our LNG operation to Hyundai Ocean Services ( HOS ) for a fee. Neither Tsakos Energy Management nor TCM has the dedicated personnel for running LNG operations nor can we guarantee that they will employ an adequate number of employees to conduct LNG operations in the future. As such, we are currently dependent on the reliability and effectiveness of third-party managers for whom we cannot guarantee that their employees, both onshore and at-sea are sufficient in number or capability for their assigned role. We also cannot assure you that we will be able to continue to receive such services from HOS on a long-term basis on acceptable terms or at all.

**Our growth in shuttle tankers depends partly on continued growth in demand for offshore oil transportation, processing and storage services.**

Our growth strategy includes expansion in the shuttle tanker sector. Growth in this sector depends on continued growth in world and regional demand for these offshore services, which could be negatively affected by a number of factors, such as:

decreases in the actual or projected price of oil, which could lead to a reduction in or termination of production of oil at certain offshore fields our shuttle tankers will service or a reduction in exploration for or development of new offshore oil fields;

increases in the production of oil in areas linked by pipelines to consuming areas, the extension of existing, or the development of new, pipeline systems in markets we may serve, or the conversion of existing non-oil pipelines to oil pipelines in those markets;

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decreases in the consumption of oil due to increases in its price relative to other energy sources, other factors making consumption of oil less attractive or energy conservation measures;

availability of new, alternative energy sources;

negative global or regional economic or political conditions, particularly in oil consuming regions, which could reduce energy consumption or its growth; and

fall in the price of oil leading to cut-backs in the offshore industry.

Oil prices have declined substantially in the last 18 months, which has resulted in oil companies announcing reductions in oil production and exploration activities, including in offshore fields.

### **Fuel prices may adversely affect our profits.**

While we do not bear the cost of fuel (bunkers) under time and bareboat charters, fuel is a significant, if not the largest, expense in our shipping operations when vessels are under spot charters. Increases in the price of fuel may, as a result, adversely affect our profitability. The price and supply of fuel is unpredictable and fluctuates based on events outside our control, including geopolitical developments.

### **If our counterparties were to fail to meet their obligations under a charter agreement we could suffer losses or our business could be otherwise adversely affected.**

As of April 5, 2016, 28 of our subsidiaries' vessels were employed under time charters and time charters with profit share. The ability and willingness of each of the counterparties to perform their obligations under their charters will depend on a number of factors that are beyond our control and may include, among other things, general economic conditions, the condition of the oil and energy industries and of the oil and oil products shipping industry as well as the overall financial condition of the counterparties and prevailing charter rates. There can be no assurance that some of our subsidiaries' customers would not fail to pay charter hire or attempt to renegotiate charter rates and, if the charterers fail to meet their obligations or attempt to renegotiate charter agreements, we could sustain significant losses which could have a material adverse effect on our business, financial condition, results of operations and cash flows, as well as our ability to pay dividends in the future.

### **We may not have adequate insurance.**

In the event of a casualty to a vessel or other catastrophic event, we will rely on our insurance to pay the insured value of the vessel or the damages incurred. We believe that we maintain as much insurance on the vessels in the fleet, through insurance companies, including Argosy, a related party company, and P&I clubs, as is appropriate and consistent with industry practice. However, we cannot assure you that this insurance will remain available beyond anniversary dates at reasonable rates, and we cannot assure you that the insurance we are able to obtain will cover all liabilities that we may incur, particularly those involving oil spills and catastrophic environmental damage. In addition, we may not be able to insure certain types of losses, including loss of hire, for which insurance coverage may become unavailable. Any uninsured or underinsured loss or liability could harm our business, financial condition, results of operations and cash flows, including cash available for payment of dividends to our shareholders.

**We are subject to funding calls by our protection and indemnity clubs, and our clubs may not have enough resources to cover claims made against them.**

Our subsidiaries are indemnified for legal liabilities incurred while operating their vessels through membership in P&I clubs. P&I clubs are mutual insurance clubs whose members must contribute to cover losses sustained by other club members. The objective of a P&I club is to provide mutual insurance based on the aggregate tonnage of a member's vessels entered into the club. Claims are paid through the aggregate premiums of all members of the club, although members remain subject to calls for additional funds in the unlikely event

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aggregate premiums are insufficient to cover claims submitted to the club. Claims submitted to the club may include those incurred by members of the club, as well as claims submitted to the club from other P&I clubs with which our subsidiaries' P&I clubs have entered into interclub agreements. We cannot assure you that the P&I clubs to which our subsidiaries belong will remain viable or that we will not become subject to additional funding calls which could adversely affect our profitability.

### **The insolvency or financial deterioration of any of our insurers or reinsurers would negatively affect our ability to recover claims for covered losses on our vessels.**

We have placed our hull and machinery, increased value and loss of hire insurance with Argosy, a captive insurance company affiliated with Tsakos family interests. Argosy reinsures the insurance it underwrites for us with various reinsurers, however, the coverage deductibles of the reinsurance policies periodically exceed the coverage deductibles of the insurance policies Argosy underwrites for us. Argosy, therefore, would be liable with respect to the difference between those deductibles in the event of a claim by us to which the deductibles apply. Although these reinsurers have a minimum credit rating of A-, we do not have the ability to independently determine our insurers' and reinsurers' creditworthiness or their ability to pay any claims that we may have as a result of a loss. In the event of insolvency or other financial deterioration of our insurer or its reinsurers, we cannot assure you that we would be able to recover on any claims we suffer.

### **Our degree of leverage and certain restrictions in our financing agreements impose constraints on us.**

We incur substantial debt to finance the acquisition of our vessels. At December 31, 2015, our debt to capital ratio was 49.7% (debt / debt plus equity), with \$1.4 billion in debt outstanding. We are required to apply a substantial portion of our cash flow from operations to the payment of principal and interest on this debt. In 2015, 77% of our cash flow derived from operations was dedicated to debt service, excluding any debt prepayment upon the sale of vessels and voluntary early debt prepayments. This limits the funds available for working capital, capital expenditures, dividends and other purposes. Our degree of leverage could have important consequences for us, including the following:

a substantial decrease in our net operating cash flows or an increase in our expenses could make it difficult for us to meet our debt service requirements and force us to modify our operations;

we may be more highly leveraged than our competitors, which may make it more difficult for us to expand our fleet; and

any significant amount of leverage exposes us to increased interest rate risk and makes us vulnerable to a downturn in our business or the economy generally.

In addition, our financing arrangements, which we secured by mortgages on our ships, impose operating and financial restrictions on us that restrict our ability to:

incur additional indebtedness;

create liens;

sell the capital of our subsidiaries or other assets;

make investments;

engage in mergers and acquisitions;

make capital expenditures;

repurchase common shares; and

pay cash dividends.



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We have a holding company structure which depends on dividends from our subsidiaries and interest income to pay our overhead expenses and otherwise fund expenditures consisting primarily of advances on newbuilding contracts and the payment of dividends to our shareholders. As a result, restrictions contained in our financing arrangements and those of our subsidiaries on the payment of dividends may restrict our ability to fund our various activities.

### **We are exposed to volatility in LIBOR and selectively enter into derivative contracts, which can result in higher than market interest rates and charges against our income.**

Over the past twelve years we have selectively entered into derivative contracts both for investment purposes and to hedge our overall interest expense and, more recently, our bunker expenses. Our board of directors monitors the status of our derivatives in order to assess whether such derivatives are within reasonable limits and reasonable in light of our particular investment strategy at the time we entered into the derivative contracts.

Loans advanced under our secured credit facilities are, generally, advanced at a floating rate based on LIBOR, which has been stable and at historically low levels in recent years, but was volatile in prior years, which can affect the amount of interest payable on our debt, and which, in turn, could have an adverse effect on our earnings and cash flow. Our financial condition could be materially adversely affected at any time that we have not entered into interest rate hedging arrangements to hedge our interest rate exposure and the interest rates applicable to our credit facilities and any other financing arrangements we may enter into in the future, including those we enter into to finance a portion of the amounts payable with respect to newbuildings, increase. Moreover, even if we have entered into interest rate swaps or other derivative instruments for purposes of managing our interest rate or bunker cost exposure, our hedging strategies may not be effective and we may incur substantial loss.

We have a risk management policy and the Audit Committee to oversee all our derivative transactions. It is our policy to monitor our exposure to business risk, and to manage the impact of changes in interest rates, foreign exchange rate movements and bunker prices on earnings and cash flows through derivatives. Derivative contracts are executed when management believes that the action is not likely to significantly increase overall risk. Entering into swaps and derivatives transactions is inherently risky and presents various possibilities for incurring significant expenses. The derivatives strategies that we employ in the future may not be successful or effective, and we could, as a result, incur substantial additional interest costs. See Item 11. Quantitative and Qualitative Disclosures About Market Risk for a description of our current interest rate swap arrangements.

### **Our subsidiaries vessels may suffer damage and we may face unexpected dry-docking costs which could affect our cash flow and financial condition.**

If our vessels suffer damage, they may need to be repaired at a dry-docking facility. The costs of dry-dock repairs can be both substantial and unpredictable. We may have to pay dry-docking costs that our insurance does not cover. This would result in decreased earnings.

### **If we were to be subject to tax in jurisdictions in which we operate, our financial results would be adversely affected.**

Our income is not presently subject to taxation in Bermuda, which has no corporate income tax. We believe that we should not be subject to tax under the laws of various countries, other than the United States, in which we conduct activities or in which our customers are located. However, our belief is based on our understanding of the tax laws of those countries, and our tax position is subject to review and possible challenge by taxing authorities and to possible changes in law or interpretation. We cannot determine in advance the extent to which certain jurisdictions may require us to pay tax or to make payments in lieu of tax. In addition, payments due to us from our customers may be subject to

tax claims.

If we or our subsidiaries are not entitled to exemption under Section 883 of the United States Internal Revenue Code of 1986, as amended, for any taxable year, we or our subsidiaries would be subject for those years

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to a 4% United States federal income tax on our gross U.S.-source shipping revenue, without allowance for deductions, under Section 887 of the Internal Revenue Code. The imposition of such tax could have a negative effect on our business and would result in decreased earnings available for distribution to our stockholders.

See Tax Considerations United States federal income tax considerations for additional information about the requirements of this exemption.

**If we were treated as a passive foreign investment company, a U.S. investor in our common shares would be subject to disadvantageous rules under the U.S. tax laws.**

If we were treated as a passive foreign investment company (a PFIC) in any year, U.S. holders of our common shares would be subject to unfavorable U.S. federal income tax treatment. We do not believe that we will be a PFIC in 2016 or in any future year. However, PFIC classification is a factual determination made annually and we could become a PFIC if the portion of our income derived from bareboat charters or other passive sources were to increase substantially or if the portion of our assets that produce or are held for the production of passive income were to increase substantially. Moreover, the IRS may disagree with our position that time and voyage charters do not give rise to passive income for purposes of the PFIC rules. Accordingly, we can provide no assurance that we will not be treated as a PFIC for 2015 or for any future year. Please see Tax Considerations United States federal income tax considerations Passive Foreign Investment Company Considerations herein for a description of the PFIC rules.

Distributions on the common shares of non-U.S. companies that are treated as dividends for U.S. federal income tax purposes and are received by individuals generally will be eligible for taxation at capital gain rates if the common shares with respect to which the dividends are paid are readily tradable on an established securities market in the United States. This treatment will not be available to dividends we pay, however, if we qualify as a PFIC for the taxable year of the dividend or the preceding taxable year, or to the extent that (i) the shareholder does not satisfy a holding period requirement that generally requires that the shareholder hold the shares on which the dividend is paid for more than 60 days during the 121-day period that begins 60 days before the date on which the shares become ex-dividend with respect to such dividend, (ii) the shareholder is under an obligation to make related payments with respect to substantially similar or related property or (iii) such dividend is taken into account as investment income under Section 163(d)(4)(B) of the Internal Revenue Code. We do not believe that we qualified as a PFIC for our last taxable year and, as described above, we do not expect to qualify as a PFIC for our current or future taxable years. Legislation has been proposed in the United States Congress which, if enacted in its current form, would likely cause dividends on our shares to be ineligible for the preferential tax rates described above. There can be no assurance regarding whether, or in what form, such legislation will be enacted.

**Because some of our subsidiaries' vessels' expenses are incurred in foreign currencies, we are exposed to exchange rate risks.**

The charterers of the vessels owned by our subsidiary companies pay in U.S. dollars. While most of the expenses incurred by our managers or by us on our subsidiaries' behalf are paid in U.S. dollars, certain of these expenses are in other currencies, most notably the Euro. In 2015, Euro expenses accounted for approximately 34% of our total operating expenses, including dry-dockings. Declines in the value of the U.S. dollar relative to the Euro, or the other currencies in which we incur expenses, would increase the U.S. dollar cost of paying these expenses and thus would adversely affect our results of operations.

**The Tsakos Holdings Foundation and the Tsakos family can exert considerable control over us, which may limit your ability to influence our actions.**

As of April 5, 2016, companies controlled by the Tsakos Holdings Foundation or affiliated with the Tsakos Group own approximately 30% of our outstanding common shares. The Tsakos Holdings Foundation is a Liechtenstein foundation whose beneficiaries include persons and entities affiliated with the Tsakos family,

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charitable institutions and other unaffiliated persons and entities. The council which controls the Tsakos Holdings Foundation consists of five members, two of whom are members of the Tsakos family. As long as the Tsakos Holdings Foundation and the Tsakos family beneficially own a significant percentage of our common shares, each will have the power to influence the election of the members of our board of directors and the vote on substantially all other matters, including significant corporate actions.

### **Risks Related To Our Common and Preferred Shares**

#### **Future sales of our common shares could cause the market price of our common shares to decline.**

Sales of a substantial number of our common shares in the public market, or the perception that these sales could occur, may depress the market price for our common shares. These sales could also impair our ability to raise additional capital through the sale of our equity securities in the future. We may issue additional common shares in the future and our shareholders may elect to sell large numbers of shares held by them from time to time.

#### **The market price of our common shares and preferred shares may be unpredictable and volatile.**

The market price of our common shares and Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares may fluctuate due to factors such as actual or anticipated fluctuations in our quarterly and annual results and those of other public companies in our industry, mergers and strategic alliances in the tanker industry, market conditions in the tanker industry, changes in government regulation, shortfalls in our operating results from levels forecast by securities analysts, announcements concerning us or our competitors, our sales of our common shares or of additional preferred shares, changes in prevailing interest rates and the general state of the securities market. The tanker industry has been highly unpredictable and volatile. The market for common stock and preferred stock in this industry may be equally volatile. Therefore, we cannot assure you that you will be able to sell any of our common shares and preferred shares you may have purchased, or will purchase in the future, at a price greater than or equal to the original purchase price.

If the market price of our common shares falls to and remains below \$5.00 per share, under stock exchange rules, our shareholders will not be able to use such shares as collateral for borrowing in margin accounts. This inability to use common shares as collateral may depress demand and certain institutional investors are restricted from investing in or holding shares priced below \$5.00, which could lead to sales of such shares creating further downward pressure on and increased volatility in the market price of our common shares.

#### **We may not be able to pay cash dividends on our common shares or preferred shares as intended if market conditions change.**

During 2015, we paid dividends on our common shares totaling \$0.24 per common share, totaling \$20.6 million. On February 16, 2016, the Company announced a common share dividend of \$0.08 per common share to be paid on April 7, 2016 to holders of record as of March 30, 2016. In addition, during 2015 we paid dividends on our preferred shares totaling \$12.8 million and another \$4.0 million in January and February 2016. Subject to the limitations discussed below, we currently intend to continue to pay cash dividends on our common shares and preferred shares. However, there can be no assurance that we will pay dividends or as to the amount of any dividend. The payment and the amount will be subject to the discretion of our board of directors and will depend, among other things, on restrictions in the Companies Act of 1981 of Bermuda, as amended, or the Companies Act, on our available cash balances, anticipated cash needs, our results of operations, our financial condition, and any loan agreement restrictions binding us or our subsidiaries, including a limit on dividends exceeding 50% of our net income for any particular year, plus certain additional amounts permitted to the extent 50% of our aggregate net income in prior years exceeded

dividends paid during such years, as well as other relevant factors. Net losses that we incurred in certain of our historical periods as well as dividends that we historically paid reduce the amount of the accumulated consolidated net income from which we are permitted to pay dividends under our loan agreements while net income in other periods increases the amount. In addition, dividends on our

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common shares are subject to the priority of our dividend obligations relating to our Series B, Series C and Series D Preferred Shares. We may have insufficient cash to pay dividends on or redeem our Series B, Series C and Series D Preferred Shares, or pay dividends on our common shares. Depending on our operating performance for a particular year, this could result in no dividend at all despite the existence of net income, or a dividend that represents a lower percentage of our net income.

Because we are a holding company with no material assets other than the stock of our subsidiaries, our ability to pay dividends will depend on the earnings and cash flow of our subsidiaries and their ability to pay us dividends. In addition, the financing arrangements for indebtedness we incur in connection with our newbuilding program may further restrict our ability to pay dividends. In the event of any insolvency, bankruptcy or similar proceedings of a subsidiary, creditors of such subsidiary would generally be entitled to priority over us with respect to assets of the affected subsidiary. Investors in our common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares may be adversely affected if we are unable to or do not pay dividends as intended.

### **Market interest rates may adversely affect the value of our Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares.**

One of the factors that influences the price of our Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares is the dividend yield on these Preferred Shares (as a percentage of the price thereof) relative to market interest rates. An increase in market interest rates, which are currently at low levels relative to historical rates, may lead to lower prices for our shares when valued using their dividend yields. Higher interest rates would likely increase our borrowing costs and potentially decrease funds available for dividends. Accordingly, higher interest rates could affect the market prices of our Preferred Shares to decrease.

### **Holders of our Preferred Shares have extremely limited voting rights.**

The voting rights of holders of Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares are extremely limited. Our common shares are the only class or series of our shares carrying full voting rights. The voting rights of holders of these Preferred Shares are limited to the ability, subject to certain exceptions, to elect, voting together as a class with all other classes or series of parity securities upon which like voting rights have been conferred and are exercisable, one director if dividends for six quarterly dividend periods (whether or not consecutive) payable thereon are in arrears and certain other limited protective voting rights described in Item 10. Additional Information Description of Share Capital Preferred Shares.

### **Provisions in our Bye-laws and our management agreement with Tsakos Energy Management would make it difficult for a third party to acquire us, even if such a transaction is beneficial to our shareholders.**

Our Bye-laws provide for a staggered board of directors, blank check preferred stock, super majority voting requirements and other anti-takeover provisions, including restrictions on business combinations with interested persons and limitations on the voting rights of shareholders who acquire more than 15% of our common shares. In addition, Tsakos Energy Management would have the right to terminate our management agreement and seek liquidated damages if a board member were elected without having been approved by the current board. These provisions could deter a third party from tendering for the purchase of some or all of our shares. These provisions may have the effect of delaying or preventing changes of control of the ownership and management of our company.

### **Because we are a foreign corporation, you may not have the same rights as a shareholder in a U.S. corporation.**

We are a Bermuda corporation. Our Memorandum of Association and Bye-laws and the Companies Act govern our affairs. While many provisions of the Companies Act resemble provisions of the corporation laws of a number of states in the United States, Bermuda law may not as clearly establish your rights and the fiduciary responsibilities of our directors as do statutes and judicial precedent in some U.S. jurisdictions. In addition, apart



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from three non-executive directors, our directors and officers are not resident in the United States and all or substantially all of our assets are located outside of the United States. As a result, investors may have more difficulty in protecting their interests and enforcing judgments in the face of actions by our management, directors or controlling shareholders than would shareholders of a corporation incorporated in a U.S. jurisdiction.

In addition, you should not assume that courts in the country in which we are incorporated or where our assets are located would enforce judgments of U.S. courts obtained in actions against us based upon the civil liability provisions of applicable U.S. federal and state securities laws or would enforce, in original actions, liabilities against us based on those laws.

**We are a foreign private issuer under NYSE rules, and as such we are entitled to exemption from certain NYSE corporate governance standards, and you may not have the same protections afforded to shareholders of companies that are subject to all of the NYSE corporate governance requirements.**

We are a foreign private issuer under the securities laws of the United States and the rules of the NYSE. Under the securities laws of the United States, foreign private issuers are subject to different disclosure requirements than U.S. domiciled registrants, as well as different financial reporting requirements. Under the NYSE rules, a foreign private issuer is subject to less stringent corporate governance requirements. Subject to certain exceptions, the rules of the NYSE permit a foreign private issuer to follow its home country practice in lieu of the listing requirements of the NYSE, including (i) the requirement that a majority of the board of directors consist of independent directors, (ii) the requirement that the nominating/corporate governance committees be composed entirely of independent directors and have a written charter addressing the committee's purpose and responsibilities, (iii) the requirement that the compensation committee be composed entirely of independent directors and have a written charter addressing the committee's purpose and responsibilities, and (iv) the requirement of an annual performance evaluation of the nominating/corporate governance and compensation committees.

Nonetheless, a majority of our directors are independent, all of the members of our compensation, nominating and corporate governance committee are independent directors, and all of our board committees have written charters addressing their respective purposes and responsibilities.

**Item 4. Information on the Company**

Tsakos Energy Navigation Limited is a leading provider of international seaborne crude oil and petroleum product transportation services. In 2007, it also started to transport liquefied natural gas. It was incorporated in 1993 as an exempted company under the laws of Bermuda under the name Maritime Investment Fund Limited and in, 1996, was renamed MIF Limited. Our common shares were listed in 1993 on the Oslo Stock Exchange (OSE) and the Bermuda Stock Exchange, although we de-listed from the OSE in March 2005 due to limited trading. The Company's shares are no longer actively traded on the Bermuda exchange. In July 2001, the Company's name was changed to Tsakos Energy Navigation Limited to enhance our brand recognition in the tanker industry, particularly among charterers. In March 2002, we completed an initial public offering of our common shares in the United States and our common shares began trading on the New York Stock Exchange under the ticker symbol TNP. Since incorporation, the Company has owned and operated 81 vessels and has sold 32 vessels (of which three had been chartered back and eventually repurchased at the end of their charters. All three have since been sold again).

Our principal offices are located at 367 Syngrou Avenue, 175 64 P. Faliro, Athens, Greece. Our telephone number at this address is 011 30 210 9407710. Our website address is <http://www.tenn.gr>.

For additional information on the Company, see Item 5. Operating and Financial Review and Prospects.

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### **Business Overview**

As of April 5, 2016 we operated a fleet of 47 modern crude oil and petroleum product tankers that provide world-wide marine transportation services for national, major and other independent oil companies and refiners under long, medium and short-term charters. Our fleet also includes one 2007-built LNG carrier and two 2013-built shuttle suezmax tankers with advanced dynamic positioning technology (DP2), bringing our total operating fleet to 50 vessels. We have also under construction a 174,000 cbm LNG carrier with expected delivery in the second quarter of 2016, nine crude aframaxes with expected deliveries in 2016 and 2017, two LR1 product carriers with expected deliveries in later 2016, two VLCCs with expected deliveries in the second and fourth quarter of 2016 respectively and one shuttle suezmax tanker with expected delivery in 2017. The resulting fleet (assuming no further sales or acquisitions) would comprise 65 vessels representing approximately 7.2 million dwt.

We believe that we have established a reputation as a safe, high quality, cost efficient operator of modern and well-maintained tankers. We also believe that these attributes, together with our strategy of proactively working towards meeting our customers' chartering needs, has contributed to our ability to attract world-class energy producers as customers and to our success in obtaining charter renewals generating strong fleet utilization.

Our fleet is managed by Tsakos Energy Management, a company owned by our chief executive officer. Tsakos Energy Management provides us with strategic advisory, financial, accounting and administrative services, while subcontracting the commercial management of our business to Tsakos Shipping. In its capacity as commercial manager, Tsakos Shipping provides various services for our vessels, including charterer relations, obtaining insurance and vessel sale and purchase, supervising newbuilding construction and vessel financing. Until June 30, 2010, Tsakos Shipping had also provided technical and operational management for the majority of our vessels.

Tsakos Energy Management subcontracts the technical and operational management of our fleet to TCM. TCM was formed in February 2010 by Tsakos family interests and a German private company, the owner of the ship management company Columbia Shipmanagement Ltd., or CSM, as a joint-venture ship management company on an equal partnership basis to provide technical and operational management services to owners of vessels, primarily within the Greece-based market. TCM, which formally commenced operations on July 1, 2010, now manages the technical and operational activities of all of our vessels apart from the LNG carrier *Neo Energy*, the VLCC *Millennium* and the Suezmax tanker *Eurochampion 2004*, which are technically managed by a non-affiliated ship manager. TCM is based in Athens, Greece. TCM and CSM cooperate in the purchase of certain supplies and services on a combined basis. By leveraging the purchasing power of CSM, which currently provides full technical management services for 211 vessels and crewing services for an additional 87 vessels, we believe TCM is able to procure services and supplies at lower prices than Tsakos Shipping could alone, thereby reducing overall operating expenses for us. In its capacity as technical manager, TCM manages our day-to-day vessel operations, including provision of supplies, maintenance and repair, and crewing. Members of the Tsakos family are involved in the decision-making processes of Tsakos Energy Management, Tsakos Shipping and TCM.

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As of April 5, 2016, our operational fleet consisted of the following 50 vessels:

Number of Vessels	Vessel Type
1	VLCC
13	Suezmax
8	Aframax
3	Aframax LR2
9	Panamax LR1
6	Handymax MR2
7	Handysize MR1
1	LNG carrier
2	Shuttle DP2
<b>Total 50</b>	

Twenty-one of the operating vessels are of ice-class specification. This fleet diversity, which includes a number of sister ships, provides us with the capability to be one of the more versatile operators in the market. The current operating fleet totals approximately 5.2 million dwt, all of which is double-hulled. As of March 31, 2016, the average age of the tankers in our current operating fleet was 8.6 years, compared with the industry average of 9.7 years.

In addition to the vessels operating in our fleet as of April 5, 2016, we have also entered into agreements for the construction of 15 additional vessels with established shipyards, Daewoo-Mangalia Heavy Industries, Hyundai Heavy Industries, Hyundai Samho Heavy Industries and Sungdong Shipbuilding.

We believe the following factors distinguish us from other public tanker companies:

**Modern, high-quality, fleet.** We own a fleet of modern, versatile, high-quality tankers that are designed for enhanced safety and low operating costs. Since inception, we have committed to investments of approximately \$5.1 billion, including investments of approximately \$3.8 billion in newbuilding constructions, in order to maintain and improve the quality of our fleet. We believe that increasingly stringent environmental regulations and heightened concerns about liability for oil pollution have contributed to a significant demand for our vessels by leading oil companies, oil traders and major government oil entities. TCM, the technical manager of our fleet, has ISO 14001 environmental certification and ISO 9001 quality certification, based in part upon audits conducted on our vessels.

**Diversified fleet.** Our diversified fleet, which includes VLCC, suezmax, aframax, panamax, handysize, handymax tankers, one LNG carrier, and the two DP2 shuttle tankers, allows us to better serve our customers international petroleum product and crude oil transportation needs. We had also committed a sizable part of our newbuilding and acquisition program, in the past, to ice-class vessels, which are vessels that can access ice-bound ports depending on certain thickness of ice. We have 21 ice-class vessels. Additionally, we entered the LNG market with the delivery of our first LNG carrier in 2007 and have contracted for the construction of one additional LNG carrier newbuilding, to be delivered in Q2 2016. We also entered the shuttle tanker market with our first DP2 suezmax *Rio 2016* which was delivered in March 2013 and our second DP2 suezmax *Brasil 2014* which was delivered in April 2013, each of which commenced with a 15-year time charter with Petrobras after delivery. The construction of a further DP2 suezmax shuttle tanker

has been contracted in November 2014 for delivery in 2017 for charter to a European state-owned oil major.

***Stability throughout industry cycles.*** Historically, we have employed a high percentage of our fleet on long and medium-term employment with fixed rates or minimum rates plus profit sharing agreements. We believe this approach has resulted in high utilization rates for our vessels. At the same time, we maintain flexibility in our chartering policy to allow us to take advantage of favorable rate trends through spot market employment, pools and contract of affreightment charters with periodic

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adjustments as we have done since late 2014 to take advantage of strong spot market rates. Over the last five years, our overall average fleet utilization rate was 97.1%.

***High-Quality, sophisticated clientele.*** For over 40 years, Tsakos entities have maintained relationships with and achieved acceptance by national, major and other independent oil companies and refiners. Several of the world's major oil companies and traders, including BP, ExxonMobil, Flopec, Hyundai Merchant Marine, Petrobras, Chevron, Shell and Vitol are among the regular customers of Tsakos Energy Navigation.

***Developing LNG and offshore shuttle tanker platform.*** We believe we are well positioned to capitalize on rising demand for LNG sea transport and offshore shuttle tanker transport because of our extensive relationships with existing customers, strong safety track record, superior technical management capabilities and financial flexibility. We already operate one LNG carrier with a further one on order and two newly-built DP2 suezmax shuttle tankers with a further one on order.

***Presence in offshore service sector.*** With the delivery of two suezmax DP2 shuttle tankers, which operate on long-term charters with one of the largest developers of offshore oil fields and a further shuttle tanker under construction for a specific long-term time charter, we have established a presence in a shipping sector previously dominated by only a small handful of shipping companies. It is our intention to explore other opportunities in servicing the offshore oil exploration and production industry, building on the well established relationships with existing oil major customers which exploit the rich deposits of sub-marine oil fields to take advantage of a potential future rebound in the sector.

***Significant leverage from our relationship with Tsakos Shipping and TCM.*** We believe the expertise, scale and scope of TCM are key components in maintaining low operating costs, efficiency, quality and safety. We leverage Tsakos Shipping's reputation and longstanding relationships with leading charterers to foster charter renewals. In addition, we believe that TCM has the ability to spread costs over a larger vessel base than that previously of Tsakos Shipping, thereby capturing even greater economies of scale that may lead to additional cost savings for us.

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As of April 5, 2016, our fleet consisted of the following 50 vessels:

<b>Vessel</b>	<b>Year Built</b>	<b>Deadweight Tons</b>	<b>Year Acquired</b>	<b>Charter Type<sup>(1)</sup></b>	<b>Expiration of Charter</b>	<b>Hull Type<sup>(2)</sup> (all double hull)</b>	<b>Cargoes</b>
<b>VLCC</b>							
1. <i>Millennium</i>	1998	301,171	1998	bareboat charter	November 2018		Crude
<b>SUEZMAX</b>							
1. <i>Silia T<sup>(3)</sup></i>	2002	164,286	2002	time charter	June 2017		Crude
2. <i>Eurochampion 2004</i>	2005	164,608	2005	spot		ice-class 1C	Crude
3. <i>Euronike<sup>(3)</sup></i>	2005	164,565	2005	time charter	September 2016	ice-class 1C	Crude
4. <i>Archangel</i>	2006	163,216	2006	spot		ice-class 1A	Crude
5. <i>Alaska</i>	2006	163,250	2006	spot		ice-class 1A	Crude
6. <i>Arctic</i>	2007	163,216	2007	time charter	October 2017	ice-class 1A	Crude
7. <i>Antarctic</i>	2007	163,216	2007	spot		ice-class 1A	Crude
8. <i>Spyros K<sup>(4)</sup></i>	2011	157,740	2011	time charter	May 2022		Crude
9. <i>Dimitris P<sup>(4)</sup></i>	2011	157,648	2011	time charter	August 2023		Crude
10. <i>Euro</i>	2012	157,539	2014	time charter	July 2018		Crude
11. <i>Eurovision</i>	2013	157,803	2014	spot			Crude
12. <i>Pentathlon</i>	2009	158,475	2015	spot			Crude
13. <i>Decathlon</i>	2012	158,475	2016	spot			Crude
<b>SUEZMAX</b>							
<b>DP2 SHUTTLE</b>							
1. <i>Rio 2016</i>	2013	157,000	2013	time charter	May 2028		Crude/Products
2. <i>Brasil 2014</i>	2013	157,000	2013	time charter	June 2028		Crude/Products
<b>AFRAMAX</b>							
1. <i>Proteas<sup>(7)</sup></i>	2006	117,055	2006	time charter	May 2018	ice-class 1A	Crude/Products
2. <i>Promitheas<sup>(7)</sup></i>	2006	117,055	2006	time charter	May 2018	ice-class 1A	Crude/Products
3. <i>Propontis<sup>(7)</sup></i>	2006	117,055	2006	time charter	May 2018	ice-class 1A	Crude
4. <i>Izumo Princess</i>	2007	105,374	2007	spot		DNA	Crude
5. <i>Sakura Princess</i>	2007	105,365	2007	spot		DNA	Crude
6. <i>Maria Princess</i>	2008	105,346	2008	spot		DNA	Crude
7. <i>Nippon Princess</i>	2008	105,392	2008	CoA		DNA	Crude
8. <i>Ise Princess</i>	2009	105,361	2009	CoA		DNA	Crude
9. <i>Asahi Princess</i>	2009	105,372	2009	spot		DNA	Crude
10. <i>Sapporo Princess</i>	2010	105,354	2010	spot		DNA	Crude
11. <i>Uraga Princess</i>	2010	105,344	2010	spot		DNA	Crude
<b>PANAMAX</b>							

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1. <i>Andes</i> <sup>(5)</sup>	2003	68,439	2003	time charter	September 2018		Crude/Products
2. <i>Maya</i> <sup>(5)(6)</sup>	2003	68,439	2003	time charter	January 2018		Crude/Products
3. <i>Inca</i> <sup>(5)(6)</sup>	2003	68,439	2003	time charter	March 2018		Crude/Products
4. <i>Selecao</i>	2008	74,296	2008	time charter	October 2016		Crude/Products
5. <i>Socrates</i>	2008	74,327	2008	time charter	November 2016		Crude/Products
<b>6. World</b>							
<i>Harmony</i> <sup>(5)</sup>	2009	74,200	2010	time charter	April 2018		Crude/Products
7. <i>Chantal</i> <sup>(5)</sup>	2009	74,329	2010	time charter	June 2018		Crude/Products
8. <i>Selini</i> <sup>(3)</sup>	2009	74,296	2010	time charter	October 2017		Crude/Products
9. <i>Salamina</i> <sup>(3)</sup>	2009	74,251	2010	time charter	April 2017		Crude/Products
<b>HANDYMAX</b>							
1. <i>Artemis</i>	2005	53,039	2006	time charter	December 2017	ice-class 1A	Products
2. <i>Afrodite</i>	2005	53,082	2006	time charter	August 2017	ice-class 1A	Products
3. <i>Ariadne</i> <sup>(3)</sup>	2005	53,021	2006	time charter	August 2017	ice-class 1A	Products
4. <i>Aris</i>	2005	53,107	2006	time charter	May 2017	ice-class 1A	Products
5. <i>Apollon</i>	2005	53,149	2006	time charter	August 2016	ice-class 1A	Products
6. <i>Ajax</i>	2005	53,095	2006	time charter	August 2017	ice-class 1A	Products
<b>HANDYSIZE</b>							
1. <i>Didimon</i>	2005	37,432	2005	time charter	September 2017		Products
2. <i>Arion</i>	2006	37,061	2006	spot		ice-class 1A	Products
3. <i>Amphitrite</i>	2006	37,061	2006	spot		ice-class 1A	Products
4. <i>Andromeda</i>	2007	37,061	2007	spot		ice-class 1A	Products
5. <i>Aegeas</i>	2007	37,061	2007	spot		ice-class 1A	Products
6. <i>Byzantion</i>	2007	37,275	2007	spot		ice-class 1B	Products
7. <i>Bosporos</i>	2007	37,275	2007	spot		ice-class 1B	Products
<b>LNG</b>							
1. <i>Neo Energy</i>	2007	85,602	2007	spot		Membrane	LNG
<b>Total Vessels</b>	<b>50</b>	<b>5,218,618</b>				(150,000cbm)	



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- (1) Certain of the vessels are operating in the spot market under contracts of affreightment ( CoA ).
- (2) Ice-class classifications are based on ship resistance in brash ice channels with a minimum speed of 5 knots for the following conditions ice-1A: 1m brash ice, ice-1B: 0.8m brash ice, ice-1C: 0.6m brash ice. DNA- design new aframax with shorter length overall allowing greater flexibility in the Caribbean and the United States.
- (3) The charter rate for these vessels is based on a fixed minimum rate for the Company plus different levels of profit sharing above the minimum rate, determined and settled on a calendar month basis.
- (4) These vessels are chartered under fixed and variable hire rates. The variable portion of hire is recognized to the extent the amount becomes fixed and determinable at the reporting date. Determination is every six months.
- (5) Charterers have the option to terminate the charter party after at least 12 months upon three months notice.
- (6) 49% of the holding company of these vessels is held by a third party.
- (7) These three vessels are chartered to the same charterer: one for 30 months, one for 36 months and one for 42 months. It is charterer's option which vessel to take for which respective period. Although all vessels have started their charters in November, 2015, as at April 5, 2016, the charterer has not informed us as to which vessel will be employed for which period. The above expiry date shown is based on 30 months for all three.

On October 23, 2014 and on November 26, 2014 subsidiaries of the Company signed contracts for the construction of two LR1 product carriers and one suezmax DP2 shuttle tanker with Sungdong Shipbuilding in South Korea. On December 10, 2013, other subsidiaries of the Company signed contracts for the construction of five aframax tankers with Daewoo Shipbuilding in Romania and contracts for four additional aframax tankers with the same yard were signed on February 26, 2014. In addition, an LNG carrier has been ordered from Hyundai Heavy Industries (see below). The Company acquired the contracts for two VLCC tankers which were under construction at the Hyundai Samho Heavy Industries in South Korea. The newbuildings have a double hull design compliant with all classification requirements and prevailing environmental laws and regulations. Tsakos Shipping has worked closely with the shipyards in the design of the newbuildings and will continue to work with the shipyards during the construction period. TCM provides supervisory personnel present during the construction. An amount of \$4.5 million was paid in 2013 on ordering another shuttle tanker from Sungdong. The contract was terminated in 2014 and the deposit credited against the contract price of the LR1 product carriers and new shuttle tanker, leaving, per agreement, \$1.65 million to be credited against the price of any future construction contracted with Sungdong.

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Our newbuildings under construction as of April 5, 2016, consisted of the following:

Vessel Type	Expected Delivery	Shipyard	Deadweight Tons	Purchase Price <sup>(1)</sup> (in millions of U.S. dollars)
<b>Aframaxes</b>				
1. Hull 5010(TBN ELIAS TSAKOS )	Q2 2016	Daewoo Shipbuilding	112,700	52.4
2. Hull 5011(TBN THOMAS ZAFIRAS )	Q2 2016	Daewoo Shipbuilding	112,700	52.4
3. Hull 5012(TBN LEONTIOS H )	Q3 2016	Daewoo Shipbuilding	112,700	52.6
4. Hull 5013(TBN TS PARTHENON )	Q4 2016	Daewoo Shipbuilding	112,700	52.6
5. Hull 5014(TBN TS SOLA )	Q1 2017	Daewoo Shipbuilding	112,700	52.6
6. Hull 5015(TBN TS MARATHON )	Q1 2017	Daewoo Shipbuilding	112,700	52.9
7. Hull 5016(TBN TS OSLO )	Q2 2017	Daewoo Shipbuilding	112,700	53.1
8. Hull 5017(TBN TS STAVANGER )	Q2 2017	Daewoo Shipbuilding	112,700	53.1
9. Hull 5018(TBN TS BERGEN )	Q3 2017	Daewoo Shipbuilding	112,700	53.1
<b>Total Aframaxes</b>			<b>1,014,300</b>	<b>474.8</b>
<b>LR1 Product Carriers</b>				
1. Hull S3116(TBN SUNRAY )	Q3 2016	Sungdong Shipbuilding	74,200	47.6
2. Hull S3117(TBN SUNRISE )	Q3 2016	Sungdong Shipbuilding	74,200	47.6
<b>Total LR1s</b>			<b>148,400</b>	<b>95.2</b>
<b>Shuttle Tanker</b>				
1. Hull No. S7004(TBN LISBOA CITY )	Q1 2017	Sungdong Shipbuilding	157,000	98.4
<b>Total Shuttle Tankers</b>			<b>157,000</b>	<b>98.4</b>
<b>LNG Carrier</b>				
1. Maria Energy	Q2 2016	Hyundai Heavy Industries	93,600	
<b>Total LNG Carrier</b>			(174,000cbm) <b>93,600</b>	222.7 <b>222.7</b>
<b>VLCCs</b>				
1. HN S779 (TBN ULYSSES )	Q2 2016	Hyundai Samho	300,000	97.1(2)
2. HN S780 (TBN HERCULES )	Q4 2016	Hyundai Samho	300,000	97.1(2)
<b>Total VLCCs</b>			<b>600,000</b>	<b>194.2</b>

(1) Including extra cost agreed as of December 31, 2015.

(2) Of the aggregate \$194.2 million purchase price for the VLCCs, \$25.7 million was paid with our common shares, valued at \$9.79 per share.



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As of April 5, 2016, bank financing, including pre-delivery installments, has been arranged for all the vessels under construction. Pre-delivery financing has been arranged and received for the LNG carrier, which will be repaid on delivery of the vessel.

Under the newbuilding contracts, the purchase prices for the vessels are subject to deductions for delayed delivery, excessive fuel consumption and failure to meet specified deadweight tonnage requirements. Progress payments for the newbuildings under construction are equal to between 40% and 55% of the purchase price of each vessel during the period of its construction. As of April 5, 2016, we have made progress payments of \$373.4 million out of the total purchase price of approximately \$1,085.3 million (assuming no changes to the vessels to be constructed) for these newbuildings. Of the remaining amount (assuming no change to the vessels to be constructed), a further \$490.6 million is contracted to be paid during the remaining part 2016.

Of the total progress payments made to date, an amount of \$197.1 million has been financed by pre-delivery drawdowns under the construction loans which have been agreed with banks to date.

**Fleet Deployment**

Until late 2014, we aimed to optimize the financial performance of our fleet by deploying at least two-thirds of our vessels on either time charters or period employment with variable rates, as we took proactive steps to meet any potential impact of the expanding world fleet on freight rates. Since the latter part of 2014, we have increased the percentage of the fleet that is in employed at variable rates to approximately 60%, in order to take advantage of the recovery in market rates for vessels operating in the crude carrying sector. However, we are prepared to re-employ any number of these vessels on time-charters should hire rates improve. We believe that our fleet deployment strategy and flexibility provides us with the ability to benefit from increases in tanker rates while at the same time maintaining a measure of stability through cycles in the industry. The following table details the respective employment basis of our fleet during 2015, 2014 and 2013 as a percentage of operating days.

<b>Employment Basis</b>	<b>Year Ended December 31,</b>		
	<b>2015</b>	<b>2014</b>	<b>2013</b>
Time Charter fixed rate	35%	41%	40%
Time Charter variable rate	19%	19%	24%
Period Employment at variable rates	5%	6%	4%
Spot Voyage	41%	34%	32%
<b>Total Net Earnings Days</b>	<b>17,594</b>	<b>17,489</b>	<b>16,954</b>

Tankers operating on time charters may be chartered for several months or years whereas tankers operating in the spot market typically are chartered for a single voyage that may last up to several weeks. Vessels on period employment at variable rates related to the market are either in a pool or operating under contract of affreightment for a specific charterer. Tankers operating in the spot market may generate increased profit margins during improvements in tanker rates, while tankers operating on time charters generally provide more predictable cash flows. Accordingly, we actively monitor macroeconomic trends and governmental rules and regulations that may affect tanker rates in an attempt to optimize the deployment of our fleet. Our fleet has 22 tankers currently operating on spot voyages.

We have also secured charters from delivery for each of our aframax crude oil tanker newbuildings pursuant to our strategic partnership with Statoil for periods from five to twelve years, including options for extension. For the two LR1 newbuildings, we have secured charters from delivery for 4.5 years plus charterer's options for extensions for a further two years. For the shuttle tanker newbuilding, we have secured a charter for 8 years with charterer's options for

extension for up to three years. The Company is currently discussing employment with potential charterers for the two VLCCs and the LNG carrier, that are under construction.

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### **Operations and Ship Management**

#### **Our operations**

Management policies regarding our fleet that are formulated by our board of directors are executed by Tsakos Energy Management under a management contract. Tsakos Energy Management's duties, which are performed exclusively for our benefit, include overseeing the purchase, sale and chartering of vessels, supervising day-to-day technical management of our vessels and providing strategic, financial, accounting and other services, including investor relations. Our tanker fleet's technical management, including crewing, maintenance and repair, and voyage operations, have been subcontracted by Tsakos Energy Management to TCM. Tsakos Energy Management also engages Tsakos Shipping to arrange chartering of our vessels, provide sales and purchase brokerage services, procure vessel insurance and arrange bank financing. Three vessels were sub-contracted to third-party ship managers during all of 2015.

The following chart illustrates the management of our fleet:

Technical management of the VLCC, the LNG carrier and one suezmax vessel is subcontracted to unaffiliated third parties.

#### **Management Contract**

#### **Executive and Commercial Management**

Pursuant to our management agreement with Tsakos Energy Management, our and our subsidiaries' operations are executed and supervised by Tsakos Energy Management, based on the strategy devised by our board of directors and subject to the approval of our board of directors as described below. In accordance with the management agreement, we pay Tsakos Energy Management monthly management fees for its management of our vessels. There is a prorated adjustment if at each year end the Euro has appreciated by 10% or more against the Dollar since January 1, 2007. In addition, there is an increase each year by a percentage figure reflecting 12 month Euribor, if both parties agree. For 2015 and 2014, monthly fees for operating vessels were \$27,500 per owned vessel and \$20,400 for vessels under construction and on bareboat charter. The monthly fee for the LNG carrier, *Neo Energy*, was \$35,833, of which \$25,833 was paid to a third party manager, and \$35,000 for the two DP2 shuttle tankers, *Rio 2016* and *Brasil 2014*. Management fees for the VLCC *Millennium* were \$27,500 per month of which \$13,940 were payable to a third party manager until November 5, 2015 when the vessel entered a bareboat charter. The management fee starts to accrue for a vessel at the point a newbuilding contract is executed. To help ensure that these fees are competitive with industry standards, our management has periodically made presentations to our board of directors in which the fees paid to Tsakos Energy Management are compared against the publicly available financial information of integrated, self-contained tanker companies.

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We paid Tsakos Energy Management aggregate management fees of \$16.0 million in 2015, \$15.8 million in 2014 and \$15.5 million in 2013. From these amounts, Tsakos Energy Management paid a technical management fee to Tsakos Columbia Shipmanagement. An additional amount of \$2.2 million was charged in fees directly by the Company to TCM for additional services it provided or arranged in relation to information technology, application of corporate governance procedures required by the Company and seafarers' training. For additional information about the management agreement, including the calculation of management fees, see Item 7. Major Shareholders and Related Party Transactions and our consolidated financial statements which are included as Item 18 to this Annual Report.

*Chartering.* Our board of directors formulates our chartering strategy for all our vessels and Tsakos Shipping, under the supervision of Tsakos Energy Management, implements the strategy by:

evaluating the short, medium, and long-term opportunities available for each type of vessel;

balancing short, medium, and long-term charters in an effort to achieve optimal results for our fleet; and

positioning such vessels so that, when possible, re-delivery occurs at times when Tsakos Shipping expects advantageous charter rates to be available for future employment.

