

TSAKOS ENERGY NAVIGATION LTD

Form 20-F

April 29, 2013

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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**

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
**FOR THE FISCAL YEAR ENDED DECEMBER 31, 2012**

**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)

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**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>
<b>Common Shares, par value \$1.00 per share</b>	<b>New York Stock Exchange</b>
<b>Preferred share purchase rights</b>	<b>New York Stock Exchange</b>
<b>Securities registered or to be registered pursuant to Section 12(g) of the Act: None</b>	

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

As of December 31, 2012, there were 56,443,237 of the registrant's Common 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

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  Other   
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 , may , predict, should and expect and similar expressions 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 of our counterparties including our charterers to honor their contractual obligations;

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

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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 and product tankers, charter rates and vessel values, supply and demand for crude oil and petroleum products, 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, 2012. 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).

Our audited consolidated statements of operations, comprehensive income/(loss), stockholders' equity and cash flows for the years ended December 31, 2012, 2011 and 2010, and the consolidated balance sheets at December 31, 2012 and 2011, together with the notes thereto, are included in Item 18. Financial Statements and should be read in their entirety.

**Table of Contents****Selected Consolidated Financial and Other Data****(Dollars in thousands, except for share and per share amounts and fleet data)**

	2012	2011	2010	2009	2008
<b>Income Statement Data</b>					
Voyage revenues	\$ 393,989	\$ 395,162	\$ 408,006	\$ 444,926	\$ 623,040
Expenses					
Commissions	12,215	14,290	13,837	16,086	22,997
Voyage expenses	111,797	127,156	85,813	77,224	83,065
Charter hire expense			1,905		13,487
Vessel operating expenses(1)	133,251	129,884	126,022	144,586	143,757
Depreciation	94,340	101,050	92,889	94,279	85,462
Amortization of deferred dry-docking costs	4,910	4,878	4,553	7,243	5,281
Management fees	15,887	15,598	14,143	13,273	12,015
General and administrative expenses	4,093	4,292	3,627	4,069	4,626
Management incentive award			425		4,750
Stock compensation expense	730	820	1,068	1,087	3,046
Foreign currency losses (gains)	30	458	(378)	730	915
Amortization of deferred gain on sale of vessels					(634)
Net gain on sale of vessels	1,879	(5,001)	(19,670)	(5,122)	(34,565)
Vessel impairment charge	13,567	39,434	3,077	19,066	
Operating income (loss)	1,290	(37,697)	80,695	72,405	278,838
Other expenses (income):					
Interest and finance costs, net	51,576	53,571	62,283	45,877	82,897
Interest and investment income	(1,348)	(2,715)	(2,626)	(3,572)	(8,406)
Other, net	118	397	3	(75)	350
Total other expenses (income), net	50,346	51,253	59,660	42,230	74,841
<b>Net income (loss)</b>	<b>(49,056)</b>	<b>(88,950)</b>	<b>21,035</b>	<b>30,175</b>	<b>203,997</b>
Less: Net (income) loss attributable to non-controlling interest	207	546	(1,267)	(1,490)	(1,066)
<b>Net income (loss) attributable to Tsakos Energy Navigation Ltd.</b>	<b>\$ (49,263)</b>	<b>\$ (89,496)</b>	<b>\$ 19,768</b>	<b>\$ 28,685</b>	<b>\$ 202,931</b>
<b>Per Share Data</b>					
Earnings (loss) per share, basic	\$ (0.92)	\$ (1.94)	\$ 0.50	\$ 0.78	\$ 5.40
Earnings (loss) per share, diluted	\$ (0.92)	\$ (1.94)	\$ 0.50	\$ 0.77	\$ 5.33
Weighted average number of shares, basic	53,301,039	46,118,534	39,235,601	36,940,198	37,552,848
Weighted average number of shares, diluted	53,301,039	46,118,534	39,601,678	37,200,187	38,047,134
Dividends per common share, paid	\$ 0.50	\$ 0.60	\$ 0.60	\$ 1.15	\$ 1.80
<b>Cash Flow Data</b>					
Net cash provided by operating activities	60,862	45,587	83,327	117,161	274,141
Net cash used in investing activities	(42,985)	(69,187)	(240,115)	(75,568)	(164,637)
Net cash provided by/(used in) financing activities	(49,288)	(77,329)	137,244	(57,581)	21,218
<b>Balance Sheet Data (at year end)</b>					
Cash and cash equivalents	\$ 144,297	\$ 175,708	\$ 276,637	\$ 296,181	\$ 312,169
Cash, restricted	16,192	5,984	6,291	6,818	7,581
Investments	1,000	1,000	1,000	1,000	1,000
Advances for vessels under construction	119,484	37,636	81,882	49,213	53,715
Vessels, net book value	2,088,358	2,194,360	2,235,065	2,009,965	2,155,489
Total assets	2,450,884	2,535,337	2,702,260	2,549,720	2,602,317
Long-term debt, including current portion	