Tsakos Shipping utilizes the services of various charter brokers to solicit, research, and propose charters for our vessels. The charter brokers' role involves researching and negotiating with different charterers and proposing charters to Tsakos Shipping for cargoes to be shipped in our vessels. Tsakos Shipping negotiates the exact terms and conditions of charters, such as delivery and re-delivery dates and arranges cargo and country exclusions, bunkers, loading and discharging conditions and demurrage. Tsakos Energy Management is required to obtain our approval for charters in excess of six months and is required to obtain the written consent of the administrative agents for the lenders under our secured credit facilities for charters in excess of thirteen months. There are frequently two or more brokers involved in fixing a vessel on a charter. Brokerage fees typically amount to 2.5% of the value of the freight revenue or time charter hire derived from the charters. A chartering commission of 1.25% is paid to Tsakos Shipping for every charter involving the vessels in the fleet. In addition, Tsakos Shipping may charge a brokerage commission on the sale of a vessel. In 2015, this commission was approximately 0.5% of the sale price of a vessel (0.5% in 2014 and 1% in 2013). The total amount paid for these chartering and acquisition brokerage commissions was \$7.6 million in 2015, \$6.8 million in 2014 and \$5.2 million in 2013. Tsakos Shipping may also charge a fee of \$200,000 (or such other sum as may be agreed) on delivery of each newbuilding vessel in payment for the cost of design and supervision of the newbuilding by Tsakos Shipping. No such fee was paid in 2015. In 2014, such fees amounted to \$0.2 million.

Tsakos Shipping supervises the post fixture business of our vessels, including:

monitoring the daily geographic position of such vessels in order to ensure that the terms and conditions of the charters are fulfilled by us and our charterers;

collection of monies payable to us; and

resolution of disputes through arbitration and legal proceedings.

In addition, Tsakos Shipping appoints superintendents to supervise the construction of newbuildings and the loading and discharging of cargoes when necessary. Tsakos Shipping also participates in the monitoring of vessels' operations that are under TCM management and TCM's performance under the management contract.

*General Administration.* Tsakos Energy Management provides us with general administrative, office and support services necessary for our operations and the fleet, including technical and clerical personnel, communication, accounting, and data processing services.

*Sale and Purchase of Vessels.* Tsakos Energy Management advises our board of directors when opportunities arise to purchase, including through newbuildings, or to sell any vessels. All decisions to purchase or sell vessels require the approval of our board of directors.



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Any purchases or sales of vessels approved by our board of directors are arranged and completed by Tsakos Energy Management. This involves the appointment of superintendents to inspect and take delivery of vessels and to monitor compliance with the terms and conditions of the purchase or newbuilding contracts.

In the case of a purchase of a vessel, each broker involved will receive commissions from the seller generally at the industry standard rate of one percent of the purchase price, but subject to negotiation. In the case of a sale of a vessel, each broker involved will receive a commission generally at the industry standard rate of one percent of the sale price, but subject to negotiation. In accordance with the management agreement, Tsakos Energy Management is entitled to charge for sale and purchase brokerage commission, but to date has not done so.

## **Technical Management**

Pursuant to a technical management agreement, Tsakos Energy Management employs TCM to manage the day-to-day aspects of vessel operations, including maintenance and repair, provisioning and crewing of the vessels in the fleet. We benefit from the economies of scale of having our vessels managed as part of the TCM managed fleet. On occasion, TCM subcontracts the technical management and manning responsibilities of our vessels to third parties. The executive and commercial management of our vessels, however, is not subcontracted to third parties. TCM, which is privately held, is one of the largest independent tanker managers with a total of 69 operating vessels under management (including 50 of our subsidiaries' vessels) at March 31, 2016, totaling approximately 6.3 million dwt. TCM employs full-time superintendents, technical experts and marine engineers and has expertise in inspecting second-hand vessels for purchase and sale, and in fleet maintenance and repair. They have approximately 151 employees engaged in ship management and approximately 2,760 seafaring employees of whom approximately half are employed at sea and the remainder is on leave at any given time. Their principal office is in Athens, Greece. The fleet managed by TCM consists mainly of tankers, but also includes feeder container vessels, dry bulk carriers and other vessels owned by affiliates and unaffiliated third parties.

Tsakos Energy Management pays TCM a fee per vessel per month for technical management of operating vessels and vessels under construction. This fee was determined by comparison to the rates charged by other major independent vessel managers. We generally pay all monthly operating requirements of our fleet in advance.

TCM performs the technical management of the vessels under the supervision of Tsakos Energy Management. Tsakos Energy Management approves the appointment of fleet supervisors and oversees the establishment of operating budgets and the review of actual operating expenses against budgeted amounts. Technical management of the LNG carrier *Neo Energy*, the VLCC *Millennium* and the Suezmax *Eurochampion 2004* are provided by non-affiliated ship managers.

*Maintenance and Repair.* Each of the vessels is dry-docked once every five years in connection with special surveys and, after the vessel is fifteen years old, the vessel is dry-docked every two and one-half years after a special survey (referred to as an intermediate survey), or as necessary to ensure the safe and efficient operation of such vessels and their compliance with applicable regulations. TCM arranges dry-dockings and repairs under instructions and supervision from Tsakos Energy Management. We believe that the continuous maintenance program we conduct results in a reduction of the time periods during which our vessels are in dry-dock.

TCM routinely employs on each vessel additional crew members whose primary responsibility is the performance of maintenance while the vessel is in operation. Tsakos Energy Management awards and, directly or through TCM, negotiates contracts with shipyards to conduct such maintenance and repair work. They seek competitive tender bids in order to minimize charges to us, subject to the location of our vessels and any time constraints imposed by a vessel's charter commitments. In addition to dry-dockings, TCM, where necessary, utilizes superintendents to conduct periodic

physical inspections of our vessels.

**Table of Contents****Crewing and Employees**

We do not employ the personnel to run our business on a day-to-day basis. We outsource substantially all of our executive, commercial and technical management functions.

TCM arranges employment of captains, officers, engineers and other crew who serve on the vessels. TCM ensures that all seamen have the qualifications and licenses required to comply with international regulations and shipping conventions and that experienced and competent personnel are employed for the vessels.

**Customers**

Several of the world's major oil companies are among our regular customers. The table below shows the approximate percentage of revenues we earned from some of our customers in 2015.

<b>Customer</b>	<b>Year Ended December 31, 2015</b>
Petrobras	14.4%
Exxon	9.7%
Shell	9.2%
Vitol	8.4%
Flopec	5.5%
BP Shipping	5.2%
Methane (BG)	5.0%
Litasco	4.6%
Chevron	4.2%
HMM	4.1%
Socar	3.4%
ENI	2.4%
Eiger	1.8%
PES	1.5%
Irving Oil	1.5%
CSSA	1.4%
Clearlake	1.3%
Trafigura	1.3%

**Regulation**

Our business and the operation of our vessels are materially affected by government regulation in the form of international conventions and national, state and local laws and regulations in force in the jurisdictions in which our vessels operate, as well as in the country or countries of their registration. Because these conventions, laws, and regulations are often revised, we cannot predict the ultimate cost of complying with them or their impact on the resale price and/or the useful lives of our vessels. Additional conventions, laws and regulations may be adopted which could limit our ability to do business or increase the cost of our doing business and which may have a material adverse effect on our operations. Various governmental and quasi-governmental agencies require us to obtain permits, licenses, certificates, and financial assurances with respect to our operations. Subject to the discussion below and to the fact that the kinds of permits, licenses, certificates and financial assurances required for the operation of our vessels will depend upon a number of factors, we believe that we have been and will be able to obtain all permits, licenses,

certificates and financial assurances material to the conduct of our operations.

The heightened environmental and quality concerns of classification societies, insurance underwriters, regulators and charterers has led to the imposition of increased inspection and safety requirements on all vessels in the tanker market and the scrapping of older vessels throughout the industry has been accelerated.

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*IMO*. The International Maritime Organization ( *IMO* ) has adopted international conventions that impose liability for oil pollution in international waters and in a signatory's territorial waters, including amendments to Annex I of the 1973 International Convention for the Prevention of Pollution from Ships ( *MARPOL* ) which set forth new and upgraded requirements for oil pollution prevention for tankers. These regulations are effective in relation to tankers in many of the jurisdictions in which our tanker fleet operates. They provide that (1) tankers 25 years old and older must be of double-hull construction and (2) all tankers will be subject to enhanced inspections. All of the vessels in our fleet are of double hull construction. Revised regulations, effective since September 2002, provide for increased inspection and verification requirements and for a more aggressive phase-out of single-hull oil tankers, in most cases by 2015 or earlier, depending on the age of the vessel and whether the vessel complies with requirements for protectively located segregated ballast tanks. Segregated ballast tanks use ballast water that is completely separate from the cargo oil and oil fuel system. Segregated ballast tanks are currently required by the *IMO* on crude oil tankers of 20,000 tons deadweight or more constructed after 1982. The regulations are intended to reduce the likelihood of oil pollution in international waters. On April 5, 2005 an amendment to *MARPOL* became effective, which accelerated the phase out of single-hull tankers from 2015 to 2010 unless the relevant flag state, in a particular case, extended the date to either 2015 or the date on which the ship reaches 25 years of age after the date of its delivery, whichever is earlier. This amendment became effective on April 5, 2005.

On January 1, 2007 Annex I of *MARPOL* was revised to incorporate all amendments since the *MARPOL* Convention entered into force in 1983 and to clarify the requirements for new and existing tankers.

Regulation 12A of *MARPOL* Annex I came into force on August 1, 2007 and governs oil fuel tank protection. The requirements apply to oil fuel tanks on all ships with an aggregate capacity of 600 cubic meters and above which are delivered on or after August 1, 2010 and all ships for which shipbuilding contracts are placed on or after August 1, 2007.

Since January 1, 2011 a new chapter 8 of Annex I on the prevention of pollution during transfer of oil cargo between oil tankers at sea has applied to oil tankers of 150 gross tons and above. This requires any oil tanker involved in oil cargo ship-to-ship (STS) operations to (1) carry a plan, approved by its flag state administration, prescribing the conduct of STS operations and (2) comply with notification requirements. Also with effect from that date, Annex I has been amended to clarify the long standing requirements for on board management of oil residue (sludge) and with effect from August 1, 2011, the use or carriage of certain heavy oils has been banned in the Antarctic area.

In September 1997, the *IMO* adopted Annex VI to *MARPOL* to address air pollution from ships. Annex VI came into force on May 19, 2005. It set limits on sulfur oxide and nitrogen oxide emissions from ship exhausts and prohibited deliberate emissions of ozone depleting substances, such as chlorofluorocarbons. Annex VI also included a global cap on the sulfur content of fuel oil and allowed for the designation of special areas known as Emission Control Areas ( *ECAs* ) where more stringent controls on sulfur emissions would apply. Annex VI has been ratified by some, but not all *IMO* member states. All vessels subject to Annex VI and built after May 19, 2005 must carry an International Air Pollution Prevention Certificate evidencing compliance with Annex VI. In October 2008, the Marine Environment Protection Committee ( *MEPC* ) of the *IMO* adopted amendments to Annex VI regarding particulate matter, nitrogen oxide and sulfur oxide emissions standards. These amendments, which entered into force in July 2010, seek to reduce air pollution from vessels by establishing a series of progressive standards to further limit the sulfur content in fuel oil, which would be phased in by 2020, and by establishing new tiers of nitrogen oxide emission standards for new marine diesel engines, depending on their date of installation. Additionally, more stringent emission standards could apply in *ECAs*. The United States ratified the amendments in October 2008.

Amendments to Annex VI to address greenhouse gas emissions from shipping came into force on January 1, 2013. New vessels of 400 tons or greater are required to meet minimum energy efficiency levels per capacity mile ( the

Energy Efficient Design Index ( EEDI ), while existing vessels were required to implement Ship Energy Efficiency Management Plans ( SEEMPs ). All our vessels have SEEMPs. However, the EEDI requirements do not apply to a liquefied natural gas ( LNG ) carrier unless the construction contract for the carrier is placed on or after September 1, 2015. The LNG carriers under construction will comply with EEDI requirements.

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We have obtained International Air Pollution Prevention certificates for all of our vessels. Implementing the requirements of Annex VI may require modifications to vessel engines or the addition of post combustion emission controls, or both, as well as the use of lower sulfur fuels, but we believe that maintaining compliance with Annex VI will not have a significantly adverse financial impact on the operation of our vessels.

In 2001, the IMO adopted the International Convention on the Control of Harmful Anti-fouling Systems on Ships (the Anti-fouling Convention ) which prohibits the use of organotin compound coatings to prevent the attachment of mollusks and other sea life to the hulls of vessels. The Anti-fouling Convention came into force on September 17, 2008 and applies to vessels constructed prior to January 1, 2003 that have not been in dry-dock since that date. Since January 1, 2008 under the Anti-fouling Convention, exteriors of vessels have had to be either free of the prohibited compounds, or have had coatings that act as a barrier to the leaching of the prohibited compounds applied. Vessels of over 400 gross tons engaged in international voyages must obtain an International Anti-fouling System Certificate and must undergo a survey before the vessel is put into service or when the anti-fouling systems are altered or replaced. We have obtained Anti-fouling System Certificates for all of our vessels that are subject to the Anti-fouling Convention and do not believe that maintaining such certificates will have an adverse financial impact on the operation of our vessels.

In addition, our LNG carrier meets IMO requirements for liquefied gas carriers, as will the LNG carriers under construction. In order to operate in the navigable waters of the IMO's member states, liquefied gas carriers must have an IMO Certificate of Fitness demonstrating compliance with construction codes for liquefied gas carriers. These codes, and similar regulations in individual member states, address fire and explosion risks posed by the transport of liquefied gases. Collectively, these standards and regulations impose detailed requirements relating to the design and arrangement of cargo tanks, vents, and pipes; construction materials and compatibility; cargo pressure; and temperature control. Liquefied gas carriers are also subject to international conventions that regulate pollution in international waters and a signatory's territorial waters. Under the IMO regulations, gas carriers that comply with the IMO construction certification requirements are deemed to satisfy the requirements of Annex II of MARPOL applicable to transportation of chemicals at sea, which would otherwise apply to certain liquefied gases. With effect from January 1, 2007, the IMO revised the Annex II regulations that restrict discharges of noxious liquid substances during cleaning or de-ballasting operations. The revisions include significantly lower permitted discharge levels of noxious liquid substances for vessels constructed on or after the effective date, made possible by improvements in vessel technology. These discharge requirements apply to the Company's LNG carriers.

On 1 January 2013 new MARPOL Annex V Regulations came into force with regard to the disposal of garbage from ships at sea. These regulations prohibit the disposal of garbage at sea other than certain defined permitted discharges or when outside one of the MARPOL Annex V special areas. The regulations do not only impact the disposal of traditional garbage but also the disposal of harmful hold washing water and cargo residues. Products considered suitable for discharge are those not defined as harmful by the criteria set out in MARPOL Annex III and which do not contain carcinogenic, mutagenic or reprotoxic components. We have a protocol in place to ensure that (i) garbage is disposed of in accordance with the Annex V Regulations and that the vessels in our fleet maintain records showing that any cleaning agent or additive used was not harmful to the marine environment and (ii) the supplier provides a signed and dated statement to this effect, either as part of a Material Safety data Sheet MSDS or as a stand-alone document. Annex V establishes certain areas as special areas in which, for reasons relating to their oceanographical and ecological condition and/or their sea traffic, the adoption of special mandatory methods for the prevention of sea pollution is required. Under MARPOL, these special areas are provided with a higher level of protection than other areas of the sea. These areas are: (i) Mediterranean Sea; (ii) Baltic Sea; (iii) Black Sea; (iv) Red Sea; (v) Gulfs area; (vi) North Sea; (vii) Antarctic sea; and (viii) Wider Caribbean region including the Gulf of Mexico and the Caribbean Sea. Our protocol addresses these special areas and we do not consider them likely to adversely affect our ability to operate our vessels.





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Tsakos Columbia Shipmanagement S.A. or TCM, our technical manager, is ISO 14001 compliant. ISO 14001 requires companies to commit to the prevention of pollution as part of the normal management cycle. Additional or new conventions, laws and regulations may be adopted that could adversely affect our ability to manage our vessels.

In addition, the European Union and countries elsewhere have considered stricter technical and operational requirements for tankers and legislation that would affect the liability of tanker owners and operators for oil pollution. In December 2001, the European Union adopted a legislative resolution confirming an accelerated phase-out schedule for single hull tankers in line with the schedule adopted by the IMO in April 2001. Any additional laws and regulations that are adopted could limit our ability to do business or increase our costs. The results of these or potential future environmental regulations could have a material adverse effect on our operations.

Under the current regulations, the vessels of our existing fleet will be able to operate for substantially all of their respective economic lives. However, compliance with the new regulations regarding inspections of all vessels may adversely affect our operations. We cannot at the present time evaluate the likelihood or magnitude of any such adverse effect on our operations due to uncertainty of interpretation of the IMO regulations.

The operation of our vessels is also affected by the requirements set forth in the IMO's International Safety Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code) which came into effect in relation to oil tankers in July 1998 and which was further amended on 1 July 2010. The ISM Code requires ship owners, ship managers and bareboat (or demise) charterers to develop and maintain an extensive safety management system that includes the adoption of a safety and environmental protection policy setting forth instructions and procedures for safe operation and describing procedures for dealing with emergencies. The failure of a shipowner, ship manager or bareboat charterer to comply with the ISM Code may subject that party to increased liability, may decrease available insurance coverage for the affected vessels, and may result in a denial of access to, or detention in, some ports. All of our vessels are ISM Code certified.

The International Convention for the Safety of Life at Sea (SOLAS) was amended in November 2012 to incorporate mandatory maximum noise level limits for machinery spaces, control rooms, accommodation and other spaces on board vessels. The amendments came into force on July 1, 2014 and require ships of 1,600 gross tons or more, for which the building contract was placed on or after July 1, 2014 or were constructed on or after January 1, 2015 or will be delivered on or after July 1, 2018 to be constructed to reduce on-board noise and to protect personnel from noise on board ships. All of our vessels comply with existing guidelines, and our new buildings will meet the new requirements.

The Nairobi Wreck Removal Convention 2007 (Wreck Convention) entered in to force on April 14, 2015. The Wreck Convention provides a legal basis for sovereign states to remove, or have removed, shipwrecks that may have the potential to affect adversely the safety of lives, goods and property at sea, as well as the marine and coastal environment. Further, the Wreck Convention makes ship owners financially liable for wreck removal and require them to take out insurance or provide other financial security to cover the costs of wreck removal. All of our fleet has complied with the certification requirements stipulated by the Wreck Convention with regards to financial security.

*OPA 90.* The U.S. Oil Pollution Act of 1990 (OPA 90) established an extensive regulatory and liability regime for the protection and cleanup of the environment from oil spills. OPA 90 affects all owners and operators whose vessels trade to the United States or its territories or possessions or whose vessels operate in United States waters, which include the United States territorial sea and its two hundred nautical mile exclusive economic zone.

Under OPA 90, vessel owners, operators and bareboat charterers are responsible parties and are jointly, severally and strictly liable (unless the spill results solely from the act or omission of a third party, an act of God or an act of war)

for all containment and clean-up costs and other damages arising from discharges or threatened discharges of oil from their vessels. Tsakos Shipping and Tsakos Energy Management would not qualify as third parties because they perform under contracts with us. These other damages are defined broadly to include

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(1) natural resources damages and the costs of assessing them, (2) real and personal property damages, (3) net loss of taxes, royalties, rents, fees and other lost revenues, (4) lost profits or impairment of earning capacity due to property or natural resources damage, (5) net cost of public services necessitated by a spill response, such as protection from fire, safety or health hazards, and (6) loss of subsistence use of natural resources. OPA 90 incorporates limits on the liability of responsible parties for a spill. Between July 31, 2009 and December 21, 2015, liability in respect of a double-hulled tanker over 3,000 gross tons was limited to the greater of \$2,000 per gross ton or \$17,088,000 (subject to periodic adjustment). On December 21, 2015, these limits of liability were increased and are now the greater of \$2,200 per gross ton or \$18,796,800. These limits of liability would not apply if the incident was proximately caused by violation of applicable United States federal safety, construction or operating regulations or by the responsible party (or its agents or employees or any person acting pursuant to a contractual relationship with the responsible party) or by gross negligence or willful misconduct, or if the responsible party fails or refuses to report the incident or to cooperate and assist in connection with the oil removal activities. We continue to maintain, for each of our vessels, pollution liability coverage in the amount of \$1 billion per incident. A catastrophic spill could exceed the insurance coverage available, in which case there could be a material adverse effect on us.

Under OPA 90, with some limited exceptions, all newly built or converted tankers operating in United States waters must be built with double-hulls, and existing vessels which do not comply with the double-hull requirement should have been phased out by December 31, 2014. All of our fleet is of double-hull construction.

OPA 90 requires owners and operators of vessels to establish and maintain with the United States Coast Guard evidence of financial responsibility sufficient to meet their potential liabilities under OPA 90. Under the regulations, evidence of financial responsibility may be demonstrated by insurance, surety bond, letter of credit, self-insurance, guaranty or other satisfactory evidence. Under the self-insurance provisions, the ship owner or operator must have a net worth and working capital, measured in assets located in the United States against liabilities located anywhere in the world, that exceeds the applicable amount of financial responsibility. OPA 90 requires an owner or operator of a fleet of tankers only to demonstrate evidence of financial responsibility in an amount sufficient to cover the tanker in the fleet having the greatest maximum liability under OPA 90.

OPA 90 specifically permits individual U.S. coastal states to impose their own liability regimes with regard to oil pollution incidents occurring within their boundaries, and some states have enacted legislation providing for unlimited liability for oil spills.

Owners or operators of tankers operating in United States waters are required to file vessel response plans with the Coast Guard for approval, and their tankers are required to operate in compliance with such approved plans. These response plans must, among other things, (1) address a worst case scenario and identify and ensure, through contract or other approved means, the availability of necessary private response resources to respond to a worst case discharge, (2) describe crew training and drills, and (3) identify a qualified individual with full authority to implement removal actions. All our vessels have approved vessel response plans.

We intend to comply with all applicable Coast Guard and state regulations in the ports where our vessels call.

**Environmental Regulation**

*U.S. Clean Water Act:* The U.S. Clean Water Act of 1972 ( CWA ) prohibits the discharge of oil or hazardous substances in navigable waters and imposes strict liability in the form of penalties for any unauthorized discharges. The CWA also imposes substantial liability for the costs of removal, remediation and damages and complements the remedies available under OPA 90. Under U.S. Environmental Protection Agency ( EPA ) regulations, vessels must obtain CWA permits for the discharge of ballast water and other substances incidental to normal operation in U.S.

territorial or inland waters. This permit, the 2008 Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels, or VGP, incorporated the current U.S. Coast Guard requirements for ballast water management, as well as supplemental ballast water requirements, and

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included requirements applicable to 26 specific wastewater streams, such as deck runoff, bilge water and gray water. Effective December 19, 2013, the VGP was renewed and revised. The 2013 VGP is similar to the 2009 VGP but now includes ballast water numeric discharge limits and best management practices for certain discharges. The ballast water management requirements will be phased in, depending on the ballast water capacity, age and next dry-docking date of a vessel. The 2013 VGP was challenged by the Canadian Shipowners Association in the U.S. Second Circuit Court of Appeals. The U.S. Second Circuit Court of Appeals ruled on October 5, 2015 that the EPA acted arbitrarily and capriciously with respect to certain of the ballast water provisions in the 2013 VGP. The Court remanded the issue to the EPA to either justify its approach in the 2013 VGP or redraft the ballast water sections of the VGP consistent with the Court's ruling. In the meantime the 2013 VGP will remain in effect. On June 11, 2012 the U.S. Coast Guard and the EPA published a memorandum of understanding which provides for collaboration on the enforcement of the VGP requirements and it is expected that the U.S. Coast Guard will include the VGP as part of its normal Port State Control inspections. Each VGP is planned to have a 5 year life cycle and the third VGP is expected to come into effect in December 2018. We intend to comply with the VGP and the record keeping requirements and we do not believe that the costs associated with obtaining such permits and complying with the obligations will have a material impact on our operations.

*The Clean Air Act:* The U.S. Clean Air Act (CAA) requires the EPA to promulgate standards applicable to emissions of volatile organic compounds and other air contaminants. Our vessels are subject to CAA vapor control and recovery standards for cleaning fuel tanks and conducting other operations in regulated port areas and emissions standards for so-called Category 3 marine diesel engines operating in U.S. waters. On December 22, 2009 the EPA adopted final emission standards for Category 3 marine diesel engines equivalent to those adopted in the amendments to Annex VI to MARPOL. As a result, the most stringent engine emissions and marine fuel sulfur requirements of Annex VI will apply to all vessels regardless of flag entering U.S. ports or operating in U.S. waters. The emission standards apply in two stages: near-term standards for newly-built engines, which have applied since the beginning of 2011, and long-term standards requiring an 80% reduction in nitrogen oxides (NOx) by 2030, which has applied from the beginning of 2016, requiring the use of emission control technology. Compliance with these standards may result in us incurring costs to install control equipment on our vessels.

In response to a request from the United States and Canada to designate specific areas of their respective coastal waters (extending to 200 nautical miles offshore) as ECAs under the MARPOL Annex VI amendments, the IMO designated the waters off North American coasts as an ECA on March 26, 2010. The North American ECA has been in force since August 1, 2012. In July 2011, the IMO designated the United States Caribbean ECA in the waters of Puerto Rico and the U.S. Virgin Islands, which took effect on January 1, 2014. All vessels operating in these ECAs must use fuel with a sulfur content of 0.1%. Since January 1, 2016 NOx after-treatment requirements have also applied. California has implemented a 24 nautical mile zone within which fuel must have a sulfur content of 0.1% or less as of January 1, 2014. Currently, the California regulations run in parallel with the emissions requirements in the North American and Caribbean ECAs. Compliance with the North American and Caribbean ECA emission requirements, as well as the possibility that more stringent emissions requirements for marine diesel engines or port operations by vessels will be adopted by the EPA or the states where we operate, could entail significant capital expenditures or otherwise increase the costs of our operations.

The MEPC in May 2013 voted to postpone the implementation of MARPOL Annex VI Tier III standards until 2021. However, as the MEPC subsequently agreed that Tier III standards shall apply to marine diesel engines that are installed on a ship constructed on or after 1 January 2016 which operate in the North America ECA or the U.S. Caribbean Sea ECA, Tier III standards do now apply.

*European Union Initiatives:* In December 2001, in response to the oil tanker *Erika* oil spill of December 1999, the European Union adopted a legislative resolution confirming an accelerated phase-out schedule for single-hull tankers

in line with the schedule adopted by the IMO in April 2001. Since 2010 (1) all single-hull tankers have been banned from entering European Union ports or offshore terminals; (2) all single-hull tankers carrying heavy grades of oil have been banned from entering or leaving European Union ports or offshore terminals or anchoring in areas under the European Union's jurisdiction; and (3) since 2005 a Condition

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Assessment Scheme Survey for single-hull tankers older than 15 years of age has been imposed. In September 2005, the European Union adopted legislation to incorporate international standards for ship-source pollution into European Community law and to establish penalties for discharge of polluting substances from ships (irrespective of flag). Since April 1, 2007 Member States of the European Union have had to ensure that illegal discharges of polluting substances, participation in and incitement to carry out such discharges are penalized as criminal offences and that sanctions can be applied against any person, including the master, owner and/or operator of the polluting ship, found to have caused or contributed to ship-source pollution with intent, recklessly or with serious negligence (this is a lower threshold for liability than that applied by MARPOL, upon which the ship-source pollution legislation is partly based). In the most serious cases, infringements will be regarded as criminal offences (where sanctions include imprisonment) and will carry fines of up to Euro 1.5 million. On November 23, 2005 the European Commission published its Third Maritime Safety Package, commonly referred to as the Erika III proposals, and two bills (dealing with the obligation of Member States to exchange information among themselves and to check that vessels comply with international rules, and with the allocation of responsibility in the case of accident) were adopted in March 2007. The Treaty of Lisbon entered into force on December 1, 2009 following ratification by all 27 European Union member states and identifies protection and improvement of the environment as an explicit objective of the European Union. The European Union adopted its Charter of Fundamental Rights at the same time, declaring high levels of environmental protection as a fundamental right of European Union citizens. Additionally, the sinking of the *Prestige* has led to the adoption of other environmental regulations by certain European Union Member States. It is impossible to predict what legislation or additional regulations, if any, may be promulgated by the European Union or any other country or authority.

The EU has ECAs in place in the Baltic Sea and the North Sea and English Channel within which fuel with a sulfur content in excess of 0.1% has not been permitted since January 1, 2015. The EU Commission is currently investigating the possibility of extending the ECA to the Mediterranean Sea and Black Sea. In addition, the EU Sulphur directive has since January 1, 2010 banned inland waterway vessels and ships berthing in EU ports from using marine fuels with a sulfur content exceeding 0.1% by mass. The prohibition applies to use in all equipment including main and auxiliary engines and boilers. Some EU Member States also require vessels to record the times of any fuel-changeover operations in the ship's logbook.

The Council of the EU has now approved the implementation of its 2013 Strategy for integrating maritime transport emissions in the EU's greenhouse gas reduction policies and Regulation (EU) 2015/757 of the European Parliament and of the Council on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport was adopted on April 29, 2015. It obliges owners of vessels over 5,000 gross tons to monitor emissions for each ship on a per voyage and annual basis, from January 1, 2018. There are provisions for monitoring, reporting and verifying (MRV) of carbon dioxide (CO<sub>2</sub>) emissions from vessels using EU ports, to apply from January 1, 2018. Individual Member States have started to introduce CO<sub>2</sub> emissions legislation for vessels. The French Transport Code has required vessel operators to record and disclose the level of CO<sub>2</sub> emitted during the performance of voyages to or from a destination in France since October 1, 2013.

The EU has introduced the European Ship Recycling Regulation, aimed at minimizing adverse effects on health and the environment caused by ship recycling, as well as enhancing safety, protecting the marine environment and ensuring the sound management of hazardous waste. The Regulation entered into force on December 30, 2013, and anticipates the international ratification of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships 2009. By December 31, 2020, vessels flying the flag of EU Member States will be expected to maintain detailed records of hazardous materials on board, with some materials such as asbestos being restricted or prohibited. This obligation is extended to all non-EU flagged vessels calling at a port or anchorage in an EU Member State. The European Ship Recycling Regulation also requires EU-flagged vessels to be scrapped only in approved recycling facilities.

*Other Environmental Initiatives:* Many countries have ratified and follow the liability scheme adopted by the IMO and set out in the International Convention on Civil Liability for Oil Pollution Damage, 1969, as



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amended ( CLC ), and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage of 1971, as amended ( Fund Convention ). The United States is not a party to these conventions. Under these conventions, a vessel's registered owner is strictly liable for pollution damage caused in the territorial waters of a contracting state by discharge of persistent oil, subject to certain complete defenses. The liability regime was increased (in limit and scope) in 1992 by the adoption of Protocols to the CLC and Fund Convention which became effective in 1996. The Fund Convention was terminated in 2002 and the Supplementary Fund Protocol entered into force in March 2005. The liability limit in the countries that have ratified the 1992 CLC Protocol is tied to a unit of account which varies according to a basket of currencies. Under an amendment to the Protocol that became effective on November 1, 2003, for vessels of 5,000 to 140,000 gross tons, liability is limited to approximately \$6.35 million plus approximately \$889 for each additional gross ton over 5,000. For vessels of over 140,000 gross tons, liability is limited to approximately \$126.5 million. As the Convention calculates liability in terms of IMF Special Drawing Rights, these figures are based on currency exchange rates on March 31, 2016. From May 1998, parties to the 1992 CLC Protocol ceased to be parties to the CLC due to a mechanism established in the 1992 Protocol for compulsory denunciation of the old regime; however, the two regimes will co-exist until the 1992 Protocol has been ratified by all original parties to the CLC. The right to limit liability is forfeited under the CLC where the spill is caused by the owner's actual fault and under the 1992 Protocol where the spill is caused by the owner's intentional or reckless conduct. The 1992 Protocol channels more of the liability to the owner by exempting other groups from this exposure. Vessels trading to states that are parties to these conventions must provide evidence of insurance covering the liability of the owner. In jurisdictions where the CLC has not been adopted, various legislative schemes or common law govern, and liability is imposed either on the basis of fault or in a manner similar to that convention. We believe that our protection and indemnity insurance will cover the liability under the plan adopted by IMO.

The U.S. National Invasive Species Act ( NISA ) was enacted in 1996 in response to growing reports of harmful organisms being released into U.S. ports through ballast water taken on by ships in foreign ports. Under NISA, the U.S. Coast Guard adopted regulations in July 2004 establishing a national mandatory ballast water management program for all vessels equipped with ballast water tanks that enter or operate in U.S. waters. These regulations require vessels to maintain a specific ballast water management plan. The requirements can be met by performing mid-ocean ballast exchange, by retaining ballast water on board the ship, or by using environmentally sound alternative ballast water management methods approved by the U.S. Coast Guard. However, mid-ocean ballast exchange is mandatory for ships heading to the Great Lakes or Hudson Bay, or vessels engaged in the foreign export of Alaskan North Slope crude oil.) Mid-ocean ballast exchange is the primary method for compliance with the Coast Guard regulations, since holding ballast water can prevent ships from performing cargo operations upon arrival in the U.S., and alternative methods are still under development. Vessels that are unable to conduct mid-ocean ballast exchange due to voyage or safety concerns may discharge minimum amounts of ballast water (in areas other than the Great Lakes and the Hudson River), provided that they comply with record keeping requirements and document the reasons they could not follow the required ballast water management requirements. The Coast Guard adopted allowable concentration limits for living organisms in ballast water discharges in U.S. waters, effective June 21, 2012. The rules are being phased in, based on the age, ballast water capacity or next dry-docking date of a vessel. Although the regulations were to be phased in fully by January 1, 2016, the Coast Guard must approve any ballast water management technology before it can be placed on a vessel, and it has yet to do so. The Coast Guard has provided waivers to vessels that cannot install the yet to be approved technology.

At the international level, the IMO adopted an International Convention for the Control and Management of Ships Ballast Water and Sediments in February 2004 (the BWM Convention ). The Convention's implementing regulations call for a phased introduction of mandatory ballast water exchange requirements, to be replaced in time with mandatory concentration limits. The BWM Convention will not enter into force until 12 months after it has been adopted by 30 states, the combined merchant fleets of which represent not less than 35% of the gross tonnage of the world's merchant shipping. As of March 31, 2016 the BWM Convention had been adopted by 49 states, representing

34.82% of world tonnage. It is widely anticipated that the 35% threshold will be met in the near future. As many of the implementation dates for the BWM Convention has passed before

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ratification of the convention, the IMO Assembly resolved on 4 December 2013 to revise the dates of applicability so that they would be triggered by the entry into force date and not the original dates in the BWM Convention. Vessels must now comply with the BWM Convention standards by the time of their first MARPOL International Oil Pollution Prevention renewal survey after the entry into force date.

If mid-ocean ballast exchange is made mandatory throughout the United States or at the international level, or if water treatment requirements or options are instituted, the cost of compliance could increase for ocean carriers. Although we do not believe that the costs of compliance with a mandatory mid-ocean ballast exchange would be material, it is difficult to predict the overall impact of such a requirement on our operations.

In November 2014 the IMO adopted the International Code for Ships Operating in Polar Waters (the Polar Code ) and related amendments to SOLAS to make it mandatory. The Polar Code comprises of detailed requirements relating to safety, design, construction, operations, training and the prevention of environmental pollution. The Polar Code applies to all shipping and maritime operations, apart from fishing boats, ships under 500 tons and fixed structures. The expected date of entry into force of the SOLAS amendments is January 1, 2017 and it will apply to new ships constructed after that date. Ships constructed before January 1, 2017 will be required to meet the relevant requirements of the Polar Code by their first intermediate or renewal survey, whichever occurs first, after January 1, 2018. Amendments will also be made to MARPOL, with entry into force dates aligned with the SOLAS amendments. The Polar Code brings with it numerous requirements and necessities for all ships trading in the polar regions and therefore a great deal of investment will be needed to operate in this region. It is our intention to comply with the Polar Code as implemented through MARPOL and SOLAS.

MARPOL Annex I regulation 43 concerning special requirements for the use or carriage of oils in the Antarctic area to prohibit ships from carrying heavy grade oil on board as ballast, is expected to come into force on March 1, 2016.

Although the Kyoto Protocol to the United Nations Framework Convention on Climate Change requires adopting countries to implement national programs to reduce emissions of greenhouse gases, emissions of greenhouse gases from international shipping are not subject to the Kyoto Protocol. No new treaty was adopted at the United Nations climate change conference in Cancun in December 2010. The Kyoto Protocol was extended to 2020 at the 2012 United Nations Climate Change Conference, with the hope that a new treaty would be adopted in 2015 to come into effect in 2020. There is pressure to include shipping in any new treaty. We refer to the discussion above of the regulation of greenhouse gas emissions from ocean-going vessels under the CAA and EU greenhouse gas emissions strategy. The IMO, the EU or individual countries in which we operate could pass climate control legislation or implement other regulatory initiatives to control greenhouse gas emissions from vessels that could require us to make significant financial expenditures or otherwise limit our operations. Even in the absence of climate control legislation and regulations, our business may be materially affected to the extent that climate change may result in sea level changes or more intense weather events.

The Hong Kong Air Pollution Control (Marine Light Diesel) Regulations, which entered into force on April 1, 2014, provide that the sulfur content of marine light diesel supplied to vessels in Hong Kong must contain 0.05% sulfur content or less. The Air Pollution Control (Ocean Going Vessels) (Fuel At Berth) Regulation was tabled by Hong Kong's Legislative Council on March 18, 2015 and came in to force on July 1, 2015. The Regulation prohibits ocean going vessels from using any fuel other than compliant fuel while at berth in Hong Kong, except during the first hour after arrival and the last hour after departure. The shipmasters and ship owners are required to record the date and time of fuel switching and keep relevant records for three years.

In December 2015, representatives of 195 countries met at the Paris Climate Conference ( COP 21 ) and adopted a universal and legally binding climate deal. The COP 21 agreement is expected to come into force in 2020. The

governments agreed to the goal of keeping the increase in global average temperature to below 2°C and to aim, if possible, to limit the increase to 1.5°C. Governments also agreed to reconvene every 5 years to reassess the targets. Governments will be required to report to each other on their progress and the steps they have taken to

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reach their targets. The COP 21 agreement will be deposited at the UN and will be open for signature for one year, beginning April 22, 2016. The COP 21 agreement will come into force once 55 countries that account for 55% of global emissions have ratified it. The shipping industry was not included in emissions controls; however, with growing pressure being placed on the IMO to implement measures to aid the objectives agreed at the COP 21, it is now uncertain whether the agreement will in fact effect the shipping industry.

*Trading Restrictions:* The Company is aware of the restrictions applicable to it on trading with Cuba, Iran, North Korea, Sudan and Syria and it has complied with those restrictions and intends to continue to so comply in all respects. The Company has not, nor does it intend to, provide any goods, fees or services to the referenced countries and has had no contacts with governmental entities in these countries nor does it intend to have any in the future. Its vessels are not chartered to any Cuban, Iranian, Sudanese or Syrian companies. The voyage charter parties and all but the oldest time-charter agreements relating to the vessels in the fleet generally preclude Iran from the vessels trading unless agreed between owner and charterer after taking into account all relevant sanctions legislation. Between January 1, 2013 and March 31, 2016, the Company's vessels made 2,737 port calls around the world, none of which were to those countries, apart from nine visits to Marsa Bashayer, Sudan, in order to load cargoes of Dar crude oil from the Republic of South Sudan, an independent landlocked nation, which is obliged to use a pipeline through Sudan to Marsa Bashayer to export its crude oil. Such visits, for loading South Sudan crude oil, do not require OFAC authorization. None of the vessels the Company owns or operates or charters have provided, or are anticipated to provide, any U.S.-origin goods to these countries, or involve employees who are U.S. nationals in operations associated with these countries. The Company has no relationships with governmental entities in those countries, nor does it charter its vessels to companies based in those countries. The Company derives its revenue directly from the charterers.

**Classification and inspection**

The vessels in the fleet have been certified as being in class by their respective classification societies: Bureau Veritas, Det Norske Veritas, American Bureau of Shipping, or Lloyd's Register of Shipping. Every vessel's hull and machinery is classed by a classification society authorized by its flag administration. The classification society certifies that the vessel has been built and maintained in accordance with the rules of such classification society and complies with applicable statutory rules and regulations of the country of registry of the vessel and the international conventions of which that country is a party. Each vessel is scheduled for inspection by a surveyor of the classification society every year (the annual survey), every five years (the special survey) and every thirty months after a special survey (the intermediate survey). Vessels are required to be dry-docked for the special survey process, and for vessels over fifteen years of age for intermediate survey purposes, for inspection of the underwater parts of the vessel and for necessary repairs related to such inspection. With the permission of the classification society, the actual timing of the surveys may vary by a few months from the originally scheduled date depending on the vessel's position and operational obligations.

In addition to the classification inspections, many of our customers, including the major oil companies, regularly inspect our vessels as a precondition to chartering voyages on these vessels or calling at their terminals. We believe that our well-maintained, high quality tonnage should provide us with a competitive advantage in the current environment of increasing regulation and customer emphasis on quality of service, safety and protection of the environment.

TCM, our technical manager, has obtained a Document of Compliance (DOC) for its offices and Safety Management Certificates (SMC) for our vessels, as required by the ISM Code. In addition TCM has established, implemented and maintains a documented Health, Safety, Quality, Environmental and Energy (HSQEE) management system which complies and is certified in accordance with ISO 9001 (Quality Management), ISO 14001 (Environmental protection

management), OHSAS 18001 (Occupational health& safety management) and ISO 50001 (Energy management) standards. The TCM s management system is based on the principle of continual improvement towards ensuring HSQEE excellence. The main overall objectives are to ensure flawless operations with zero accidents and zero pollution and this is carried out by instilling and maintaining a strong

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safety and compliance culture, operating well-maintained ships, maintaining effective risk management, reducing our environmental impact and increasing the energy efficiency of our operations.

### **Risk of loss and insurance**

The operation of any ocean-going vessel carries an inherent risk of catastrophic marine disasters and property losses, including:

collision;

adverse weather conditions;

fire and explosion;

mechanical failures;

negligence;

war;

terrorism; and

piracy.

In addition, the transportation of crude oil is subject to the risk of crude oil spills and business interruptions due to political circumstances in foreign countries, hostilities, labor strikes and boycotts. Tsakos Shipping arranges insurance coverage to protect against most risks involved in the conduct of our business and we maintain environmental damage and pollution insurance coverage. Tsakos Shipping arranges insurance covering the loss of revenue resulting from vessel off-hire time as a result of physical damage. We believe that our current insurance coverage is adequate to protect against most of the risks involved in the conduct of our business. The terrorist attacks in the United States and various locations abroad and international hostilities have led to increases in our insurance premium rates and the implementation of special war risk premiums for certain trading routes. See Item 5. Operating and Financial Review and Prospects for a description of how our insurance rates have been affected by recent events.

We have hull and machinery insurance, increased value (actual or constructive total loss) insurance and loss of hire insurance with Argosy Insurance Company. Each of our ship owning subsidiaries is a named insured under our insurance policies with Argosy. Argosy provides the same full coverage as provided through London and Norwegian markets and reinsures most of its exposure under the insurance it writes for us, subject to customary deductibles, with various reinsurers in the London, French, Norwegian and U.S. reinsurance markets. These reinsurers have a minimum credit rating of A-. We were charged by Argosy aggregate premiums of \$9.4 million in 2015. By placing our

insurance through Argosy, we believe that we achieve cost savings over the premiums we would otherwise pay to third party insurers.

Our subsidiaries are indemnified for legal liabilities incurred while operating our vessels by protection and indemnity insurance that we maintain through their membership in a P&I club. This protection and indemnity insurance covers legal liabilities and other related expenses of injury or death of crew members and other third parties, loss or damage to cargo, claims arising from collisions with other vessels, damage to other third party property and pollution arising from oil or other substances, including wreck removal. The object of P&I clubs is to provide mutual insurance against liability to third parties incurred by P&I club members in connection with the operation of their vessels entered into the P&I club in accordance with and subject to the rules of the P&I club and the individual member's terms of participation. A member's individual P&I club premium is typically based on the aggregate gross tonnage of the member's vessels entered into the P&I club according to the risks of insuring the vessels as determined by the P&I club. P&I club claims are paid from the aggregate premiums paid by all members, although members remain subject to calls for additional funds if the aggregate insurance claims made exceed aggregate member premiums collected. P&I clubs enter into reinsurance agreements with other P&I clubs and with third party underwriters as a method of preventing large losses in any year from being assessed directly against members of the P&I club.



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World events have an impact on insurance costs and can result in increases in premium; however, other significant drivers of premium levels are market over capacity, inadequate deductibles, inefficient claims control by the insurers and scope of cover being too wide. Despite recent expensive years for insurance claims due to a number of global catastrophe losses, insurance renewals, and more recently huge maritime losses such as the explosion in the Chinese port of Tianjin and the total loss of the Costa Concordia off the Italian coast and the eventual removal of its wreck, premium increases have been benign. The expected modest increase in the cost of Hull & Machinery Insurance renewals for 2015-2016 policy year did not materialize and the softness of the market is likely to continue through the 2016-2017 and possibly into the 2017-18 year. The insurance markets maintain their list of World Wide War Risks Exclusions, as defined by the Joint War Committee in the London insurance market, and insurers are at liberty to charge increases in premium in order to provide cover for Excluded Areas which include the Indian Ocean, Gulf of Guinea, Libya and Saudi Arabia, amongst others. These additional insurance costs represent a relatively small portion of our total insurance premiums and are, in any case, largely paid by the Charterers. Protection & Indemnity (P&I) insurance costs are less affected by world events than H&M and more likely to be driven by maritime losses and whether there is a fall in the value of individual Clubs' Free Reserves. Recent P&I renewals have seen only a modest increase in rates, at 2.5%. At March 31, 2015, the International Group of P&I Clubs continued to provide its members with \$1 billion of oil pollution liability coverage and more than \$4 billion of coverage for other liabilities. P&I, Hull and Machinery and War Risk insurance premiums are accounted for as part of operating expenses in our financial statements; accordingly, any changes in insurance premiums directly impact our operating results.

**Competition**

We operate in markets that are highly competitive and where no owner controlled more than 5% of the world tanker fleet as of March 31, 2016. Ownership of tankers is divided among independent tanker owners and national and independent oil companies. Many oil companies and other oil trading companies, the principal charterers of our fleet, also operate their own vessels and transport oil for themselves and third party charterers in direct competition with independent owners and operators. We compete for charters based on price, vessel location, size, age, condition and acceptability of the vessel, as well as our reputation as a tanker operator and our managers reputation for meeting the standards required by charterers and port authorities. Currently we compete primarily with owners of tankers in the ULCCs, VLCCs, suezmax, suezmax shuttle tankers, aframax, panamax, handymax and handysize class sizes, and we also compete with owners of LNG carriers.

Although we do not actively trade to a significant extent in Middle East trade routes, disruptions in those routes as a result of international hostilities, including those in Syria and Iraq, economic sanctions, including those with respect to Iran, and terrorist attacks such as those made in various international locations (Somalia, Kenya, Yemen, Nigeria) and pirate attacks repeatedly made upon shipping in the Indian Ocean, off West Africa and in South East Asia, may affect our business. We may face increased competition if tanker companies that trade in Middle East trade routes seek to employ their vessels in other trade routes in which we actively trade.

Other significant operators of multiple aframax and suezmax tankers in the Atlantic basin that compete with us include Euronav, Teekay Shipping Corporation and Nordic American Tankers. There are also numerous smaller tanker operators in the Atlantic basin.

**Employees**

We have no salaried employees. See Management Contract Crewing and Employees.

**Properties**

We operate out of Tsakos Energy Management offices in the building also occupied by Tsakos Shipping at Megaron Makedonia, 367 Syngrou Avenue, Athens, Greece.

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### **Legal proceedings**

We are involved in litigation from time to time in the ordinary course of business. In our opinion, the litigation in which we were involved as of March 31, 2016, individually and in the aggregate, was not material to us.

### **Item 4A. Unresolved Staff Comments**

None.

## **Item 5. Operating and Financial Review and Prospects Management's Discussion and Analysis of Financial Condition and Results of Operations**

### **Company Overview**

As of March 31, 2016, the fleet consisted of 47 double-hull tankers with an average age of 8.6 years, one LNG carrier and two suezmax DP2 shuttle tankers providing world-wide marine transportation services for national, major and other independent oil companies and refiners under long, medium and short-term charters. The current operational fleet consists of one VLCC, 15 suezmaxes (including two DP2 shuttle tankers), eleven aframaxs, nine panamaxs, six handymaxes, seven handysizes and one LNG carrier. All vessels are owned by our subsidiaries. The charter rates that we obtain for these services are determined in a highly competitive global tanker charter market. The tankers operate in markets that have historically exhibited both cyclical and seasonal variations in demand and corresponding fluctuations in charter rates. Tanker markets are typically stronger in the winter months as a result of increased oil consumption in the northern hemisphere. In addition, unpredictable weather conditions in the winter months in various regions around the world tend to disrupt vessel scheduling. The oil price volatility resulting from these factors has historically led to increased oil trading activities. Changes in available vessel supply are also a contributing factor in affecting the cyclicity and overall volatility present in the tanker sector which is reflected both in charter rates and asset values.

### **Results from Operations 2015**

*The following discussion of our financial condition and results of operations should be read in conjunction with the financial statements and the notes to those statements included elsewhere in this Annual Report. This discussion includes forward-looking statements that involve risks and uncertainties. As a result of many factors, such as those set forth under Risk Factors and elsewhere in this Annual Report our actual results may differ materially from those anticipated in these forward-looking statements.*

2015 failed to live up to original expectations and turned out to be another year of relatively subdued global GDP growth, especially amongst developed nations, and slower growth in world trade, despite further liquidity injections by several central banks, falling oil prices and low inflation. In the second half of the year, China's slowdown accelerated, highlighted by a reduction in imports and exports, as investment decreased and manufacturing activity slackened as the country redirected economic activity towards consumption and services. This led to concern about future prospects for the Chinese economy and the potential for the country to import commodities. This in turn generated a ripple negative impact on other economies as reflected by a sharp fall in imports by developing nations. It also severely dampened confidence in the capital markets leading to increased volatility. These developments further weakened the world trade environment, already suffering from lower levels of demand and deferred investment,

especially in the extractive industries, all of which has harmed most shipping sectors apart from the oil carrying sector.

While major economies are suffering, in particular Russia, Brazil, and to a lesser extent, Canada, much due to reduced oil revenues, other nations have shown considerable resilience as reflected in their growth performance in 2015, notably India, Vietnam and certain African countries such as Tanzania. Even China, despite a slowdown, for the most part in 2015, continued to import record levels of crude oil and to enjoy

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significant growth, far higher than most other nations, and growth prospects remains high. Japan managed to avoid an expected return to recession and may even be gradually starting to recover albeit shakily. The United States and United Kingdom demonstrated respectable, but modest, strengthening, with strong employment numbers, even in the US generating a response from the Federal Reserve to start tightening monetary policy, although certain commentators have remarked that this may have been premature. Continental Europe, especially smaller nations such as Ireland, at last began to show signs of a turnaround following a painful period of near stagnation, partly thanks to the European version of quantitative easing. Potential clouds on the European horizon are the unresolved situation relating to Russia's policy towards the Ukraine, which has resulted in trade sanctions and has impacted Russia's oil exports, the possibility of the United Kingdom exiting the European Union, and the growing migrant problem, which also threatens the unity of Europe.

The dramatic downward slide in oil prices, which started in the latter part of 2014 and accelerated in 2015, as traditional oil exporting nations confirmed their intention to continue producing crude oil, provided most oil importing nations with a substantial bonus, but not to the extent that such savings would have expected to generate. This has been put down to the continued emphasis of these countries to reduce debt-levels, the benefits of which will be seen later, and possibly to those major oil concerns which have been severely hit by low prices, being reluctant to pass all the reduction to the ultimate consumer. The fact that the global energy industry has been hard hit, with the exception of the tanker industry and refiners, and that the previously cash rich oil-exporters have had to cut back on imports of consumer and capital goods may also have dampened expectations of benefits.

For the tanker industry, therefore, the fall in oil prices was a major boon after six years of suppressed freight rates, and negative bottom lines. Demand for tankers increased as oil consumption and strategic storage increased, while the number of crude tankers available remained tight, due to limited orders and new, longer trade routes. This resulted in a significant increase in rates, starting in the latter part of 2014, and continuing through the whole year, and while rates fluctuated in the course of the year due to refinery maintenance schedules and seasonal factors, depending on tanker type, the rates achieved on average were more than enough to generate a long awaited handsome reward to owners, with reduced bunker (fuel) costs contributing to profitability. Product carriers also saw a rebound as demand increased, and new or upgraded refineries opened up to enjoy impressive margins. These refineries opened in new locations in the Middle East, India and China, while refineries closer to the main centers of consumption continued to close. However, a significant addition of vessels to the global fleet as a result of over-ordering muted the potentially strong impact on product carrier rates. Vessel values also remained strong during this period, although not increasing to the levels expected, given the sustained levels of freight rates which are expected to remain throughout 2016 and into 2017.

The fleet achieved voyage revenues of \$587.7 million in 2015, an increase of 17.3% from \$501.0 million in 2014. The average size of the fleet increased in 2015 to 49.2 vessels from 49.0 vessels in 2014, and fleet utilization was 97.9% during 2015, compared to a 97.7% utilization during 2014. The market improved significantly in 2015 due to the low oil prices, which boosted in oil demand and the transportation of oil. Our average daily time charter rate per vessel, after deducting voyage expenses, increased to \$25,940 from \$19,834 in 2014, mainly due to the improvement in the freight market. The price of bunkers (fuel) fell by 46% between 2015 and 2014, which offset the 39% increase in the volume of bunkers consumed as more vessels operated in the spot market. Operating expenses decreased by 3.3% to \$142.1 million from \$146.9 million due to the disposal of *Triathlon* and *Delphi* in mid-2015 and the strengthening of the US dollar against the Euro, as most of our crew costs are incurred in Euro.

Depreciation and amortization was \$105.9 million in 2015 compared to \$102.9 million in 2014 due to the addition of *Eurovision* and *Euro* in mid-2014 and *Pentathlon* in November 2015, offset by the sale of two vessels. General and administrative expenses which include management fees were \$21.8 million in 2015 and \$21.0 million in 2014.

In 2015 and 2014, our tests did not indicate the need for an impairment charge. There was an operating gain of \$188.1 million in 2015 compared to \$76.1 million in 2014. There was a net accumulated gain of \$2.1 million

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on the sale of the *Triathlon* and the *Delphi*. There was no vessel sale in 2014. Interest and finance costs, net decreased by 30.3% in 2015 to \$30.0 million, mainly due to the expiration of bunker swaps. Net income attributable to the Company was \$158.2 million in 2015 compared to \$33.5 million in 2014. The effect of preferred dividends that accrue for 2015 was \$13.4 million compared to \$8.4 million in 2014. Net earnings per share (basic and diluted) was \$1.69 in 2015, including the effect of preferred dividends, based on 85.8 million weighted average shares outstanding (basic and diluted) compared to earnings of \$0.32 per share in 2014 based on 79.1 million weighted average shares outstanding (basic and diluted).

Some of the more significant developments for the Company during 2015 were:

the raising of \$85 million gross with the issuance of 3.4 million Series D Cumulative Redeemable Perpetual Preferred Shares;

the arrangement of seven term loan facilities for the financing of the acquisition of the suezmax tankers *Pentathlon* and *Decathlon*, the pre and post delivery financing of three of our new-buildings under construction and the refinancing of two matured loans;

the sale of the 2002-built suezmax *Triathlon* and 2004-built product carrier *Delphi*;

the dry-docking of *Aris*, *Apollon*, *Ajax*, *Eurochampion 2004*, *Afrodite*, *Sapporo Princess*, *Uraga Princess*, *Artemis* and *Ariadne* for their mandatory special or intermediate survey;

the payment to holders of Series B preferred shares of dividends totaling \$4.0 million in aggregate;

the payment to holders of Series C preferred shares of dividends totaling \$4.4 million in aggregate;

the payment to holders of Series D preferred shares of dividends totaling \$4.3 million in aggregate; and

dividends to holders of common shares totaling \$0.24 per share with total cash paid out amounting to \$20.6 million.

The Company operated the following types of vessels during and at the end of 2015:

Vessel Type	LNG		Suezmax		Handymax		Handysize		Total Fleet
	carrier	VLCC	Suezmax	DP2 shuttle	Aframax	Panamax	MR2	MR1	
Average number of	1.0	1.0	11.7	2.0	11.0	9.0	6.0	7.5	49.2

vessels									
Number of vessels at end of year	1.0	1.0	12.0	2.0	11.0	9.0	6.0	7.0	49.0
Dwt at end of year (in thousands)	86.0	301.0	1,936.0	314.0	1,194.0	651.0	318.0	260.0	5,060.0
Percentage of total fleet (by dwt at year end)	1.7%	5.9%	38.3%	6.2%	23.6%	12.9%	6.3%	5.1%	100.0%
Average age, in years, at end of year	8.9	17.3	7.9	2.7	7.7	8.9	10.5	9.2	8.5

We believe that the key factors which determined our financial performance in 2015, within the given freight rate environment in which we operated, were:

the diversified aspect of the fleet, including purpose-built vessels to access ice-bound ports, carry LNG and operate shuttle tankers between offshore installations and on-shore terminals, which allowed us to take advantage of all tanker sectors;

the benefits of the new vessels acquired in recent years in terms of operating efficiencies and desirability on the part of charterers;

our balanced chartering strategy (discussed further below), which ensured a stable cash flow while allowing us to take advantage of the upside in the freight market;



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the long-established relationships with our chartering clients and the development of new relationships with renowned oil-majors;

a high level of utilization for our vessels;

the continued control over costs by our technical managers despite pressures caused by rising operating costs;

our ability to mitigate financial costs by negotiating competitive terms with reputable banks;

our ability to efficiently monitor the construction phase of our newbuilding program while maintaining a tight control of costs and expenses;

our ability to manage leverage levels through cash generation and repayment/prepayment of debt;

our ability to comply with the terms of our financing arrangements, including addressing loan-to-value requirements;

our ability to reward our shareholders through cash dividends;

our ability to raise new financing through bank debt at competitive terms despite a generally tight credit environment;

our ability to access the capital markets and raise new financing on competitive terms; and

the sale of vessels when attractive opportunities arise.

We believe that the above factors will also influence our future financial performance and will play a significant role in the current world economic climate as we proceed through 2016 and into 2017. To these may be added:

the acceleration of the recovery of the product charter market during the year and the continuation of the current strong crude market;

the start of the delivery of our newbuildings with attractive charters attached;

the appetite of oil majors to fix vessels on medium to long term charters at attractive rates; and

our ability to build our cash reserves through operations, vessel sales and capital market products. Considerable economic and political uncertainty remains in the world as we enter the second quarter of 2016. The positive signs in terms of declining unemployment, strengthening dollar, low inflation, respectable growth and returning consumer confidence, continue to emanate from the United States. Certain recent measures have been taken in Europe to regenerate growth with a determination not to allow member states to fail or exit the Eurozone. Many developing countries still have surging economies albeit with the occasional readjustments or corrections. The fall in oil prices, although hurting a number of countries highly dependent on oil exports, allows most other nations to reduce their expenditure on oil imports and utilize their funds on consumer or development expenditures instead. Certain issues are cause for concern, including an increased level of violence in the Middle East, the increased tension in West-Russia relations due to the Ukraine situation and the potential for disunity in the European Union due to uncontrolled immigration and the possible exit of the United Kingdom.

We believe that oil prices are likely to remain subdued through much of 2016 with a possibility of approaching \$50 to \$60 per bbl and, therefore, demand will continue buoyant during the year. As there is no real likelihood of substantial numbers of new crude carriers entering the market, we see 2016 as a year of strong charter rates with seasonal fluctuations, but possibly without the extreme dips and spikes in rates for crude tankers as we experienced in 2015. Indeed, we feel that a healthy sustainability in rates may last through 2016 and into 2017 at which stage new vessels may begin to play an adverse role in the crude market. On the product trade our previous optimism, which was diluted by excessive ordering of new product carriers, is returning, as new refineries are in operation and generating new and longer trade routes for product carriers, which have contributed to a return of rates above break-even level. LNG carrier rates have dipped and are likely to remain at levels which provide only modest returns due to delays in the completion of LNG projects and a growing supply

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of new carriers. A return to more respectable levels such as that until recently earned by our LNG carrier is considered not likely until more projects are completed well into 2017. Our confidence in our shuttle tanker operations is based on the contribution that off-shore fields provide to Brazil and the expectation that Petrobras, our charterer, will emerge in due course as a more efficient and dynamic enterprise.

**Chartering Strategy**

We typically charter our subsidiaries' vessels to third parties in any of five basic types of charter. First are voyage charters or spot voyages, under which a shipowner is paid freight on the basis of moving cargo from a loading port to a discharging port at a given rate per ton or other unit of cargo. Port charges, bunkers and other voyage expenses (in addition to normal vessel operating expenses) are the responsibility of the shipowner.

Second are time charters, under which a shipowner is paid hire on a per day basis for a given period of time. Normal vessel operating expenses, such as stores, spares, repair and maintenance, crew wages and insurance premiums, are incurred by the shipowner, while voyage expenses, including bunkers and port charges, are the responsibility of the charterer. The time charterer decides the destination and types of cargoes to be transported, subject to the terms of the charter. Time charters can be for periods of time ranging from one or two months to more than three years. The agreed hire may be for a fixed daily rate throughout the period or may be at a guaranteed minimum fixed daily rate plus a share of a determined daily rate above the minimum, based on a given variable charter index or on a decision by an independent brokers' panel for a defined period. Many of our charters have been renewed on this time charter with profit share basis over the past three years. Time charters can also be evergreen, which means that they automatically renew for successive terms unless the shipowner or the charterer gives notice to the other party to terminate the charter.

Third are bareboat charters under which the shipowner is paid a fixed amount of hire for a given period of time. The charterer is responsible for substantially all the costs of operating the vessel including voyage expenses, vessel operating expenses, dry-docking costs and technical and commercial management. Longer-term time charters and bareboat charters are sometimes known as period charters.

Fourth are contracts of affreightment which are contracts for multiple employments that provide for periodic market related adjustments, sometimes within prescribed ranges, to the charter rates.

Fifth are pools. During 2015, one of our subsidiaries' vessel also operated within a pool of similar vessels for part of the year whereby all income (less voyage expenses) is earned on a market basis and shared between pool participants on the basis of a formula which takes into account the vessel's age, size and technical features.

Our chartering strategy continues to be one of fixing the greater portion of our fleet on medium to long-term employment in order to secure a stable income flow, but one which also ensures a satisfactory return. This strategy has enabled us to smooth the effects of the cyclical nature of the tanker industry, achieving almost optimal utilization of the fleet. In order to capitalize on possible upturns in rates, we have chartered out several of our vessels on a basis related to market rates for either spot or time charter with an emphasis on spot charters in 2015.

Our Board of Directors, through its Chartering Committee, formulates our chartering strategy and our commercial manager Tsakos Energy Management implements this strategy through the Chartering Department of Tsakos Shipping. They evaluate the opportunities for each type of vessel, taking into account the strategic preference for medium and long-term charters and ensure optimal positioning to take account of redelivery opportunities at advantageous rates.

The cooperation with Tsakos Shipping, which provides the fleet with chartering services, enables us to take advantage of the long-established relationships Tsakos Shipping has built with many of the world's major oil companies and refiners over 40 years of existence and high quality commercial and technical service.

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Since July 1, 2010, through our cooperation with TCM, our technical managers, we are able to take advantage of the inherent economies of scale associated with two large fleet operators working together and its commitment to contain running costs without jeopardizing the vessels' operations. TCM provides top grade officers and crew for our vessels and first class superintendent engineers and port captains to ensure that the vessels are in prime condition.

**Critical Accounting Estimates**

Our consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles. Our significant accounting policies are described in Note 1 of the consolidated financial statements included elsewhere in this annual report. The application of such policies may require management to make estimates and assumptions. We believe that the following are the more critical accounting estimates used in the preparation of our consolidated financial statements that involve a higher degree of judgment and could have a significant impact on our future consolidated results of operations and financial position:

**Revenue recognition.** Our vessels are employed under a variety of charter contracts, including time, bareboat and voyage charters, contracts of affreightment and pool arrangements. Time and bareboat charter revenues are recorded over the term of the charter as the service is provided. Revenues from voyage charters on the spot market or under contract of affreightment are recognized ratably from when a vessel becomes available for loading (discharge of the previous charterer's cargo) to when the next charterer's cargo is discharged, provided an agreed non-cancelable charter between the Company and the charterer is in existence, the charter rate is fixed or determinable and collectability is reasonably assured. Vessel voyage and operating expenses and charter hire expense are expensed when incurred. The operating revenues and voyage expenses of vessels operating under a tanker pool are pooled and are allocated to the pool participants on a time charter equivalent basis, according to an agreed formula. Revenues from variable hire arrangements are recognized to the extent the variable amounts earned beyond an agreed fixed minimum hire at the reporting date and all other revenue recognition criteria are met.

**Depreciation.** We depreciate our vessels on a straight-line basis over their estimated useful lives, after considering their estimated residual values, based on the assumed value of the scrap steel available for recycling after demolition, calculated at \$300 per lightweight ton since January 1, 2008. Since steel prices were at consistently higher levels during the last few years and were expected to remain at high levels for the following years, from October 1, 2012, scrap values are calculated at \$390 per lightweight ton (lwt). Our estimate was based on the average demolition prices prevailing in the market during the last ten years for which historical data were available. From mid-2015, scrap values have fallen from \$390 per lwt and are now at approximately \$250 per lwt. Given the historical volatility of scrap prices, management will monitor prices going forward and where a distinctive trend is observed over a given length of time, management may consider revising the scrap price accordingly. In assessing the useful lives of vessels, we have adopted the industry-wide accepted practice of assuming a vessel has a useful life of 25 years (40 years for the LNG carrier), given that all classification society rules have been adhered to concerning survey certification and statutory regulations are followed.

**Impairment.** The carrying value of the Company's vessels includes the original cost of the vessels plus capitalized expenses since acquisition relating to improvements and upgrading of the vessel, less accumulated depreciation. Carrying value also includes the unamortized portion of deferred special survey and dry-docking costs. The carrying value of vessels usually differs from the fair market value applicable to any vessel, as market values fluctuate continuously depending on the market supply and demand conditions for vessels, as determined primarily by prevailing freight rates and newbuilding costs.

The Company reviews and tests all vessels for impairment at each quarter-end and at any time that specific vessels may be affected by events or changes in circumstances indicate that the carrying amount of the vessel may not be

recoverable, such as during severe disruptions in global economic and market conditions, and unexpected changes in employment. A vessel to be held and used is tested for recoverability by comparing the

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estimate of future undiscounted net operating cash flows expected to be generated by the use of the vessel over its remaining useful life and its eventual disposition to its carrying amount. The average age of our vessels is approximately 8.5 years. The average remaining operational life is, therefore, 16.5 years. Given the extensive remaining lives, we do not believe that there is a significant risk of not generating future undiscounted net operating cash flows in excess of carrying values. However, as indicated above, circumstances may change at any time which would oblige us to reconsider the extent of risk of impairment.

Future undiscounted net operating cash flows are determined by applying various assumptions regarding future revenues net of commissions, operating expenses, scheduled dry-dockings and expected off-hire and scrap values. Our projections for charter revenues are based on existing charter agreements for the fixed fleet days and an estimated daily average hire rate per vessel category for the unfixed days based on the most recent ten year historical averages publicly provided by major brokers, which, given the wide spread of annual rates between the peaks and troughs over the decade, we believe provides as fair as any other assumption that could be used in determining a rate for a long-term forecast. In addition, we apply a 2% annual escalation in rates to take account of published long-term growth and inflation expectations in the developed world. Exclusion of such an escalation would not impact the overall impairment conclusion for each vessel for the years 2015, 2014 and 2013. Future operating costs are based on the 2015 average per individual vessel to which we also apply a 2% annual escalation. Residual or scrap value is based on the same scrap price used for depreciation purposes as described above. All such estimations are inevitably subjective. Actual freight rates, industry costs and scrap prices may be volatile. As a consequence, estimations may differ considerably from actual results.

Where a vessel is deemed to be a risk, we also take into account the age, condition, specifications, marketability and likely trading pattern of each such vessel, and apply various possible scenarios for employment of the vessel during its remaining life. We prepare cash flows for each scenario and apply a percentage possibility to each scenario to calculate a weighted average expected cash flow for the vessel for assessing whether an impairment charge is required. The estimations also take into account regulations regarding the permissible trading of tankers depending on their structure and age.

While management, therefore, is of the opinion that the assumptions it has used in assessing whether there are grounds for impairment are justifiable and reasonable, the possibility remains that conditions in future periods may vary significantly from current assumptions, which may result in a material impairment loss. If the current economic recovery stalls or if oil prices begin to trend upwards again, oil demand over an extended period of time could be negatively impacted. This will exacerbate the consequences of overcapacity in the tanker sector. In such circumstances, the possibility will increase that both the market value of the older vessels of our fleet and the future cash flow they are likely to earn over their remaining lives will be less than their carrying value and an impairment loss will occur.

Should the carrying value of the vessel exceed its estimated undiscounted cash flows, impairment is measured based on the excess of the carrying amount over the fair value of the asset. The fair values are determined based principally from or by corroborated observable market data. Inputs considered by management in determining the fair value include independent brokers' valuations. As vessel values are also volatile, the actual market value of a vessel may differ significantly from estimated values within a short period of time.

The Company would not record an impairment for any of the vessels for which the fair market value is below its carrying value unless and until the Company either determines to sell the vessel for a loss or determines that the vessel's carrying amount is not recoverable.

As noted above, we determine projected cash flows for unfixed days using an estimated daily time charter rate based on the most recent ten year historical average rates, inflated annually by a 2.0% growth rate. We consider this approach to be reasonable and appropriate. However, charter rates are subject to change based on a variety of factors that we cannot control and we note that charter rates over the last few years have been, on



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average, below their historical ten year average. If as at December 31, 2015 and 2014, we were to utilize an estimated daily time charter equivalent for our vessels unfixed days based on the most recent five year, three year or one year historical average rates for one-year time charters, the results would be the following:

	December 31, 2015		As of December 31, 2014	
	Number of Vessels(*)	Amount (U.S. millions)(**)	Number of Vessels(*)	Amount (U.S. millions)(**)
5-year historical average rate	2	22.6	23	253
3-year historical average rate	0	0	25	275
1-year historical average rate	0	0	9	119

(\*) Number of vessels the carrying value of which would not have been recovered.

(\*\*) Aggregate carrying value that would not have been recovered.

Although we believe that the assumptions used to evaluate potential impairment are reasonable and appropriate, such assumptions are highly subjective. There can be no assurance as to how long charter rates and vessel values will remain at their current levels or whether they will again decline or improve by any significant degree. Although charter rates have markedly increased since late 2014, they may again decline to relatively low levels, which could adversely affect our revenue and profitability, and future assessments of vessel impairment.

At December 31, 2015, our review of the carrying amounts of the vessels in connection with the estimated recoverable amount did not indicate an impairment of their carrying values.

During the latter part of 2013, the overcapacity in the crude tanker sector kept vessel values at historically low levels. For four of our oldest vessels, the VLCC *Millennium*, the suezmaxes *Silia T* and *Triathlon*, and the handysize *Delphi*, the expectations of employment at viable rates, or their sale at a profit was very low at such time. We performed cash flow tests taking into account various possible scenarios such as keeping the vessels until the end of their useful economic lives or selling them at various stages. None of these scenarios resulted in cash flow which would exceed the carrying values of the vessels. As a consequence, their carrying values were written down to their fair market values as of December 31, 2013, resulting in a total impairment loss of \$28.3 million in 2013.

At December 31, 2015, the market value of the fleet, as determined based on management estimates and assumptions and by making use of available market data and taking into consideration third party valuations was \$2.0 billion, compared to a total carrying value of \$2.1 billion. While the future cash flow expected to be generated by each of the vessels in the fleet was comfortably in excess of its respective carrying value, there were 33 vessels in our fleet whose carrying values exceeded their market values. As determined at December 31, 2015, the aggregate carrying value of these vessels was \$1.5 billion, and the aggregate market value of these vessels was \$1.2 billion. These vessels were:

LNG: *Neo Energy*

Suezmax: *Spyros K, Dimitris P, Pentathlon*

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Aframax: *Proteas, Promitheas, Propontis, Sakura Princess, Maria Princess, Nippon Princess, Ise Princess, Asahi Princess, Sapporo Princess, Uruga Princess*

Panamax: *Selecao, Socrates, Andes, World Harmony, Chantal, Selini, Salamina*

Handymax: *Artemis, Afrodite, Ariadne, Aris, Apollon, Ajax*

Handysize: *Amphitrite, Arion, Andromeda, Aegeas, Byzantion, Bosporos*

**Allowance for doubtful accounts.** Revenue is based on contracted charter parties and although our business is with customers whom we believe to be of the highest standard, there is always the possibility of dispute over terms and payment of freight and demurrage. In particular, disagreements may arise as to the responsibility for lost time and demurrage revenue due to the Company as a result. As such, we periodically assess the

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recoverability of amounts outstanding and we estimate a provision if there is a possibility of non-recoverability, primarily based on the aging of such balances and any amounts in dispute. Although we believe any provision that we might record to be based on fair judgment at the time of its creation, it is possible that an amount under dispute is not ultimately recovered and the estimated provision for doubtful recoverability is inadequate.

***Amortization of deferred charges.*** In accordance with Classification Society requirements, a special survey is performed on our vessels every five years. A special survey requires a dry-docking. In between special surveys, a further intermediate survey takes place, for which a dry-docking is obligatory for vessels over fifteen years. Until December 31, 2013, for vessels reaching ten years in age, we estimated that the next dry-docking would be due after two and a half years. However, according to Classification Society regulations, vessels can defer the next dry-docking for five years during their first fifteen years of life, instead of ten years as previously estimated. We calculate that this change in estimate did not have a material effect in the years ending December 31, 2014 and December 31, 2015 and thereafter. During a dry-docking, work is undertaken to bring the vessel up to the condition required for the vessel to be given its classification certificate. The costs include the yard charges for labor, materials and services, possible new equipment and parts where required, plus part of the participating crew costs incurred during the survey period. We defer these charges and amortize them over the period up to the vessel's next scheduled dry-docking.

***Fair value of financial instruments.*** Management reviews the fair values of financial assets and liabilities included in the balance sheet on a quarterly basis as part of the process of preparing financial statements. The carrying amounts of financial assets and accounts payable are considered to approximate their respective fair values due to the short maturity of these instruments. The fair values of long-term bank loans with variable interest rates approximate the recorded values, generally due to their variable interest rates. The present value of the future cash flows of the portion of any long-term bank loan with a fixed interest rate is estimated and compared to its carrying amount. The fair value of the investments equates to the amounts that would be received by the Company in the event of sale of those investments, and any shortfall from carrying value is treated as an impairment of the value of that investment. The fair value of the interest rate swap, bunker swap agreements, and bunker call options held by the Company are determined through Level 2 of the fair value hierarchy as defined in FASB guidance and are derived principally from or corroborated by observable market data, interest rates, yield curves and other items that allow value to be determined. The fair values of impaired vessels are determined by management through Level 2 of the fair value hierarchy based on available market data and taking into consideration third party valuations.

**Basis of Presentation and General Information**

***Voyage revenues.*** Revenues are generated from freight billings and time charters. Time and bareboat charter revenues are recorded over the term of the charter as the service is provided. Revenues from voyage charters on the spot market or under contract of affreightment are recognized ratably from when a vessel becomes available for loading (discharge of the previous charterer's cargo) to when the next charterer's cargo is discharged, provided an agreed non-cancelable charter between the Company and the charterer is in existence, the charter rate is fixed or determinable and collectability is reasonably assured. The operating revenues of vessels operating under a tanker pool are pooled and are allocated to the pool participants on a time charter equivalent basis according to an agreed upon formula. Revenues from variable hire arrangements are recognized to the extent the variable amounts earned beyond an agreed fixed minimum hire at the reporting date and all other revenue recognition criteria are met. Unearned revenue represents cash received prior to the year end and is related to revenue applicable to periods after December 31 of each year.

Time Charter Equivalent ( TCE ) allows vessel operators to compare the revenues of vessels that are on voyage charters with those on time charters. For vessels on voyage charters, we calculate TCE by taking revenues earned on the voyage and deducting the voyage costs and dividing by the actual number of net earning days, which does not take

into account off-hire days. For vessels on bareboat charters, for which we do not incur

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either voyage or operating costs, we calculate TCE by taking revenues earned on the charter and adding a representative amount for the vessels' operating expenses. TCE differs from average daily revenue earned in that TCE is based on revenues after commissions less voyage expenses and does not take into account off-hire days.

*Commissions.* We pay commissions on all chartering arrangements to Tsakos Shipping, as our broker, and to any other broker we employ. Each of these commissions generally amounts to 1.25% of the daily charter hire or lump sum amount payable under the charter. In addition, on some trade routes, certain charterers may include in the charter agreement an address commission which is a payment due to the charterer, usually ranging from 1.25% to 3.75% of the daily charter hire or freight payable under the relevant charter. These commissions, as well as changes in prevailing charter rates, will cause our commission expenses to fluctuate from period to period.

*Voyage expenses.* Voyage expenses include all our costs, other than vessel operating expenses, that are related to a voyage, including charter commissions, port charges, canal dues and bunker fuel costs. As from the first quarter of 2015, commissions on revenue are included in voyage expenses, in order to be consistent with and comparable to other reporting entities within the peer group of tanker companies.

*Charter hire expense.* We hire certain vessels from third-party owners or operators for a contracted period and rate in order to charter the vessels to our customers. These vessels may be hired when an appropriate market opportunity arises or as part of a sale and lease back transaction or on a short-term basis to cover the time-charter obligations of one of our vessels in dry-dock. Since December 31, 2010, the Company has not had any vessels under hire from a third-party.

*Vessel operating expenses.* These expenses consist primarily of manning, hull and machinery insurance, P&I and other vessel insurance, repairs and maintenance, stores and lubricant costs.

*Depreciation and Amortization of deferred charges.* We depreciate our vessels on a straight-line basis over their estimated useful lives, after considering their estimated scrap values. Useful life is ultimately dependent on customer demand and if customers were to reject our vessels, either because of new regulations or internal specifications, then the useful life of the vessel will require revision.

We amortize the costs of dry-docking and special surveys of each of our ships over the period up to the ship's next scheduled dry-docking (generally every 5 years for vessels aged up to 15 years and every 2.5 years thereafter). These charges are part of the normal costs we incur in connection with the operation of our fleet

*Impairment loss.* An impairment loss for an asset held for use should be recognized when indicators of impairment exist and when the estimate of undiscounted cash flows expected to be generated by the use of the asset is less than its carrying amount (the vessel's net book value plus any unamortized deferred dry-docking charges). Measurement of the impairment loss is based on the fair value of the asset as determined by reference to available market data and considering valuations provided by third parties. An impairment loss for an asset held for sale is recognized when its fair value less cost to sell is lower than its carrying value at the date it meets the held for sale criteria. In this respect, management reviews regularly the carrying amount of the vessels in connection with the estimated recoverable amount for each of the Company's vessels. As a result of such reviews, it was determined that no impairment charge was required in 2015 or 2014, while in 2013 and 2012 an impairment loss had been incurred with respect to the carrying values of four of the older vessels of the fleet in 2013 and the oldest vessel of the fleet in 2012.

*General and administrative expenses.* These expenses consist primarily of professional fees, office supplies, investor relations, advertising costs, directors' and officers' liability insurance, directors' fees and reimbursement of our directors and officers' travel-related expenses. As of January 1, 2015, management fees are combined with general and

administrative expenses under the category general and administrative expenses. These are the fixed fees we pay to Tsakos Energy Management under our management agreement with them. For 2016 no

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increase has been agreed by March 31, 2016 and monthly vessel management fees remain the same as in 2015. Accordingly, monthly fees for operating vessels will be \$27,500 per owned vessel and \$20,400 for chartered-in vessels or vessels chartered out on a bareboat basis or under construction. The monthly fee for the LNG carrier will be \$35,833 and for the suezmax DP2 shuttle tankers will be \$35,000. The fees are recorded under General and Administrative Expenses.

*Insurance claim proceeds.* In the event of an incident involving one of our vessels, where the repair costs or loss of hire is insurable, we immediately initiate an insurance claim and account for such claim when it is determined that recovery of such costs or loss of hire is probable and collectability is reasonably assured within the terms of the relevant policy. Depending on the complexity of the claim, we would generally expect to receive the proceeds from claims within a twelve month period. During the 2015-16 policy year, we will have received approximately \$0.6 million in net proceeds from hull and machinery and loss of hire claims arising from incidents where damage was incurred by one of our vessels. Such settlements were generally received as credit-notes from our insurer, Argosy Insurance Company Limited, and set off against insurance premiums due to that company. Therefore, within the consolidated statements of cash flows, these proceeds are included in decreases in receivables and in decreases in accounts payable. There is no material impact on reported earnings arising from these settlements.

**Financial Analysis**

*(Percentage calculations are based on the actual amounts shown in the accompanying consolidated financial statements)*

**Year ended December 31, 2015 versus year ended December 31, 2014****Voyage revenues**

Voyage revenues earned in 2015 and 2014 per charter category were as follows:

	2015		2014	
	\$ million	% of total	\$ million	% of total
Time charter-bareboat	0.8	0%		
Time charter-fixed rate	159.8	27%	164.0	33%
Time charter-variable rate (profit share)	80.9	14%	63.4	13%
Pool arrangement	6.6	1%	6.9	1%
Voyage charter-contract of affreightment	25.9	4%	29.7	6%
Voyage charter-spot market	313.7	54%	237.0	47%
<b>Total voyage revenue</b>	<b>587.7</b>	<b>100%</b>	<b>501.0</b>	<b>100%</b>

Revenue from vessels amounted to \$587.7 million during the year ended December 31, 2015 compared to \$501.0 million during the year ended December 31, 2014, a 17.3% increase. There was an average of 49.2 vessels operating in 2015 compared to an average of 49.0 vessels in 2014, the increase relating to the acquisition of the suezmax *Pentathlon* in November 2015. Based on the total days that the vessels were actually employed as a percentage of the days that we owned the vessels, the fleet enjoyed 97.9% employment compared to 97.7% in the previous year, the lost time being mainly due to the nine dry-dockings performed during the year, while in 2014 there were eight dry-dockings.

Market conditions for tankers further improved in 2015, as a result of the falling oil price and limited vessel supply growth especially for the crude tanker fleet. The surplus in crude oil production translated directly into higher volumes shipped around the world as refinery margins soared, demand spiked at lower prices, refinery maintenance was postponed and plants ran at historically high utilization rates across the board. The lower oil prices spurred large scale stock building (commercial, refinery level and strategic). Major crude buyers and traders diversified their crude purchases buying from further afield which positively influenced tonne miles and



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spread out the global fleet. The higher refinery utilization rates and margins also contributed to an increase in rates for product carriers. The Company had more vessel days employed on spot and period employment with variable rates in 2015 compared to 2014, enabling the fleet to take advantage of the improved freight rates. The average time charter equivalent rate per vessel achieved for the year 2015 was higher by 30.8% at \$25,940 per day compared to \$19,834 per day for the previous year. The increase is mainly due to improvement in the freight rates as a result of decreasing oil prices and the resulting increase in oil demand, a more balanced supply of vessels due to limited ordering of new crude carriers in the preceding years, and seasonal winter factors in the beginning and end of the year. Our aframax tankers, which were trading mostly on spot charters during the year, had the highest increase in their time charter equivalent rate by 47% over the preceding year. Our suezmax tankers, which were trading mostly on spot and on time charters with profit sharing arrangements earned a time charter equivalent rate higher by 44% over the prior year. The Company's lone VLCC also took advantage of the spiking market capturing the prevailing high time charter rates resulting in a 127% increase of its TCE for the year over 2014.

Average daily TCE rates earned for the years ended December 31, 2015 and 2014 were:

	<b>Year ended</b>	
	<b>December 31,</b>	
	<b>2015</b>	<b>2014</b>
	\$	\$
LNG carrier	78,488	78,240
VLCC	45,828	20,212
Suezmax	32,453	22,474
DP2 shuttle	48,360	45,472
Aframax	28,479	19,355
Panamax	15,030	14,138
Handymax	15,318	14,129
Handysize	17,650	13,411

TCE is calculated by taking voyage revenue less voyage expenses divided by the number of operating days. As from the first quarter of 2015, TCE rate commissions are included in voyage expenses in order to be consistent and comparable to other reporting entities within the peer group of tanker companies. Prior year data has been adjusted accordingly.

Time charter equivalent revenue and TCE rate are not measures of financial performance under U.S. GAAP and may not be comparable to similarly titled measures of other companies. However, TCE is a standard shipping industry performance measure used primarily to compare period-to-period changes in shipping performance despite changes in the mix of charter types (i.e. spot voyage charters, time charters and bare-boat charters) under which the vessels may be employed between the periods. The following table reflects the calculation of our TCE rates for the periods presented (amount in thousands of U.S. dollars, except for TCE rate, which is expressed in U.S. dollars, and operating days):

	<b>Year ended</b>	
	<b>December 31,</b>	
	<b>2015</b>	<b>2014</b>

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Voyage revenues	\$ 587,715	\$ 501,013
Less: Voyage expenses	(131,878)	(154,143)
Add: Representative operating expenses for Bareboat charter (\$10,000 daily)	560	
Time charter equivalent revenues	\$ 456,397	\$ 346,870
Divided by: net earnings (operating) days	17,594	17,489
Average TCE per vessel per day	\$ 25,940	\$ 19,834

**Table of Contents****Voyage expenses**

	Total voyage expenses per category			Average daily voyage expenses per vessel		
	Year ended		% increase/ (decrease)	Year ended		% increase/ (decrease)
	December 31,			December 31,		
	2015	2014	2015	2014		
U.S.\$ million	U.S.\$ million	U.S.\$	U.S.\$			
Bunkering expenses	65.3	93.9	(30.5)%	8,392	14,290	(41.3)%
Port and other expenses	43.8	41.4	5.8%	5,635	6,304	(10.6)%
Commissions	22.7	18.8	20.7%	2,921	2,864	2.0%
Total voyage expenses	131.8	154.1	(14.5)%	16,948	23,458	(27.8)%

**Days on spot and Contract of  
Affreightment (COA) employment**

7,781	6,571	18.4%
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Voyage expenses include port charges, agents fees, canal dues and bunker (fuel) costs relating to spot charters or contract of affreightment. These voyage expenses are borne by the Company unless the vessel is on time-charter or operating in a pool, in which case they are borne by the charterer or by the pool operators. As from the first quarter of 2015, commissions on revenue are included in voyage expenses, in order to be consistent with and comparable to other reporting entities within the peer group of tanker companies. They are borne by the Company for all types of charter. Voyage expenses were \$131.8 million during 2015 compared to \$154.1 million during the prior year, a 14.5% decrease. The total operating days on spot charters and contracts of affreightment totaled 7,781 days in 2015 compared to 6,571 days in 2014. Voyage expenses are highly dependent on the voyage patterns followed and size of vessels employed on spot charter or contract of affreightment. In 2015, the decrease in voyage expenses was primarily due to a 30.5% decrease in the bunkering expenses due to fall in the bunker prices by 45.5%, which is off-set by an increase of 38.5% in the volume of bunker purchases, as a result of the increased days the vessels were operating in types of employment bearing voyage expenses. Also, during 2015, the increase in the number of days the vessels operated on spot and COA employment bearing voyage expenses resulted in an increase in port expenses. However, on a per relevant vessel basis their average daily cost decreased by 10.6%.

Commissions in 2015 totaled \$22.7 million compared to \$18.8 million in 2014, a 20.7% increase. Commissions were 3.9% of revenue from vessels in 2015 compared to 3.8% in 2014. The increase in total commission charges relates mainly to the increase in revenue and partly to the increase in the number of days our vessels participated in spot voyages in 2015 compared to 2014.

**Vessel operating expenses**

	Operating expenses per category			Average daily operating expenses per vessel		
	2015		% increase/ (decrease)	2015		% increase/ (decrease)
	2014			2014		
	U.S.\$ million	U.S.\$ million	U.S.\$	U.S.\$		

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Crew expenses	79.6	85.7	(7.1)%	4,447	4,788	(7.1)%
Insurances	15.2	15.6	(2.6)%	847	874	(3.1)%
Repairs and maintenance, and spares	20.7	18.7	10.7%	1,157	1,044	10.8%
Stores	8.8	9.1	(3.3)%	492	506	(2.8)%
Lubricants	6.8	6.4	6.3%	379	360	5.3%
Other (quality and safety, taxes, registration fees, communications)	11.1	11.8	(5.9)%	618	662	(6.7)%
Foreign currency gains	(0.1)	(0.4)	(75)%	(7)	(25)	(72)%
<b>Total operating expenses</b>	<b>142.1</b>	<b>146.9</b>	<b>(3.3)%</b>	<b>7,933</b>	<b>8,209</b>	<b>(3.4)%</b>
<i>Earnings capacity days excluding vessel on bareboat charter</i>				<i>17,914</i>	<i>17,895</i>	

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Vessel operating expenses include crew costs, insurances, repairs and maintenance, spares, stores, lubricants, quality and safety costs and other expenses such as tonnage tax, registration fees and communication costs. As from January 1, 2015, foreign currency gains or losses, previously shown as a separate line item in the consolidated statement of comprehensive income / (loss), are included in the operating expenses line item in order to be consistent with and comparable to other reporting entities within the peer group of tanker companies. Total operating costs were \$142.1 million during 2015, compared to \$146.9 million during 2014, a decrease of 3.3%, primarily due to the appreciation of the US dollar against the Euro and the disposal of the 2002-built suezmax tanker *Triathlon* and the 2004-built handysize product carrier *Delphi* in July, which was partly offset with the acquisition of a 2009-built suezmax tanker *Pentathlon* in November, as well as the VLCC *Millennium* entering a bareboat charter in November.

The exchange rate of the U.S. dollar against the Euro saw a 16.4% strengthening of the dollar between 2015 and 2014. The fluctuations in the U.S. dollar/Euro exchange rate mainly impact crew costs, as most of the Company's crew expenses, relating mainly to Greek vessel officers, are paid in Euro. As a result, crew costs decreased by 7.1%. The dry-docking activity in every year affects repairs and maintenance expenses as certain works performed during dry-dockings that do not qualify for capitalization are expensed. In 2015, nine dry-dockings were performed compared to eight dry-dockings in 2014. Apart from the repairs performed during dry-dockings, many repairs which included the replacement with expensive spare parts were performed in a number of vessels during 2015 increasing the overall cost. All other categories of operating expenses remained approximately at the same levels in 2015.

Average operating expenses per ship per day for the fleet decreased to \$7,933 for 2015 from \$8,209 in 2014. This was partly due to the decrease in overall operating costs described above and to the disposal of older vessels which due to their age bear higher daily operating costs which impact the average daily operating costs per vessel of the fleet.

**Depreciation and Amortization of deferred charges**

As from January 1, 2015 depreciation and amortization of deferred dry-docking costs are combined in one line item in order to be consistent with and comparable to other reporting entities within the peer group of tanker companies. Prior year comparable figures have been amended accordingly. Depreciation and amortization charges totaled \$105.9 million in 2015 compared to \$102.9 million in 2014, a 3.0% increase.

Depreciation amounted to \$99.6 million in 2015 compared to \$97.9 million during 2014, an increase of \$1.7 million, or 1.7%. The increase is due to addition of the two suezmax tankers *Eurovision* and *Euro* in June and July 2014 respectively and the suezmax tanker *Pentathlon* in November 2015. The impact on depreciation of these acquisitions is offset by the sale of the suezmax *Triathlon* and handysize product carrier *Delphi* in July 2015.

We amortize the cost of dry-dockings related to classification society surveys over the period to the next dry-docking, and this amortization is included as part of the normal costs we incur in connection with the operation of our vessels. During 2015, amortization of deferred dry-docking costs was \$6.3 million compared to \$5.0 million in 2014, an increase of 26.0%. In 2015, nine vessels undertook dry-docking compared to eight vessels in 2014. In addition, the immediate write-off of \$0.9 million deferred charges relating to the product carrier *Delphi* when accounted for as held for sales at June 30, 2015, contributed to the increase.

**General and administrative expenses**

As from January 1, 2015, Management fees, administrative expenses, and Management incentive award are combined in one line item in order to be consistent with and comparable to other reporting entities within the peer group of tanker companies.



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Management fees, including those paid to third-party managers, totaled \$16.6 million during 2015, compared to \$16.5 million in 2014, a 0.6% increase due to the addition of the suezmaxes *Euro* and *Eurovision* in mid-2014 and *Pentathlon* in November, 2015, offset by the sale of the two vessels in the early part of the third quarter 2015.

The Company pays to Tsakos Energy Management fixed fees per vessel under a management agreement. The fee includes compensation for services that cover both the management of the individual vessels and of the enterprise as a whole. According to the management agreement, there is a prorated adjustment if at the beginning of the year the Euro has appreciated by 10% or more against the U.S. Dollar since January 1, 2007, and an increase each year by a percentage figure reflecting 12 month Euribor, if both parties agree. There was no increase in management fees payable to the management company in 2014 and 2015. In 2015, all the vessels in the fleet have been managed by TCM, apart from the LNG carrier *Neo Energy*, the VLCC *Millennium* and the suezmax *Eurochampion 2004*, which have been managed by third-party managers. Monthly management fees for operating conventional vessels are \$27,500 per month, since January 1, 2012. The monthly fee relating to vessels chartered-in or chartered-out on a bare-boat basis or for vessels under construction is \$20,400. Management fees for *Neo Energy* are \$35,833, of which \$10,000 are payable to the management company and \$25,833 to the third-party manager. Management fees for the DP2 suezmax shuttle tankers are \$35,000 per month. Management fees for *Millennium* were \$27,500 per month, of which \$13,940 were payable to a third-party manager until November 5, 2015 when the vessel entered a bare-boat charter. Management fees for *Eurochampion 2004* are \$27,500 per month, of which \$12,000 are payable to a third party manager. Management fees paid relating to vessels under construction are capitalized as part of the vessels' costs.

General and administrative expenses consist primarily of professional fees, investor relations, office supplies, advertising costs, directors' liability insurance, directors' fees and reimbursement of our directors' and officers' travel-related expenses. General and administrative expenses in 2015 totaled \$4.1 million compared to \$4.4 million in 2014, a 6.8% reduction mainly due to reduced listing fees.

Total general and administrative expenses plus management fees paid to Tsakos Energy Management, the management incentive award, any special awards, (described below under Management Incentive Award) and stock compensation expense, together represent the overhead of the Company. On a per vessel basis, daily overhead costs were \$1,212 in 2015 compared to \$1,175 in 2014, a 3.2% increase being mainly due to the management incentive award approved in May 2015 (none in 2014).

### **Management incentive award**

Following the 2014 restoration of profitability, the Board of Directors decided to reward the management company with an award of \$1.1 million based on various criteria included in a new management incentive award program, approved by the Board of Directors in May 2015, which is included in General and administrative expenses in the 2015 consolidated statement of comprehensive income / (loss). There was no incentive award based on 2015 profitability accounted for within 2015. An award of \$0.4 million was granted to Tsakos Energy Management in relation to services provided towards public offerings during 2015, which was included as a deduction of additional paid in capital in the accompanying Consolidated Financial Statements.

There was no management incentive award in 2014. However, a special award totaling \$0.9 million was granted to Tsakos Energy Management in relation to services provided towards public offerings during 2014, which was included as a deduction of additional paid in capital in the accompanying Consolidated Financial Statements.

### **Stock compensation expense**

There was no stock compensation award in 2015. In 2014 stock compensation expense amounted to \$0.1 million, representing 20,000 RSU s granted and vested in July 2014. The valuation of RSUs which are granted and vested immediately is based on the share price at that date.



**Table of Contents****Gain on sale of vessels**

In July, 2015, the suezmax tanker *Triathlon* and product carrier *Delphi* were sold for combined net proceeds of \$42.8 million resulting in a combined net gain of \$2.1 million and freeing cash totaling \$19.6 million after the prepayment of related loans. There were no vessel sales during 2014.

**Vessel impairment charge**

At December 31, 2015, despite the fact that vessel values have improved from their historically low levels in 2013 and 2012, 33 of our vessels had carrying values in excess of market values. Apart from one VLCC, the remainder of our fleet is for the most part young and in all these cases the vessels are expected to generate considerably more cash during their remaining expected lives than their carrying values as at December 31, 2015. The Company's cash flow tests per vessel for assessing whether an impairment charge was required did not indicate that such an impairment charge was required for any vessel of the fleet at December 31, 2015 and 2014.

**Operating income**

For 2015, income from vessel operations was \$188.1 million compared to \$76.0 million, an increase of 147.3%.

**Interest and finance costs, net**

	<b>2015</b>	<b>2014</b>
	<b>\$ million</b>	<b>\$ million</b>
Loan interest expense	29.2	31.4
Interest rate swap cash settlements hedging	2.8	2.0
Less: Interest capitalized	(3.4)	(2.4)
Interest expense, net	28.6	31.0
Interest rate swap cash settlements non-hedging	2.2	3.2
Bunkers non-hedging instruments cash settlements	8.8	2.2
Change in fair value of non-hedging bunker instruments	(6.9)	7.0
Amortization of deferred loss on de-designated interest rate swap	0.0	0.2
Change in fair value of non-hedging interest rate swaps	(2.2)	(2.0)
Amortization of loan expenses	1.3	1.2
Bank loan charges	0.1	0.3
Gain on the prepayment of a loan, net	(3.2)	(0.0)
Other finance costs	1.3	0.0
Net total	30.0	43.1

Interest and finance costs, net, were \$30.0 million for 2015 compared to \$43.1 million for 2014, a 30.3% decrease. Loan interest, excluding payment of swap interest, decreased to \$29.2 million from \$31.4 million, a 7.0% decrease mainly due to the decrease in margins as a result of the expiry of the waivers in mid-2014 and the return to compliance with loan covenants. Cash settlements on both hedging and non-hedging interest rate swaps, based on the difference between fixed payments and variable 6-month LIBOR, decreased to \$5.0 million from \$5.2 million, as one

swap expired in 2014.

The average loan financing cost in 2015, including the impact of all interest rate swap cash settlements, was 2.5% compared to 2.6%, for 2014. Capitalized interest, which is based on expenditures incurred to date on vessels under construction, was \$3.4 million in 2015, compared to \$2.4 million in 2014, the increase being due to the extra vessels under construction in 2015.

## **Table of Contents**

The remaining deferred loss of \$0.2 million from the de-designation of an interest rate swap that became ineffective in 2010 was fully amortized in 2014.

There was a positive movement in the fair value (mark-to-market) of the non-hedging interest rate swaps in 2015 of \$2.2 million compared to a positive movement of \$2.0 million in 2014.

In 2015, other finance costs include a charge of \$1.3 million finance project costs which were expensed as they would have to be repeated if the project to which they relate actually occurs.

As of December 31, 2014, the Company held seven bunker swap agreements in order to cover its exposure to bunker price fluctuations associated with the consumption of bunkers by its vessels. The fair values of these financial instruments as of December 31, 2014, were \$9.2 million (negative). As of December 31, 2015 these bunker swap agreements expired.

At December 31, 2014, the Company held three bunker put option agreements in order to reduce the losses of the bunker swap agreements, which expired concurrently with the swaps agreements at the end of 2015. The value of those put options at December 31, 2014 was \$2.4 million (positive). The change in their fair value during 2015 was \$2.4 million (negative).

During 2015, the Company entered into seventeen bunker call option agreements at different strike levels, covering the fourth quarter of 2015 and 2016 and 2017 years. The premium paid for all the call options was \$1,414. During 2015, five call options were expired. The fair market value of the remaining twelve options at December 31, 2015, amounted to \$0.2 million.

The changes in their fair values during 2015 and 2014 amounting to \$6.9 million (positive) and \$7.0 million (negative) respectively have been included in Change in fair value of non-hedging bunker instruments in the table above, as such agreements do not meet the hedging criteria.

Amortization of loan expenses was \$1.3 million in 2015 compared to \$1.2 million in 2014. Other bank charges amounted to \$0.1 million in 2015 and \$0.3 million in 2014.

## **Interest income**

For 2015, interest income amounted to \$0.2 million compared to \$0.5 million in 2014. The decrease is due to lower interest rates in 2015 compared to 2014. There was no investment income or loss either years.

## **Non-controlling interest**

Net income attributable to the non-controlling interest (49%) in the subsidiary which owns the companies owning the vessels *Maya* and *Inca* amounted to \$0.2 million in 2015 and \$0.2 million in 2014.

## **Net income attributable to Tsakos Energy Navigation Limited**

As a result of the foregoing, net income attributable to Tsakos Energy Navigation Limited for 2015 was \$158.2 million, or \$1.69 per share basic and diluted, taking into account the cumulative dividend of \$13.4 million on our preferred shares, versus net income of \$33.5 million, or \$0.32 per share basic and diluted, taking into account the cumulative dividend of \$8.4 million on our preferred shares, for 2014.



**Table of Contents****Year ended December 31, 2014 versus year ended December 31, 2013****Voyage revenues**

Voyage revenues earned in 2014 and 2013 per charter category were as follows:

	2014		2013	
	\$ million	% of total	\$ million	% of total
Time charter-bareboat			5.4	1%
Time charter-fixed rate	164.0	33%	143.8	34%
Time charter-variable rate (profit share)	63.4	13%	70.5	17%
Pool arrangement	6.9	1%	5.3	1%
Voyage charter-contract of affreightment	29.7	6%	7.0	2%
Voyage charter-spot market	237.0	47%	186.4	45%
<b>Total voyage revenue</b>	<b>501.0</b>	<b>100%</b>	<b>418.4</b>	<b>100%</b>

Revenue from vessels amounted to \$501.0 million during the year ended December 31, 2014 compared to \$418.4 million during the year ended December 31, 2013, a 19.8% increase. There was an average of 49.0 vessels operating in 2014 compared to an average of 47.5 vessels in 2013, the increase relating to the acquisition of the suezmaxes *Eurovision* and *Euro* in mid-2014. Based on the total days that the vessels were actually employed as a percentage of the days that we owned the vessels, the fleet enjoyed 97.7% employment compared to 97.8% in the previous year, the lost time being mainly due to the eight dry-dockings performed during the year, while in 2013 there were seven dry-dockings.

Market conditions for tankers improved considerably in 2014, especially in the latter part of the year, due to restricted availability of vessels and falling oil prices, which significantly and positively impacted the crude carrying sector especially, but also contributed to an increase in rates for product carriers. Traders and consuming countries, either speculatively or strategically, stockpiled crude oil in onshore storage facilities or offshore in tankers, removing from the spot trade over twenty VLCCs which were used as floating storage, thereby increasing the demand for remaining crude carriers. The Company had more vessel days employed on spot and period employment with variable rates in 2014 compared to 2013, enabling the fleet to take advantage of the improved freight rates. The average time charter equivalent rate per vessel achieved for the year 2014 was higher by 17.0% at \$19,834 per day compared to \$16,957 per day for the previous year. The increase is mainly due to improvement in the freight rates as a result of decreasing oil prices and the resulting increase in oil demand, a more balanced supply of vessels due to limited ordering of new crude carriers in the preceding years, and seasonal winter factors in the beginning and end of the year. Our aframax tankers, which were trading mostly on spot charters during the year, had the highest increase in their time charter equivalent rate by 55% over the preceding year. Our suezmax tankers, which were trading mostly on spot and on time charter with profit sharing arrangements earned a time charter equivalent higher by 23% over the prior year. The introduction of the two suezmax DP2 shuttle tankers in mid-2013, which operated for a full year in 2014, and the addition of the suezmaxes *Eurovision* and *Euro* in 2014 positively affected our gross revenue.

**Table of Contents****Voyage expenses**

	Total voyage expenses per category			Average daily voyage expenses per vessel		
	Year ended		% increase/ (decrease)	Year ended		% increase/ (decrease)
	December 31,			December 31,		
	2014	2013	2014	2013		
U.S.\$ million	U.S.\$ million	U.S.\$	U.S.\$			
Bunkering expenses	93.9	77.1	21.9%	14,290	13,578	5.2%
Port and other expenses	41.4	39.9	3.8%	6,304	7,035	(10.4)%
Commissions	18.8	16.0	17.5%	2,864	2,823	1.4%
Total voyage expenses	154.1	133.0	15.9%	23,458	23,436	0.1%

*Days on spot and Contract of Affreightment (COA) employment* 6,571 5,675 15.8%

Voyage expenses include port charges, agents fees, canal dues and bunker (fuel) costs relating to spot charters or contract of affreightment. Voyage expenses were \$154.1 million during 2014 compared to \$133 million during the prior year, a 15.9% increase. The total operating days on spot charters and contracts of affreightment totaled 6,571 days in 2014 compared to 5,675 days in 2013. Voyage expenses are highly dependent on the voyage patterns followed and size of vessels employed on spot charter or contract of affreightment. In 2014, the increase in voyage expenses was primarily due to a 15.8% increase in the days the vessels operated on spot and COA employment bearing voyage expenses, resulting in an increase of 21.4% in the volume of bunkers consumed, this was offset among other factors, by a 10.1% decrease in bunker prices paid between the two years. Also, during 2014, several vessels were chartered for long-haul voyages on routes which have developed significantly with the recent inaugurations of new refineries in the Middle East and elsewhere in Asia. The increase in the number of days the vessels operated on spot and COA employment bearing voyage expenses also resulted in an increase in port expenses. However, port and other expenses vary between different ports, so overall voyage expenses were also affected by which ports the vessels visited.

Commissions during 2014 amounted to \$18.8 million compared to \$16.0 million in 2013, a 17.5% increase. Commissions were 3.8% of revenue from vessels in both 2014 and 2013. The increase in total commission charges relates in part to the increased average number of vessels by 1.5 vessels in 2014 compared to 2013, and to additional vessels trading on spot voyages.

**Vessel operating expenses**

	Operating expenses per category			Average daily operating expenses per vessel		
	Year ended		% increase/ (decrease)	Year ended		% increase/ (decrease)
	December 31,			December 31,		
	2014	2013	2014	2013		
U.S.\$ million	U.S.\$ million	U.S.\$	U.S.\$			
Crew expenses	85.7	78.9	8.5%	4,788	4,610	3.9%
Insurances	15.6	14.4	8.7%	874	839	4.1%
Repairs and maintenance, and spares	18.7	14.6	27.9%	1,044	853	22.4%

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Stores	9.1	7.9	15.0%	506	460	10.1%
Lubricants	6.4	5.7	13.3%	360	332	8.4%
Other (quality and safety, taxes, registration fees, communications)	11.8	9.3	28.0%	662	540	22.5%
Foreign currency (gains)/loss	(0.4)	0.3	233.3%	(25)	17	247.1%
<b>Total operating expenses</b>	146.9	131.1	12.1%	8,209	7,651	7.3%
<i>Earnings capacity days excluding vessel on bareboat charter</i>				17,895	17,128	

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Vessel operating expenses include crew costs, insurances, repairs and maintenance, spares, stores, lubricants, quality and safety costs and other expenses such as tonnage tax, registration fees and communication costs. Total operating costs were \$146.9 million during 2014, compared to \$131.1 million during 2013, an increase of 12.1%, primarily due to the addition of the two suezmaxes *Eurovision* and *Euro* in June and July 2014 respectively, the operation of the two shuttle tankers *Brasil 2014* and *Rio 2016* during the full year, as well as the VLCC *Millennium* coming off bareboat charter during 2013 and therefore bearing operating expenses throughout 2014.

Crew costs increased as a result of the increase in the average number of vessels during the year and increased crew income taxes. The dry-docking activity in every year affects repairs and maintenance expenses as certain works performed during dry-dockings that do not qualify for capitalization are expensed. In 2014, eight dry-dockings were performed compared to seven dry-dockings in 2013. Apart from the repairs performed during dry-dockings, many repairs which included the replacement with expensive spare parts were performed in a number of vessels during 2014 increasing the overall cost. In addition, the timing of the ordering of stores and spare parts had a negative effect on our operating expenses. Lubricants have increased due to the higher number of vessels in the year as well as the type of vessels. The drop in oil prices in the latter part of the year had not been reflected in the prices of lubricants contracted at an earlier date. Insurances increased by \$1.2 million, mainly due to increases in insurance premiums and extra vessels. The expenses included under the category other were higher by 28.0% in 2014 compared to 2013 mainly due to increased vessel tonnage taxes, resulting from new Greek legislation. As a percentage of voyage revenues, vessel operating expenses were 29.3% in 2014 compared to 31.3% in 2013.

Average operating expenses per ship per day for the fleet increased to \$8,209 for 2014 from \$7,651 in 2013. This was partly due to the increase in overall operating costs described above and to the addition of vessels which due to their size and complexity bear higher daily operating costs which impact the average daily operating costs per vessel of the fleet. Approximately 46% of operating expenses (27% of total costs) incurred are in Euro, mainly relating to vessel officers. The average exchange rate of the US dollar against the Euro remained unchanged between 2014 and 2013 and had minimal effect on our operating expenses. However, the US dollar strengthened significantly towards the end of 2014 and in the beginning of 2015, which if it continues throughout 2015, will have a positive impact on our operating expenses for 2015 (a 20% strengthening of the US dollar against the Euro would have a positive effect on our operating expenses of approximately \$12.3 million in 2014). The creation of TCM in 2010, between Tsakos Shipping and Columbia Shipmanagement Ltd., resulted in increased purchasing power based on the combined fleets managed by TCM and Columbia. This provided considerable savings in the purchase of stores, spares and lubricants both in 2014 and 2013.

**Depreciation and Amortization of deferred charges**

Depreciation was \$97.9 million during 2014 compared to \$95.3 million during 2013, an increase of \$2.6 million, or 2.7%. The increase is due to addition of the two suezmax DP2 shuttle tankers *Rio 2016* and *Brasil 2014* delivered in March and April 2013 respectively, and operating throughout 2014, plus the addition of the suezmax tankers *Eurovision* and *Euro* in June and July 2014 respectively.

We amortize the cost of dry-dockings related to classification society surveys over the period to the next dry-docking, and this amortization is included as part of the normal costs we incur in connection with the operation of our vessels. During 2014, amortization of deferred dry-docking costs was \$5.0 million compared to \$5.1 million during 2013, a decrease of 2.2%. In 2014, eight vessels performed dry-docking compared to seven vessels in 2013. The increase in amortization was due to increased deferred charges, offset by a change in estimation in calculating amortization, as described above.

**General and administrative expenses**



General and administrative expenses consist primarily of management fees, incentive awards and administrative expenses such as professional fees, investor relations, office supplies, advertising costs, directors liability

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insurance, directors' fees and reimbursement of our directors' and officers' travel-related expenses. General and administrative expenses were \$4.4 million for both 2014 and 2013.

Total general and administrative expenses plus management fees paid to Tsakos Energy Management, the incentive award (none in 2014 and 2013), any special awards (described below under Management Incentive Award ) and stock compensation expense, together represent the overhead of the Company. On a per vessel basis, daily overhead costs were \$1,175 in 2014 compared to \$1,196 in 2013, the decrease being mainly due to the extra vessels reducing the daily average per vessel.

The Company pays to Tsakos Energy Management fixed fees per vessel under a management agreement. The fee includes compensation for services that cover both the management of the individual vessels and of the enterprise as a whole. According to the management agreement, there is a prorated adjustment if at the beginning of the year the Euro has appreciated by 10% or more against the U.S. Dollar since January 1, 2007, and an increase each year by a percentage figure reflecting 12 month Euribor, if both parties agree.

From January 1, 2012, vessel monthly fees for operating vessels are \$27,500, for vessels under construction the monthly fee is \$20,400. On April 1, 2012, the monthly fee for the LNG carrier increased from \$32,000 payable since the beginning of 2011 to \$35,000, of which \$10,000 is paid to the management company and \$25,000 to a third party manager. From January 1, 2014, for the LNG carrier monthly management fees payable to third party managers are \$25,833, in addition to the \$10,000 paid to Tsakos Energy Management. Monthly management fees for the suezmax DP2 shuttle tankers are \$35,000 per vessel. Since the expiry of the bareboat charter of the VLCC *Millennium* on July 30, 2013, management fees for this vessel are \$27,500 per month, of which \$13,700 are payable to a third party manager. Management fees for the suezmax *Eurochampion 2004* are \$27,500 per month, of which, effective September 22, 2013, \$12,000 are payable to a third party manager.

Management fees totaled \$16.5 million for the year ended December 31, 2014, compared to \$15.9 million for the year ended December 31, 2013. The increase is due to the addition of the two suezmax DP2 shuttle tankers *Rio 2016* and *Brasil 2014* in March and April 2013 respectively, operating throughout 2014, and the addition of the suezmax tankers *Eurovision* and *Euro* in June and July 2014 respectively. Total fees include fees paid directly to the third-party ship manager in the case of the LNG carrier, the suezmax *Eurochampion 2004* and the VLCC *Millennium*. Fees paid relating to vessels under construction are capitalized as part of the vessels' costs.

**Management incentive award**

There was no management incentive award in 2014 and 2013. However, special awards totaling \$0.9 million and \$0.5 million were granted to Tsakos Energy Management in relation to services provided towards public offerings during 2014 and 2013, respectively. These awards have been included as a deduction of additional paid in capital in the accompanying Consolidated Financial Statements.

**Stock compensation expense**

In 2014 stock compensation expense amounted to \$0.1 million, representing 20,000 RSUs granted and vested in July 2014. In 2013 stock compensation expense of \$0.5 million represented the cost of the 96,000 Restricted Share Units (RSUs) granted in October 2013, which vested immediately. The valuation of RSUs which are granted and vested immediately is based on the share price at that date.

**Gain (loss) on sale of vessels**

There were no vessel sales during 2014 and 2013.

**Vessel impairment charge**

The Company's cash flow tests per vessel for assessing whether an impairment charge was required did not indicate that such an impairment charge was required for any vessel of the fleet at December 31, 2014. At December 31, 2013, it was determined that the carrying value of the vessels *Silia T*, *Triathlon*, *Delphi* and

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*Millennium* were in excess of their estimated fair market values and that the vessels would not generate adequate cash flow over their remaining life in excess of their carrying value. As a result, the carrying values of these four vessels, totaling \$123.5 million, were written down to \$95.3 million, based on level 2 inputs of the fair value hierarchy, as determined by management taking into consideration valuations from independent marine valuers.

At December 31, 2014, despite the fact that vessel values have improved from their historically low levels in 2013 and 2012, 36 of our vessels had carrying values in excess of market values. Apart from the vessels impaired in the prior years, which were the oldest in our fleet, the remainder of our fleet is for the most part young and in all these cases the vessels are expected to generate considerably more cash during their remaining expected lives than their carrying values as at December 31, 2014.

**Operating loss/income**

For 2014, income from vessel operations was \$76.0 million compared to \$4.9 million including an impairment charge of \$28.3 million for 2013.

**Interest and finance costs, net**

	<b>2014</b>	<b>2013</b>
	<b>\$ million</b>	<b>\$ million</b>
Loan interest expense	31.4	35.8
Accrued interest on hedging swaps reclassified from AOCI	(0.0)	(0.5)
Interest rate swap cash settlements hedging	2.0	6.4
Less: Interest capitalized	(2.4)	(1.9)
<b>Interest expense, net</b>	<b>31.0</b>	<b>39.8</b>
Interest rate swap cash settlements non-hedging	3.2	5.0
Bunkers non-hedging instruments cash settlements	2.2	(0.2)
Change in fair value of non-hedging bunker swaps	7.0	(0.1)
Amortization of deferred loss on de-designated interest rate swap	0.2	0.9
Change in fair value of non-hedging interest rate swaps	(2.0)	(6.0)
Amortization of loan expenses	1.2	1.1
Bank loan charges	0.3	0.4
<b>Net total</b>	<b>43.1</b>	<b>40.9</b>

Interest and finance costs, net, were \$43.1 million for 2014 compared to \$40.9 million for 2013, a 5.4% increase. Loan interest, excluding payment of swap interest, decreased to \$31.4 million from \$35.8 million, a 12.3% decrease mainly due to the decrease in margins as a result of the expiry of the waivers in mid-2014 and the return to compliance with loan covenants. In addition, total weighted average bank loans outstanding were approximately \$1,388 million for 2014 compared to \$1,422 million for 2013. Cash settlements on both hedging and non-hedging interest rate swaps, based on the difference between fixed payments and variable 6-month LIBOR, decreased to \$5.2 million from \$11.4 million, as one swap expired in 2014 and two swaps expired in 2013. The average loan financing cost in 2014, including the impact of all interest rate swap cash settlements, was 2.6% compared to 3.2%, for 2013. Capitalized

interest, which is based on expenditures incurred to date on vessels under construction, was \$2.4 million in 2014, compared to \$1.9 million in 2013, the increase being due to the extra vessels under construction in 2014.

There was a positive movement in the fair value (mark-to-market) of the non-hedging interest rate swaps in 2014 of \$2.0 million compared to a positive movement of \$6.0 million in 2013.

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The remaining deferred loss of \$0.2 from the de-designation of an interest rate swap that became ineffective in 2010 was fully amortized in 2014. Such amortization amounted to \$0.9 million in 2013.

The Company entered into swap arrangements relating to bunker (fuel) costs, which do not qualify as hedging instruments. In 2014, the Company paid \$1.0 million on such swaps in realized losses compared to receipts of \$0.2 million in 2013. Unrealized mark-to-market valuation losses were \$9.4 million in 2014, compared to \$0.1 million gains in 2013, such losses being a result of the unexpected sharp fall in oil prices in the latter part of 2014. As the hedges expire during 2015, no further losses are expected to be recorded in 2015. In 2014, the Company entered into three put options relating to bunker costs, primarily to cap further valuation losses, which do not qualify for hedging. The premium paid for the acquisition of those options was \$1.2 million and the unrealized mark-to market valuation gains were \$2.4 million in 2014.

Amortization of loan expenses was \$1.2 million in 2014 compared to \$1.1 million in 2013. Other bank charges amounted to \$0.3 million in 2014 and \$0.4 million in 2013.

## **Interest and investment income**

For 2014, interest and investment income amounted to \$0.5 million compared to \$0.4 million in 2013. The increase is due to higher average cash balances in 2014 compared to 2013. There was no investment income or loss during 2014, while during 2013 there was a \$0.1 million realized loss on sale of marketable securities.

## **Non-controlling interest**

Net income attributable to the non-controlling interest (49%) in the subsidiary which owns the companies owning the vessels *Maya* and *Inca* amounted to \$0.2 million in 2014 compared to a \$1.1 million loss attributable to non-controlling interest in 2013. The increase is due to lower repairs and maintenance expenses in 2014 as both vessels performed their scheduled special surveys in 2013 incurring high repairs and maintenance expenses. Finance costs were also lower as a result of the expiration of the waivers relating to a loan.

## **Net income attributable to Tsakos Energy Navigation Limited**

As a result of the foregoing, net income attributable to Tsakos Energy Navigation Limited for 2014 was \$33.5 million, or \$0.32 per share basic and diluted, taking into account the cumulative dividend of \$8.4 million on our preferred shares, versus a net loss of \$37.5 million, or \$0.73 per share basic and diluted, taking into account the cumulative dividend of \$3.7 million on our preferred shares, for 2013.

## **Liquidity and Capital Resources**

Our liquidity requirements relate to servicing our debt, funding the equity portion of investments in vessels, funding working capital and controlling fluctuations in cash flow. In addition, our new building commitments, other expected capital expenditures on dry-dockings and vessel acquisitions, which in total equaled \$225.9 million in 2015, \$260.4 million in 2014 and \$151.7 million in 2013, will again require us to expend cash in 2016 and in future years. Net cash flow generated by operations is our main source of liquidity. Apart from the possibility of raising further funds through the capital markets, additional sources of cash include proceeds from asset sales and borrowings, although all borrowing arrangements to date have related to the acquisition of specific vessels.

We believe, given our current cash holdings and the number of vessels we have on time charter, that if market conditions remain relatively stable throughout 2016, our financial resources, including the cash expected to be

generated within the year, will be sufficient to meet our liquidity and working capital needs through January 1, 2017, taking into account our existing capital commitments and debt service requirements. If market conditions worsen significantly, then our cash resources may decline to a level that may put at risk our ability to service timely our debt and capital expenditure commitments. In order to avoid such an eventuality, management would expect to be able to raise extra capital through the alternative sources described above.

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Working capital (non-restricted net current assets) amounted to a positive \$35.0 million at December 31, 2015 compared to a negative \$49.8 million at December 31, 2014. The improvement is mainly due to increased cash.

Current assets increased to \$452.2 million at December 31, 2015 from \$289.8 million at December 31, 2014 mainly due to increased cash in non-restricted cash holdings by \$87.6 million generated mainly by higher freight rates achieved by our vessels and a preferred stock offering in April 2015 under which the Company raised \$81.8 million net of underwriter's discount and other expenses. Restricted cash balances increased by \$3.0 million mainly due to the deposit of \$6.4 million in a restricted account in respect of the deposit for the purchase of the *Decathlon* in February 2016, offset by the release of \$2.7 million on the expiry of the margin call relating to the bunker hedging swaps. Accounts receivable increased to \$45.5 million from \$42.0 million at the end of 2015. In addition, an amount of \$67.3 million was transferred to current assets relating to the vessels *Euronike* and *Eurochampion 2004*, held for sale at December 31, 2015.

Current liabilities increased to \$401.9 million at December 31, 2015 from \$327.3 million at December 31, 2014, mainly due to the increase of the current portion of long term debt by \$91.1 million. At December 31, 2015, the Company is compliant with the value-to-loan covenant contained in all our loan agreements while at the end of 2014 an amount of \$2.5 million relating to one loan which was non-compliant, was reclassified to short term liabilities. Payables increased by just \$0.2 million. The current portion of financial instruments amounted to \$5.7 million and \$15.4 million, respectively, at December 31, 2015 and 2014. The decrease is mainly due to the expiration of the bunker hedging swaps during 2015.

Net cash provided by operating activities was \$234.4 million during 2015 compared to \$107.0 million in the previous year, a 119.1% increase. The increase is mainly due to significantly improved profitability with the increase of net income by \$124.7 million to \$158.4 million in 2015 from a net income of \$33.7 million in 2014. Expenditures for dry-dockings are deducted from cash generated by operating activities. Total expenditures during 2015 on dry-dockings amounted to \$8.4 million compared to \$6.1 million in 2014. In 2015, dry-docking was performed on the handymax product carriers *Aris*, *Apollon*, *Ajax*, *Afrodite*, *Artemis* and *Ariadne*, on the aframax *Sapporo Princess* and *Uraga Princess* and on the suezmax *Eurochampion 2004*, nine vessels in total. In 2014, dry-docking work was performed on the panamax *Salamina*, *World Harmony* and *Chantal*, on the aframax *Nippon Princess*, *Ise Princess* and *Asahi Princess* and on the handysize product carriers *Didimon* and *Delphi*, eight vessels in total. Expenditure was higher in 2015 due to the higher number of vessels that undertook dry-docking.

Net cash used in investing activities was \$174.8 million for 2015, compared to \$254.3 million for 2014. In 2015, we paid \$156.6 million as yard advances for vessels under construction and \$57.9 million for the acquisition of the suezmax tanker *Pentathlon* and \$3.0 million for additions and improvements on our existing fleet. In 2014, \$130.4 million was paid as yard installments for vessels under construction, \$121.6 million for the acquisition of the suezmaxes *Eurovision* and *Euro* and \$2.3 million for improvements on existing vessels.

At December 31, 2015, we had under construction one LNG carrier, nine aframax, one DP2 shuttle tanker, two LR1 panamax tankers and two VLCC crude carriers with total remaining payments of \$805.7 million, all of which we expect to be covered by new debt or additional sources of capital, as described above. Until April 5, 2016, the Company has agreed secured term bank loans, or obtained firm bank commitments for loans, for all the newbuildings under construction. In addition, a portion of \$4.5 million in yard installments paid for a previous shuttle tanker project and subsequently cancelled has been used against the contract price of the two LR1 panamax tankers (\$1.2 million) and against the contract price of the new shuttle tanker (\$1.65 million). The remaining \$1.65 million will be used against the contract price of any other vessel the Company may order from the yard in the future. The LNG carrier is expected to be delivered in the second quarter of 2016, the aframax are expected to be delivered at various dates between the second quarter of 2016 and the third quarter of 2017 and the LR1 tankers are expected to be delivered in



the third quarter of 2016 and the two VLCCs in the second and fourth quarter of 2016.

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In July 2015, the suezmax *Triathlon* and product carrier *Delphi* were sold for net proceeds totaling \$42.8 million, generating a net gain of \$2.1 million and releasing cash of \$19.6 million after the prepayment of related loans. In 2014 there were no vessel sales.

Net cash provided by financing activities in 2015 amounted to \$27.9 million compared to \$187.2 million in 2014. Proceeds from new bank loans in 2015 amounted to \$227.4 million compared to \$158.5 million in 2014. Repayments of debt amounted to \$242.4 million in 2015, which included \$48.3 million balloon repayments on the maturity of certain loans and \$69.7 million prepayments, compared to \$120.5 million scheduled repayments in 2014. Prepayments of debt totaled \$69.7 million, including \$23.2 million on the sale of vessels and \$46.5 million on the early redemption of a loan at a discount, which resulted in a net gain of \$3.2 million, included in net income.

On April 22, 2015, the Company completed an offering of 3,400,000 its 8.75% Series D perpetual preferred shares raising \$81.8 million, net of underwriting commissions and related expenses. On August 28, 2015, the Company paid dividends of \$0.72 per share each or \$2.5 million in total, on its 8.75% Series D Preferred Shares. Preferred share dividends on the Series D Preferred Shares are payable quarterly in arrears on the 28th day of February, May, August and November of each year, when, as and if declared by the Company's board of directors. On February 5, 2014, the Company completed an offering of 12,995,000 common shares at a price of \$6.65 per share. On April 29, 2014, the Company completed an offering of 11,000,000 common shares, at a price of \$7.30 per share and on May 22, 2014, the underwriters exercised their option to purchase 1,650,000 additional shares at the same price. The net proceeds from the sale of these common shares in the two common stock offerings, after deducting underwriting discounts and expenses relating to the offerings, was \$169.3 million.

The Company entered into a distribution agency agreement with a leading investment bank as manager, entered into on August 8, 2013, which provides that the Company may offer and sell from time to time of up to 4,000,000 common shares of the Company, par value \$1.00 per share, at market prices. During 2014, the Company issued 1,077,847 common shares under this distribution agency agreement for net proceeds of \$7.1 million. The agreement has been suspended since February 2014.

In 2015, dividends of \$0.06 per common share were paid in February, May, September and December. Total dividend payments to common shareholders in 2015, amounted to \$20.6 million, compared to \$12.6 million in 2014. In 2015, dividends of \$5.0 million were declared in 2014 and paid in February 2015. The dividend policy of the Company is to pay a dividend on a quarterly basis. However, the payment and the amount are subject to the discretion of our board of directors and depend, among other things, on available cash balances, anticipated cash needs, our results of operations, our financial condition, and any loan agreement restrictions binding us or our subsidiaries, as well as other relevant factors.

Dividends of \$0.50 per share for the 8.00% Series B Preferred Shares, were paid each on January 30, April 30, July 30 and October 30, 2015, totaling in aggregate \$4.0 million.

Dividends of \$0.5547 per share for the 8.875% Series C Preferred shares was paid each on January 30, April 30, July 30 and October 30, 2015, totaling in aggregate \$4.4 million.

Dividends of \$0.7231 and \$0.5469 per share for the 8.75% Series D Cumulative Redeemable Perpetual Preferred Shares, were paid on August 28, 2015 and November 25, 2015, respectively, totaling in aggregate \$4.3 million.

As of December 31, 2015, the Company was in full compliance with all the financial covenants contained within the terms of its Series B and C Preferred Shares.

Preferred share dividends on the Series B and C Preferred Shares are payable quarterly in arrears on the 30th day of January, April, July and October of each year, when, as and if declared by the Company's Board of Directors. Preferred share dividends on Series D Preferred Shares are payable quarterly in arrears on the 28<sup>th</sup> day of February, May, August and November of each year, when, as and if declared by the Board of Directors.

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From January 1, 2016 through March 31, 2016, we have repurchased an aggregate of 1,187,089 of our common shares at an average purchase price of \$5.68 per share for an aggregate purchase price of \$6,746,743, under our \$20.0 million program for repurchases of our common and preferred shares the resumption of which we announced on December 8, 2015.

From time to time and depending upon market conditions, we may consider various capital raising alternatives to finance the strategic growth and diversification of our fleet. Any such capital raising transactions may be at the Tsakos Energy Navigation Limited or subsidiary level, to which interests in certain vessels in our fleet and rights to receive related cash flows would be transferred, as well as other capital raising alternatives available to us at that particular time.

**Investment in Fleet and Related Expenses**

We operate in a capital-intensive industry requiring extensive investment in revenue-producing assets. As discussed previously in the section *Our Fleet*, we continue to have an active fleet development program resulting in a fleet of modern and young vessels with an average age of 8.6 years at March 31, 2016. We raise the funds for such investments in newbuildings mainly from borrowings and partly out of internally generated funds and equity issuance transactions. Newbuilding contracts generally provide for multiple staged payments of 10%, with the balance of the vessel purchase price paid upon delivery. In the case of the nine aframaxs, the two LR1 suezmax tankers, one shuttle tanker under construction, pre and post delivery financing has been arranged for part of the installment payments to the shipbuilding yard and for the last installment to the yard on delivery of the vessels. Also, we have received bank commitments for the delivery yard installments for the LNG carrier and the pre-delivery and post-delivery yard installments for the two VLCCs. Otherwise, for the equity portion of an investment in a newbuilding or a second-hand vessel, we generally pay from our own cash approximately 30% of the contract price. Repayment of the debt incurred to purchase the vessel is made from vessel operating cash flow, typically over four to twelve years, compared to the vessel's asset life of approximately 25 years (LNG carrier 40 years).

**Debt**

As is customary in our industry, we anticipate financing the majority of our commitments on the newbuildings with bank debt. Generally we raise 70% of the vessel purchase price with bank debt for a period of between six and twelve years (while the expected life of a tanker is 25 years and an LNG carrier is 40 years). For vessels for which we have secured long-term charters with first-class charterers, we would expect to raise up to 80% of the vessel purchase price with bank debt.

**Summary of Loan Movements Throughout 2015 (in \$ millions):**

Loan	Vessel	Balance at January 1, 2015	New Loans	Repaid	Gain on extinguishment of debt	Balance at December 31, 2015
Credit facility	<i>Silia T, Andes, Didimon, Amphitrite, Izumo Princess, Aegeas</i>	108.0	0	61.4	0	46.6
Credit facility	<i>Millennium, Triathlon, Eurochampion 2004, Euronike</i>	101.5	0	28.6	0	72.9

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Credit facility	<i>Archangel, Alaska, Arctic, Antarctic</i>	91.2	0	10.6	0	80.6
Credit facility	<i>Delphi, Byzantion, Bosporos</i>	59.0	0	11.9	0	47.1
Credit facility	<i>Artemis, Afrodite, Ariadne, Ajax, Apollon, Aris, Proteas Promitheas, Propontis</i>	211.0	0	20.0	0	191.0
10-year term loan	<i>Arion, Andromeda</i>	25.8	0	3.1	0	22.7
Credit facility	<i>Maya, Inca</i>	26.8	0	4.4	0	22.4
Credit facility	<i>Neo Energy</i>	82.5	0	5.0	0	77.5
10-year term loan	<i>Maria Princess, Nippon Princess</i>	55.2	0	5.5	0	49.7

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Loan	Vessel	Balance at January 1, 2015	New Loans	Repaid	Gain on extinguishment of debt	Balance at December 31, 2015
Credit facility	<i>Selecao, Socrates</i>	52.1	0	48.8	3.3	0
10-year term loan	<i>Ise Princess</i>	24.6	0	2.2	0	22.4
8-year term loan	<i>Asahi Princess</i>	26.7	0	2.7	0	24.0
12-year term loan	<i>Sapporo Princess</i>	28.8	0	2.5	0	26.3
10-year term loan	<i>Uraga Princess</i>	27.3	0	2.6	0	24.7
7-year term loan	<i>World Harmony, Chantal</i>	51.4	0	4.7	0	46.7
10-year term loan	<i>Selini</i>	31.1	0	3.2	0	27.9
8-year term loan	<i>Salamina</i>	31.7	0	2.6	0	29.1
10-year term loan	<i>Spyros K</i>	36.8	0	3.2	0	33.6
9-year term loan	<i>Dimitris P</i>	38.9	0	3.2	0	35.7
8-year term loan	<i>Rio 2016</i>	66.7	0	4.6	0	62.1
8-year term loan	<i>Brasil 2014</i>	66.2	0	4.9	0	61.3
7-year term loan	<i>Sakura Princess</i>	16.5	0	1.3	0	15.2
7-year term loan	<i>Eurovision</i>	42.0	0	2.8	0	39.2
6-year term loan	<i>Hulls 5010, 5011, 5012, 5013, 5014</i>	25.6	25.6	0	0	51.2
6-year term loan	<i>Euro</i>	39.0	0	2.6	0	36.4
7-year term loan	<i>Hull 5016</i>	5.2	0	0	0	5.2
6-year term loan	<i>Hulls 5015 and 5018</i>	10.3	5.2	0	0	15.5
6-year term loan	<i>Hull 5017</i>	5.2	0	0	0	5.2
19-month term loan	<i>LNG carrier Hull 2612</i>	31.2	21.0	0	0	52.2
5-year term loan	<i>Hull 3116</i>	0	16.4	0	0	16.4
7-year term loan	<i>Hull 3117</i>	0	11.7	0	0	11.7
8-year term loan	<i>Hull 7004</i>	0	9.8	0	0	9.8
6-year term loan	<i>Selecao, Socrates</i>	0	46.2	0	0	46.2
7-year term loan	<i>Pentathlon</i>	0	39.9	0	0	39.9
4.5-year term loan	<i>Silia T., Andes, Didimon</i>	0	51.6	0	0	51.6
<b>Total</b>		<b>1,418.3</b>	<b>227.4</b>	<b>242.4</b>	<b>3.3</b>	<b>1,400.1</b>

As a result of such financing activities, long-term debt decreased in 2015 by a net amount of \$18.2 million compared to a net decrease of \$38.0 million in 2014. The debt to capital (equity plus debt) ratio was 49.7% at December 31, 2015, or net of cash, 43.6%, and 54.6% at December 31, 2014 or, net of cash, 50.6%.

We have paid all of our scheduled loan installments and related loan and swap interest consistently without delay or omission. As a percentage of total liabilities against total assets at fair value, our consolidated leverage (a non-GAAP measure) as computed in accordance with our loan agreements at December 31, 2015 was 47.5%, below the original loan covenant maximum of 70%, which is applicable to all the above loans (except one) on a fleet and total liabilities basis. All the loan agreements also include a requirement for the value of the vessel or vessels secured against the related loan to be at least 120% (in three cases 125% and in two other cases 110%) of the outstanding associated debt at all times. As at December 31, 2015, the value-to-loan ratios were higher than these levels and were, therefore, in compliance with this covenant in those cases. As at December 31, 2014, in one term bank loan with an outstanding balance of \$31.7 million, due to a fall in tanker values, the value-to-loan ratio was slightly less than the required level and, therefore, we were in non-compliance with this covenant in that case, until August, 2015. We did not request a waiver for this covenant nor did the lender require additional security or prepayment of part of the loan so as to bring

it into compliance.

In the event of non-compliance with the value-to-loan ratio without obtaining waivers of these value-to-loan covenants and upon request from our lenders, we would have to either provide the lenders acceptable additional security with a net realizable value at least equal to the shortfall, or prepay an amount, beyond scheduled short-term repayments, that would cure the non-compliance. During the previous periods when, in certain cases, we were in non-compliance with loan covenants, none of our lenders requested prepayment or additional collateral, except when related to a vessel sale, nor did any declare an event of default under the loan terms, which we

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believe to be a result of our good relationships, the immaterial extent of non-compliance in most cases and the remedial action we had taken. However, if not remedied when requested, these non-compliances would have constituted events of default and could have resulted in the lenders requiring immediate repayment of the loans. In the above case, of only one minor non-compliance, for which adequate funds were available, there was no request to rectify the non-compliance.

At December 31, 2015 and 2014, we were compliant with the leverage ratio covenant contained in all of our bank loans. We do not expect to pay down the Company's loans in 2016 beyond the amounts that we have already classified as current liabilities. Upon an event of default, all the loan agreements, which are secured by mortgages on our vessels, include the right of lenders to accelerate repayments. All our loan agreements and our interest rate swap agreements also contain a cross-default provision that may be triggered by a default under one of our other loans. A cross-default provision means that a notice of default on one loan would result in a default on other agreements. Interest is usually payable at a variable rate, based on six-month LIBOR plus a margin. Interest rate swap instruments currently cover approximately 22% of the outstanding debt as of April 5, 2016. The expected coverage at the end of 2016 is estimated at 19% of expected outstanding debt. We review our hedging position relating to interest on a continuous basis and have regular discussions with banks with regards to terms for potential new instruments to hedge our interest.

**Off-Balance Sheet Arrangements**

None.

**Long-Term Contractual Obligations as of December 31, 2015 (in \$ millions) were:**

		Less than 1 year (2016)	1-3 years (2017-2018)	3-5 years (2019-2020)	More than 5 years (after January 1, 2021)
<b>Contractual Obligations</b>	<b>Total</b>				
Long-term debt obligations (excluding interest)	1,400.1	319.6	488.4	315.6	276.5
Interest on long-term debt obligations (including interest rate swap payments)(1)	115.3	33.7	50.5	25.9	5.2
Purchase Obligations (newbuildings)(2)	805.7	584.4	221.3		
Management Fees payable to Tsakos Energy Management (based on existing fleet plus contracted future deliveries as at December 31, 2015)	198.4	20.1	41.9	42.0	94.4
<b>Total</b>	<b>2,519.5</b>	<b>957.8</b>	<b>802.1</b>	<b>383.5</b>	<b>376.1</b>

(1) The amounts shown above for interest obligations include contractual fixed interest obligations and interest obligations for floating rate debt as at December 31, 2015 based on the amortization schedule for such debt and



the average interest rate as described in Item 11. Quantitative and Qualitative Disclosures About Market Risk. Derivative contracts and their implied average fixed rates are also included in the calculations.

- (2) The amounts shown above for purchase obligations (newbuildings) include amounts payable based on contracts agreed with shipbuilding yards.

**Table of Contents****Item 6. Directors, Senior Management and Employees**

The following table sets forth, as of March 31, 2016, information for each of our directors and senior managers.

<b>Name</b>	<b>Age</b>	<b>Positions</b>	<b>Year First Elected</b>
Efstratios Georgios Arapoglou	64	Chairman of the Board	2010
Nikolas P. Tsakos	52	President and Chief Executive Officer, Director	1993
Michael G. Jolliffe	66	Vice Chairman of the Board	1993
George V. Saroglou	51	Vice President, Chief Operating Officer, Director	2001
Paul Durham	65	Chief Financial Officer	
Vladimir Jadro	70	Chief Marine Officer	
Peter C. Nicholson	82	Director	1993
Francis T. Nusspickel	75	Director	2004
Richard L. Paniguan	66	Director	2008
Aristides A.N. Patrinos	68	Director	2006
Efthimios E. Mitropoulos	76	Director	2012
Maria Vassalou	50	Director	2016

Certain biographical information regarding each of these individuals is set forth below.

**EFSTRATIOS GEORGIOS ARAPOGLOU****CHAIRMAN**

Mr. Arapoglou is a Corporate Advisor with a long international executive career in Corporate and Investment Banking, International Capital Markets and in managing, restructuring and advising financial institutions. He was Chief Executive Officer of Commercial Banking at EFG Hermes Holding SAE Group, operating in the Middle East and Africa (2010-2013). Earlier, he was Chairman and Chief Executive Officer of the National Bank of Greece Group (2004-2009), Chairman of the Hellenic Banks Association (2005-2009) and Managing Director of the Global Banks and Securities Industry for Citigroup (1999-2004). He has served in several boards of publicly listed companies in Europe, the Middle East and Africa, as well as on Boards of Educational Foundations, including the Institute of Corporate Culture Affairs in Frankfurt, as Chairman. He is currently holding the following non-executive board positions: Vice Chairman and member of the compensation committee of Titan Cement SA, listed on the Athens Stock Exchange; board member and member of the compensation committee of EFG Hermes Holding SAE, listed in Cairo and the London Stock Exchange; board member of the audit and risk committee of Credit Libanais SAL and board member of Bank Alfalah, listed in Karachi, Pakistan - representing the International Finance Corporation (IFC) World Bank. He is Chairman of the International Board of Advisors of Tufts University in Boston, and a member of the Business Advisory Council for the International MBA program of Athens University of Economics and Business. He has degrees in Mathematics, Naval Architecture & Ocean Engineering and Management from Greek and British Universities.

**NIKOLAS P. TSAKOS, Dr.****FOUNDER, PRESIDENT AND CHIEF EXECUTIVE OFFICER**

Mr. Tsakos has been President, Chief Executive Officer and a director of the Company since inception. Mr. Tsakos is the sole shareholder of Tsakos Energy Management Limited. He has been involved in ship management since 1981

and has 36 months of seafaring experience. Mr. Tsakos served as an officer in the Hellenic Navy in 1988. Mr. Tsakos is the Chairman of the Independent Tanker Owners Association (INTERTANKO), an Executive Committee member and a council member. He is also Chairman of the Korean Registry, Hellenic Committee (KR). Mr. Tsakos is currently a board member of the UK P&I Club, a board member of the Union of Greek Shipowners (UGS), a member of the board of the Greek Shipping Co-operation Committee (GSCC) and a council member of the American Bureau of Shipping (ABS), Bureau Veritas (BV) and

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of the Greek Committee of Det Norske Veritas (DNV). Mr. Tsakos is the former President of the Hellenic Marine Environment Protection Association (HELMEPA). He graduated from Columbia University in New York in 1985 with a degree in Economics and Political Science and obtained a Master's Degree in Shipping, Trade and Finance from London's City University Business School in 1987. In 2011, Mr. Tsakos was awarded an honorary doctorate from the City University Business School, for his pioneering work in the equity financial markets relating to shipping companies. Mr. Tsakos is the cousin of Mr. Saroglou.

### **MICHAEL G. JOLLIFFE**

#### **CO-FOUNDER AND VICE CHAIRMAN**

Mr. Jolliffe has been joint Managing Director and then Vice Chairman of our Board since 1993. He is a director of a number of companies in shipping, agency representation, shipbroking capital services and mining. Mr. Jolliffe is Chief Executive Officer of Tsakos Containers Navigation LLC, a shipping company set up in joint venture between Tsakos/Jolliffe families and Warwick Capital Partners, a London based fund manager. He is also Chairman of the Wighams Group owning companies involved in shipbroking, agency representation and capital markets businesses. Mr. Jolliffe is also the Chairman of Papua Mining Plc, a gold and copper mining company quoted on the London AIM. He is also Chairman of StealthGas Inc., a shipping company which is quoted on the Nasdaq stock exchange in New York and which owns 51 LPG carriers, three product tankers and one crude oil tanker and has contracts for 5 LPG newbuildings. Mr. Jolliffe is also a Trustee of Honeypot Children's Charity.

### **GEORGE V. SAROGLOU**

#### **CHIEF OPERATING OFFICER**

Mr. Saroglou has been Chief Operating Officer of the Company since 1996. Mr. Saroglou worked for a private Greek information technology systems integrator from 1987 until 1994. From 1995 to 1996 he was employed in the Trading Department of the Tsakos Group. He graduated from McGill University in Canada in 1987 with a Bachelor's Degree in Science (Mathematics). Mr. Saroglou is the cousin of Mr. Tsakos.

### **PAUL DURHAM**

#### **CHIEF FINANCIAL OFFICER**

Mr. Durham joined Tsakos in 1999 and has served as our Chief Financial Officer and Chief Accounting Officer since 2000. Mr. Durham is a Fellow of the Institute of Chartered Accountants in England & Wales. From 1989 through 1998, Mr. Durham was employed in Athens with the Latsis Group, a shipping, refinery and banking enterprise, becoming Financial Director of Shipping in 1995. From 1983 to 1989, Mr. Durham was employed by RJR Nabisco Corporation, serving as audit manager for Europe, Asia and Africa until 1986 and then as financial controller of one of their United Kingdom food divisions. Mr. Durham worked with public accounting firms Ernst & Young (London and Paris) from 1972 to 1979 and Deloitte & Touche (Chicago and Athens) from 1979 to 1983. Mr. Durham is a graduate in Economics from the University of Exeter, England.

### **VLADIMIR JADRO**

#### **CHIEF MARINE OFFICER**

Mr. Jadro joined Tsakos Energy Navigation Limited in February 2006. He was appointed Chief Marine Officer of the Company in June 2006. Mr. Jadro was employed by Exxon/ExxonMobil Corp. from 1980 until 2004 in various technical and operational positions including operations, repairs, new building constructions, off shore conversions and projects of the marine department of ExxonMobil Corp. He was in charge of various tankers and gas carriers from 28,000 dwt to 409,000 dwt, and responsible for the company vetting system. He was also involved in the development of oil companies international SIRE vessel inspection system. From 1978 until 1980 he was employed by the Bethlehem Steel shipyard. From 1967 until 1977, Mr. Jadro was employed on various tankers starting as third engineer and advancing to Chief Engineer. Mr. Jadro is a member of the Society of Naval Architects and Marine Engineers (SNAME) and Port Engineers of New York.

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**PETER C. NICHOLSON, CBE**

**DIRECTOR**

Mr. Nicholson is trained as a naval architect and spent the majority of his professional career with Camper & Nicholson Limited, the world-famous yacht builder. He became Managing Director of the firm and later, Chairman. When Camper & Nicholson merged with Crest Securities to form Crest Nicholson Plc in 1972, Mr. Nicholson became an executive director, a role he held until 1988 when he became a non-executive in order to pursue a wider range of business interests. Since that time, he has been a non-executive director of Lloyds TSB Group Plc (from 1990 to 2000) and Chairman of Carisbrooke Shipping Plc (from 1990 to 1999). He was a director of various companies in the Marsh Group of insurance brokers. He has served on the boards of a variety of small companies, has been active in the administration of the United Kingdom marine industry and is a trustee of the British Marine Federation. He is a Younger Brother of Trinity House. He was Chairman of the Royal National Lifeboat Institution from 2000 to 2004. In 2010, Mr. Nicholson became a partner and chairman of a limited liability partnership, R.M.G. Wealth Management.

**FRANCIS T. NUSSPICKEL**

**DIRECTOR**

Mr. Nusspickel is a retired partner of Arthur Andersen LLP with 35 years of public accounting experience. He is a Certified Public Accountant licensed in several U.S. states. During his years with Arthur Andersen, he served as a member of their Transportation Industry Group and was worldwide Industry Head for the Ocean Shipping segment. His responsibilities included projects for mergers and acquisitions, fraud investigations, arbitrations and debt and equity offerings. He was President of the New York State Society of Certified Public Accountants from 1996 to 1997, a member of the AICPA Council from 1992 to 1998, and from 2004 to 2007 was Chairman of the Professional Ethics Committee of the New York State Society of Certified Public Accountants. Mr. Nusspickel is also a Director of Symmetry Surgical Inc., a NASDAQ Stock Exchange listed surgical device distributor.

**RICHARD L. PANIGUIAN, CBE**

**DIRECTOR**

Mr. Paniguan became chairman of C5 Holdings, a European based private equity fund specializing in cyber and big data technologies, in February 2015. Prior to that, he was Head of UK Defence and Security Organization, or DSO, which supports UK defense and security businesses seeking to export and develop joint ventures and partnerships overseas, as well as overseas defense and security businesses seeking to invest in the UK. Previously, Mr. Paniguan pursued a career with BP plc., where he worked for 37 years. He held a wide range of posts with BP, including, in the 1980s, as Commercial Director in the Middle East, Head of International Oil Trading in New York and Head of Capital Markets in London. In the 1990s he completed assignments as a Director of BP Europe, Chief Executive of BP Shipping and subsequently Head of Gas Development in the Middle East and Africa. In 2001 he was appointed Group Vice President for Russia, the Caspian, Middle East and Africa, where he was responsible for developing and delivering BP's growth strategy in these regions. He played a leading role in support of the TNK-BP joint venture; in delivering the Baku Tbilisi Ceyhan pipeline project; in driving for new gas exploration in Libya, Egypt and Oman and, in completing BP's first oil project in Angola. In 2007 he was appointed CBE for services to business. Between 2002 and 2007 he was Chairman of the Egyptian British Business Council, and between 2000 and 2002 President of the UK Chamber of Shipping. Mr. Paniguan has a degree in Arabic and Middle East politics and an MBA.

**ARISTIDES A.N. PATRINOS, Ph.D**

**DIRECTOR**

Dr. Patrinos is currently Senior Adviser to the U.S. Secretary of Energy. He is also the Deputy Director Emeritus for Research of the Center for Urban Science and Progress (CUSP) and a Distinguished Professor of Mechanical and Biomolecular Engineering at New York University. Since 2006 he is also affiliated with Synthetic Genomics Inc. (SGI) serving as President (2006-2011), Senior Vice President for Corporate Affairs (2011-2012) and currently as a Consultant. SGI is a US-based privately held company dedicated to developing

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and commercializing clean and renewable fuels and chemicals; sustainable food products; and novel medical applications such as synthetic vaccines. From 1976 to 2006, Dr. Patrinos served in the U.S. Department of Energy (DOE) and several of the DOE National Laboratories and engaged in several facets of energy production and use and led key research programs in biology and the environment. He played a leading role in the Human Genome Project and has been a central architect in the genomics revolution. He is a member of many scientific societies and is a recipient of numerous awards and distinctions including three U.S. Presidential Rank Awards, and two Secretary of Energy Gold Medals. He holds a Diploma in Mechanical and Electrical Engineering from the National Technical University of Athens (Metsovion) and a Ph.D. in Mechanical Engineering and Astronautical Sciences from Northwestern University. Dr. Patrinos is also a board member of Liberty Biosecurity Inc. and Research Adviser to the NOVIM Group.

**EFTHIMIOS E. MITROPOULOS****DIRECTOR**

Mr. Mitropoulos is Secretary-General Emeritus of the International Maritime Organization (IMO), the United Nations specialized agency responsible for the regulation of international shipping from the safety, security and environmental protection points of view. After 23 years of service at IMO (ten of which as Director of the Maritime Safety Division), he was elected Secretary-General in 2003 and re-elected in 2007 for a total of the maximum time permitted of eight years. As a graduate of both Merchant and Naval Academies of Greece, he spent time at sea as a navigation officer and twenty years as a commissioned Hellenic Coast Guard officer, retiring as a rear admiral, having represented Greece at IMO and various other international fora dealing with shipping matters over a twelve year period and having spent two years as Harbour Master of Corfu. Between 2004 and 2012, he was Chancellor of the World Maritime University, Malmö, Sweden and Chairman of the Governing Board of the International Maritime Law Institute in Malta. He is the author of several books on shipping, including texts on tankers, modern types of merchant ships, safety of navigation and shipping economics and policy. He is Chairman of the Board of the Public Benefit Foundation Maria Tsakos Center for Maritime Research and Tradition and Chancellor of the AMET Maritime University in Chennai, India.

**MARIA VASSALOU Ph.D****DIRECTOR**

Maria Vassalou is Partner and Portfolio Manager for the PWP Global Macro Strategy, a liquid strategy firm invested in global equities, fixed income, currencies, commodities and credit. Dr. Vassalou joined Perella Weinberg Partners in 2013 from MIO Partners, a subsidiary of McKinsey & Company, where as a Portfolio Manager she managed a similar global macro investment strategy in a dedicated legal entity, and as Head of Asset Allocation she provided counsel on allocation for liquid assets within MIO's portfolio. Prior to joining MIO in 2012, Dr. Vassalou was a Global Macro Portfolio Manager at SAC Capital Advisors, LP. She joined SAC in 2008 from Soros Fund Management where she was responsible for global quantitative research, as well as the development and management of global quantitative trading strategies. Prior to her career in asset management, Dr. Vassalou was an Associate Professor of Finance at Columbia Business School which she joined in 1995. Dr. Vassalou is a Past President of the European Finance Association and was the Chair of the 2008 European Finance Association Meetings. A Research Affiliate of the Center for Economic Policy Research (CEPR) in London for many years, Dr. Vassalou is a past member of the Academic Advisory Board of the Vienna-based Guttmann Center of Competence in Portfolio Management. Dr. Vassalou received a Bachelor of Arts in Economics from the University of Athens and she holds a Ph.D. in Financial Economics from London Business School.



*Corporate Governance*

**Board of Directors**

Our business is managed under the direction of the Board, in accordance with the Companies Act and our Memorandum of Association and Bye-laws. Members of the Board are kept informed of our business through: discussions with the Chairman of the Board, the President and Chief Executive Officer and other members of our management team; the review of materials provided to directors; and, participation in meetings of the Board and

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its committees. In accordance with our Bye-laws, the Board has specified that the number of directors will be set at no less than five nor more than fifteen. At December 31, 2015 we had nine directors on our Board. At its March 8, 2016 meeting, the Corporate Governance, Nominating and Compensation Committee approved the nomination of Dr. Vassalou as an additional Director and as member in the Corporate Governance, Nominating and Compensation Committee and the Business Development and Capital Markets Committee. Dr. Vassalou is standing for election at this year's Annual General Meeting. Under our Bye-laws, one third (or the number nearest one third) of the Board (with the exception of any executive director) retires by rotation each year. The Bye-laws require that the one third of the directors to retire by rotation be those who have been in office longest since their last appointment or re-appointment. The Bye-laws specify that where the directors to retire have been in office for an equal length of time, those to retire are to be determined by lot (unless they agree otherwise among themselves).

During the fiscal year ended December 31, 2015, the full Board held three meetings in person. Each director attended all of the meetings of the Board in 2015. The Board meeting via telephone conference was not attended by Messrs. Arapoglou, Nicholson, Nusspickel and Patrinos. Each director attended all of the meetings of committees of which the director was a member.

## **Independence of Directors**

The foundation for the Company's corporate governance is the Board's policy that a substantial majority of the members of the Board should be independent. With the exception of the two Executive Directors (Messrs. Tsakos and Saroglou) and one Non-executive Director (Mr. Jolliffe), the Board believes that each of the other incumbent directors (Messrs. Nicholson, Nusspickel, Paniguian, Patrinos, Arapoglou and Mitropoulos and Dr. Vassalou) is independent under the standards established by the New York Stock Exchange (the "NYSE") because none has a material relationship with the Company directly or indirectly or any relationship that would interfere with the exercise of their independent judgment as directors of the Company.

The Board made its determination of independence in accordance with its Corporate Governance Guidelines, which specifies standards and a process for evaluating director independence. The Guidelines provide that:

A director cannot be independent if he or she fails to meet the objective requirements as to independence under the NYSE listing standards.

If a director meets the objective NYSE standards, he or she will be deemed independent, absent unusual circumstances, if in the current year and the past three years the director has had no related-party transaction or relationship with the Company or an interlocking relationship with another entity triggering disclosure under SEC rules.

If a director who meets the objective NYSE independence requirements either has had a disclosable transaction or relationship or the Corporate Governance, Nominating and Compensation Committee requests that the Board consider any other circumstances in determining the director's independence, the Board will make a determination of the director's independence.

To promote open discussion among the independent directors, those directors met three times in 2015 in regularly scheduled executive sessions without participation of the Company's management and will continue to do so in 2016. Mr. Nicholson currently serves as the Presiding Director for purposes of these meetings. Following the 2016 Annual

General Meeting, Mr. Nicholson will cease to be the Presiding Director and will be succeeded by Mr. Paniguan.

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### **Documents Establishing Our Corporate Governance**

The Board and the Company's management have engaged in an ongoing review of our corporate governance practices in order to oversee our compliance with the applicable corporate governance rules of the NYSE and the SEC.

The Company has adopted a number of key documents that are the foundation of its corporate governance, including:

a Code of Business Conduct and Ethics for Directors, Officers and Employees;

a Corporate Governance, Nominating and Compensation Committee Charter; and

an Audit Committee Charter.

These documents and other important information on our governance, including the Board's Corporate Governance Guidelines, are posted in the Investor Relations section of the Tsakos Energy Navigation Limited website, and may be viewed at <http://www.tenn.gr>. We will also provide any of these documents in hard copy upon the written request of a shareholder. Shareholders may direct their requests to the attention of Investor Relations, c/o George Saroglou or Paul Durham, Tsakos Energy Navigation Limited, 367 Syngrou Avenue, 175 64 P. Faliro, Athens, Greece.

The Board has a long-standing commitment to sound and effective corporate governance practices. The Board's Corporate Governance Guidelines address a number of important governance issues such as:

Selection and monitoring of the performance of the Company's senior management;

Succession planning for the Company's senior management;

Qualifications for membership on the Board;

Functioning of the Board, including the requirement for meetings of the independent directors; and

Standards and procedures for determining the independence of directors.

The Board believes that the Corporate Governance Guidelines and other governance documents meet current requirements and reflect a very high standard of corporate governance.

### **Committees of the Board**

The Board has established an Audit Committee, a Corporate Governance, Nominating and Compensation Committee, a Business Development and Capital Markets Committee and an Operational, Safety and Environmental Committee. In 2014, an Operational and Financial Risk Committee was established to properly coordinate with management the

administration of the Company's risk management program. At the Board meeting in October 2015, this committee was abolished as responsibilities relating to the management of risk was being competently handled by the remaining committees within their given areas of responsibility.

### **Audit Committee**

The current members of the Audit Committee are Messrs. Nicholson, Nusspickel, Paniguian, and Arapoglou, each of whom is an independent director. Mr. Nusspickel is the Chairman of the committee. The Audit Committee is governed by a written charter, which is approved and adopted annually by the Board. The Board has determined that the continuing members of the Audit Committee meet the applicable independence requirements, and that all continuing members of the Audit Committee meet the requirement of being financially literate. The Audit Committee held three meetings in person during the fiscal year ended December 31, 2015. The Audit Committee is appointed by the Board and is responsible for, among other matters:

engaging the Company's external and internal auditors;

approving in advance all audit and non-audit services provided by the auditors;

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approving all fees paid to the auditors;

reviewing the qualification and independence of the Company's external auditors;

discussing compliance with accounting standards and any proposals which the external auditors have made regarding the Company's accounting standards with the external auditors;

overseeing the Company's financial reporting and internal control functions;

overseeing the Company's whistleblower's process and protection;

overseeing general compliance with related regulatory requirements;

overseeing the executive management's identification and assessment of risks that the Company faces and the establishment of a risk management structure capable of addressing and mitigating those risks;

overseeing the division of risk-related responsibilities among each of the Board committees as clearly as possible and performing a gap analysis to confirm that the oversight of any risk is not missed;

in conjunction with the full Board, approving the Company-wide risk management program; and

assessing whether the Company's technical and commercial managers have effective procedures for managing risks.

The Board of Directors has determined that Messrs. Nusspickel and Arapoglou, whose biographical details are included herein, each qualifies as an audit committee financial expert as defined under current SEC regulations and each is independent in accordance with SEC rules and the listing standards of the NYSE.

**Corporate Governance, Nominating and Compensation Committee**

The current members of the Corporate Governance, Nominating and Compensation Committee are Messrs. Arapoglou, Nicholson, Nusspickel, Paniguian, Patrinos and Mitropoulos and Dr. Vassalou, each of whom is an independent director. Mr. Nicholson is Chairman of the committee. He will relinquish the chairmanship of this committee at the 2016 Annual General Meeting and will be replaced by Mr. Paniguian. The Corporate Governance, Nominating and Compensation Committee is appointed by the Board and is responsible for:

developing and recommending to the Board corporate governance guidelines applicable to the company and keeping such guidelines under review;

overseeing the evaluation of Board and management;

arranging for an annual performance evaluation of the committee and producing an annual report to the Board;

reviewing regularly the Board structure, size and composition and making recommendations to the Board with regard to any adjustments that are deemed necessary;

identifying and nominating candidates for the approval of the Board to fill Board vacancies as and when they arise;

implementing plans for succession, making recommendations to the Board for the continuation in service of an executive director and recommending directors who are retiring by rotation to be put forward for re-election;

determining the compensation of the non-executive directors, determining and administering the Company's long term incentive plans, including any equity based plans and grants under them; and

producing an annual report on executive compensation as required by the SEC to be included in the Company's annual proxy statement or annual report.

During 2015, there were three meetings of the Corporate Governance, Nominating and Compensation Committee.

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### **Business Development and Capital Markets Committee**

The current members of the Business Development and Capital Markets Committee are Messrs. Arapoglou, Paniguan, Jolliffe, Saroglou, Tsakos and Dr. Vassalou. Mr. Jolliffe is Chairman of the committee. The Business Development and Capital Markets Committee was established in 2014 for the purpose of overseeing the financial policies and activities of the Company and its subsidiaries relating to the Company's capital structure and capital raising activities. The committee reviews and approves presentations to, and communications with, shareholders, financial analysts, and potential investors and oversees the establishment and maintenance of the Company's relations with investment banks and financial institutions, as well as the development and expansion of the Company's business, including the evaluation of strategic growth opportunities.

### **Operational, Safety and Environmental Committee**

The current members of the Operational, Safety and Environmental Committee are Messrs. Jolliffe, Mitropoulos, Patrinos and Jadro. Mr. Mitropoulos is Chairman of the committee. The committee also includes the Deputy Chairman of Tsakos Shipping, Mr. Vassilis Papageorgiou. Mr. Papageorgiou is not a director or officer of our Company. The primary role of the Operational, Safety and Environmental Committee is to draw the attention of the Board and the Company's management to issues of concern regarding the safety of crew and vessels and the impact of the maritime industry on the environment, to provide an update on related legislation and technological innovations, and more specifically highlight areas in which the Company itself may play a more active role in being in the forefront of adopting operational procedures and technologies that will ensure maximum safety for crew and vessels and contribute to a better environment.

### **Board Compensation**

We pay no cash compensation to our senior management or to our directors who are senior managers. We have no salaried employees. For the year ended December 31, 2015, the aggregate cash compensation of all of the members of the Board was \$610,000 per the following annual fee schedule which was approved by the shareholders of the Company on May 29, 2015:

Service on the Board - \$50,000

Service on the Audit Committee - \$20,000

Service on the Business Development and Capital Markets Committee - \$10,000

Service on the Operational, Safety and Environmental Committee - \$10,000

Service as Chairman of the Corporate Governance, Nominating and Compensation Committee - \$10,000

Service as Chairman of the Operational, Safety and Environmental Committee - \$10,000



Service as Chairman of the Audit Committee - \$20,000

Service as Chairman of the Business Development and Capital Markets Committee - \$30,000

Service as Chairman of the Board - \$40,000

No fees are paid for service on the Corporate Governance, and Nominating and Compensation Committee or, prior to its abolition, the the Operational and Financial Risk Committee.

In October 2015, the Board proposed to increase the basic fee for service on the Board by \$10,000 and to increase the fee of the Chairman of the Audit Committee from \$20,000 to \$30,000, with both changes becoming effective January 1, 2016, subject to shareholder approval at the 2016 Annual General Meeting.

We do not provide benefits for directors upon termination of their service with us.

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### **Management Company**

Tsakos Energy Management, under its management agreement with us, provides overall executive and commercial management of our affairs in exchange for a monthly management fee. See Management and Other Fees in Item 7 for more information on the management agreement and the management fees we paid for the fiscal year ended December 31, 2015.

### **Management Compensation**

Messrs. Tsakos, Saroglou, Durham and Jadro serve as President and Chief Executive Officer, Vice President and Chief Operating Officer, Chief Financial Officer and Chief Accounting Officer, and Chief Marine Officer, respectively. Such individuals are employees of Tsakos Energy Management and, except for the equity compensation discussed below, are not directly compensated by the Company.

From 2010 to 2014 the Corporate Governance, Nominating and Compensation Committee did not establish a performance incentive program for Tsakos Energy Management. In May 2015, a management incentive award program based on various performance criteria was approved by the Board of Directors. An award of \$1.1 million was made to the management company in 2015. In addition, an amount of \$425,000 has been awarded to Tsakos Energy Management relating to services provided towards an equity offering during 2015. In 2014, awards totaling \$860,000 have been awarded to Tsakos Energy Management relating to services provided towards the two equity offerings during the year (\$500,000 in 2013).

### **Employees**

Tsakos Energy Navigation Limited has no salaried employees. All crew members are employed by the owning-company of the vessel on which they serve, except where the vessel may be on a bareboat charter-out, or the vessels, or crewing of the vessels, are under third-party management arranged by our technical managers. All owning-companies are subsidiaries of Tsakos Energy Navigation Limited. Approximately 1,543 officers and crew members served on board the vessels we own and were managed by our technical managers as of December 31, 2015.

### **Share Ownership**

The common shares beneficially owned by our directors and senior managers and/or companies affiliated with these individuals are disclosed in Item 7. Major Shareholders and Related Party Transactions below.

### **Stock Compensation Plan**

At the 2012 Annual Meeting of Shareholders, our shareholders approved a share-based incentive plan (the 2012 Plan ). This plan permits us to grant share options or other share based awards to our directors and officers, to the officers of the vessels in the fleet, and to the directors, officers and employees of our manager, Tsakos Energy Management, and our commercial manager, Tsakos Shipping.

The purpose of the 2012 Plan is to provide a means to attract, retain, motivate and reward the persons whose performing of administrative, commercial, management, technical and maritime services are important for the Company by increasing their ownership in our Company. Awards under the 2012 Plan may include options to purchase our common shares, restricted share awards, other share-based awards (including share appreciation rights granted separately or in tandem with other awards) or a combination thereof.

The 2012 Plan is administered by our Corporate Governance, Nominating and Compensation Committee. Such committee has the authority, among other things, to: (i) select the present or prospective directors, officers, consultants and other personnel entitled to receive awards under the 2012 Plan; (ii) determine the form of awards, or combinations of awards; (iii) determine the number of shares covered by an award; and (iv) determine the

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terms and conditions of any awards granted under the 2012 Plan, including any restrictions or limitations on transfer, any vesting schedules or the acceleration of vesting schedules and any forfeiture provision or waiver of the same. The 2012 Plan authorizes the issuance of up to 1,000,000 common shares in the form of restricted stock units ( RSUs ) or options. During 2014, 20,000 RSUs were issued under this plan, which vested within 2014. During 2013, 96,000 RSUs were issued which vested. No RSUs were issued in 2015; however the Corporate Governance, Nominating and Compensation Committee approved the issuance of 87,500 RSUs to the non-executive directors of the Company with an effective date of April 8, 2016, subject to shareholder approval at the 2016 Annual Meeting of Shareholders.

As of December 31, 2015, there were no outstanding (non-vested) RSUs. Total stock compensation expense recognized for the year ended December 31, 2015 was \$nil, for the year ended December 31, 2014 was \$0.1 million, and for the year ended December 31, 2013 was \$0.5 million.

**Item 7. Major Shareholders and Related Party Transactions**

It is our policy that transactions with related parties are entered into on terms no less favorable to us than would exist if these transactions were entered into with unrelated third parties on an arm's length basis. Tsakos Energy Management has undertaken to ensure that all transactions with related parties are reported to the board of directors. Under the management agreement, any such transaction or series of transactions involving payments in excess of \$100,000 and which is not in the ordinary course of business requires the prior consent of the board of directors. Transactions not involving payments in excess of \$100,000 may be reported quarterly to the board of directors.

To help minimize any conflict between our interests and the interests of other companies affiliated with the Tsakos family and the owners of other vessels managed by such companies if an opportunity to purchase a tanker which is 10 years of age or younger is referred to or developed by Tsakos Shipping, Tsakos Shipping will notify us of this opportunity and allow us a 10 business day period within which to decide whether or not to accept the opportunity before offering it to any of its affiliates or other clients.

The following table sets forth the amounts charged by related parties for services rendered (in thousands of U.S. dollars):

	<b>2015</b>	<b>2014</b>	<b>2013</b>
Tsakos Shipping and Trading S.A. (commissions)	7,550	6,189	5,219
Tsakos Energy Management Limited (management fees)	16,032	15,840	15,487
Tsakos Columbia Shipmanagement S.A.	2,234	2,091	1,621
Argosy Insurance Company Limited	9,386	9,529	9,129
AirMania Travel S.A.	4,298	4,797	4,810
<b>Total expenses with related parties</b>	<b>39,500</b>	<b>38,446</b>	<b>36,266</b>

**Management Affiliations**

Nikolas P. Tsakos, our president, chief executive officer and one of our directors, is an officer, director and the sole shareholder of Tsakos Energy Management. He is also the son of the founder of Tsakos Shipping.

George V. Saroglou, our chief operating officer and one of our directors, is a cousin of Nikolas P. Tsakos.

**Management and Other Fees**

We prepay or reimburse our technical manager at cost for all vessel operating expenses payable by them in their capacity as technical manager of the fleet. At July 1, 2010, TCM assumed the technical management of

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most of the vessels in the fleet from Tsakos Shipping. At December 31, 2015, outstanding advances to TCM amounted to \$4.2 million and there was an amount due to Tsakos Shipping of \$1.0 million. At December 31, 2014, outstanding advances to TCM amounted to \$1.9 million and there was an amount due to Tsakos Shipping of \$0.9 million.

From the management fee we pay Tsakos Energy Management, Tsakos Energy Management in turn pays a management fee to TCM for its services as technical manager of the fleet. Under the terms of our management agreement with Tsakos Energy Management, we paid Tsakos Energy Management total management fees of \$16.0 million. An additional amount of \$2.2 million was paid in fees directly by the Company to TCM for extra services provided or arranged by TCM in relation to information technology services, application of corporate governance procedures required by the Company and seafarers training. In 2015, we paid Tsakos Energy Management an incentive award of \$1.1 million plus \$0.4 million in relation to the Company's capital raising transactions in 2015. No incentive award was payable to Tsakos Energy Management for 2014 or 2013. However, special awards totaling \$0.9 million were awarded to Tsakos Energy Management in 2014 in relation to the Company's capital raising transactions in 2014.

## **Management Agreement**

Our management agreement with Tsakos Energy Management was amended and restated on March 8, 2007 and has a term of ten years that renews annually. Tsakos Energy Management may terminate the management agreement at any time upon not less than one year's notice. In addition, either party may terminate the management agreement under certain circumstances, including the following:

certain events of bankruptcy or liquidation involving either party;

a material breach by either party; or

a failure by Tsakos Energy Management, for a continuous period of two months, materially to perform its duties because of certain events of force majeure.

Moreover, following a change in control of us, which would occur if at least one director were elected to our Board without having been recommended by our existing Board, Tsakos Energy Management may terminate the agreement on 10 business days' notice. If Tsakos Energy Management terminates the agreement for this reason, then we would immediately be obligated to pay Tsakos Energy Management the present discounted value of all of the payments that would have otherwise been due under the management agreement up until June 30 of the tenth year following the date of termination plus the average of the incentive awards previously paid to Tsakos Energy Management multiplied by ten. Under these terms, therefore, a termination as of December 31, 2015 would have resulted in a payment of approximately \$170.2 million. Under the terms of the Management Agreement between the Company and Tsakos Energy Management, the Company may terminate the agreement only under specific circumstances, such as breach of contract by the manager and change of control in the shareholding of the manager without the prior approval of the Company's Board of Directors.

Under the management agreement, we pay monthly fees for Tsakos Energy Management's management of the vessels in the fleet. These fees are based on the number of ships in the fleet. The per-ship charges begin to accrue for a vessel at the point that a newbuilding contract is acquired, which is 18 to 24 months before the vessel begins to earn revenue.

For 2016, monthly fees for operating vessels continue to be \$27,500 per owned vessel and \$20,400 for chartered-in vessels and vessels bareboat chartered out. Monthly management fees for the DP2 shuttle tankers continues to be \$35,000 per vessel. Monthly management fees for the suezmax *Eurochampion 2004* continues to be \$27,500 of which \$12,000 is payable to a third party manager. Monthly management fees for the VLCC *Millennium* were \$27,500, of which \$13,940 were payable to a third party manager, until November 2015, when the vessel entered a bareboat charter. The monthly fee for the LNG carrier continues to be

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\$35,833 of which \$10,000 is payable to Tsakos Energy Management and \$25,833 to a third party manager. We paid Tsakos Energy Management aggregate management fees of \$16.0 million in 2015, \$15.8 million in 2014 and \$15.5 million in 2013.

## **Chartering Commissions, Sale and Purchase Commissions and Vessel New-delivery Fees**

We pay a chartering commission to Tsakos Shipping equal to 1.25% on all freights, hires and demurrages involving our vessels. Tsakos Shipping may also charge a brokerage commission on the sale of a vessel. In 2015, commission on vessel sales amounted to 0.5%. In 2015, the handysize tanker *Delphi* and the suezmax tanker *Triathlon* were sold to client companies of Tsakos Shipping, for which Tsakos Shipping charged us a brokerage commission of \$0.2 million which was 0.5% of the sale price of the vessels. In 2014 and 2013, there were no vessel sales. We have been charged by Tsakos Shipping chartering and brokerage commissions aggregating \$7.6 million in 2015.

Tsakos Shipping may also charge a fee of \$0.2 million (or such other sum as may be agreed) on delivery of each newbuilding vessel in payment for the cost of design and supervision of the newbuilding by Tsakos Shipping. This amount is added to the cost of the vessels concerned and is amortized over their remaining lives. In 2014, \$0.2 million in aggregate was charged for supervision fees on the DP2 suezmax shuttle tankers *Rio 2016* and *Brasil 2014* and \$0.6 million in aggregate was charged as a brokerage commission in connection with the purchase of the suezmax tankers *Eurovision* and *Euro*. No such amounts were paid in 2015.

## **Captive Insurance Policies**

We pay Argosy Insurance Company, an affiliate of Tsakos family interests, premiums to provide hull and machinery, increased value and loss of hire insurance for our vessels. In 2015, we were charged an aggregate of \$9.4 million by Argosy for insurance premiums.

## **Travel Services**

We use AirMania Travel S.A., an affiliate of Tsakos family interests, for travel services primarily to transport our crews to and from our vessels. In 2015, we were charged an aggregate of \$4.3 million by AirMania for travel services.

## **Major Shareholders**

The following table sets forth certain information regarding the beneficial ownership of our outstanding common shares as of March 31, 2016 held by:

each person or entity that we know beneficially owns 5% or more of our common shares;

each of our officers and directors; and

all our directors and officers as a group.



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Beneficial ownership is determined in accordance with the rules of the SEC. In general, a person who has or shares voting power or investment power with respect to securities is treated as a beneficial owner of those securities. Beneficial ownership does not necessarily imply that the named person has the economic or other benefits of ownership. Under SEC rules, shares subject to options, warrants or rights currently exercisable or exercisable within 60 days are considered as beneficially owned by the person holding those options, warrants or rights. The applicable percentage of ownership of each shareholder is based on 86,151,563 common shares outstanding on March 31, 2016. Except as noted below, the address of all shareholders, officers, directors and director nominees identified in the table and accompanying footnotes below is in care of the Company's principal executive offices.

<b>Name of Beneficial Owner</b>	<b>Number of Shares Beneficially Owned</b>	<b>Percentage of Outstanding Common Shares</b>
Tsakos Holdings Foundation(1)	15,140,021	17.6%
Redmont Trading Corp.(1)	3,560,007	4.1%
First Tsakos Investments Inc.(1)	11,580,014	13.4%
Kelley Enterprises Inc.(1)	7,230,007	8.4%
Marsland Holdings Limited(1)	4,350,007	5.0%
Sea Consolidation S.A. of Panama(2)	5,375,000	6.2%
Intermed Champion S.A. of Panama(2)	2,615,000	3.0%
Methoni Shipping Company Limited (2)	3,330,000	3.9%
Anemomilia Investment Company Limited(2)	1,664,114	1.9%

<b>Officers and Directors</b>	<b>Number of Shares Beneficially Owned</b>	<b>Number of RSUs Granted***</b>
Takis Arapoglou	11,000*	20,000
Nikolas P. Tsakos(3)	204,000*	
Michael G. Jolliffe	35,300*	15,000
George V. Saroglou	60,000*	
Paul Durham	74,000*	
Peter C. Nicholson	43,900*	10,000
Francis T. Nusspickel	31,300*	12,500
Richard L. Paniguiian	20,000*	10,000
Aristides A.N. Patrinos	62,510*	10,000
Maria Vassalou		
Vladimir Jadro	17,000*	
Efthimios E. Mitropoulos	11,500*	10,000
All officers and directors as a group (12 persons)(3)	570,510**	87,500

\* Represents less than 1% of the common shares outstanding.

\*\* Represents 0.7% of the common shares outstanding.

\*\*\* Includes 87,500 RSUs to be granted to the non-executive directors of the Board with an effective date of April 8, 2016.

- (1) First Tsakos Investments Inc. ( First Tsakos ) is the sole holder of the outstanding capital stock of Kelley Enterprises Inc. ( Kelley ) and Marsland Holdings Limited ( Marsland ) and may be deemed to have shared voting and dispositive power of the common shares reported by Kelley and Marsland. Tsakos Holdings Foundation ( Tsakos Holdings ) is the sole holder of outstanding capital stock of First Tsakos and Redmont Trading Corp. ( Redmont ) and may be deemed to have shared voting and dispositive power of the common shares reported by Kelley, Marsland and Redmont. According to a Schedule 13D/A filed on April 5, 2016 by Tsakos Holdings, First Tsakos, Kelley, Marsland and Redmont, Tsakos Holdings is a Liechtenstein foundation whose beneficiaries include persons and entities affiliated with the Tsakos family,

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charitable institutions and other unaffiliated persons and entities. The council which controls Tsakos Holdings consists of five members, two of whom are members of the Tsakos family. Under the rules of the SEC, beneficial ownership includes the power to directly or indirectly vote or dispose of securities or to share such power. It does not necessarily imply economic ownership of the securities. Members of the Tsakos family are among the five council members of Tsakos Holdings and accordingly may be deemed to share voting and/or dispositive power with respect to the shares owned by Tsakos Holdings and may be deemed the beneficial owners of such shares. The business address of First Tsakos is 34 Efesou Street, Nea Smyrni, Athens, Greece. The business address of Kelley is Saffrey Square, Suite 205, Park Lane, P.O. Box N-8188, Nassau, Bahamas. The business address of Marsland is FGC Corporate Services Limited, 125 Main Street, PO Box 144, Road Town, Tortola, British Virgin Islands. The business address of Tsakos Holdings Foundation is Heiligkreuz 6, Vaduz, Liechtenstein. The business address of Redmont is 9 Nikodimon Street, Kastella, Piraeus, Greece.

- (2) According to the Schedule 13D/A filed on April 5, 2016 by Sea Consolidation S.A. of Panama ( Sea Consolidation ), Intermed Champion S.A. of Panama ( Intermed ), Methoni Shipping Company Limited ( Methoni ), Anemomilia Investment Company Limited ( Anemomilia ), Panayotis Tsakos and Nikolas Tsakos as of October 22, 2014, Sea Consolidation, Intermed, Methoni, Anemomilia and Nikolas Tsakos beneficially owned 5,375,000, 2,615,000, 3,330,000, 1,664,114 and 204,000 common shares, respectively. According to filings by Sea Consolidation and Intermed with the SEC pursuant to Section 13 of the Exchange Act, Panayotis Tsakos is the controlling shareholder of each of Sea Consolidation, Intermed and Methoni and may be deemed to indirectly beneficially own the common shares held by Sea Consolidation and Intermed as a result of his control relationship with each entity. Panayotis Tsakos is the father of Nikolas Tsakos, our president and chief executive officer. The business address of each of Sea Consolidation, Intermed, Methoni, Mr. Panayotis Tsakos and Mr. Nikolas Tsakos is 367 Syngrou Avenue, 175 64 P. Faliro, Athens, Greece.
- (3) Does not include shares owned by Tsakos Holdings, Kelley, Marsland, Redmont Trading Corp., Sea Consolidation, Intermed or Methoni.

Entities affiliated with Panayotis Tsakos and Nikolas Tsakos own 103,370, or 5.2%, of our outstanding Series C Preferred Shares and 200,000, or 5.9%, of our outstanding Series D Preferred Shares as of March 31, 2016. Entities affiliated with Nikolas Tsakos own 165,573, or 8.3%, of our outstanding Series B Preferred Shares and 140,000, or 7.0%, of our outstanding Series C Preferred Shares. Francis Nusspickel owns 2,000, or 0.1%, of our outstanding Series D Preferred Shares as of March 31, 2016. Anemomilia owns 94, or less than 0.1%, of our outstanding Series B Preferred Shares and 2,000, or 0.1%, of our outstanding Series C Preferred Shares as of March 31, 2016. Methoni owns 2,600, or 0.1%, of our outstanding Series B Preferred Shares as of March 31, 2016. Kelley owns 700, or less than 0.1%, of our outstanding Series D Preferred Shares as of March 31, 2016. Marsland owns 1,200, or less than 0.1%, of our outstanding Series D Preferred Shares as of March 31, 2016. To our knowledge none of our other officers or directors, or any of the entities in the above table, own any Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares as of March 31, 2016.

As of March 31, 2016, we had 22 holders of record of our common shares. These shareholders of record include CEDEFEST which, as nominee for the Depository Trust Company, is the record holder of 86,071,360 common shares representing approximately 99.9% of our outstanding common shares. CEDEFEST is the nominee of banks and brokers which hold shares on behalf of their customers, the beneficial owners of the shares, who may or may not be resident in the United States. However, apart from the shareholders indicated in the footnotes (1) and (2) above and certain of the directors and officers, we believe that the majority of the remaining shareholders are resident in the United States. The Company is not aware of any arrangements the operation of which may at a subsequent date result in a change of control of the Company.

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### **Item 8. Financial Information**

See Item 18. Financial Statements below.

*Significant Changes.* No significant change has occurred since the date of the annual financial statements included in this Annual Report on Form 20-F.

*Legal Proceedings.* We are involved in litigation from time to time in the ordinary course of business. In our opinion, the litigation in which we are involved as of April 5, 2016, individually or in the aggregate, is not material to us.

*Dividend Policy.* While we cannot assure you that we will do so, and subject to the limitations discussed below, we intend to pay quarterly cash dividends on our common shares. The Board of Directors will give consideration each April to the declaration of a supplementary dividend.

On May 10, 2013, we issued 2,000,000 8% Series B Cumulative Redeemable Perpetual Preferred Shares. The holders of those shares are entitled to a quarterly dividend of \$0.50 per share payable quarterly in arrears on the 30th day of January, April, July and October each year when, as and if declared by our Board of Directors.

On September 30, 2013, we issued 2,000,000 8.875% Series C Cumulative Redeemable Perpetual Preferred Shares. The holders of those shares are entitled to a quarterly dividend of \$0.55469 per share payable quarterly in arrears on the 30th day of January, April, July and October each year when, as and if declared by our Board of Directors.

On April 22, 2015, we issued 3,400,000 8.75% Series D Cumulative Redeemable Perpetual Preferred Shares. The holders of those shares are entitled to a quarterly dividend of \$0.546875 per share payable quarterly in arrears on the 28<sup>th</sup> day of February, May, August and November each year when, as and if declared by our Board of Directors.

There can be no assurance that we will pay dividends or as to the amount of any dividend. The payment and the amount will be subject to the discretion of our board of directors and will depend, among other things, on available cash balances, anticipated cash needs, our results of operations, our financial condition, and any loan agreement restrictions binding us or our subsidiaries, as well as other relevant factors. For example, if we earned a capital gain on the sale of a vessel or newbuilding contract, we could determine to reinvest that gain instead of using it to pay dividends. Depending on our operating performance for that year, this could result in no dividend at all despite the existence of net income, or a dividend that represents a lower percentage of our net income. Of course, any payment of cash dividends could slow our ability to renew and expand our fleet, and could cause delays in the completion of our current newbuilding program.

Because we are holding a company with no material assets other than the stock of our subsidiaries, our ability to pay dividends will depend on the earnings and cash flow of our subsidiaries and their ability to pay dividends to us.

Under the terms of our existing credit facilities, we are permitted to declare or pay a cash dividend in any year as long as the amount of the dividend does not exceed 50% of our net income for that year. Net income is determined based on the audited financial statements we deliver to the banks under our credit facilities which are required to be presented in accordance with U.S. generally accepted accounting principles. This amount can be carried forward and applied to a dividend payment in a subsequent year provided the aggregate amount of all dividends we declare and/or pay after January 1, 1998 does not exceed 50% of our accumulated net income from January 1, 1998 up to the most recent date on which audited financial statements have been delivered under the credit facility. We anticipate incurring significant additional indebtedness in connection with our newbuilding program, which will affect our net income and cash available to pay dividends. In addition, cash dividends can be paid only to the extent permitted by Bermuda law and our financial covenants. See Item 10. Additional Information Description of Share Capital Bermuda

Law Dividends. See Item 3. Key Information Risks Related to our Common Shares We may not be able to pay cash dividends as intended.

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Our common shares are listed on the New York Stock Exchange and the Bermuda Stock Exchange. Following a decision of our Board of Directors, our common shares were de-listed from Oslo Børs on March 18, 2005. Our common shares are not actively traded on the Bermuda Stock Exchange.

**Trading on the New York Stock Exchange**

Since our initial public offering in the United States in March of 2002, our common shares have been listed on the New York Stock Exchange under the ticker symbol TNP. The following table shows the high and low closing prices for our common shares during the indicated periods, all prices have been adjusted to take account of the two-for-one share split which became effective on November 14, 2007.

	<b>High</b>	<b>Low</b>
2011 (Annual)	\$ 10.99	\$ 4.78
2012 (Annual)	\$ 8.79	\$ 3.19
2013 (Annual)	\$ 6.11	\$ 3.40
2014 (Annual)	\$ 8.35	\$ 4.99
2015 (Annual)	\$ 10.32	\$ 6.55
<b><u>2014</u></b>		
First Quarter	\$ 8.14	\$ 5.94
Second Quarter	\$ 8.35	\$ 6.69
Third Quarter	\$ 7.70	\$ 6.23
Fourth Quarter	\$ 7.32	\$ 4.99
<b><u>2015</u></b>		
First Quarter	\$ 8.22	\$ 6.55
Second Quarter	\$ 10.32	\$ 8.41
Third Quarter	\$ 10.09	\$ 6.85
Fourth Quarter	\$ 9.61	\$ 6.86
October	\$ 9.61	\$ 8.43
November	\$ 9.10	\$ 7.76
December	\$ 8.00	\$ 6.86
<b><u>2016</u></b>		
First Quarter	\$ 7.66	\$ 4.83
January	\$ 7.66	\$ 5.55
February	\$ 5.92	\$ 4.83
March	\$ 6.70	\$ 5.94
Second Quarter		
April (Through April 4, 2016)	\$ 6.04	\$ 5.98

Since May 2013, our Series B Preferred Shares have been listed on the New York Stock Exchange under the ticker symbol TNP.PB. The following table shows the high and low closing prices for our Series B Preferred Shares for the indicated period.

	<b>High</b>	<b>Low</b>
2013 (Annual)(1)	\$ 25.20	\$ 21.71
2014 (Annual)	\$ 25.25	\$ 21.81
<u>2014</u>		
First Quarter	\$ 23.72	\$ 21.90
Second Quarter	\$ 24.89	\$ 23.60
Third Quarter	\$ 25.25	\$ 24.77
Fourth Quarter	\$ 25.24	\$ 21.81

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	<b>High</b>	<b>Low</b>
<b><u>2015</u></b>		
First Quarter	\$ 25.70	\$ 24.20
Second Quarter	\$ 25.80	\$ 24.84
Third Quarter	\$ 25.35	\$ 23.89
Fourth Quarter	\$ 25.25	\$ 23.27
October	\$ 25.25	\$ 24.42
November	\$ 24.85	\$ 24.05
December	\$ 24.50	\$ 23.27
<b><u>2016</u></b>		
First Quarter	\$ 24.49	\$ 21.50
January	\$ 24.35	\$ 21.55
February	\$ 22.52	\$ 21.50
March	\$ 24.49	\$ 22.50
Second Quarter		
April (Through April 4, 2016)	\$ 24.20	\$ 24.00

(1) Commencing May 13, 2013.

Since October 2013, our Series C Preferred Shares have been listed on the New York Stock Exchange under the ticker symbol TNP.PC. The following table shows the high and low closing prices for our Series C Preferred Shares for the indicated period.

	<b>High</b>	<b>Low</b>
2013 (Annual)(1)	\$ 24.20	\$ 21.78
2014 (Annual)	\$ 27.03	\$ 23.06
<b><u>2014</u></b>		
First Quarter	\$ 24.81	\$ 23.27
Second Quarter	\$ 25.90	\$ 24.76
Third Quarter	\$ 27.03	\$ 25.50
Fourth Quarter	\$ 26.28	\$ 23.06
<b><u>2015</u></b>		
First Quarter	\$ 26.42	\$ 25.16
Second Quarter	\$ 26.34	\$ 25.07
Third Quarter	\$ 25.78	\$ 24.30
Fourth Quarter	\$ 25.15	\$ 22.91
October	\$ 25.15	\$ 24.35
November	\$ 25.10	\$ 23.80
December	\$ 24.54	\$ 22.91
<b><u>2016</u></b>		
First Quarter	\$ 24.75	\$ 20.19
January	\$ 24.50	\$ 20.19
February	\$ 22.65	\$ 21.59
March	\$ 24.75	\$ 22.51



Second Quarter

April (Through April 4, 2016)

\$ 24.85

\$ 24.65

(1) Commencing October 3, 2013.

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Since April 2015, our Series D Preferred Shares have been listed on the New York Stock Exchange under the ticker symbol TNP.PD. The following table shows the high and low closing prices for our Series D Preferred Shares for the indicated period.

<u>2015</u>		
Second Quarter(1)	\$ 24.85	\$ 22.86
Third Quarter	\$ 23.75	\$ 21.61
Fourth Quarter	\$ 23.50	\$ 19.95
October	\$ 23.18	\$ 22.15
November	\$ 23.50	\$ 20.85
December	\$ 22.64	\$ 19.95
<u>2016</u>		
First Quarter	\$ 22.53	\$ 16.25
January	\$ 22.53	\$ 16.25
February	\$ 20.15	\$ 18.75
March	\$ 22.26	\$ 19.90
Second Quarter		
April (Through April 4, 2016)	\$ 22.25	\$ 22.14

(1) Commencing April 24, 2015.

**Item 10. Additional Information****DESCRIPTION OF SHARE CAPITAL**

Our authorized share capital consists of 185,000,000 common shares, par value \$1.00 per share, and 15,000,000 blank check preferred shares, \$1.00 par value per share. 2,300,000 shares have been designated 8.00% Series B Cumulative Redeemable Perpetual Preferred Shares as described below under Series B Preferred Shares, 2,300,000 shares have been designated 8.875% Series C Cumulative Redeemable Perpetual Preferred Shares as described below under Series C Preferred Shares and 3,400,000 shares have been designated 8.75% Series D Cumulative Redeemable Perpetual Preferred Shares as described below under Series D Preferred Shares. As of March 31, 2016, there were 86,151,563 common shares, 2,000,000 8.00% Series B Cumulative Redeemable Preferred Shares, 2,000,000 8.875% Series C Cumulative Redeemable Preferred Shares, 3,400,000 8.75% Series D Cumulative Redeemable Preferred Shares and no Series A Junior Participating Preferred Shares issued and outstanding.

**Common Shares**

The holders of common shares are entitled to receive dividends out of assets legally available for that purpose at times and in amounts as our board of directors may from time to time determine. Each shareholder is entitled to one vote for each common share held on all matters submitted to a vote of shareholders. Cumulative voting for the election of directors is not provided for in our Memorandum of Association or Bye-laws, which means that the holders of a majority of the common shares voted can elect all of the directors then standing for election. Our Bye-laws provide for a staggered board of directors, with one-third of our non-executive directors being selected each year. The common shares are not entitled to preemptive rights and are not subject to conversion or redemption. Upon the occurrence of a

liquidation, dissolution or winding-up, the holders of common shares would be entitled to share ratably in the distribution of all of our assets remaining available for distribution after satisfaction of all our liabilities.

**Preferred Shares**

Under our Bye-laws, our board of directors has the authority to issue preferred shares in one or more series, and to establish the terms and preferences of the shares of each series, up to the number of preferred shares

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authorized under our constitutive documents as described above. Holders of each series of preferred shares will be entitled to receive cash dividends, when, as and if declared by our board of directors out of funds legally available for dividends. Such distributions will be made before any distribution is made on any securities ranking junior in relation to preferred shares in liquidation, including common shares.

***Series B Preferred Shares***

We had 2,000,000 of our 8.00% Series B Cumulative Redeemable Perpetual Preferred Shares outstanding as of March 31, 2016, which were issued on May 10, 2013. The initial liquidation preference of the Series B Preferred Shares is \$25.00 per share, subject to adjustment. The shares are redeemable by us at any time on or after July 30, 2018. The shares carry an annual dividend rate of 8.00% per \$25.00 of liquidation preference per share, subject to increase if (i) we fail to comply with certain covenants, (ii) we experience certain defaults under any of our credit facilities, (iii) four quarterly dividends payable on the Series B Preferred Shares are in arrears, or (iv) the Series B Preferred Shares are not redeemed in whole by July 30, 2019. The Series B Preferred Shares represent perpetual equity interests in us and, unlike our indebtedness, do not give rise to a claim for payment of a principal amount at a particular date. As such, the Series B Preferred Shares rank junior to all of our indebtedness and other liabilities with respect to assets available to satisfy claims against us. Upon any liquidation or dissolution of us, holders of the Series B Preferred Shares will generally be entitled to receive the cash value of the liquidation preference of the Series B Preferred Shares, plus an amount equal to accumulated and unpaid dividends, after satisfaction of all liabilities to our creditors and holders of the Series B Preferred Shares, but before any distribution is made to or set aside for the holders of junior stock, including our common shares. The Series B Preferred Shares rank *pari passu* with the Series C Preferred Shares. The Series B Preferred Shares are not convertible into common shares or other of our securities, do not have exchange rights and are not entitled to any preemptive or similar rights.

***Series C Preferred Shares***

We had 2,000,000 of our 8.875% Series C Cumulative Redeemable Perpetual Preferred Shares outstanding as of March 31, 2016, which were issued on September 30, 2013. The initial liquidation preference of the Series C Preferred Shares is \$25.00 per share, subject to adjustment. The shares are redeemable by us at any time on or after October 30, 2018. The shares carry an annual dividend rate of 8.875% per \$25.00 of liquidation preference per share, subject to increase if (i) we fail to comply with certain covenants, (ii) we experience certain defaults under any of our credit facilities, (iii) four quarterly dividends payable on the Series C Preferred Shares are in arrears, or (iv) the Series C Preferred Shares are not redeemed in whole by October 30, 2020. The Series C Preferred Shares represent perpetual equity interests in us and, unlike our indebtedness, do not give rise to a claim for payment of a principal amount at a particular date. As such, the Series C Preferred Shares rank junior to all of our indebtedness and other liabilities with respect to assets available to satisfy claims against us. Upon any liquidation or dissolution of us, holders of the Series C Preferred Shares will generally be entitled to receive the cash value of the liquidation preference of the Series C Preferred Shares, plus an amount equal to accumulated and unpaid dividends, after satisfaction of all liabilities to our creditors and holders of the Series C Preferred Shares, but before any distribution is made to or set aside for the holders of junior stock, including our common shares. The Series C Preferred Shares rank *pari passu* with the Series B Preferred Shares. The Series C Preferred Shares are not convertible into common shares or other of our securities, do not have exchange rights and are not entitled to any preemptive or similar rights.

***Series D Preferred Shares***

We had 3,400,000 of our 8.75% Series D Cumulative Redeemable Perpetual Preferred Shares outstanding as of March 31, 2016, which were issued on April 22, 2015. The initial liquidation preference of the Series D Preferred Shares is \$25.00 per share, subject to adjustment. The shares are redeemable by us at any time on or after April 29,

2020. The shares carry an annual dividend rate of 8.75% per \$25.00 of liquidation preference per share. The Series D Preferred Shares represent perpetual equity interests in us and, unlike our indebtedness, do not give rise to a claim for payment of a principal amount at a particular date. As such, the Series D Preferred

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Shares rank junior to all of our indebtedness and other liabilities with respect to assets available to satisfy claims against us. Upon any liquidation or dissolution of us, holders of the Series D Preferred Shares will generally be entitled to receive the cash value of the liquidation preference of the Series D Preferred Shares, plus an amount equal to accumulated and unpaid dividends, after satisfaction of all liabilities to our creditors and holders of the Series D Preferred Shares, but before any distribution is made to or set aside for the holders of junior stock, including our common shares. The Series D Preferred Shares rank *pari passu* with the Series B Preferred Shares and Series C Preferred Shares. The Series D Preferred Shares are not convertible into common shares or other of our securities, do not have exchange rights and are not entitled to any preemptive or similar rights.

**Bermuda Law**

We are an exempted company organized under the Companies Act 1981 of Bermuda, as amended (the Companies Act 1981 of Bermuda ). Bermuda law and our Memorandum of Association and Bye-laws govern the rights of our shareholders. Our objects and purposes are set forth in paragraph 6 and the Schedule to our Memorandum of Association. Our objects and purposes include to act and to perform all the functions of a holding company in all its branches and to coordinate the policy and administration of any subsidiary company or companies wherever incorporated or carrying on business or of any group of companies of which we or any subsidiary of ours is a member or which are in any manner controlled directly or indirectly by us. The Companies Act 1981 of Bermuda differs in some material respects from laws generally applicable to United States corporations and their shareholders. The following is a summary of the material provisions of Bermuda law and our organizational documents. You should read the more detailed provisions of our Memorandum of Association and Bye-laws for provisions that may be important to you. You can obtain copies of these documents by following the directions outlined in Where You Can Find Additional Information.

*Dividends.* Under Bermuda law, a company may not pay dividends that are declared from time to time by its board of directors or make a distribution out of contributed surplus if there are reasonable grounds for believing that the company is, or would after the payment be, unable to pay its liabilities as they become due or that the realizable value of its assets would then be less than its liabilities.

*Voting rights.* Under Bermuda law, except as otherwise provided in the Companies Act 1981 of Bermuda or our Bye-laws, questions brought before a general meeting of shareholders are decided by a majority vote of common shareholders present at the meeting. Our Bye-laws provide that, subject to the provisions of the Companies Act 1981 of Bermuda, any question proposed for the consideration of the shareholders will be decided in a general meeting by a simple majority of the votes cast, on a show of hands, with each shareholder present (and each person holding proxies for any shareholder) entitled to one vote for each common share held by the common shareholder, except for special situations where a shareholder has lost the right to vote because he has failed to comply with the terms of a notice requiring him to provide information to the company pursuant to the Bye-laws, or his voting rights have been partly suspended under the Bye-laws as a consequence of becoming an interested person. In addition, a super-majority vote of not less than seventy-five percent (75%) of the votes cast at the meeting is required to effect any action related to the variation of class rights and a vote of not less than eighty percent (80%) of the votes cast at the meeting is required to effect any of the following actions: removal of directors, approval of business combinations with certain interested persons and for any alteration to the provisions of the Bye-laws relating to the staggered board, removal of directors and business combinations.

The Series B, Series C and Series D Preferred Shares have no voting rights except as set forth below or as otherwise provided by Bermuda law. In the event that six quarterly dividends, whether consecutive or not, payable on Series B, Series C or Series D Preferred Shares are in arrears, the holders of Series B, Series C and/or Series D Preferred Shares, as the case may be, will have the right, voting separately as a class together with holders of any other parity securities

upon which like voting rights have been conferred and are exercisable, at the next meeting of shareholders called for the election of directors, to elect one member of our board of directors, and the size of our board of directors will be increased as needed to accommodate such change (unless the size of our board of directors already has been increased by reason of the election of a director by holders of

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parity securities upon which like voting rights have been conferred and with which the Series B, Series C or Series D Preferred Shares, respectively, voted as a class for the election of such director). The right of such holders of Series B, Series C or Series D Preferred Shares, as the case may be, to elect a member of our board of directors will continue until such time as all dividends accumulated and in arrears on the Series B, Series C or Series D Preferred Shares, as the case may be, have been paid in full, at which time such right will terminate, subject to revesting in the event of each and every subsequent failure to pay six quarterly dividends as described above. Upon any termination of the right of the holders of the Series B, Series C and Series D Preferred Shares and any other parity securities to vote as a class for directors, the term of office of all directors then in office elected by such holders voting as a class will terminate immediately. Any directors elected by the holders of the Series B, Series C and Series D Preferred Shares and any other parity securities shall each be entitled to one vote per director on any matter before our board of directors.

Unless we have received the affirmative vote or consent of the holders of at least two-thirds of the issued and outstanding Series B, Series C and Series D Preferred Shares, as applicable, each voting as a single class, we may not:

adopt any amendment to the Memorandum of Association that adversely alters the preferences, powers or rights of Series B, Series C or Series D Preferred Shares in any material respect;

issue any securities ranking *pari passu* with the Series B, Series C and Series D Preferred Shares if the cumulative dividends payable on outstanding Series B, Series C or Series D Preferred Shares are in arrears;  
or

create or issue any equity securities ranking senior to the Series B, Series C and Series D Preferred Shares. On any matter described above in which the holders of the Series B, Series C and Series D Preferred Shares, respectively, are entitled to vote as a class, such holders will be entitled to one vote per share. The Series B, Series C and Series D Preferred Shares held by us or any of our subsidiaries or affiliates will not be entitled to vote.

*Rights in liquidation.* Under Bermuda law, in the event of liquidation or winding up of a company, after satisfaction in full of all claims of creditors and subject to the preferential rights accorded to any series of preferred shares, the proceeds of the liquidation or winding up are distributed ratably among the holders of the company's common shares.

*Meetings of shareholders.* Bermuda law provides that a special general meeting may be called by the board of directors and must be called upon the request of shareholders holding not less than 10% of the paid-up capital of the company carrying the right to vote. Bermuda law also requires that shareholders be given at least five (5) days advance notice of a general meeting but the accidental omission to give notice to, or the non-receipt of such notice by, any person does not invalidate the proceedings at a meeting. Under our Bye-laws, we must give each shareholder at least ten (10) days' notice and no more than fifty (50) days' notice of the annual general meeting and of any special general meeting.

Under Bermuda law, the number of shareholders constituting a quorum at any general meeting of shareholders is determined by the Bye-laws of a company. Our Bye-laws provide that the presence in person or by proxy of two shareholders constitutes a quorum; but if we have only one shareholder, one shareholder present in person or by proxy shall constitute the necessary quorum.



*Access to books and records and dissemination of information.* Members of the general public have the right to inspect the public documents of a company available at the office of the Registrar of Companies in Bermuda. These documents include a company's Certificate of Incorporation, its Memorandum of Association (including its objects and powers) and any alteration to its Memorandum of Association. The shareholders have the additional right to inspect the Bye-laws of the company, minutes of general meetings and the company's audited

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financial statements, which must be presented at the annual general meeting. The register of shareholders of a company is also open to inspection by shareholders without charge and by members of the general public without charge. A company is required to maintain its share register in Bermuda but may, subject to the provisions of Bermuda law, establish a branch register outside Bermuda. We maintain a share register in Hamilton, Bermuda. A company is required to keep at its registered office a register of its directors and officers that is open for inspection for not less than two (2) hours each day by members of the public without charge. Bermuda law does not, however, provide a general right for shareholders to inspect or obtain copies of any other corporate records.

*Election or removal of directors.* Under Bermuda law and our Bye-laws, directors are elected or appointed at the annual general meeting and serve until re-elected or re-appointed or until their successors are elected or appointed, unless they are earlier removed or resign. Our Bye-laws provide for a staggered board of directors, with one-third of the directors selected each year.

Under Bermuda law and our Bye-laws, a director may be removed at a special general meeting of shareholders specifically called for that purpose, provided the director is served with at least 14 days' notice. The director has a right to be heard at that meeting. Any vacancy created by the removal of a director at a special general meeting may be filled at that meeting by the election of another director in his or her place or, in the absence of any such election, by the board of directors.

*Amendment of Memorandum of Association.* Bermuda law provides that the Memorandum of Association of a company may be amended by a resolution passed at a general meeting of shareholders of which due notice has been given. Generally, our Bye-laws may be amended by the directors with the approval of a majority being not less than 75% of the votes of the shareholders in a general meeting. However, a super-majority vote is required for certain resolutions relating to the variation of class rights, the removal of directors, the approval of business combinations with certain interested persons and for any alteration to the provisions of the Bye-laws relating to the staggered board, removal of directors and business combinations.

Under Bermuda law, the holders of an aggregate of no less than 20% in par value of a company's issued share capital or any class of issued share capital have the right to apply to the Bermuda Court for an annulment of any amendment of the Memorandum of Association adopted by shareholders at any general meeting, other than an amendment which alters or reduces a company's share capital as provided in the Companies Act 1981 of Bermuda. Where such an application is made, the amendment becomes effective only to the extent that it is confirmed by the Bermuda Court. An application for the annulment of an amendment of the Memorandum of Association must be made within 21 days after the date on which the resolution altering the company's memorandum is passed and may be made on behalf of the persons entitled to make the application by one or more of their number as they may appoint in writing for the purpose. Persons voting in favor of the amendment may make no such application.

*Appraisal rights and shareholder suits.* Under Bermuda law, in the event of an amalgamation or merger involving a Bermuda company, a shareholder who is not satisfied that fair value has been paid for his shares may apply to the Bermuda Court to appraise the fair value of his or her shares. The amalgamation or merger of a company with another company requires the amalgamation or merger agreement to be approved by the board of directors and, except where the amalgamation or merger is between a holding company and one or more of its wholly owned subsidiaries or between two or more wholly owned subsidiaries, by meetings of the holders of shares of each company and of each class of such shares.

Class actions and derivative actions are generally not available to shareholders under Bermuda law. The Bermuda Court, however, would ordinarily be expected to permit a shareholder to commence an action in the name of a company to remedy a wrong done to the company where the act complained of is alleged to be beyond the corporate

power of the company or is illegal or would result in the violation of the company's Memorandum of Association or Bye-laws. Further consideration would be given by the Bermuda Court to acts that are alleged to constitute a fraud against the minority shareholders or, for instance, where an act requires the approval of a greater percentage of the company's shareholders than that which actually approved it.

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When the affairs of a company are being conducted in a manner oppressive or prejudicial to the interests of some part of the shareholders, one or more shareholders may apply to the Bermuda Court for an order regulating the company's conduct of affairs in the future or compelling the purchase of the shares by any shareholder, by other shareholders or by the company.

### **Anti-takeover effects of provisions of our charter documents**

Several provisions of our Bye-laws may have anti-takeover effects. These provisions are intended to avoid costly takeover battles, lessen our vulnerability to a hostile change of control and enhance the ability of our board of directors to maximize shareholder value in connection with any unsolicited offer to acquire us. However, these anti-takeover provisions, which are summarized below, could also discourage, delay or prevent (1) the merger or acquisition of our company by means of a tender offer, a proxy contest or otherwise, that a shareholder may consider in our best interest and (2) the removal of incumbent officers and directors.

#### ***Classified board of directors.***

Our Bye-laws provide for a classified board of directors with one-third of our directors being selected each year. This classified board provision could discourage a third party from making a tender offer for our shares or attempting to obtain control of our company. It could also delay shareholders who do not agree with the policies of the board of directors from removing a majority of the board of directors for two years.

#### ***Transactions involving certain business combinations.***

Our Bye-laws prohibit the consummation of any business combination involving us and any interested person, unless the transaction is approved by a vote of a majority of 80% of those present and voting at a general meeting of our shareholders, unless:

the ratio of (i) the aggregate amount of cash and the fair market value of other consideration to be received per share in the business combination by holders of shares other than the interested person involved in the business combination, to (ii) the market price per share, immediately prior to the announcement of the proposed business combination, is at least as great as the ratio of (iii) the highest per share price, which the interested person has theretofore paid in acquiring any share prior to the business combination, to (iv) the market price per share immediately prior to the initial acquisition by the interested person of any shares;

the aggregate amount of the cash and the fair market value of other consideration to be received per share in the business combination by holders of shares other than the interested person involved in the business combination (i) is not less than the highest per share price paid by the interested person in acquiring any shares, and (ii) is not less than the consolidated earnings per share of our company for our four full consecutive fiscal quarters immediately preceding the record date for solicitation of votes on the business combination multiplied by the then price/earnings multiple (if any) of the interested person as customarily computed and reported in the financial community;

the consideration (if any) to be received in the business combination by holders of shares other than the interested person involved shall, except to the extent that a shareholder agrees otherwise as to all or part of

the shares which the shareholder owns, be in the same form and of the same kind as the consideration paid by the interested person in acquiring shares already owned by it;

after the interested person became an interested person and prior to the consummation of the business combination: (i) such interested person shall have taken steps to ensure that the board includes at all times representation by continuing directors proportionate in number to the ratio that the number of shares carrying voting rights in our company from time to time owned by shareholders who are not interested persons bears to all shares carrying voting rights in our company outstanding at the time in question (with a continuing director to occupy any resulting fractional position among the directors);

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(ii) the interested person shall not have acquired from us or any of our subsidiaries, directly or indirectly, any shares (except (x) upon conversion of convertible securities acquired by it prior to becoming an interested person, or (y) as a result of a pro rata share dividend, share split or division or subdivision of shares, or (z) in a transaction consummated on or after June 7, 2001 and which satisfied all requirements of our Bye-laws); (iii) the interested person shall not have acquired any additional shares, or rights over shares, carrying voting rights or securities convertible into or exchangeable for shares, or rights over shares, carrying voting rights except as a part of the transaction which resulted in the interested person becoming an interested person; and (iv) the interested person shall not have (x) received the benefit, directly or indirectly (except proportionately as a shareholder), of any loans, advances, guarantees, pledges or other financial assistance or tax credits provided by us or any subsidiary of ours, or (y) made any major change in our business or equity capital structure or entered into any contract, arrangement or understanding with us except any change, contract, arrangement or understanding as may have been approved by the favorable vote of not less than a majority of the continuing directors; and

a proxy statement complying with the requirements of the U.S. Securities Exchange Act of 1934, as amended, shall have been mailed to all holders of shares carrying voting rights for the purpose of soliciting approval by the shareholders of the business combination. The proxy statement shall contain at the front thereof, in a prominent place, any recommendations as to the advisability (or inadvisability) of the business combination which the continuing directors, or any of them, may have furnished in writing and, if deemed advisable by a majority of the continuing directors, an opinion of a reputable investment banking firm as to the adequacy (or inadequacy) of the terms of the business combination from the point of view of the holders of shares carrying voting rights other than any interested person (the investment banking firm to be selected by a majority of the continuing directors, to be furnished with all information it reasonably requests, and to be paid a reasonable fee for its services upon receipt by us of the opinion).

For purposes of this provision, a business combination includes mergers, consolidations, exchanges, asset sales, leases and other transactions resulting in a financial benefit to the interested shareholder and an interested person is any person or entity that beneficially owns 15% or more of our voting shares and any person or entity affiliated with or controlling or controlled by that person or entity. Continuing directors means directors who have been elected before June 7, 2001 or designated as continuing directors by the majority of the then continuing directors.

**Consequences of becoming an interested person.**

Our Bye-laws provide that, at any time a person acquires or becomes the beneficial owner of 15% or more of our voting shares, which we refer to as the threshold, then the person will not be entitled to exercise voting rights for the number of common shares in excess of the threshold he holds or beneficially owns. This disability applies to any general meeting of our company as to which the record date or scheduled meeting date falls within a period of five years from the date such person acquired beneficial ownership of a number of common shares in excess of the threshold.

The above restrictions do not apply to us, our subsidiaries or to:

any person who on June 7, 2001 was the holder or beneficial owner of a number of shares carrying voting rights that exceeded the threshold and who continues at all times after June 7, 2001 to hold shares in excess of the threshold; and

any person whose acquisition of a number of shares exceeding the threshold has been approved by (1) a majority of 80% of those present and voting at a general meeting or (2) by a resolution adopted by the continuing directors, followed by a resolution adopted by a shareholder vote in excess of 50% of the voting shares not owned by such interested person.

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*Transfer agent and registrar.* Computershare Trust Company N.A. serves as transfer agent and registrar for our common shares and our Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares.

*New York Stock Exchange listing.* Our common shares are listed on the New York Stock Exchange under the ticker symbol TNP. Our Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares are listed on the New York Stock Exchange under the trading symbols TNP-PB , TNP-PC and TNP-PD, respectively.

## **Material Contracts**

See description of Management Agreement under Item 4. Information on the Company Management Contract Executive and Commercial Management. Such description is not intended to be complete and reference is made to the contract itself, which is an exhibit to this Annual Report on Form 20-F.

## **Exchange Controls**

Under Bermuda law, there are currently no restrictions on the export or import of capital, including foreign exchange controls, or restrictions that affect the remittance of dividends, interest or other payments to nonresident holders of our common shares. On July 22, 2015, Greece implemented capital controls restricting the transfer of funds out of Greece, which restricted our use of the limited amount of cash we held in Greece at that date for the remittances overseas. Cash deposited in Greek banks after that date is not restricted for remittances overseas.

## **TAX CONSIDERATIONS**

### **Taxation of Tsakos Energy Navigation Limited**

We believe that none of our income will be subject to tax in Bermuda, which currently has no corporate income tax, or by other countries in which we conduct activities or in which our customers are located, excluding the United States. However, this belief is based upon the anticipated nature and conduct of our business which may change, and upon our understanding of our position under the tax laws of the various countries in which we have assets or conduct activities, which position is subject to review and possible challenge by taxing authorities and to possible changes in law, which may have retroactive effect. The extent to which certain taxing jurisdictions may require us to pay tax or to make payments in lieu of tax cannot be determined in advance. In addition, payments due to us from our customers may be subject to withholding tax or other tax claims in amounts that exceed the taxation that we might have anticipated based upon our current and anticipated business practices and the current tax regime.

### **Bermuda tax considerations**

Under current Bermuda law, we are not subject to tax on income or capital gains. Furthermore, we have obtained from the Minister of Finance of Bermuda, under the Exempted Undertakings Tax Protection Act 1966 of Bermuda, as amended (the Exempted Undertakings Act ), assurance that, in the event that Bermuda enacts any legislation imposing tax computed on profits or income or computed on any capital asset, gain or appreciation, or any tax in the nature of estate duty or inheritance tax, then the imposition of such tax will not be applicable to us or to any of our operations, or to the shares, capital or common stock of Tsakos Energy Navigation, until March 31, 2035. This assurance does not, however, prevent the imposition of property taxes on any company owning real property or leasehold interests in Bermuda or on any person ordinarily resident in Bermuda. We pay an annual government fee on our authorized share capital and share premium, which for 2016 is \$18,670.



Under current Bermuda law, shareholders not ordinarily resident in Bermuda will not be subject to any income, withholding or other taxes or stamp or other duties upon the issue, transfer or sale of common shares or on any payments made on common shares.

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**United States federal income tax considerations**

The following summary of United States federal income tax matters is based on the Internal Revenue Code, judicial decisions, administrative pronouncements, and existing and proposed regulations issued by the United States department of the treasury, all of which are subject to change, possibly with retroactive effect. This discussion does not address any United States local or state taxes.

The following is a summary of the material United States federal income tax considerations that apply to (1) our operations and the operations of our vessel-operating subsidiaries and (2) the acquisition, ownership and disposition of common shares by a shareholder that is a United States holder. This summary is based upon our beliefs and expectations concerning our past, current and anticipated activities, income and assets and those of our subsidiaries, the direct, indirect and constructive ownership of our shares and the trading and quotation of our shares. Should any such beliefs or expectations prove to be incorrect, the conclusions described herein could be adversely affected. For purposes of this discussion, a United States holder is a beneficial owner of common shares who or which is:

An individual citizen or resident of the United States;

A corporation, or other entity taxable as a corporation for United States federal income tax purposes, created or organized in or under the laws of the United States or any of its political subdivisions; or

An estate or trust the income of which is subject to United States federal income taxation regardless of its source.

This summary deals only with common shares that are held as capital assets by a United States holder, and does not address tax considerations applicable to United States holders that may be subject to special tax rules, such as:

Dealers or traders in securities or currencies;

Financial institutions;

Insurance companies;

Tax-exempt entities;

United States holders that hold common shares as a part of a straddle or conversion transaction or other arrangement involving more than one position;

United States holders that own, or are deemed for United States tax purposes to own, ten percent or more of the total combined voting power of all classes of our voting stock;

A person subject to United States federal alternative minimum tax;

A partnership or other entity classified as a partnership for United States federal income tax purposes;

United States holders that have a principal place of business or tax home outside the United States; or

United States holders whose functional currency is not the United States dollar.

The discussion below is based upon the provisions of the Internal Revenue Code and regulations, administrative pronouncements and judicial decisions as of the date of this Annual Report; any such authority may be repealed, revoked or modified, perhaps with retroactive effect, so as to result in United States federal income tax consequences different from those discussed below.

Because United States tax consequences may differ from one holder to the next, the discussion set out below does not purport to describe all of the tax considerations that may be relevant to you and your particular situation. Accordingly, you are advised to consult your own tax advisor as to the United States federal, state, local and other tax consequences of investing in the common shares.

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***Taxation of our operations***

***In General***

Unless exempt from United States federal income taxation under the rules discussed below, a foreign corporation is subject to United States federal income taxation in respect of any income that is derived from the use of vessels, from the hiring or leasing of vessels for use on a time, voyage or bareboat charter basis, from the participation in a pool, partnership, strategic alliance, joint operating agreement, code sharing arrangements or other joint venture it directly or indirectly owns or participates in that generates such income, or from the performance of services directly related to those uses, which we refer to as shipping income, to the extent that the shipping income is derived from sources within the United States. For these purposes, 50% of shipping income that is attributable to transportation that begins or ends, but that does not both begin and end, in the United States constitutes income from sources within the United States, which we refer to as U.S.-source shipping income.

Shipping income attributable to transportation that both begins and ends in the United States is considered to be 100% from sources within the United States. We do not expect that we or any of our subsidiaries will engage in transportation that produces income which is considered to be 100% from sources within the United States.

Shipping income attributable to transportation exclusively between non-United States ports will be considered to be 100% derived from sources outside the United States. Shipping income derived from sources outside the United States will not be subject to any United States federal income tax.

In the absence of exemption from tax under Section 883, our gross U.S.-source shipping income would be subject to a 4% tax imposed without allowance for deductions as described below.

***Exemption of Operating Income from United States Federal Income Taxation***

Under Section 883, we and our subsidiaries will be exempt from United States federal income taxation on our U.S.-source shipping income if:

We and the relevant subsidiary are each organized in a foreign country (the country of organization) that grants an equivalent exemption to corporations organized in the United States; and either

More than 50% of the value of our stock is owned, directly or indirectly, by qualified stockholders, individuals who are (i) residents of our country of organization or of another foreign country that grants an equivalent exemption to corporations organized in the United States and (ii) satisfy certain documentation requirements, which we refer to as the 50% Ownership Test, or

Our common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares are primarily and regularly traded on an established securities market in our country of organization, in another country that grants an equivalent exemption United States corporations, or in the United States, which we refer to as the Publicly-Traded Test.

We believe that each of Bermuda, Cyprus, Greece, Liberia, the Marshall Islands and Panama, the jurisdictions where we and our ship-owning subsidiaries are incorporated, grants an equivalent exemption to United States corporations.

Therefore, we believe that we and each of our subsidiaries will be exempt from United States federal income taxation with respect to our U.S.-source shipping income if we satisfy either the 50% Ownership Test or the Publicly-Traded Test.

Due to the widely-held nature of our stock, we will have difficulty satisfying the 50% Ownership Test. Our ability to satisfy the Publicly-Traded Test is discussed below.

The regulations provide, in pertinent part, that stock of a foreign corporation will be considered to be primarily traded on one or more established securities markets in a country if the number of shares of each class of stock that are traded during any taxable year on all established securities markets in that country exceeds

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the number of shares in each such class that are traded during that year on established securities markets in any other single country. Our common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares, which are our sole classes of our issued and outstanding shares, were primarily traded on an established securities market in the United States (the New York Stock Exchange) in 2015 and we expect that will continue to be the case in subsequent years.

Under the regulations, our stock will be considered to be regularly traded on an established securities market if one or more classes of our stock representing more than 50% of our outstanding shares, by total combined voting power of all classes of stock entitled to vote and total value, is listed on the market, which we refer to as the listing requirement. Since our common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares, which are our sole classes of issued and outstanding shares, were listed on the New York Stock Exchange throughout 2015, we satisfied the listing requirement for 2015. We expect that we will continue to do so for subsequent years.

It is further required that with respect to each class of stock relied upon to meet the listing requirement (i) such class of the stock is traded on the market, other than in minimal quantities, on at least 60 days during the taxable year or 1/6 of the days in a short taxable year; and (ii) the aggregate number of shares of such class of stock traded on such market is at least 10% of the average number of shares of such class of stock outstanding during such year or as appropriately adjusted in the case of a short taxable year. We believe our common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares satisfied the trading frequency and trading volume tests for 2015 and will also do so in subsequent years. Even if this were not the case, the regulations provide that the trading frequency and trading volume tests will be deemed satisfied by a class of stock if, as we believe was the case with our common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares in 2015 and we expect to be the case with our common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares in subsequent years, such class of stock is traded on an established market in the United States and such class of stock is regularly quoted by dealers making a market in such stock.

Notwithstanding the foregoing, the regulations provide, in pertinent part, that our common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares will not be considered to be regularly traded on an established securities market for any taxable year in which 50% or more of our outstanding common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares are owned, actually or constructively under specified stock attribution rules, on more than half the days during the taxable year by persons who each own 5% or more of our common shares, which we refer to as the 5 Percent Override Rule.

For purposes of being able to determine the persons who own 5% or more of our stock, or 5% Stockholders, the regulations permit us to rely on Schedule 13G and Schedule 13D filings with the SEC to identify persons who have a 5% or more beneficial interest in our common shares. The regulations further provide that an investment company which is registered under the Investment Company Act of 1940, as amended, will not be treated as a 5% Stockholder for such purposes.

In the event the 5 Percent Override Rule is triggered, the regulations provide that the 5 Percent Override Rule will nevertheless not apply if we can establish, in accordance with specified ownership certification procedures, that a sufficient portion of the common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares within the closely-held block are owned, actually or under applicable constructive ownership rules, by qualified shareholders for purposes of Section 883 to preclude the common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares in the closely-held block that are not so owned from constituting 50% or more of the our common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares for more than half the number of days during the taxable year.

We do not believe that we were subject to the 5 Percent Override Rule for 2015. Therefore, we believe that we satisfied the Publicly-Traded Test for 2015. However, there is no assurance that we will continue to satisfy

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the Publicly-Traded Test. If we were to be subject to the 5 Percent Override Rule for any tax year, then our ability and that of our subsidiaries to qualify for the benefits of Section 883 would depend upon our ability to establish, in accordance with specified ownership certification procedures, that a sufficient portion of the common shares within the closely-held block are owned, actually or under applicable constructive ownership rules, by qualified shareholders for purposes of Section 883, to preclude the common shares in the closely-held block that are not so owned from constituting 50% or more of the our common shares for more than half the number of days during the tax year. Since there can be no assurance that we would be able to establish these requirements, there can be no assurance that we or our subsidiaries will qualify for the benefits of Section 883 for any subsequent tax year.

*Taxation in Absence of Exemption*

To the extent the benefits of Section 883 are unavailable, our U.S.-source shipping income, to the extent not considered to be effectively connected with the conduct of a United States trade or business, as described below, would be subject to a 4% tax imposed by Section 887 of the Internal Revenue Code on a gross basis, without the benefit of deductions. Since under the sourcing rules described above, we do not expect that more than 50% of our shipping income would be treated as being derived from United States sources, the maximum effective rate of United States federal income tax on our shipping income would never exceed 2% under the 4% gross basis tax regime.

To the extent the benefits of the Section 883 exemption are unavailable and our U.S.-source shipping income or that of any of our subsidiaries is considered to be effectively connected with the conduct of a United States trade or business, as described below, any such effectively connected U.S.-source shipping income, net of applicable deductions, would be subject to the United States federal corporate income tax currently imposed at rates of up to 35%. In addition, we or our subsidiaries may be subject to the 30% branch profits taxes on earnings effectively connected with the conduct of such trade or business, as determined after allowance for certain adjustments, and on certain interest paid or deemed paid attributable to the conduct of its United States trade or business.

U.S.-source shipping income would be considered effectively connected with the conduct of a United States trade or business only if:

We or one of our subsidiaries has, or is considered to have, a fixed place of business in the United States involved in the earning of shipping income; and

(i) in the case of shipping income other than that derived from bareboat charters, substantially all of our or such subsidiary's U.S.-source shipping income is attributable to regularly scheduled transportation, such as the operation of a vessel that follows a published schedule with repeated sailings at regular intervals between the same points for voyages that begin or end in the United States and (ii) in the case of shipping income from bareboat charters, substantially all of our or such subsidiary's income from bareboat charters is attributable to a fixed place of business in the U.S.

We do not intend that we or any of our subsidiaries will have any vessel operating to the United States on a regularly scheduled basis. Based on the foregoing and on the expected mode of our shipping operations and other activities, we believe that none of the U.S.-source shipping income of us or our subsidiaries will be effectively connected with the conduct of a United States trade or business.

*United States Taxation of Gain on Sale of Vessels*



Regardless of whether we or our subsidiaries qualify for exemption under Section 883, we and our subsidiaries will not be subject to United States federal income taxation with respect to gain realized on a sale of a vessel, provided the sale is considered to occur outside of the United States under United States federal income tax principles. In general, a sale of a vessel will be considered to occur outside of the United States for this

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purpose if title to the vessel, and risk of loss with respect to the vessel, pass to the buyer outside of the United States. It is expected that any sale of a vessel by us or our subsidiaries will be considered to occur outside of the United States.

***United States Holders******Distributions***

Subject to the discussion below under **Passive Foreign Investment Company Considerations**, distributions that we make with respect to the common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares, other than distributions in liquidation and distributions in redemption of stock that are treated as exchanges, will be taxed to United States holders as dividend income to the extent that the distributions do not exceed our current and accumulated earnings and profits (as determined for United States federal income tax purposes). Distributions, if any, in excess of our current and accumulated earnings and profits will constitute a nontaxable return of capital to a United States holder and will be applied against and reduce the United States holder's tax basis in its common shares. To the extent that distributions in excess of our current and accumulated earnings and profits exceed the tax basis of the United States holder in its common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares, the excess generally will be treated as capital gain.

Qualifying dividends received by individuals are eligible for taxation at capital gains rates (currently 20% for individuals not eligible for a lower rate). We are a non-United States corporation for U.S. federal income tax purposes. Dividends paid by a non-United States corporation are eligible to be treated as qualifying dividends only if (i) the non-United States corporation is incorporated in a possession of the United States, (ii) the non-United States corporation is eligible for the benefits of a comprehensive income tax treaty with the United States or (iii) the stock with respect to which the dividends are paid is readily tradable on an established securities market in the United States. We will not satisfy either of the conditions described in clauses (i) and (ii) of the preceding sentence. We expect that distributions on our common shares, Series B Preferred Shares, Series C Preferred Shares and Series D Preferred Shares that are treated as dividends will qualify as dividends on stock that is readily tradable on an established securities market in the United States so long as our common shares are traded on the New York Stock Exchange. In addition, dividends paid by a non-United States corporation will not be treated as qualifying dividends if the non-United States corporation is a passive foreign investment company (a PFIC) for the taxable year of the dividend or the prior taxable year. Our potential treatment as a PFIC is discussed below under the heading **Passive Foreign Investment Company Considerations**. A dividend will also not be treated as a qualifying dividend to the extent that (i) the shareholder does not satisfy a holding period requirement that generally requires that the shareholder hold the shares on which the dividend is paid for more than 60 days during the 121-day period that begins on the date which is sixty days before the date on which the shares become ex-dividend with respect to such dividend, (ii) the shareholder is under an obligation to make related payments with respect to substantially similar or related property or (iii) such dividend is taken into account as investment income under Section 163(d)(4)(b) of the Internal Revenue Code. Legislation has been proposed in the United States Congress which, if enacted in its current form, would likely cause dividends on our shares to be ineligible for the preferential tax rates described above. There can be no assurance regarding whether, or in what form, such legislation will be enacted.

Special rules may apply to any extraordinary dividend, generally a dividend in an amount which is equal to or in excess of ten percent (in the case of our common shares) or five percent (in the case of our Series B Preferred Shares, Series C Preferred Shares or our Series D Preferred Shares) of a shareholder's adjusted basis (or fair market value in certain circumstances) in such shares paid by us. In addition, extraordinary dividends include dividends received within a one year period that, in the aggregate, equal or exceed 20% of a shareholder's adjusted tax basis (or fair market value in certain circumstances). If we pay an extraordinary dividend on our common shares and such dividend

is treated as qualified dividend income, then any loss derived by a U.S. individual holder from the sale or exchange of such common shares will be treated as long-term capital loss to the extent of such dividend.

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Because we are not a United States corporation, a United States holder that is a corporation (or a United States entity taxable as a corporation) will not be entitled to claim a dividends received deduction with respect to any distributions paid by us.

Dividend income derived with respect to the common shares generally will constitute portfolio income for purposes of the limitation on the use of passive activity losses, and, therefore, generally may not be offset by passive activity losses, and, unless treated as qualifying dividends as described above, investment income for purposes of the limitation on the deduction of investment interest expense. Dividends that we pay will not be eligible for the dividends received deduction generally allowed to United States corporations under Section 243 of the Internal Revenue Code.

For foreign tax credit purposes, if at least 50 percent of our stock by voting power or by value is owned, directly, indirectly or by attribution, by United States persons, then, subject to the limitation described below, a portion of the dividends that we pay in each taxable year will be treated as U.S.-source income, depending in general upon the ratio for that taxable year of our U.S.-source earnings and profits to our total earnings and profits. The remaining portion of our dividends (or all of our dividends, if we do not meet the 50 percent test described above) will be treated as foreign-source income and generally will be treated as passive category income or, in the case of certain types of United States holders, general category income for purposes of computing allowable foreign tax credits for United States federal income tax purposes. However, if, in any taxable year, we have earnings and profits and less than ten percent of those earnings and profits are from United States sources, then, in general, dividends that we pay from our earnings and profits for that taxable year will be treated entirely as foreign-source income. Where a United States holder that is an individual receives a dividend on our shares that is a qualifying dividend (as described in the second preceding paragraph), special rules will apply that will limit the portion of such dividend that will be included in such individual's foreign source taxable income and overall taxable income for purposes of calculating such individual's foreign tax credit limitation.

*Sale or exchange*

Subject to the discussion below under *Passive Foreign Investment Company Considerations*, upon a sale or exchange of common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares to a person other than us or certain entities related to us, a United States holder will recognize gain or loss in an amount equal to the difference between the amount realized on the sale or exchange and the United States holder's adjusted tax basis in the common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares. Any gain or loss recognized will be capital gain or loss and will be long-term capital gain or loss if the United States holder has held the common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares for more than one year.

Gain or loss realized by a United States holder on the sale or exchange of common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares generally will be treated as U.S.-source gain or loss for United States foreign tax credit purposes. A United States holder's ability to deduct capital losses against ordinary income is subject to certain limitations.

*Passive Foreign Investment Company Considerations*

*PFIC classification.* Special and adverse United States tax rules apply to a United States holder that holds an interest in a PFIC. In general, a PFIC is any foreign corporation, if (1) 75 percent or more of the gross income of the corporation for the taxable year is passive income (the PFIC income test) or (2) the average percentage of assets held by the corporation during the taxable year that produce passive income or that are held for the production of passive income is at least 50 percent (the PFIC asset test). In applying the PFIC income test and the PFIC asset test, a

corporation that owns, directly or indirectly, at least 25 percent by value of the stock of a second corporation must take into account its proportionate share of the second corporation's income and assets. Income we earn, or are deemed to earn, in connection with the performance of services will not constitute passive income. By contrast, rental income will generally constitute passive income (unless we are treated under certain special rules as deriving our rental income in the active conduct of a trade or business).

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If a corporation is classified as a PFIC for any year during which a United States person is a shareholder, then the corporation generally will continue to be treated as a PFIC with respect to that shareholder in all succeeding years, regardless of whether the corporation continues to meet the PFIC income test or the PFIC asset test, subject to elections to recognize gain that may be available to the shareholder.

There are legal uncertainties involved in determining whether the income derived from time chartering activities constitutes rental income or income derived from the performance of services. In *Tidewater Inc. v. United States*, 565 F.2d 299 (5th Cir. 2009), the United States Court of Appeals for the Fifth Circuit held that income derived from certain time chartering activities should be treated as rental income rather than services income for purposes of a foreign sales corporation provision of the Code. In a recent published guidance, however, the Internal Revenue Service (the IRS) states that it disagrees with the holding in *Tidewater*, and specifies that time charters should be treated as service contracts. On this basis, we do not believe that we were treated as a PFIC for our most recent taxable year or that we will be treated as a PFIC for any subsequent taxable year. This conclusion is based in part upon our beliefs regarding our past assets and income and our current projections and expectations as to our future business activity, including, in particular, our expectation that the proportion of our income derived from bareboat charters will not materially increase. However, we have not sought, and we do not expect to seek, an IRS ruling on this matter. As a result, the IRS or a court could disagree with our position. No assurance can be given that this result will not occur. In addition, although we intend to conduct our affairs in a manner to avoid, to the extent possible, being classified as a PFIC with respect to any taxable year, we cannot assure you that the nature of our operations will not change in the future, or that we can avoid PFIC status in the future.

*Consequences of PFIC Status.* As discussed below, if we were to be treated as a PFIC for any taxable year, a United States holder generally would be subject to one of three different U.S. income tax regimes, depending on whether or not the United States holder makes certain elections. Additionally, the United States holder would be required to file an annual information report with the IRS.

*Taxation of United States Holders that Make No Election.* If we are treated as a PFIC for any taxable year during which a United States holder holds our common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares, then, subject to the discussion of the qualified electing fund ( QEF ) and mark-to-market rules below, the United States holder will be subject to a special and adverse tax regime in respect of (1) gains realized on the sale or other disposition of our common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares and (2) distributions on our common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares to the extent that those distributions are treated as excess distributions. An excess distribution generally includes dividends or other distributions received from a PFIC in any taxable year of a United States holder to the extent that the amount of those distributions exceeds 125 percent of the average distributions made by the PFIC during a specified base period (or, if shorter, the United States holder's holding period for the shares). A United States holder that is subject to the PFIC rules (1) will be required to allocate excess distributions received in respect of our common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares and gain realized on the sale of common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares to each day during the United States holder's holding period for the common shares, (2) will be required to include in income as ordinary income the portion of the excess distribution or gain that is allocated to the current taxable year and to certain pre-PFIC years, and (3) will be taxable at the highest rate of taxation applicable to ordinary income for the prior years, other than pre-PFIC years, to which the excess distribution or gain is allocable, without regard to the United States holder's other items of income and loss for such prior taxable years ( deferred tax ). The deferred tax for each prior year will be increased by an interest charge for the period from the due date for tax returns for the prior year to the due date for tax returns for the year of the excess distribution or gain, computed at the rates that apply to underpayments of tax. Pledges of PFIC shares will be treated as dispositions for purposes of the foregoing rules. In addition, a United States holder who acquires common shares, Series B Preferred Shares, Series C

Preferred Shares or Series D Preferred Shares from a decedent generally will not receive a stepped-up basis in the common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares.

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Instead, the United States holder will have a tax basis in the common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares equal to the lower of the fair market value of the common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares and the decedent's basis.

If we are treated as a PFIC for any taxable year during which a United States holder holds our common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares and one of our subsidiaries also qualifies as a PFIC for such year, then such United States holder may also be subject to the PFIC rules with respect to its indirect interest in such subsidiary. No mark-to-market election will be available with respect to the indirect interest in the shares of such subsidiary and we currently do not intend to comply with reporting requirements necessary to permit the making of QEF elections in such circumstances.

*Taxation of United States Holders that Make a QEF Election.* In some circumstances, a United States holder may avoid the unfavorable consequences of the PFIC rules by making a QEF election with respect to us. A QEF election effectively would require an electing United States holder to include in income currently its pro rata share of our ordinary earnings and net capital gain. However, a United States holder cannot make a QEF election with respect to us unless we comply with certain reporting requirements and we currently do not intend to provide the required information.

*Taxation of United States Holders that Make a Mark-to-Market Election.* A United States holder that holds marketable stock in a PFIC may, in lieu of making a QEF election, avoid some of the unfavorable consequences of the PFIC rules by electing to mark the PFIC stock to market as of the close of each taxable year. The common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares will be treated as marketable stock for a calendar year if the common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares are traded on the New York Stock Exchange, in other than de minimis quantities, on at least 15 days during each calendar quarter of the year. A United States holder that makes the mark-to-market election generally will be required to include in income each year as ordinary income an amount equal to the increase in value of the common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares for that year, regardless of whether the United States holder actually sells the common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares. The United States holder generally will be allowed a deduction for the decrease in value of the common shares, Series B Preferred Shares, Series C Preferred Shares or Series D Preferred Shares for the taxable year, to the extent of the amount of gain previously included in income under the mark-to-market rules, reduced by prior deductions under the mark-to-market rules. Any gain from the actual sale of the PFIC stock will be treated as ordinary income, and any loss will be treated as ordinary loss to the extent of net mark-to-market gains previously included in income and not reversed by prior deductions.

*Other PFIC Elections.* If a United States holder held our stock during a period when we were treated as a PFIC, but the United States holder did not have a QEF election in effect with respect to us, then in the event that we failed to qualify as a PFIC for a subsequent taxable year, the United States holder could elect to cease to be subject to the rules described above with respect to those shares by making a deemed sale or, in certain circumstances, a deemed dividend election with respect to our stock. If the United States holder makes a deemed sale election, the United States holder will be treated, for purposes of applying the rules described above under the heading consequences of PFIC status, as having disposed of our stock for its fair market value on the last day of the last taxable year for which we qualified as a PFIC (the termination date). The United States holder would increase his, her or its basis in such common stock by the amount of the gain on the deemed sale described in the preceding sentence. Following a deemed sale election, the United States holder would not be treated, for purposes of the PFIC rules, as having owned the common stock during a period prior to the termination date when we qualified as a PFIC.



If we were treated as a controlled foreign corporation for United States federal income tax purposes for the taxable year that included the termination date, then a United States holder could make a deemed dividend election with respect to our common stock, Series B Preferred Shares, Series C Preferred Shares or Series D

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Preferred Shares. If a deemed dividend election is made, the United States holder is required to include in income as a dividend his, her or its pro rata share (based on all of our stock held by the United States holder, directly or under applicable attribution rules, on the termination date) of our post-1986 earnings and profits as of the close of the taxable year that includes the termination date (taking only earnings and profits accumulated in taxable years in which we were a PFIC into account). The deemed dividend described in the preceding sentence is treated as an excess distribution for purposes of the rules described above under the heading consequences of PFIC status. The United States holder would increase his, her or its basis in our stock by the amount of the deemed dividend. Following a deemed dividend election, the United States holder would not be treated, for purposes of the PFIC rules, as having owned the stock during a period prior to the termination date when we qualified as a PFIC. For purposes of determining whether the deemed dividend election is available, we generally will be treated as a controlled foreign corporation for a taxable year when, at any time during that year, United States persons, each of whom owns, directly or under applicable attribution rules, shares having 10% or more of the total voting power of our stock, in the aggregate own, directly or under applicable attribution rules, shares representing more than 50% of the voting power or value of our stock.

A deemed sale or deemed dividend election must be made on the United States holder's original or amended return for the shareholder's taxable year that includes the termination date and, if made on an amended return, such amended return must be filed not later than the date that is three years after the due date of the original return for such taxable year. Special rules apply where a person is treated, for purposes of the PFIC rules, as indirectly owning our common stock.

You are urged to consult your own tax advisor regarding our possible classification as a PFIC, as well as the potential tax consequences arising from the ownership and disposition, directly or indirectly, of interests in a PFIC.

***Unearned Income Medicare Contribution Tax***

Certain United States holders that are individuals, estates or trusts are required to pay an additional 3.8% tax on, among other things, dividends on and capital gains from the sale or other disposition of stock. You are encouraged to consult your own tax advisors regarding the effect, if any, of this tax on the ownership and disposition of our stock.

***Additional Disclosure Requirement***

U.S. individuals that hold certain specified foreign financial assets with value in excess of reporting thresholds of \$50,000 or more (which include shares in a foreign corporation) are subject to U.S. return disclosure obligations (and related penalties for failure to disclose). Such U.S. individuals are required to file IRS Form 8938, listing these assets, with their U.S. Federal income tax returns. You are encouraged to consult your own tax advisors concerning the filing of IRS Form 8938.

***Information reporting and backup withholding***

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries generally are subject to information reporting and backup withholding unless (i) you are a corporation or other exempt recipient or (ii) in the case of backup withholding, you provide a correct taxpayer identification number and certify that you are not subject to backup withholding.

The amount of any backup withholding from a payment to you will be allowed as a credit against your United States federal income tax liability and may entitle you to a refund, provided that the required information is furnished to the Internal Revenue Service.

**Available Information**

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended. In accordance with these requirements, we file reports and other information as a foreign private issuer with the

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SEC. You may inspect and copy our public filings without charge at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information about the public reference room. You may obtain copies of all or any part of such materials from the SEC upon payment of prescribed fees. You may also inspect reports and other information regarding registrants, such as us, that file electronically with the SEC without charge at a web site maintained by the SEC at <http://www.sec.gov>. In addition, material filed by Tsakos Energy Navigation can be inspected at the offices of the New York Stock Exchange at 20 Broad Street, New York, New York 10005.

**Item 11. Quantitative and Qualitative Disclosures About Market Risk**

*Our risk management policy.* Our policy is to continuously monitor our exposure to business risks, including the impact of changes in interest rates, currency rates, and bunker prices on earnings and cash flows. We intend to assess these risks and, when appropriate, enter into derivative contracts with creditworthy counter parties to minimize our exposure to these risks. As part of our efforts to manage our risk, we have in the past entered into derivative contracts for both hedging and, periodically, trading purposes.

Each of the committees of the Board of Directors is responsible for the management of risk within their given areas. In particular, the committees are expected to:

continuously review and assess all activities that may generate exposure to risk and ensure we are taking appropriate measures;

ensure that our policies and procedures for evaluating and managing risks are effective and do not significantly increase overall risk; and

assess the effectiveness of derivative contracts and recommend, if necessary, the early termination of any contract.

Our risk management policy provides for the following procedures:

All recommendations to enter into a derivative contract must originate either from qualified officers or directors of the company or from equivalent specialized officers of our commercial manager;

All recommendations to enter into a derivative contract must be reviewed by a combined team of officers and advice is taken, as applicable, from third-party sources (e.g., our bankers, other banks, bunker brokers, insurers, etc.);

Any recommendation must be formalized into a specific proposal which defines the risks to be managed, the action to be implemented, and the benefits and potential risks of the proposed derivative contract, which proposal shall be presented to the Risk Committee; and

All derivative contracts must be approved by the Risk Committee and be within the overall limits set by the board of directors.

The Audit Committee is responsible for:

overseeing the division of risk-related responsibilities among each of the Board committees as clearly as possible and performing a gap analysis to confirm that the oversight of any risk is not missed;

in conjunction with the full Board, approving the Company-wide risk management program; and

assessing whether the Company's technical and commercial managers have effective procedures for managing risks.

*Interest rate risk*

The Company is exposed to market risk from changes in interest rates, which could impact its results of operations, financial condition and cash flow. The Company manages its ratio of fixed to floating rate debt with the objective of achieving a mix that reflects management's interest rate outlook. As of March 31, 2016 we had a

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notional amount of \$213.2 million in effective hedging swaps and a further notional amount of \$47.7 million in interest rate swaps that do not meet hedging criteria. The annualized impact resulting from a 0.25% point increase in interest rates based on the notional amount at December 31, 2015 would be an increase of approximately \$0.6 million in earnings and cash flow. An increase of 0.25% in interest rates will increase our loan interest rate payments by \$3.4 million based on the outstanding amounts as of December 31, 2015 and the loans scheduled for amortization as of that date.

The table below provides information about our financial instruments at December 31, 2015, which are sensitive to changes in interest rates, including our debt and interest rate swaps. For debt obligations, the table presents principal cash flows and related weighted average interest rates by expected maturity dates. Weighted-average variable rates are based on the implied forward rates in the yield curves at the reporting date. For interest rate swaps, the table presents notional amounts and weighted-average interest rates by expected contractual maturity dates. Notional amounts are used to calculate the contractual payments to be exchanged under the contracts.

	<b>Balance as of Dec. 31, 2015</b>	<b>Expected Maturities(1)</b>					
		<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Thereafter</b>
		<b>(In millions of U.S. dollars, except percentages)</b>					
<b>Long-Term Debt(5):</b>							
Fixed Rate Debt	<b>32.1</b>	10.6	10.6	8.1	2.8		
Weighted Average Interest Rate	5.19%	5.19%	5.19%	5.19%	5.19%		
Variable Rate Debt(2)	<b>1,368</b>	309	191.5	278.2	175.5	137.3	276.5
Weighted Average Interest Rate	2.18%	2.77%	3.30%	3.68%	3.95%	4.28%	4.08%
	<b>1,400.1</b>	<b>319.6</b>	<b>202.1</b>	<b>286.3</b>	<b>178.3</b>	<b>137.3</b>	<b>276.5</b>
<b>Interest Rate Swaps (or Derivatives):</b>							
Interest rate swaps variable to fixed(3)							
Notional Amount at December 31, 2015	<b>239.5</b>	39.3	17.9	58.8	53.8	30.6	39.1
Average Pay Rate	2.80%	3.06%	2.67%	2.60%	2.60%	2.48%	2.48%
Average Receive Rate	0.39%	0.43%	1.31%	1.79%	2.02%	2.21%	2.37%
Cap and Floor Options(3)							
Notional Amount	<b>47.7</b>	47.7					
Average Pay Rate(2)	4.58%	4.67%					
Average Receive Rate	0.36%	0.53%					
	<b>287.2</b>	<b>87.0</b>	<b>17.9</b>	<b>58.8</b>	<b>53.8</b>	<b>30.6</b>	<b>39.1</b>

(1) These are the expected maturities based on the balances as of December 31, 2015.

(2) Interest Payments on US Dollar denominated debt and interest rate swaps are based on LIBOR.

(3) As of December 31, 2015 we had \$239.5 million in effecting hedging swap and a further \$47.7 million in interest rate swaps that do not meet hedging criteria.

*Bunker price risk*

The Company regularly enters into bunker swap agreements in order to hedge its exposure to bunker price fluctuations associated with the consumption of bunkers by its spot trading vessels. During 2015, the Company entered into 17 call option agreements and paid a premium on those call options of \$1.4 million. During 2015, five call options expired. The 12 remaining call options covered 43,800 metric tons of bunker fuel, all of which expire at the end of 2016, apart from three options covering 9,000 tons in total, which expire at the end of 2017. The market value of these 12 call options at December 31, 2015, amounted to \$0.2 million. We estimate that for every \$1.00 increase in the price of bunker fuel per metric ton, there would have been an annualized decrease of earnings and cash flow by \$0.2 million based on our bunker consumption of 2015.

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*Foreign exchange rate fluctuation*

The currency the international tanker industry is primarily using is the U.S. dollar. Virtually all of our revenues are in U.S. dollars and the majority of our operating costs are incurred in U.S. dollars. We incur certain operating expenses in foreign currencies, the most significant of which are in Euros. During fiscal 2015, approximately 27% of the total of our vessel and voyage costs and overhead expenditures were denominated in Euro. Based on 2015 Euro expenditure, therefore, we estimate that for every 1% change in the Euro/U.S. dollar rate there would be a 0.3% impact on vessel operating expenses and minimal impact on other cost categories apart from dry-docking which would depend on the location of the selected yard. However, we have the ability to shift our purchase of goods and services from one country to another and, thus, from one currency to another in order to mitigate the effects of exchange rate fluctuations. We have a policy of continuously monitoring and managing our foreign exchange exposure. On occasion, we do directly purchase amounts of Euro with U.S. dollars, but to date, we have not engaged in any foreign currency hedging transactions, as we do not believe we have had material risk exposure to foreign currency fluctuations.

*Inflation*

Although inflation has had a moderate impact on operating expenses, dry-docking expenses and corporate overhead, our management does not consider inflation to be a significant risk to direct costs in the current and foreseeable economic environment. However, if inflation becomes a significant factor in the world economy, inflationary pressures could result in increased operating and financing costs.

**Item 12. Description of Securities Other than Equity Securities**

Not Applicable.



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**PART II**

**Item 13. Defaults, Dividend Arrearages and Delinquencies**

Not Applicable.

**Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds**

None.

**Item 15. Controls and Procedures**

**A. Evaluation of Disclosure Controls and Procedures**

The Company's management, with the participation of the Company's chief executive officer and chief financial officer, evaluated the effectiveness of the Company's disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act), as of the end of the period covered by this Annual Report. Based on that evaluation, the chief executive officer and the chief financial officer concluded that the Company's disclosure controls and procedures as of the end of the period covered by this Annual Report were designed and were functioning effectively to provide reasonable assurance that the information required to be disclosed by the Company in reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and is accumulated and communicated to the Company's management, including our chief executive officer and chief financial officer and principal financial officers, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure.

The Company believes that a system of controls, no matter how well designed and operated, cannot provide absolute assurance that the objectives of the controls are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected.

**B. Management's Annual Report on Internal Control Over Financial Reporting**

The management of Tsakos Energy Navigation Limited and its subsidiaries, according to Rule 13a-15(f) of the Securities Exchange Act, is responsible for the establishment and maintenance of adequate internal controls over financial reporting for the Company. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles. However, in any system of internal control there are inherent limitations and consequently internal control over financial reporting may not absolutely prevent or detect misstatements.

The Company's system of internal control over financial reporting includes policies and procedures that:

(i)

pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;

- (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
  
- (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

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Because of the inherent limitations of internal controls over financial reporting, misstatements may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management has performed an assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2015, based on the criteria established within *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework).

Based on its assessment, management has determined that the Company's internal control over financial reporting as of December 31, 2015, was effective.

### **C. Attestation Report of Independent Registered Public Accounting Firm**

Ernst & Young (Hellas) Certified Auditors Accountants S.A., or Ernst & Young (Hellas), which has audited the consolidated financial statements of the Company for the year ended December 31, 2015, has also audited the effectiveness of the Company's internal control over financial reporting as stated in their audit report which is incorporated into Item 18 of this Form 20-F from page F-2 hereof.

### **D. Change in Internal Control over Financial Reporting**

No change in the Company's internal control over financial reporting occurred during the Company's most recent fiscal year that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

### **Item 16A. Audit Committee Financial Expert**

The Board of Directors of the Company has determined that Francis T. Nusspickel and Efstratios Georgios Arapoglou, whose biographical details are included in Item 6 of this Annual Report, each qualifies as an audit committee financial expert as defined under current SEC regulations and each satisfies the accounting or related financial management expertise standard of the New York Stock Exchange.

### **Item 16B. Code of Ethics**

The Company has adopted a code of ethics that applies to its directors, officers and employees. A copy of our code of ethics is posted in the Investor Relations section of the Tsakos Energy Navigation Limited website, and may be viewed at <http://www.tenn.gr>. We will also provide a hard copy of our code of ethics free of charge upon written request of a shareholder. Shareholders may direct their requests to the attention of Investor Relations, c/o George Saroglou or Paul Durham, Tsakos Energy Navigation Limited, 367 Syngrou Avenue, 175 64 P. Faliro, Athens, Greece.

### **Item 16C. Principal Accountant Fees and Services**

Ernst & Young (Hellas) has audited our annual financial statements acting as our independent auditor for the fiscal years ended December 31, 2015 and 2014.

**Audit Fees**

The audit fees include the aggregate fees billed for professional services rendered for the audit of our 2015 and 2014 annual financial statements and for related services that are reasonably related to the performance of the audit or services that are normally provided by the auditor in connection with regulatory filings or engagements for those financial years (including comfort letters, review of the 20-F, consents and other services related to SEC requirements).

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The total amount billed and accrued for the Ernst & Young Audit services performed in 2015 and 2014 (in Euros) was 625,000 and 615,461 respectively.

### **Audit-Related Fees**

Ernst & Young did not provide any other services that would be classified in this category during 2015 or 2014.

### **Tax Fees**

Ernst & Young did not provide any other services that would be classified in this category during 2015 or 2014.

### **All Other Fees**

Ernst & Young did not provide any other services that would be classified in this category during 2015 or 2014.

### **Pre-approval Policies and Procedures**

The Audit Committee Charter sets forth the Company's policy regarding retention of the independent auditors, requiring the Audit Committee to review and approve in advance the retention of the independent auditors for the performance of all audit and lawfully permitted non-audit services and the fees related thereto. The Chairman of the Audit Committee or in the absence of the Chairman, any member of the Audit Committee designated by the Chairman, has authority to approve in advance any lawfully permitted non-audit services and fees. The Audit Committee is authorized to establish other policies and procedures for the pre-approval of such services and fees. Where non-audit services and fees are approved under delegated authority, the action must be reported to the full Audit Committee at its next regularly scheduled meeting.

### **Item 16D. Exemptions from the Listing Standards for Audit Committees**

Not Applicable.

### **Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers**

On August 11, 2011, the Company announced the authorization of a new share buy-back program allocating up to \$20.0 million for purchases of the Company's common and preferred shares in the open market and in other transactions. On December 8, 2015 the Company announced the resumption of the share buy-back program.

There were no repurchases of shares under this program during 2013, 2014 or 2015.

The Company's share repurchase program does not obligate it to purchase any of its shares, and the share repurchase program may be modified or terminated at any time without prior notice.

### **Item 16F. Change in Registrant's Certifying Accountant**

Not Applicable.



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**Item 16G. Corporate Governance**

Pursuant to certain exceptions for foreign private issuers, we are not required to comply with certain of the corporate governance practices followed by U.S. companies under the New York Stock Exchange listing standards. However, during 2015 there were no significant differences between our corporate governance practices and the New York Stock Exchange standards applicable to listed U.S. companies.

**Item 16H. Mine Safety Disclosure**

Not Applicable.

**Table of Contents****PART III****Item 17. Financial Statements**

Not Applicable.

**Item 18. Financial Statements**

The following financial statements together with the reports of our independent registered public accounting firm, beginning on page F-1 are filed as part of this annual report.

**Item 19. Exhibits**

The following Exhibits are filed as part of this Annual Report. Certain exhibits have been previously filed with the SEC pursuant to the Securities Exchange Act of 1934, as amended (Commission File Number 001-31236).

<b>Number</b>	<b>Description</b>
1.1	Memorandum of Association of Tsakos Energy Navigation Limited*
1.2	Memorandum of Increase of Share Capital (filed as Exhibit 3.1 to the Company's 6-K filed with the SEC on June 10, 2014, and hereby incorporated by reference)
1.3	Bye-laws of Tsakos Energy Navigation Limited (filed as Exhibit 99.4 to the Company's Form 6-K filed with the SEC on September 9, 2015, and hereby incorporated by reference)
2.1	Certificate of Designation of the 8.00% Series B Cumulative Redeemable Perpetual Preferred Shares (filed as an exhibit to the Company's Form 8-A filed with the SEC on May 9, 2013)
2.2	Amendment No. 1 to Certificate of Designation of the 8.00% Series B Cumulative Redeemable Perpetual Preferred Shares (filed as an exhibit to the Company's Form 8-A/A filed with the SEC on October 26, 2015)
2.3	Certificate of Designation of the 8.875% Series C Cumulative Redeemable Perpetual Preferred Shares (filed as an exhibit to the Company's Form 8-A filed with the SEC on September 27, 2013)
2.4	Amendment No. 1 to Certificate of Designation of the 8.875% Series C Cumulative Redeemable Perpetual Preferred Shares (filed as an exhibit to the Company's Form 8-A/A filed with the SEC on October 26, 2015)
2.5	Certificate of Designation of the 8.75% Series D Cumulative Redeemable Perpetual Preferred Shares (filed as an exhibit to the Company's Form 8-A filed with the SEC on April 24, 2015)
4.1	Tsakos Energy Navigation Limited 2012 Incentive Plan (filed as an exhibit to the Company's Annual Report on Form 20-F filed with the SEC on April 29, 2013 and hereby incorporated by reference)
4.2	



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Amended and Restated Management Agreement between Tsakos Energy Navigation Limited and Tsakos Energy Management Limited effective January 1, 2007\*\*

7	Statement regarding computation of ratio of earnings to fixed charges (filed herewith)
8	List of subsidiaries of Tsakos Energy Navigation Limited (filed herewith)
11	Code of Ethics
12.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended (filed herewith)
12.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended (filed herewith)

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<b>Number</b>	<b>Description</b>
13.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
13.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
15.1	Consent of Independent Registered Public Accounting Firm (filed herewith)
15.2	Consent of Howe Robinson Partners (UK) Ltd. (filed herewith)
101.INS	XBRL Instance Document (filed herewith)
101.SCH	XBRL Taxonomy Extension Schema (filed herewith)
101.CAL	XBRL Taxonomy Extension Calculation Linkbase (filed herewith)
101.DEF	XBRL Taxonomy Extension Definition Linkbase (filed herewith)
101.LAB	XBRL Taxonomy Extension Label Linkbase (filed herewith)
101.PRE	XBRL Taxonomy Extension Presentation Linkbase (filed herewith)

\* Previously filed as an exhibit to the Company's Registration Statement on Form F-1 (File No. 333-82326) filed with the SEC and hereby incorporated by reference to such Registration Statement.

\*\* Previously filed as an exhibit to the Company's 20-F filed with the SEC on May 15, 2007, hereby incorporated by reference to such Annual Report.

Previously filed as an exhibit to the Company's Annual Report on Form 20-F filed with the SEC on June 29, 2004 and hereby incorporated by reference to such Annual Report.

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**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

**TSAKOS ENERGY NAVIGATION  
LIMITED**

*/s/ Nikolas P. Tsakos*

**Name: Nikolas P. Tsakos**

**Title: President and Chief Executive  
Officer**

**Date: April 5, 2016**

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**TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**

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**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Shareholders of

TSAKOS ENERGY NAVIGATION LIMITED

We have audited the accompanying consolidated balance sheets of TSAKOS ENERGY NAVIGATION LIMITED and subsidiaries as of December 31, 2015 and 2014, and the related consolidated statements of comprehensive income / (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2015. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of TSAKOS ENERGY NAVIGATION LIMITED and subsidiaries at December 31, 2015 and 2014, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), TSAKOS ENERGY NAVIGATION LIMITED and subsidiaries' internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated April 5, 2016 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG (HELLAS) CERTIFIED AUDITORS ACCOUNTANTS S.A.

Athens, Greece

April 5, 2016

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**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Shareholders of

TSAKOS ENERGY NAVIGATION LIMITED

We have audited TSAKOS ENERGY NAVIGATION LIMITED and subsidiaries' internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), (the COSO criteria). TSAKOS ENERGY NAVIGATION LIMITED and subsidiaries' management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Controls over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, TSAKOS ENERGY NAVIGATION LIMITED and subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of TSAKOS ENERGY NAVIGATION LIMITED and subsidiaries as of December 31, 2015 and 2014, and the related consolidated statements of comprehensive income / (loss), stockholders equity and cash flows for each of the three years in the period ended December 31, 2015 and our report dated April 5, 2016 expressed an unqualified opinion thereon.

/s/ ERNST & YOUNG (HELLAS) CERTIFIED AUDITORS - ACCOUNTANTS S.A.

Athens, Greece

April 5, 2016

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**Table of Contents****TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES****CONSOLIDATED BALANCE SHEETS**

DECEMBER 31, 2015 AND 2014

(Expressed in thousands of U.S. Dollars - except share and per share data)

	<b>2015</b>	<b>2014</b>
<b><u>ASSETS</u></b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$ 289,676	\$ 202,107
Restricted cash	15,330	12,334
Accounts receivable, net	45,461	42,047
Due from related parties (Note 2)	4,169	1,895
Advances and other	14,132	10,629
Vessels held for sale (Note 1j)	67,255	
Inventories	14,410	15,941
Prepaid insurance and other	1,765	2,403
Current portion of financial instruments - Fair value (Note 15)	28	2,443
<b>Total current assets</b>	<b>452,226</b>	<b>289,799</b>
<b>INVESTMENTS (Note 3)</b>	<b>1,000</b>	<b>1,000</b>
<b>FINANCIAL INSTRUMENTS - FAIR VALUE, net of current portion (Note 15)</b>	<b>126</b>	
<b>FIXED ASSETS (Note 5)</b>		
Advances for vessels under construction	371,238	188,954
Vessels	2,748,330	2,834,289
Accumulated depreciation	(695,044)	(635,135)
<b>Vessels Net Book Value</b>	<b>2,053,286</b>	<b>2,199,154</b>
<b>Total fixed assets</b>	<b>2,424,524</b>	<b>2,388,108</b>
<b>DEFERRED CHARGES, net (Note 6)</b>	<b>22,821</b>	<b>20,190</b>
<b>Total assets</b>	<b>\$ 2,900,697</b>	<b>\$ 2,699,097</b>
<b><u>LIABILITIES AND STOCKHOLDERS EQUITY</u></b>		
<b>CURRENT LIABILITIES:</b>		
Current portion of long-term debt (Note 7)	\$ 319,560	\$ 228,492
Payables	33,264	33,052
Due to related parties (Note 2)	1,740	10,136
Dividends payable		5,083
Accrued liabilities	29,363	25,188



Unearned revenue	12,277	9,897
Current portion of financial instruments - Fair value (Note 15)	5,706	15,434
<b>Total current liabilities</b>	401,910	327,282
<b>LONG-TERM DEBT, net of current portion (Note 7)</b>	1,080,534	1,189,844
<b>FINANCIAL INSTRUMENTS - FAIR VALUE, net of current portion (Note 15)</b>	3,181	4,059
<b>STOCKHOLDERS EQUITY</b>		
Preferred shares, \$ 1.00 par value; 15,000,000 shares authorized and 2,000,000 Series B Preferred Shares and 2,000,000 Series C preferred Shares issued and outstanding at December 31, 2015 and December 31, 2014 and 3,400,000 Series D Preferred Shares issued and outstanding at December 31, 2015.	7,400	4,000
Common shares, \$ 1.00 par value; 185,000,000 shares authorized at December 31, 2015 and December 31, 2014; 87,338,652 and 84,712,295 shares issued and outstanding at December 31, 2015 and 2014 respectively	87,339	84,712
Additional paid-in capital	752,001	650,536
Accumulated other comprehensive loss	(10,727)	(10,290)
Retained earnings	567,464	437,565
<b>Total Tsakos Energy Navigation Limited stockholders equity</b>	1,403,477	1,166,523
Noncontrolling Interest	11,595	11,389
<b>Total stockholders equity</b>	1,415,072	1,177,912
<b>Total liabilities and stockholders equity</b>	\$ 2,900,697	\$ 2,699,097

The accompanying notes are an integral part of these consolidated financial statements.

**Table of Contents****TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME/(LOSS)

FOR THE YEARS ENDED DECEMBER 31, 2015, 2014 AND 2013

(Expressed in thousands of U.S. Dollars - except share and per share data)

	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>VOYAGE REVENUES:</b>	\$ 587,715	\$ 501,013	\$ 418,379
<b>EXPENSES:</b>			
Voyage expenses	131,878	154,143	132,999
Vessel operating expenses	142,117	146,902	131,053
Depreciation and amortization	105,931	102,891	100,413
General and administrative expenses	21,787	21,029	20,731
Gain on sale of vessels	(2,078)		
Vessel impairment charge			28,290
<b>Total expenses</b>	<b>399,635</b>	<b>424,965</b>	<b>413,486</b>
<b>Operating income</b>	<b>188,080</b>	<b>76,048</b>	<b>4,893</b>
<b>OTHER INCOME/ (EXPENSES):</b>			
Interest and finance costs, net (Note 8)	(30,019)	(43,074)	(40,917)
Interest income	234	498	366
Other, net	128	246	(2,912)
<b>Total other expenses, net</b>	<b>(29,657)</b>	<b>(42,330)</b>	<b>(43,463)</b>
<b>Net income/(loss)</b>	<b>158,423</b>	<b>33,718</b>	<b>(38,570)</b>
Less: Net income/( loss) attributable to the noncontrolling interest	(206)	(191)	1,108
<b>Net income/(loss) attributable to Tsakos Energy Navigation Limited</b>	<b>\$ 158,217</b>	<b>\$ 33,527</b>	<b>\$ (37,462)</b>
Effect of preferred dividends	(13,437)	(8,438)	(3,676)
Net income/(loss) attributable to common stockholders of Tsakos Energy Navigation Limited	144,780	25,089	(41,138)
<b>Earnings/(loss) per share, basic and diluted attributable to Tsakos Energy Navigation Limited common stockholders</b>	<b>\$ 1.69</b>	<b>\$ 0.32</b>	<b>\$ (0.73)</b>
<b>Weighted average number of shares, basic and diluted</b>	<b>85,827,597</b>	<b>79,114,401</b>	<b>56,698,955</b>

The accompanying notes are an integral part of these consolidated financial statements.

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**Table of Contents****TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**

## STATEMENTS OF CONSOLIDATED OTHER COMPREHENSIVE INCOME/(LOSS)

FOR THE YEARS ENDED DECEMBER 31, 2015, 2014 AND 2013

(Expressed in thousands of U.S. Dollars)

	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Net income/(loss)</b>	\$ 158,423	\$ 33,718	\$ (38,570)
<b>Other comprehensive income/(loss)</b>			
<b>Unrealized (losses)/gains from hedging financial instruments</b>			
Unrealized (loss)/gain on interest rate swaps, net	(437)	(3,655)	7,230
Amortization of deferred loss on the de-designated financial instruments		154	877
<b>Total unrealized (losses)/gains from hedging financial instruments</b>	(437)	(3,501)	8,107
Unrealized loss on marketable securities			(79)
Realized gain on marketable securities reclassified to Statement of Comprehensive Income/(Loss)			(89)
<b>Other Comprehensive (loss)/income</b>	(437)	(3,501)	7,939
<b>Comprehensive income/(loss)</b>	157,986	30,217	(30,631)
Less: comprehensive (income)/loss attributable to the noncontrolling interest	(206)	(191)	1,108
<b>Comprehensive income/(loss) attributable to Tsakos Energy Navigation Limited</b>	\$ 157,780	\$ 30,026	\$ (29,523)

The accompanying notes are an integral part of these consolidated financial statements.

**Table of Contents****TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**

## CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

FOR THE YEARS ENDED DECEMBER 31, 2015, 2014 AND 2013

(Expressed in thousands of U.S. Dollars except for share and per share data)

	Preferred Shares	Common Shares	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Tsakos Energy Navigation Limited	Noncontrolling Interest	Total Stockholders Equity
<b>BALANCE December 31, 2012</b>	\$	\$ 56,443	\$ 404,391	\$ 478,428	\$ (14,728)	\$ 924,534	\$ 2,306	\$ 926,840
Net loss				(37,462)		(37,462)	(1,108)	(38,570)
Issuance of 8% Series B Preferred Shares	2,000		45,043			47,043		47,043
Issuance of 8.875% Series C Preferred Shares	2,000		45,315			47,315		47,315
Issuance of common stock under distribution agency agreement		1,430	5,615			7,045		7,045
Issuance of 96,000 shares of restricted share units		96	(96)					
Capital contribution of noncontrolling interest owner							10,000	10,000
Cash dividends paid (\$0.15 per common shares)				(8,529)		(8,529)		(8,529)
Dividends paid on Series B Preferred Shares				(1,889)		(1,889)		(1,889)
Other comprehensive income					7,939	7,939		7,939
Amortization of restricted share units			469			469		469

**BALANCE****December 31,**

<b>2013</b>	\$ 4,000	\$ 57,969	\$ 500,737	\$ 430,548	\$ (6,789)	\$ 986,465	\$ 11,198	\$ 997,663
Net income				33,527		33,527	191	33,718
Issuance of 25,645,000 common shares		25,645	143,631			169,276		169,276
Issuance of common stock under distribution agency agreement		1,078	6,046			7,124		7,124
Issuance of 20,000 shares of restricted share units		20	(20)					
Cash dividends paid (\$0.15 per common share)				(12,623)		(12,623)		(12,623)
Cash dividends declared (\$0.06 per common share)				(5,083)		(5,083)		(5,083)
Dividends paid on Series B Preferred Shares				(4,000)		(4,000)		(4,000)
Dividends paid on Series C Preferred Shares				(4,804)		(4,804)		(4,804)
Other comprehensive loss					(3,501)	(3,501)		(3,501)
Amortization of restricted share units			142			142		142

**BALANCE****December 31,**

<b>2014</b>	\$ 4,000	\$ 84,712	\$ 650,536	\$ 437,565	\$ (10,290)	\$ 1,166,523	\$ 11,389	\$ 1,177,912
Net income				158,217		158,217	206	158,423
Issuance of 2,626,357 common shares		2,627	23,081			25,708		25,708
Issuance of 8.75% Series D preferred shares	3,400		78,384			81,784		81,784
Cash dividends paid (\$0.06 per common share)				(15,563)		(15,563)		(15,563)
Dividends paid on Series B				(4,000)		(4,000)		(4,000)

Preferred Shares								
Dividends paid on Series C Preferred Shares			(4,437)		(4,437)			(4,437)
Dividends paid on Series D Preferred Shares			(4,318)		(4,318)			(4,318)
Other comprehensive loss				(437)		(437)		(437)

**BALANCE****December 31,****2015**      \$ 7,400    \$ 87,339    \$ 752,001    \$ 567,464    \$ (10,727)    \$ 1,403,477    \$ 11,595    \$ 1,415,072

The accompanying notes are an integral part of these consolidated financial statements.

**Table of Contents****TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS**

FOR THE YEARS ENDED DECEMBER 31, 2015, 2014 AND 2013

(Expressed in thousands of U.S. Dollars)

	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Cash Flows from Operating Activities:</b>			
Net income/(loss)	\$ 158,423	\$ 33,718	\$ (38,570)
Adjustments to reconcile net income/(loss) to net cash provided by operating activities			
Depreciation	99,571	97,938	95,349
Amortization of deferred dry-docking costs	6,360	4,953	5,064
Amortization of loan fees	1,268	1,245	1,101
Stock compensation expense		142	469
Change in fair value of derivative instruments	(8,908)	4,984	(6,021)
Gain on sale of marketable securities			(89)
Gain on sale of vessels	(2,078)		
Gain on extinguishment of debt, net	(3,208)		
Vessel impairment charge			28,290
Payments for dry-docking	(8,368)	(6,055)	(5,680)
(Increase)/Decrease in:			
Receivables, net	(9,191)	(15,948)	5,269
Inventories	1,531	3,719	(5,304)
Prepaid insurance and other	638	(49)	1,214
Increase/(Decrease) in:			
Payables	(8,184)	(16,061)	22,265
Accrued liabilities	4,175	2,502	5,459
Unearned revenue	2,380	(4,117)	9,107
<b>Net Cash provided by Operating Activities</b>	<b>234,409</b>	<b>106,971</b>	<b>117,923</b>
<b>Cash Flows from Investing Activities:</b>			
Advances for vessels under construction and acquisitions	(156,581)	(130,436)	(37,182)
Vessel acquisitions and/or improvements	(60,934)	(123,871)	(108,840)
Proceeds from sale of marketable securities			1,585
Proceeds from sale of vessels	42,761		
<b>Net Cash used in Investing Activities</b>	<b>(174,754)</b>	<b>(254,307)</b>	<b>(144,437)</b>
<b>Cash Flows from Financing Activities:</b>			
Proceeds from long-term debt	227,437	158,533	110,000
Financing costs	(2,543)	(2,998)	(1,067)



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Payments of long-term debt	(242,367)	(120,495)	(172,129)
(Increase)/Decrease in restricted cash	(2,996)	(2,807)	6,665
Proceeds from stock issuance program, net		176,400	7,045
Proceeds from preferred stock issuance, net	81,784		94,358
Cash dividends	(33,401)	(21,427)	(10,418)
Capital contribution from noncontrolling interest owners to subsidiary			10,000
<b>Net Cash provided by Financing Activities</b>	<b>27,914</b>	<b>187,206</b>	<b>44,454</b>
<b>Net increase in cash and cash equivalents</b>	<b>87,569</b>	<b>39,870</b>	<b>17,940</b>
<b>Cash and cash equivalents at beginning of period</b>	<b>202,107</b>	<b>162,237</b>	<b>144,297</b>
<b>Cash and cash equivalents at end of period</b>	<b>\$ 289,676</b>	<b>\$ 202,107</b>	<b>\$ 162,237</b>
<i>Interest paid</i>			
Cash paid for interest, net of amounts capitalized	\$ 29,564	\$ 34,390	\$ 44,057

The accompanying notes are an integral part of these consolidated financial statements.

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**TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**DECEMBER 31, 2015, 2014 AND 2013**

**(Expressed in thousands of U.S. Dollars, except for share and per share data, unless otherwise stated)**

**1. Significant Accounting Policies**

- (a) ***Basis of presentation and description of business:*** The accompanying consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ( U.S. GAAP ) and include the accounts of Tsakos Energy Navigation Limited (the Holding Company ), and its wholly-owned and majority-owned subsidiaries (collectively, the Company ). As at December 31, 2015, the Holding Company consolidated one (two in 2014 and 2013), variable interest entity ( VIE ) for which it is deemed to be the primary beneficiary, i.e. it has a controlling financial interest in this entity. A VIE is an entity that in general does not have equity investors with voting rights or that has equity investors that do not provide sufficient financial resources for the entity to support its activities. A controlling financial interest in a VIE is present when a company has the power to direct the activities of a VIE that most significantly impact the entity s economic performance and absorbs a majority of an entity s expected losses, receives a majority of an entity s expected residual returns, or both.

All intercompany balances and transactions have been eliminated upon consolidation.

The Company follows the provisions of Accounting Standard Codification (ASC) 220, Comprehensive Income, which requires separate presentation of certain transactions, which are recorded directly as components of stockholders equity. The Company presents Other Comprehensive income / (loss) in a separate statement according to ASU 2011-05.

The Company owns and operates a fleet of crude and product oil carriers and one LNG carrier providing worldwide marine transportation services under long, medium or short-term charters.

As from January 1, 2015, the Company has reclassified certain categories within the Consolidated statement of comprehensive income/ (loss) in order to be consistent and comparable to other reporting entities within the peer group of tanker companies. Prior year data has been adjusted accordingly. Specifically, Commissions in the consolidated statements of comprehensive income/ (loss) of 2014 and 2013 respectively, have been reclassified as Voyage expenses in the accompanying 2015 consolidated statement of comprehensive income/ (loss). Similarly, Amortization of deferred dry-docking costs is included within Depreciation and amortization in the accompanying 2015 consolidated statement of comprehensive income/(loss), amounts relating to Management fees, Stock compensation expense and Management incentive award is included in General and administrative expenses in the accompanying 2015 consolidated statement of comprehensive income/(loss), and Foreign currency losses/(gains) are included in Vessel operating expenses in the accompanying 2015 consolidated statement of comprehensive income/(loss).

- (b) ***Use of Estimates:*** The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts of assets and liabilities and expenses, reported in the consolidated financial statements and the accompanying notes. Although actual results could differ from those estimates, management does not believe that such differences would be material.
- (c) ***Comprehensive income/ (loss):*** The statement of comprehensive income/ (loss) presents the change in equity (net assets) during a period from transactions and other events and circumstances from non-owner sources. It includes all changes in equity during a period except those resulting from investments by shareholders and distributions to shareholders. Reclassification adjustments are presented out of accumulated other comprehensive income/ (loss) on the face of the statement in which the components of other comprehensive income/(loss) are presented or in the notes to the financial statements. The Company follows the provisions of ASC 220 *Comprehensive Income* , and presents items of net income/(loss), items of other comprehensive income/(loss) ( *OCI* ) and total comprehensive income/(loss) in two separate and consecutive statements.

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- (d) **Foreign Currency Translation:** The functional currency of the Company is the U.S. Dollar because the Company's vessels operate in international shipping markets in which the U.S. Dollar is utilized to transact most business. The accounting books of the Company are also maintained in U.S. Dollars. Transactions involving other currencies during the year are converted into U.S. Dollars using the exchange rates in effect at the time of the transactions. At the balance sheet dates, monetary assets and liabilities, which are denominated in other currencies, are translated into U.S. Dollars at the year-end exchange rates. Resulting gains or losses are reflected within Operating expenses in the accompanying Consolidated Statements of Comprehensive income/ (loss).
- (e) **Cash and Cash Equivalents:** The Company classifies highly liquid investments such as time deposits and certificates of deposit and their equivalents with original maturities of three months or less as cash and cash equivalents. Cash deposits with certain banks that may only be used for special purposes (including loan repayments) are classified as Restricted cash.
- (f) **Accounts Receivable, Net:** Accounts receivable, net at each balance sheet date includes estimated recoveries from charterers for hire, freight and demurrage billings and revenue earned but not yet billed, net of an allowance for doubtful accounts (nil as of December 31, 2015 and 2014). The Company's management at each balance sheet date reviews all outstanding invoices and provides allowances for receivables deemed uncollectible primarily based on the ageing of such balances and any amounts in dispute.
- (g) **Inventories:** Inventories consist of bunkers, lubricants, victualling and stores and are stated at the lower of cost or market value. The cost is determined primarily by the first-in, first-out method.
- (h) **Fixed Assets:** Fixed assets consist of vessels. Vessels are stated at cost, less accumulated depreciation. The cost of vessels includes the contract price and pre-delivery costs incurred during the construction and delivery of new buildings, including capitalized interest, and expenses incurred upon acquisition of second-hand vessels. Subsequent expenditures for conversions and major improvements are capitalized when they appreciably extend the life, increase the earning capacity or improve the efficiency or safety of the vessels; otherwise they are charged to expense as incurred. Expenditures for routine repairs and maintenance are expensed as incurred.
- Depreciation is provided on the straight-line method based on the estimated remaining economic useful lives of the vessels, less an estimated residual value based on a scrap price. Economic useful lives are estimated at 25 years for crude and product oil carriers and 40 years for the LNG carrier from the date of original delivery from the shipyard.
- (i) **Impairment of Vessels:** The Company reviews vessels for impairment whenever events or changes in circumstances indicate that the carrying amount of a vessel may not be recoverable, such as during severe disruptions in global economic and market conditions. When such indicators are present, a vessel to be held and used is tested for recoverability by comparing the estimate of future undiscounted net operating cash flows expected to be generated by the use of the vessel over its remaining useful life and its eventual disposition to its carrying amount. Net operating cash flows are determined by applying various assumptions regarding the use or possible disposition of each vessel, future revenues net of commissions, operating expenses, scheduled dry-dockings, expected off-hire and scrap values, and taking into account historical

revenue data and published forecasts on future world economic growth and inflation. Should the carrying value of the vessel exceed its estimated future undiscounted net operating cash flows, impairment is measured based on the excess of the carrying amount over the fair market value of the asset. The Company determines the fair value of its vessels based on management estimates and assumptions and by making use of available market data and taking into consideration third party valuations. The review of the carrying amounts in connection with the estimated recoverable amount for certain of the Company's vessels as of December 31, 2015 and December 31, 2014 did not indicate an impairment charge, whereas at December 31, 2013 there were impairment charges of \$28,290 (Note 5).

- (j) **Reporting Assets held for sale:** It is the Company's policy to dispose of vessels when suitable opportunities occur and not necessarily to keep them until the end of their useful life. Long-lived assets

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are classified as held for sale when all applicable criteria enumerated under ASC 360 Property, Plant, and Equipment are met and are measured at the lower of their carrying amount or fair value less cost to sell. These assets are not depreciated once they meet the criteria to be held for sale. At December 31, 2015, the suezmaxes *Eurochampion 2004* and *Euronike* were classified as held for sale. At December 31, 2014 and 2013, there were no vessels held for sale.

- (k) **Accounting for Special Survey and Dry-docking Costs:** The Company follows the deferral method of accounting for dry-docking and special survey costs whereby actual costs incurred are reported in Deferred Charges and are amortized on a straight-line basis over the period through the date the next dry-docking is scheduled to become due (approximately every five years during the first fifteen years of vessels' life and every two and a half years within the remaining useful life of the vessels). Until December 31, 2013, for vessels older than ten years the Company estimated that the next dry-docking would be due in two and a half years. However, according to Classification Society regulations, vessels can defer dry-docking costs for five years during their first fifteen years of life, instead of ten years as previously estimated. This change in estimate does not have a material effect in the years ended December 31, 2015 and 2014, and is not expected to have material effect in the following years. Costs relating to routine repairs and maintenance are expensed as incurred. The unamortized portion of special survey and dry-docking costs for a vessel that is sold is included as part of the carrying amount of the vessel in determining the gain on sale of the vessel.
- (l) **Loan Costs:** Costs incurred for obtaining new loans or refinancing existing loans are capitalized and included in deferred charges and amortized over the term of the respective loan, using the effective interest rate method. Any unamortized balance of costs relating to loans repaid or refinanced as debt extinguishments is expensed in the period the repayment or extinguishment is made.
- (m) **Accounting for Revenue and Expenses:** Voyage revenues are generated from freight billings and time charter hire. Time charter revenue, including bare-boat hire, is recorded over the term of the charter as the service is provided. Revenues from voyage charters on the spot market or under contract of affreightment are recognized ratably from when a vessel becomes available for loading (discharge of the previous charterer's cargo) to when the next charterer's cargo is discharged, provided an agreed non-cancelable charter between the Company and the charterer is in existence, the charter rate is fixed or determinable and collectability is reasonably assured. Revenue under voyage charters will not be recognized until a charter has been agreed even if the vessel has discharged its previous cargo and is proceeding to an anticipated port of loading. Revenues from variable hire arrangements are recognized to the extent the variable amounts earned beyond an agreed fixed minimum hire are determinable at the reporting date and all other revenue recognition criteria are met. Revenue from hire arrangements with an escalation clause is recognized on a straight-line basis over the charter term unless another systematic and rational basis is more representative of the time pattern in which the vessel is employed. Vessel voyage and operating expenses and charter hire expense are expensed when incurred.

Unearned revenue represents cash received prior to the year end for which related service has not been provided, primarily relating to charter hire paid in advance to be earned over the applicable charter period. The operating revenues and voyage expenses of vessels operating under a tanker pool are pooled and are allocated to the pool participants on a time charter equivalent basis, according to an agreed formula. Voyage revenues for 2015, 2014 and 2013 included revenues derived from significant charterers as follows (in percentages of total voyage revenues):

<b>Charterer</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
A	14%	19%	21%
B	10%	13%	7%
C	9%	9%	11%
D	8%	5%	

(n) **Segment Reporting:** The Company does not evaluate the operating results by type of vessel or by type of charter or by type of cargo. Although operating results may be identified by type of vessel, management, including the chief operating decision maker, reviews operating results primarily by

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revenue per day and operating results of the fleet. The Company operates a liquefied natural gas (LNG) carrier which meets the quantitative thresholds used to determine reportable segments. The chief operating decision maker does not review the operating results of this vessel separately, or makes any decisions about resources to be allocated to this vessel or assesses its performance separately; therefore, the LNG carrier does not constitute a separate reportable segment. The Company's vessels operate on many trade routes throughout the world and, therefore, the provision of geographic information is considered impracticable by management. For the above reasons, the Company has determined that it operates in one reportable segment, the worldwide maritime transportation of liquid energy related products.

- (o) **Derivative Financial Instruments:** The Company regularly enters into interest rate swap contracts to manage its exposure to fluctuations of interest rates associated with its specific borrowings. Also, the Company enters into bunker swap contracts and put or call options to manage its exposure to fluctuations of bunker prices associated with the consumption of bunkers by its vessels. Interest rate and bunker price differentials paid or received under the swap agreements are recognized as part of Interest and finance costs, net. On the inception of a put or call option on bunkers an asset or liability is recognized. The subsequent changes in its the fair value, and realized payments or receipts upon exercise of the options are recognized in the Statement of Operations as part of the interest and finance costs, net. All derivatives are recognized in the consolidated financial statements at their fair value. On the inception date of the derivative contract, the Company evaluates the derivative as an accounting hedge of the variability of cash flow to be paid of a forecasted transaction ( cash flow hedge). Changes in the fair value of a derivative that is qualified, designated and highly effective as a cash flow hedge are recorded in other comprehensive income/ (loss) until earnings are affected by the forecasted transaction. Changes in the fair value of undesignated derivative instruments and the ineffective portion of designated derivative instruments are reported in earnings in the period in which those fair value changes occur. Realized gains or losses on early termination of undesignated derivative instruments are also classified in earnings in the period of termination of the respective derivative instrument.

The Company formally documents all relationships between hedging instruments and hedged items, as well as the risk-management objective and strategy for undertaking various hedge transactions. This process includes linking all derivatives that are designated as cash flow hedges of the variable cash flows of a forecasted transaction to a specific forecasted transaction. The Company also formally assesses, both at the hedge's inception and on an ongoing basis, whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in cash flow of hedged items. When it is determined that a derivative is not highly effective as a hedge or that it has ceased to be a highly effective hedge, the Company discontinues hedge accounting prospectively. In accordance with ASC 815 Derivatives and Hedging, the Company may prospectively discontinue the hedge accounting for an existing hedge if the applicable criteria are no longer met, the derivative instrument expires, is sold, terminated or exercised or if the Company removes the designation of the respective cash flow hedge. In those circumstances, the net gain or loss remains in accumulated other comprehensive income and is reclassified into earnings in the same period or periods during which the hedged forecasted transaction affects earnings, unless the forecasted transaction is no longer probable in which case the net gain or loss is reclassified into earnings immediately.

- (p) **Fair Value Measurements:** The Company follows the provisions of ASC 820, Fair Value Measurements and Disclosures which defines, and provides guidance as to the measurement of fair value. ASC 820 applies when assets or liabilities in the financial statements are to be measured at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants (Note 15). Upon issuance of guidance on the fair value option in 2007, the



Company elected not to report the then existing financial assets or liabilities at fair value that were not already reported as such.

- (q) ***Accounting for Leases:*** Leases of assets under which substantially all the risks and rewards of ownership are effectively retained by the lessor are classified as operating leases. Lease payments under an operating lease are recognized as an expense on a straight-line method over the lease term. The Company held no operating leases at December 31, 2015.

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- (r) **Stock Based Compensation:** The Company has a share based incentive plan that covers directors and officers of the Company and employees of the related companies. Awards granted are valued at fair value and compensation cost is recognized on a straight line basis, net of estimated forfeitures, over the requisite service period of each award. The fair value of restricted stock issued to crew members, directors and officers of the Company at the grant date is equal to the closing stock price on that date and is amortized over the applicable vesting period using the straight-line method. The fair value of restricted stock issued to non-employees is equal to the closing stock price at the grant date adjusted by the closing stock price at each reporting date and is amortized over the applicable performance period (Note 9).
- (s) **Marketable Securities:** The Company from March 2011 until their disposal in July 2013 had investments in marketable securities that had readily determinable fair values and were classified as available for sale. Such investments were measured subsequently at fair value in the statement of financial position. Unrealized holding gains and losses for available for sale securities were excluded from earnings and were reported in Accumulated other comprehensive loss until realized (Note 4).

*New Accounting Pronouncements:*

- (a) **Going Concern:** In August 2014, FASB issued ASU No. 2014-15 Presentation of Financial Statements - Going Concern . ASU 2014-15 provides guidance about management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. ASU 2014-15 requires an entity's management to evaluate at each reporting period based on the relevant conditions and events that are known at the date when financial statements are issued, whether there are conditions or events, that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued and to disclose the necessary information. ASU 2014-15 is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. Management is in the process of assessing the impact of the new standard on the Company's consolidated financial position and performance.
- (b) **Consolidation:** In February 2015, the FASB issued Accounting Standards Update ( ASU ) No. 2015-02-Consolidation. The amendments in this ASU affect reporting entities that are required to evaluate whether they should consolidate certain legal entities. All legal entities are subject to reevaluation under the revised consolidation model. Management believes that this standard will not have a material effect on the Company's financial position.
- (c) **Debt Issuance costs:** In April 2015, the FASB issued ASU No. 2015-03-Interest-Imputation of Interest, to simplify the presentation of debt issuance costs. The amendments in this ASU would require that debt issuance costs be presented in the balance sheet as a direct deduction from the carrying amount of debt liability, consistent with debt discounts or premiums. Management believes that this standard will not have a material effect on the Company's financial position.
- (d) **Inventory (subsequent to the adoption of ASU 2015-11, Simplifying the Measurement of Inventory):** In July 2015, the FASB issued ASU 2015-11, Simplifying the Measurement of Inventory. ASU 2015-11

simplifies the subsequent measurement of inventory by replacing today's lower of cost or market test with a lower of cost and net realizable value test. The guidance applies only to inventories for which cost is determined by methods other than last-in first-out (LIFO) and the retail inventory method (RIM). Entities that use LIFO or RIM will continue to use existing impairment models (e.g., entities using LIFO would apply the lower of cost or market test). The guidance is effective for public business entities for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. For all other entities, it is effective for fiscal years beginning after December 15, 2016, and interim periods within fiscal years beginning after December 15, 2017. Early adoption is permitted as of the beginning of an interim or annual reporting period. The new guidance must be applied prospectively after the date of adoption. Management believes that this standard will not have a material effect on the Company's financial position.

- (e) **Revenue from Contracts with customers:** In August 2015, the FASB issued ASU No. 2015-14-Revenue from Contracts with Customers, which defers the effective date of ASU No. 2014-09 for

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public business entities from annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period, to December 15, 2017, including interim periods within that reporting period. Management is in the process of assessing the impact of the new standard on the Company's financial position.

- (f) **Business Combinations:** In September 2015, the FASB issued ASU 2015-16, Business Combinations (Topic 805): Simplifying the Accounting for Measurement-Period Adjustments. ASU 2015-16 eliminates the requirement that an acquirer in a business combination account for measurement-period adjustment during the period in which it determines the amount of the adjustment. The guidance is effective for public business entities for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. For all other entities, it is effective for fiscal years beginning after December 15, 2016, and interim periods within fiscal years beginning after December 15, 2017. Early adoption is permitted. Management is in the process of assessing the impact of the new standard on the Company's financial position and performance.
- (g) **Leases:** In February 2016, the FASB issued ASU 2016-02 Leases (Topic 842) which provides new guidance related to accounting for leases and supersedes existing U.S. GAAP on lease accounting. The ASU will require organizations that lease assets to recognize on the balance sheet the assets and liabilities for the rights and obligations created by those leases, unless the lease is a short term lease. Public business entities should apply the amendments in ASU 2016-02 for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early application is permitted for all public business entities upon issuance. Lessees (for capital and operating leases) and lessors (for sales-type, direct financing, and operating leases) must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees and lessors may not apply a full retrospective transition approach. Management is in the process of assessing the impact of the new standard on the Company's consolidated financial position and performance.

**2. Transactions with Related Parties**

The following amounts were charged by related parties for services rendered:

	2015	2014	2013
Tsakos Shipping and Trading S.A. (commissions)	7,550	6,189	5,219
Tsakos Energy Management Limited (management fees)	16,032	15,840	15,487
Tsakos Columbia Shipmanagement S.A.	2,234	2,091	1,621
Argosy Insurance Company Limited	9,386	9,529	9,129
AirMania Travel S.A.	4,298	4,797	4,810
<b>Total expenses with related parties</b>	<b>39,500</b>	<b>38,446</b>	<b>36,266</b>

Balances due from and due to related parties are as follows:

	<b>December 31,</b>	
	<b>2015</b>	<b>2014</b>
<b>Due from related parties</b>		
Tsakos Columbia Shipmanagement S.A.	4,169	1,895
<b>Total due from related parties</b>	<b>4,169</b>	<b>1,895</b>
<b>Due to related parties</b>		
Tsakos Energy Management Limited	61	93
Tsakos Shipping and Trading S.A.	982	881
Argosy Insurance Company Limited	410	8,766
AirMania Travel S.A.	287	396
<b>Total due to related parties</b>	<b>1,740</b>	<b>10,136</b>

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There is also, at December 31, 2015, an amount of \$776 (\$875 at December 31, 2014) due to Tsakos Shipping and Trading S.A. and \$124 (\$379 at December 31, 2014) due to Argosy Insurance Company Limited, included in accrued liabilities, which relate to services rendered by these related parties, but not yet invoiced.

(a) ***Tsakos Energy Management Limited (the Management Company)***: The Holding Company has a Management Agreement ( Management Agreement ) with the Management Company, a Liberian corporation, to provide overall executive and commercial management of its affairs for a monthly fee. Per the Management Agreement of March 8, 2007, effective from January 1, 2008, there is a prorated adjustment if at the beginning of each year the Euro has appreciated by 10% or more against the U.S. Dollar since January 1, 2007. In addition, there is an increase each year by a percentage figure reflecting 12 month Euribor, if both parties agree. In 2015 and 2014, the monthly fees for operating vessels are \$27.5, \$20.4 for vessels chartered in and on a bare-boat basis, and \$35.8 for the LNG carrier, of which \$10.0 is paid to the Management Company and \$25.8 to a third party manager and \$27.5 per month, of which \$13.9 are payable to a third party manager for the VLCC *Millennium* until November 5, 2015 when the vessel entered a bare-boat charter. From that date a monthly management fee of \$20.4 is payable to the Company. Monthly management fees for the DP2 shuttle tankers are \$35.0 per vessel. Management fees for the suezmax *Eurochampion 2004* are \$27.5 per month, of which \$12.0 is paid to a third party manager. In addition to the Management fee, the Management Agreement provides for an incentive award to the Management Company, which is at the absolute discretion of the Holding Company's Board of Directors. In 2015, an award of \$1,142 was granted to the Management Company and is included in the General and Administrative expenses in the accompanying Consolidated Statement of Comprehensive income/(loss). In addition, a special award of \$425 was paid to the Management Company in relation to capital raising offerings in 2015 and \$400 in 2014 while \$460 was declared for payments. These awards relating to offerings have been included as a deduction of additional paid in capital in the accompanying Financial Statements.

The Holding Company and the Management Company have certain officers and directors in common. The President, who is also the Chief Executive Officer and a Director of the Holding Company, is also the sole stockholder of the Management Company. The Management Company may unilaterally terminate its Management Agreement with the Holding Company at any time upon one year's notice. In addition, if even one director was elected to the Holding Company's Board of Directors without having been recommended by the existing Board, the Management Company would have the right to terminate the Management Agreement on ten days' notice, and the Holding Company would be obligated as at December 31, 2015, to pay the Management Company an amount of approximately \$170,159 calculated in accordance with the terms of the Management Agreement. Under the terms of the Management Agreement between the Holding Company and the Management Company, the Holding Company may terminate the Management Agreement only under specific circumstances, without the prior approval of the Holding Company's Board of Directors.

Estimated future management fees payable over the next ten years under the Management Agreement, exclusive of any incentive awards and based on existing vessels and known vessels scheduled for future delivery as at December 31, 2015, are:

<b>Year</b>	<b>Amount</b>
2016	20,053
2017	20,850
2018	21,057
2019	20,989

2020	20,989
2021 to 2025	94,449
	198,387

Management fees for vessels are included in the accompanying Consolidated Statements of Comprehensive income/ (loss). Also, under the terms of the Management Agreement, the Management Company provides supervisory services for the construction of new vessels for a monthly fee of \$20.4 in 2015, 2014 and 2013. These fees in total amounted to \$3,346, \$2,224 and \$492 for 2015, 2014 and 2013, respectively and are either accounted for as part of construction costs for delivered vessels or are included in Advances for vessels under construction.

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(b) *Tsakos Columbia Shipmanagement S.A. ( TCM )*: The Management Company appointed TCM to provide technical management to the Company's vessels from July 1, 2010. TCM is owned jointly and in equal part by related party interests and by a private German Group. TCM, at the consent of the Holding Company, may subcontract all or part of the technical management of any vessel to an alternative unrelated technical manager. Effective July 1, 2010, the Management Company, at its own expense, pays technical management fees to TCM, and the Company bears and pays directly to TCM most of its operating expenses, including repairs and maintenance, provisioning and crewing of the Company's vessels, as well as certain charges which are capitalized or deferred, including reimbursement of the costs of TCM personnel sent overseas to supervise repairs and perform inspections on the Company's vessels. The Company also pays to TCM certain fees to cover expenses relating to internal control procedures and information technology services which are borne by TCM on behalf of the Company.

TCM has a 25% share in a manning agency, located in the Philippines, named TCM Tsakos Maritime Philippines, which provides crew to certain of the Company's vessels. The Company has no control or ownership directly in TCM Tsakos Maritime Philippines, nor had any direct transactions to date with the agency.

(c) *Tsakos Shipping and Trading S.A. ( Tsakos Shipping )*: Tsakos Shipping provides chartering services for the Company's vessels by communicating with third party brokers to solicit research and propose charters. For this service, the Company pays Tsakos Shipping a chartering commission of approximately 1.25% on all freights, hires and demurrages. Such commissions are included in Voyage expenses in the accompanying Consolidated Statements of Comprehensive income/ (loss). Tsakos Shipping also provides sale and purchase of vessels brokerage service. In 2015, the handysize tanker *Delphi* and the suezmax tanker *Triathlon* were sold to client companies of Tsakos Shipping. For this service, Tsakos Shipping charged a brokerage commission of \$215 which was 0.5% of the sale price of the vessels. Tsakos Shipping may also charge a fee of \$200 (or such other sum as may be agreed) on delivery of each new-building vessel in payment for the cost of design and supervision of the new-building by Tsakos Shipping. In 2015, no such fee was charged. In 2014, \$200 in aggregate was charged for supervision fees on the DP2 suezmax shuttle tankers *Rio 2016* and *Brasil 2014* and \$605 in total, as a brokerage commission of 0.5% on the purchase of the suezmax tankers *Eurovision* and *Euro*.

Certain members of the Tsakos family are involved in the decision-making processes of Tsakos Shipping and of the Management Company, and are also shareholders of the Holding Company.

(d) *Argosy Insurance Company Limited ( Argosy )*: The Company places its hull and machinery insurance, increased value insurance, war risk insurance and certain other insurance through Argosy, a captive insurance company affiliated with Tsakos Shipping.

(e) *AirMania Travel S.A. ( AirMania )*: Apart from third-party agents, the Company also uses an affiliated company, AirMania, for travel services.

**3. Long-term Investments**

At December 31, 2015, 2014 and 2013, the Company held 125,000 common shares at a total cost of \$1,000 in a private U.S. company which undertakes research into synthetic genomic processes which may have a beneficial environmental impact within the energy and maritime industries. Management has determined that there has been no impairment to the cost of this investment since its acquisition in 2007. A Director of the Company is a former officer



and currently a shareholder and a consultant of this company. No income was received from this investment during 2015, 2014 and 2013.

**4. Marketable securities**

In July 2013, the Company sold its remaining marketable securities held since 2011 realizing a gain of \$89 which was reclassified from Accumulated other Comprehensive loss to the Consolidated Statement of Comprehensive income/(loss). At December 31, 2015 and 2014 there are no marketable securities.

**Table of Contents****5. Vessels  
Acquisitions**

On November 5, 2015, the Company acquired the suezmax tanker *Pentathlon* for \$57,926 from a third-party. During 2014, the Company acquired the suezmax tankers *Eurovision* and *Euro* for \$61,814 and \$59,804 respectively (Note 2(c)), from companies that are subject to influence by certain members of the Tsakos family, who are also shareholders, officers and directors of the Holding Company. During 2013, the Company took delivery of two newbuilding DP2 suezmax shuttle tankers *Rio 2016* and *Brasil 2014*, at a total cost of \$203,908 of which \$105,763 was incurred in 2013.

**Sales**

On July 16, 2015 and July 17, 2015, the Company sold the handysize tanker *Delphi* and the suezmax tanker *Triathlon*, for net proceeds of \$42,761 in total, realizing a total net gain of \$2,078. The capital gains or losses from the sale of vessels are separately reflected in the accompanying 2015 Consolidated Statement of Comprehensive Income/(Loss). There were no vessel sales in 2014 and 2013.

**Impairment**

As of December 31, 2015, the Company reviewed the carrying amount in connection with the estimated recoverable amount for each of its vessels. This review did not indicate an impairment of the carrying value of the Company's vessels. As of December 31, 2014, there was no indication of impairment. At December 31, 2013, the carrying amount for four of the Company's vessels, *Silia T*, *Triathlon*, *Delphi* and *Millennium* was not fully recoverable. Consequently the carrying value of these four vessels, totaling \$123,540 was written down to \$95,250, based on level 2 inputs of the fair value hierarchy, as determined by management taking into consideration valuations from independent marine valuers (Note 15(c)). The resulting impairment charge was \$28,290 and is reflected in the accompanying 2013 Consolidated Statement of Comprehensive income/ (loss).

**6. Deferred Charges**

Deferred charges, consisting of dry-docking and special survey costs, net of accumulated amortization, amounted to \$15,290 and \$13,830, at December 31, 2015 and 2014, respectively, and loan fees, net of accumulated amortization, amounted to \$7,531 and \$6,360 at December 31, 2015 and 2014, respectively. Amortization of deferred dry-docking costs is included in Depreciation and amortization in the accompanying Consolidated Statements of Comprehensive income/(loss), while amortization of loan fees is included in Interest and finance costs, net (Note 8).

**7. Long Term Debt**

<b>Facility</b>	<b>2015</b>	<b>2014</b>
(a) Credit Facilities	538,208	732,130
(b) Term Bank Loans	861,886	686,206
<b>Total</b>	<b>1,400,094</b>	<b>1,418,336</b>
<b>Less current portion</b>	<b>(319,560)</b>	<b>(228,492)</b>

<b>Long-term portion</b>	1,080,534	1,189,844
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*(a) Credit facilities*

As at December 31, 2015, the Company had five open reducing revolving credit facilities, all of which are reduced in semi-annual installments, and two open facilities which have both a reducing revolving credit component and a term bank loan component, with balloon payments due at maturity between January 2016 and April 2019. At December 31, 2015, there was no available unused amount.

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On July 7, 2015, as part of its refinancing program, the Company repaid \$46,488 to a lender for debt approaching maturity relating to the vessels *Socrates* and *Selecao*. The outstanding balance of the loan facility at the repayment date was \$49,800, leaving a total net gain of \$3,208 (after deducting breakage costs of \$104), which is included within Interest and finance costs, net.

On July 15 and July 16, 2015, the Company prepaid an amount of \$5,271 and \$17,923, respectively, to lenders due to sale of the handysize tanker *Delphi* and the sale of the suezmax tanker *Triathlon* (Note 5).

Interest is payable at a rate based on LIBOR plus a margin. At December 31, 2015, interest on these facilities ranged from 1.02% to 5.19%.

*(b) Term bank loans*

Term loan balances outstanding at December 31, 2015, amounted to \$861,886. These bank loans are payable in U.S. Dollars in quarterly or semi-annual installments with balloon payments due at maturity between May 2016 and February 2025. Interest rates on the outstanding loans as at December 31, 2015, are based on LIBOR plus a spread.

On April 22, 2015, the Company signed a new five-year term bank loan for \$35,190 relating to the pre and post-delivery financing of the first LR1 tanker under construction. The first drawdown of \$7,038 was made on April 23, 2015, for the payment of the second installment to the ship building yard. The loan is repayable in ten consecutive semi-annual installments of \$977.5, commencing six months after the delivery of the vessel, plus a balloon of \$25,415 payable together with the last installment.

On April 22, 2015, the Company signed a new seven-year term bank loan for \$35,190 relating to the pre and post-delivery financing of the second LR1 tanker under construction. The first drawdown of \$7,038 was made on April 22, 2015, for the payment of the second installment to the ship building yard. The loan is repayable in fourteen consecutive semi-annual installments equal to 1/32<sup>nd</sup> of the amount drawn under the loan, commencing six months after the delivery of the vessel, plus a balloon sufficient to repay the loan in full.

On May 25, 2015, the Company signed a new eight-year term bank loan for \$73,500 relating to the pre and post-delivery financing of one shuttle tanker under construction. The first drawdown of \$9,800 was made on May 26, 2015, for the payment of the second installment to the ship building yard. The loan is repayable in sixteen consecutive semi-annual installments of \$2,300, commencing six months after the delivery of the vessel, plus a balloon of \$36,700 payable together with the last installment.

On July 29, 2015, the Company signed a new six-year term bank loan for \$46,217 relating to the re-financing of the two panamax tankers, *Socrates* and *Selecao* and on the same date drew down the full amount. The loan is repayable in twelve consecutive semi-annual installments of \$2,310.87, commencing six months after the initial borrowing date, plus a balloon of \$18,487 payable together with the last installment.

On October 22, 2015, the Company signed a new seven-year term bank loan for \$39,900 relating to the financing of a 2009-built suezmax tanker *Pentathlon*. The loan was drawn down on November 5, 2015. The loan is repayable in fourteen consecutive semi-annual installments of \$1,813.64, commencing six months after the drawdown date, plus a balloon of \$14,509 payable together with the last installment.

On November 27, 2015, the Company signed a new four and a half year term bank loan for \$82,775 relating to the refinancing of the debt maturity of the suezmax tanker, *Silia T*, the panamax tanker *Andes* and three handysize tankers *Didimon*, *Byzantion* and *Bosporos*. The loan was drawn down into two tranches with the first on December 1, 2015

amounting to \$51,625 and the second on January 11, 2016 amounting to \$31,150. The loan is repayable in nine equal consecutive semi-annual installments of \$5,173.55 commencing six months after the final drawdown date, plus a balloon of \$36,213 payable together with the last installment. On January 12, 2016 the Company made a balloon payment of \$47,147 for the repayment of the loan of the handysize tankers *Byzantion* and *Bosporos*.

On December 30, 2015, the Company signed a new seven-year term bank loan for \$44,800 relating to the financing of the 2012-built suezmax tanker *Decathlon*. The loan was drawn on February 5, 2016. The loan is repayable in fourteen equal semi-annual installments of \$1,600, commencing six months after the drawdown date, plus a balloon of \$22,400 payable together with the last installment.

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At December 31, 2015, interest on these term bank loans ranged from 2.02% to 4.07%.

The weighted-average interest rates on the above executed loans for the applicable periods were:

Year ended December 31, 2015	2.30%
Year ended December 31, 2014	2.23%
Year ended December 31, 2013	2.49%

Loan movements for credit facilities and term loans throughout 2015:

Loan	Origination Date	Original Amount	Balance at January 1, 2015	New Loans	Repaid	Gain on extinguishment of debt	Balance at December 31, 2015
Credit facility	2005	220,000	107,955		61,385		46,570
Credit facility <sup>1</sup>	2004	179,384	91,245		10,555		80,690
Credit facility <sup>2</sup>	2006	275,000	101,447		28,637		72,810
Credit facility	2005	220,000	58,998		11,871		47,127
Credit facility	2006	371,010	211,010		20,000		191,010
10-year term loan	2004	71,250	25,782		3,125		22,657
Credit facility	2006	70,000	26,875		4,375		22,500
Credit facility	2007	120,000	82,500		5,000		77,500
10-year term loan	2007	88,350	55,230		5,520		49,710
Credit facility	2007	82,000	52,100		48,788	3,312	
10-year term loan	2009	38,600	24,578		2,234		22,344
8-year term loan	2009	40,000	26,680		2,664		24,016
12 year term loan	2009	40,000	28,750		2,500		26,250
10-year term loan	2010	39,000	27,300		2,600		24,700
7-year term loan	2010	70,000	51,440		4,640		46,800
10-year term loan	2010	43,924	31,053		3,218		27,835
9-year term loan	2010	42,100	31,700		2,600		29,100
10-year term loan	2011	48,000	36,800		3,200		33,600
9-year term loan	2011	48,650	38,920		3,243		35,677
8-year term loan	2012	73,600	66,700		4,600		62,100
8-year term loan	2011	73,600	66,240		4,907		61,333
7-year term loan	2013	18,000	16,500		1,305		15,195
7-year term loan	2014	42,000	42,000		2,800		39,200
6-year term loan	2014	193,239	25,610	25,610			51,220
6-year term loan	2014	39,000	39,000		2,600		36,400
7-year term loan	2014	38,800	5,172				5,172
6-year term loan	2014	78,744	10,344	5,172			15,516
6-year term loan	2014	39,954	5,172				5,172
19-month term loan	2014	52,195	31,235	20,960			52,195
5-year term loan	2015	35,190		16,423			16,423
7-year term loan	2015	35,190		11,730			11,730
7-year term loan	2015	39,900		39,900			39,900

5-year term loan	2015	82,775	51,625	51,625		
6-year term loan	2015	46,217	46,217	46,217		
8-year term loan	2015	73,500	9,800	9,800		
Total		1,418,336	227,437	242,367	3,312	1,400,094

<sup>1</sup> This credit facility includes a fixed interest rate portion amounting to \$32,132 as at December 31, 2015.

<sup>2</sup> The Company contemplates selling two of its vessels (*Eurochampion 2004* and *Euronike*) secured under this credit facility within 2016 and accordingly, an amount of approximately \$53 million is classified under current portion of long-term debt.

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The above revolving credit facilities and term bank loans are secured by first priority mortgages on all vessels owned by our subsidiaries, by assignments of earnings and insurances of the respectively mortgaged vessels, and by corporate guarantees of the relevant ship-owning subsidiaries.

The loan agreements include, among other covenants, covenants requiring the Company to obtain the lenders' prior consent in order to incur or issue any financial indebtedness, additional borrowings, pay dividends in an amount more than 50% of cumulative net income (as defined in the related agreements), sell vessels and assets, and change the beneficial ownership or management of the vessels. Also, the covenants require the Company to maintain a minimum liquidity, not legally restricted, of \$74,110 at December 31, 2015 and \$79,563 at December 31, 2014, a minimum hull value in connection with the vessels' outstanding loans and insurance coverage of the vessels against all customary risks. Three loan agreements require the Company to maintain throughout the security period, an aggregate credit balance in a deposit account of \$3,250. Two loan agreements require a monthly pro rata transfer to retention account of any principal due but unpaid.

As at December 31, 2015, the Company and its wholly owned subsidiaries were compliant with the financial covenants in its loan agreements, including the leverage ratio and the value-to-loan requirements and all other terms and covenants.

The Company's liquidity requirements relate primarily to servicing its debt, funding the equity portion of investments in vessels and funding expected capital expenditure on dry-dockings and working capital. As of December 31, 2015 and December 31, 2014, the Company's working capital (non-restricted net current assets), amounted to a \$34,984 and (\$49,817) respectively.

The annual principal payments required to be made after December 31, 2015, are as follows:

<b>Period/Year</b>	<b>Amount</b>
2016	319,560
2017	202,121
2018	286,281
2019	178,327
2020	137,278
2021 and thereafter	276,527
	<b>1,400,094</b>

**8. Interest and Finance Costs, net**

	<b>2015</b>	<b>2014</b>	<b>2013</b>
Interest expense	32,065	33,389	41,741
Less: Interest capitalized	(3,430)	(2,384)	(1,945)
<b>Interest expense, net</b>	<b>28,635</b>	<b>31,005</b>	<b>39,796</b>
Interest swap cash settlements non-hedging	2,201	3,231	5,012



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Bunkers swap cash settlements	7,427	997	(151)
Bunker call options premium	1,414	1,199	
Amortization of loan fees	1,268	1,245	1,101
Bank charges	137	240	379
Finance project costs expensed	1,261		
Amortization of deferred loss on de-designated financial instruments		154	877
Change in fair value of non-hedging financial instruments	(9,116)	5,003	(6,097)
Net gain on the prepayment of a loan	(3,208)		
<b>Net total</b>			
	30,019	43,074	40,917

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At December 31, 2015, the Company was committed to seven floating-to-fixed interest rate swaps with major financial institutions covering notional amounts aggregating to \$287,299, maturing from March 2016 through March 2021, on which it pays fixed rates averaging 3.22% and receives floating rates based on the six-month London interbank offered rate ( LIBOR ) (Note 15).

At December 31, 2015, the Company held six of the seven interest rate swap agreements, designated and qualifying as cash flow hedges, in order to hedge its exposure to interest rate fluctuations associated with its debt covering notional amounts aggregating to \$239,549. The fair values of such financial instruments as of December 31, 2015 and 2014, in aggregate amounted to \$7,847 (negative) and \$7,046 (negative), respectively. The net amount of cash flow hedge losses at December 31, 2015, that is estimated to be reclassified into earnings within the next twelve months is \$3,688.

At December 31, 2015 and 2014, the Company held one interest rate swap that did not meet hedge accounting criteria. As such, the changes in its fair value during the 2015 and 2014 have been included in Change in fair value of non-hedging financial instruments, and amounted to a gain of \$2,178 and \$1,960, respectively.

As of December 31, 2014, the Company held seven bunker swap agreements in order to hedge its exposure to bunker price fluctuations associated with the consumption of bunkers by its vessels. The fair values of these financial instruments as of December 31, 2014, were \$9,228 (negative). As of December 31, 2015 those bunker swaps were expired.

The changes in their fair values during 2015 and 2014 amounting to \$9,228 (positive) and \$9,405 (negative) respectively have been included in Change in fair value of non-hedging financial instruments in the table above, as such agreements do not meet the hedging criteria.

At December 31, 2014, the Company held three bunker put option agreements in order to reduce the losses of the bunker swap agreements, which expired during the 2015 year. The value of those put options at December 31, 2014 was \$2,443 (positive). The change in their fair value during 2015 was \$2,443 (negative). During 2015, the Company entered into seventeen call option agreements for the same reasons as for the put options and premium paid for the call options was \$1,414. During 2015, five call options were expired. The fair market value of the remaining twelve options at December 31, 2015, amounted to \$154.

**9. Stockholders Equity**

During 2015, the Company had a shareholder rights plan that authorized existing shareholders substantial preferred share rights and additional common shares if any third party were to acquire 15% or more of the outstanding common shares or announced its intent to commence a tender offer for at least 15% of the common shares, in each case, in a transaction that the Board of Directors has not approved. On October 10, 2015, the Company's preferred share purchase rights, under this plan expired and have not been renewed as of April 5, 2016.

On April 22, 2015, the Company completed an offering of 3,400,000 of its 8.75% Series D Cumulative Perpetual Preferred Shares, par value \$1.00 per share, liquidation preference \$25.00 per share, raising \$81,784, net of underwriter's discount and other expenses. Dividends on the Series D Preferred Shares are cumulative from the date of original issue and will be payable quarterly in arrears on the 28th day of February, May, August and November of each year, commencing August 28, 2015, when, as and if declared by our board of directors. Dividends will be payable from cash available for dividends at a rate equal to 8.75% per annum of the stated liquidation preference. At any time on or after April 29, 2020, the Series D Preferred Shares may be redeemed, in whole or in part, out of amounts available thereof, at a redemption price of \$25.00 per share plus an amount equal to all accumulated and

unpaid dividends thereon to the date of redemption, whether or not declared. On August 28, 2015, the Company paid dividends of \$0.72309 per share each or \$2,459 in total, on its 8.75% Series D Preferred Shares.

On July 30, 2015, the Company issued 2,626,357 common shares at a value of \$9.7881 per share so as to partially finance the acquisition of two resale contracts for the construction of VLCC tankers for delivery in 2016.

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On December 8, 2015, the Company announced the resumption of the previously authorized by its Board of Directors stock repurchase program for open market purchases for its common and/ or its preferred shares. The Company had available up to \$20.0 million from its previously authorized program. The program started on January 11, 2016. As at March 31, 2016, the Company has repurchased an aggregate of 1,187,089 of its common shares at an average price of \$5.68 at an aggregate purchase price of \$6.747.

On May 30, 2014, at the annual general meeting of shareholders, the shareholders approved the amendment of the Company's Memorandum of Association in order to increase the authorized share capital from \$100,000 consisting of 85 million common shares of a par value of \$1.00 each and 15 million preferred shares of a par value of \$1.00 each, to \$200,000, consisting of 185 million common shares of a par value of \$1.00 each and 15 million preferred shares of a par value of \$1.00 each.

On April 29, 2014, the Company completed an offering of 11,000,000 common shares, at a price of \$7.30 per share, for net proceeds of \$75,821. On May 22, 2014, the underwriters exercised their option to purchase 1,650,000 additional shares at the same price for net proceeds of \$11,503.

On February 5, 2014, the Company completed an offering of 12,995,000 common shares, including 1,695,000 common shares issued upon the exercise in full by the underwriters of their option to purchase additional shares, at a price of \$6.65 per share, for net proceeds of \$81,952.

In 2014 and 2013, the Company sold 1,077,847 and 1,430,211 common shares for proceeds, net of commissions, of \$7,124 and \$7,045 respectively, under a distribution agency agreement entered into in August 2013. This agreement provides for the offer and sale from time to time of up to 4,000,000 common shares of the Company, par value \$1.00 per share, at market prices.

On May 10, 2013, the Company issued 2,000,000 8.00% Cumulative Redeemable Perpetual Series B Preferred Shares (the Series B preferred shares) for net proceeds of \$47,043. The Series B preferred shares were issued for cash and pay cumulative quarterly dividends at a rate of 8% per annum from their date of issuance, i.e. \$2.0 per preferred share or \$4,000 in aggregate. At any time on or after July 30, 2018, the Series B preferred shares may be redeemed, at the option of the Company, in whole or in part at a redemption price of \$25.00 per share plus unpaid dividends. If the Company fails to comply with certain covenants relating to the level of borrowings and net worth as these terms are defined in the applicable agreement, defaults on any of its credit facilities, fails to pay four quarterly dividends payable in arrears or if the Series B preferred shares are not redeemed at the option of the Company, in whole by July 30, 2019, the dividend rate payable on the Series B preferred shares increases quarterly to a rate that is 1.25 times the dividend rate payable on the series B preferred shares, subject to an aggregate maximum rate per annum of 25% prior to July 30, 2018 and 30% thereafter. The Series B preferred shares are not convertible into common shares and are not redeemable at the option of the holder.

On September 30, 2013, the Company issued 2,000,000 8.875% Cumulative Redeemable Perpetual Series C Preferred Shares (the Series C preferred shares) for net proceeds of \$47,315. The Series C preferred shares were issued for cash and pay cumulative quarterly dividends at a rate of 8.875% per annum from their date of issuance, i.e. \$2.21875 per preferred share or \$4,437 in aggregate. At any time on or after October 30, 2018, the Series C preferred shares may be redeemed, at the option of the Company, in whole or in part at a redemption price of \$25.00 per share plus unpaid dividends. If the Company fails to comply with certain covenants relating to the level of borrowings and net worth as these terms are defined in the applicable agreement, defaults on any of its credit facilities, fails to pay four quarterly dividends payable in arrears or if the Series C preferred shares are not redeemed at the option of the Company in whole by October 30, 2020, the dividend rate payable on the Series C preferred shares increases quarterly to a rate that is 1.25 times the dividend rate payable on the Series C preferred shares, subject to an aggregate maximum rate per

annum of 25% prior to October 30, 2018 and 30% thereafter. The Series C preferred shares are not convertible into common shares and are not redeemable at the option of the holder.

Under the Company's share-based incentive plan, 20,000 restricted share units (RSUs) were granted and vested in 2014, at a fair value of \$7.08 per share. In 2013, 96,000 RSUs were granted and vested at a weighted average fair value of \$4.89 per share. There were no RSUs outstanding at the beginning or end of

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2014 and 2013. The total fair value of shares vested during the years ended December 31, 2014, and 2013 were \$142 and \$469 respectively.

As at December 31, 2015, under the existing share-based incentive plan approved by the shareholders, a further 868,950 RSUs or other share-based awards may be issued in the future. No (RSUs) were granted in 2015.

Total compensation expense recognized in 2014 amounted to \$142 (\$469 in 2013). As at December 31, 2014 and 2013, all granted RSUs were vested and the compensation expense recognized.

**10. Accumulated other comprehensive loss**

In 2015, Accumulated other comprehensive loss increased with unrealized losses from hedging financial instruments of \$437 (loss of \$3,501 and gain of \$8,107 in 2014 and 2013 respectively) of which \$437 (loss of \$3,655 in 2014 and gain of \$7,230 in 2013) related to unrealized losses on interest rate swaps, and \$154 in 2014 and \$877 in 2013 related to amortization of deferred loss on de-designated financial instruments. During 2013, unrealized losses on marketable securities were \$79, of which a gain of \$89 was realized and reclassified into earnings following the sale of the respective securities.

**11. Earnings per Common Share**

The computation of basic earnings per share is based on the weighted average number of common shares outstanding during the year. The computation of diluted earnings per share assumes the foregoing and the exercise of all granted RSUs (Note 9) using the treasury stock method.

	2015	2014	2013
<b>Numerator</b>			
Net income/(loss) attributable to Tsakos Energy Navigation Limited	\$ 158,217	\$ 33,527	\$ (37,462)
Preferred share dividends, Series B	(4,000)	(4,000)	(2,567)
Preferred share dividends, Series C	(4,437)	(4,438)	(1,109)
Preferred share dividends, Series D	(5,000)		
Net income/(loss) attributable to common stock holders	144,780	25,089	(41,138)
<b>Denominator</b>			
Weighted average common shares outstanding	85,827,597	79,114,401	56,698,955
<b>Basic and diluted earnings/(loss) per common share</b>	<b>\$ 1.69</b>	<b>\$ 0.32</b>	<b>\$ (0.73)</b>

For 2015, 2014 and 2013 there were no non-vested RSUs.

**12. Noncontrolling Interest in Subsidiary**

In August 2006, the Company signed an agreement with Polaris Oil Shipping Inc. (Polaris), an affiliate of one of the Company's major charterers, following which Polaris acquired 49% of Mare Success S.A., a previously wholly-owned subsidiary of the Holding Company. Mare Success S.A. is the holding-company of two Panamanian registered companies which own respectively the vessels *Maya* and *Inca*. The agreement became effective on November 30, 2006. Mare Success S.A. is fully consolidated in the accompanying financial statements. In the fourth quarter of 2013, Mare Success increased its paid-in capital by \$20,408 of which \$10,408 being the 51%, was contributed by the Company and \$10,000 being the 49%, by Polaris. After the recapitalization, the shareholding of Mare Success S.A. remained at 51% for the Company and 49% for Polaris. There have been no transactions between Polaris and the Company since the incorporation of Mare Success S.A., whereas approximately 5.5% of the Company's 2015 revenue (7.0% in 2014) was generated by the charterer affiliated to Polaris.

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**Table of Contents****13. Income Taxes**

Under the laws of the countries of the Company's subsidiaries' incorporation and/or vessels' registration (Greece, Liberia, Marshall Islands, Panama, Bahamas), the companies are subject to registration and tonnage taxes, which have been included in the Vessel operating expenses.

The Company is not expected to be subject to United States Federal income tax on their gross income from the international operations of ships. In general, foreign persons operating ships to and from the United States are subject to United States Federal income tax of 4% of their United States source gross transportation income, which equals 50% of their gross income from transportation to or from the United States. The Company believes that it is exempt from United States Federal income tax on its United States source gross transportation income, as each vessel-operating subsidiary is organized in a foreign country that grants an equivalent exemption to corporations organized in the United States, and derives income from the international operation of ships and satisfies the stock ownership test as defined by the Internal Revenue Code and related regulations as a result of the Company's stock being primarily and regularly traded on an established securities market in the United States. Under the regulations, a Company's stock is considered to be regularly traded on an established securities market if (i) one or more classes of its stock representing 50% or more of its outstanding shares, by voting power and value, is listed on the market and is traded on the market, other than in minimal quantities, on at least 60 days during the taxable year; and (ii) the aggregate number of shares of stock traded during the taxable year is at least 10% of the average number of shares of the stock outstanding during the taxable year. Other requirements such as the substantiation and reporting requirements under the regulations also must be satisfied to qualify for the exemption from United States Federal income tax.

**14. Commitments and Contingencies**

On July 10, 2015, the Company agreed to acquire two suezmax tankers built in 2009 and 2012 for \$57,000 and \$64,000 respectively. The first, *Pentathlon*, was delivered and fully paid in November 2015. On July 22, 2015, the Company agreed to acquire the new building contracts for two VLCC tankers for \$96,900 each. As at December 31, 2015, the Company had under construction nine aframax tankers, two LR1 product tankers, one shuttle tanker, two VLCC tankers and one LNG carrier.

The total contracted amount remaining to be paid for the fifteen vessels under construction and the one second-hand suezmax tanker, plus the extra costs agreed as at December 31, 2015, was \$805,687. Scheduled remaining payments as at December 31, 2015, were \$584,422 in 2016 and \$221,265 in 2017.

At December 31, 2015, there is a prepaid amount of \$1,650 under an old shipbuilding contract which was terminated in 2014, which will be used against the contract price of future new buildings, currently being discussed between the Company and the shipyard.

In the ordinary course of the shipping business, various claims and losses may arise from disputes with charterers, agents and other suppliers relating to the operations of the Company's vessels. Management believes that all such matters are either adequately covered by insurance or are not expected to have a material adverse effect on the Company's results from operations or financial condition.

**Charters-out**

The future minimum revenues of vessels in operation at December 31, 2015, before reduction for brokerage commissions, expected to be recognized on non-cancelable time charters are as follows:



<b>Year</b>	<b>Amount</b>
2016	216,031
2017	224,495
2018	178,509
2019	156,680
2020 to 2028	649,520
Minimum charter payments	1,425,235

These amounts do not assume any off-hire.

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The Company has signed charter party agreements for twelve of its vessels under construction for periods ranging from 4.5 years to 8 years to commence on delivery of the vessels, delivered between the second quarter of 2016 and the third quarter of 2017. Revenues of \$623,760 to be generated by these vessels have been included in the above table.

**15. Financial Instruments**

(a) **Interest rate risk:** The Company is subject to interest rate risk associated with changing interest rates with respect to its variable interest rate term loans and credit facilities as described in Notes 7 and 8.

(b) **Concentration of credit risk:** Financial Instruments consist principally of cash, trade accounts receivable, investments, and derivatives.

The Company places its temporary cash investments, consisting mostly of deposits, primarily with high credit qualified financial institutions. The Company performs periodic evaluations of the relative credit standing of those financial institutions that are considered in the Company's investment strategy. The Company limits its credit risk with accounts receivable by performing ongoing credit evaluations of its customers' financial condition and generally does not require collateral for its accounts receivable and does not have any agreements to mitigate credit risk. The Company limits the exposure of non-performance by counterparties to derivative instruments by diversifying among counterparties with high credit ratings, and performing periodic evaluations of the relative credit standing of the counterparties.

(c) **Fair value:** The carrying amounts reflected in the accompanying Consolidated Balance Sheet of cash and cash equivalents, restricted cash, trade receivables and accounts payable approximate their respective fair values due to the short maturity of these instruments. The fair value of long-term bank loans with variable interest rates approximate the recorded values, generally due to their variable interest rates. The present value of the future cash flows of the portion of one long-term bank loan with a fixed interest rate is estimated to be approximately \$31,485 as compared to its carrying amount of \$32,132 (Note 7). The Company performs relevant enquiries on a periodic basis to assess the recoverability of the long-term investment and estimates that the amount presented on the accompanying Balance sheet approximates the amount that is expected to be received by the Company in the event of sale of that investment.

The fair values of the one long-term bank loan with a fixed interest rate, the interest rate swap agreements, and bunker swap agreements, put option agreements and call option agreements discussed in Note 8 above are determined through Level 2 of the fair value hierarchy as defined in FASB guidance for Fair Value Measurements and are derived principally from or corroborated by observable market data, interest rates, yield curves and other items that allow value to be determined.

The estimated fair values of the Company's financial instruments, other than derivatives at December 31, 2015 and 2014 are as follows:

2015

2014

	<b>Carrying Amount</b>	<b>Fair Value</b>	<b>Carrying Amount</b>	<b>Fair Value</b>
<b>Financial assets/(liabilities)</b>				
Cash and cash equivalents	289,676	289,676	202,107	202,107
Restricted cash	15,330	15,330	12,334	12,334
Investments	1,000	1,000	1,000	1,000
Debt	(1,400,094)	(1,399,447)	(1,418,336)	(1,417,430)

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**Table of Contents***Tabular Disclosure of Derivatives Location*

Derivatives are recorded in the balance sheet on a net basis by counterparty when a legal right of setoff exists. The following tables present information with respect to the fair values of derivatives reflected in the balance sheet on a gross basis by transaction. The tables also present information with respect to gains and losses on derivative positions reflected in the Statement of Comprehensive income/(loss) or in the Balance Sheet, as a component of Accumulated other comprehensive income/ (loss).

Derivative	Balance Sheet Location	Asset Derivatives		Liability Derivatives	
		December 31, 2015 Fair Value	December 31, 2014 Fair Value	December 31, 2015 Fair Value	December 31, 2014 Fair Value
<b>Derivatives designated as hedging instruments</b>					
Interest rate swaps	Current portion of financial instruments Fair value			4,666	3,547
	Financial instruments Fair Value, net of current portion			3,181	3,499
	Subtotal			7,847	7,046
Derivative	Balance Sheet Location	Asset Derivatives		Liability Derivatives	
		December 31, 2015 Fair Value	December 31, 2014 Fair Value	December 31, 2015 Fair Value	December 31, 2014 Fair Value
<b>Derivatives not designated as hedging instruments</b>					
Interest rate swaps	Current portion of financial instruments Fair value			1,040	2,659
	Financial instruments Fair Value, net of current portion				560
Bunker swaps	Current portion of financial instruments Fair value				9,228
Bunker put options	Current portion of financial instruments Fair value		2,443		
Bunker call options	Current portion of financial instruments Fair value	28			
Bunker call options	Financial instruments Fair Value, net of current portion	126			
	Subtotal	154	2,443	1,040	12,447

<b>Total derivatives</b>	<b>154</b>	<b>2,443</b>	<b>8,887</b>	<b>19,493</b>
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**Derivatives designated as Hedging Instruments-Net effect on the Statements of Comprehensive Income/ (loss)**

<b>Derivative</b>	<b>Loss Recognized in Accumulated Other Comprehensive Loss on Derivative (Effective Portion)</b>	<b>Amount</b>		
		<b>2015</b>	<b>2014</b>	<b>2013</b>
Interest rate swaps		(5,446)	(7,042)	(3,338)
Total		(5,446)	(7,042)	(3,338)

<b>Derivative</b>	<b>Location</b>	<b>Loss Reclassified from Accumulated Other Comprehensive Loss into Income (Effective Portion)</b>		
		<b>2015</b>	<b>2014</b>	<b>2013</b>
Interest rate swaps	Depreciation expense	(154)	(154)	(144)
Interest rate swaps	Interest and finance costs, net	(2,996)	(3,388)	(11,301)
Total		(3,150)	(3,542)	(11,445)

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The accumulated loss from Derivatives designated as Hedging instruments recognized in Accumulated Other comprehensive Loss as of December 31, 2015 and 2014 was \$10,727 and \$10,290 respectively.

**Derivatives not designated as Hedging Instruments Net effect on the Statement of Comprehensive Income/(loss)**

Derivative	Net Realized and Unrealized Gain (Loss) Recognized on Statement of Comprehensive Income / (Loss) Location	Amount		
		2015	2014	2013
Interest rate swaps	Interest and finance costs, net	(24)	(1,272)	1,012
Bunker swaps	Interest and finance costs, net	(1,206)	(10,402)	223
Bunker put options	Interest and finance costs, net	564	1,244	
Bunker call options	Interest and finance costs, net	(1,260)		
<b>Total</b>		<b>(1,926)</b>	<b>(10,430)</b>	<b>1,235</b>

The following tables summarize the fair values for assets and liabilities measured on a recurring basis as of December 31, 2015 and 2014 using Level 2 inputs (significant other observable inputs):

Recurring measurements:	December 31, 2015	December 31, 2014
Interest rate swaps	(8,887)	(10,265)
Bunker swaps		(9,228)
Bunker put options		2,443
Bunker call options	154	
	<b>(8,733)</b>	<b>(17,050)</b>

**16. Subsequent Events**

- On January 4, 2016, the Company drew down \$9,800 for the pre-delivery financing of the shuttle tanker under construction, under a loan agreed in May 2015. The amount was paid to the yard on the same date.
- On January 29, 2016, the Company paid a dividend of \$0.55469 per share for its 8.875% Series C Preferred Shares.
- On January 29, 2016, the Company paid a dividend of \$0.50 per share for its 8.00% Series B Preferred Shares.

- d) On February 5, 2016, the Company took delivery of its suezmax tanker *Decathlon*.
- e) On February 16, 2016, the Company's Board of Directors declared a quarterly dividend of \$0.08 per common share outstanding to be paid on April 7, 2016 to shareholders of record as of March 30, 2016.
- f) On February 25, 2016, the Company drew down \$5,122 for the pre-delivery financing of one of the aframax tankers under construction, under a loan agreed in June 2014 and the amount of \$4,692 for the pre-delivery financing of the second LR1 product carrier under construction, under a loan agreed in February 2015.
- g) On February 29, 2016, the Company paid a dividend of \$0.546875 per share for its Series D Preferred Shares.
- h) On March 22, 2016, the Company drew down \$5,122 for the pre-delivery financing of one of the aframax tankers under construction, under a loan agreed in June 2014.
- i) On April 4, 2016, the Company drew down \$5,122 for the pre-delivery financing of one of the aframax tankers under construction, under a loan agreed in June 2014.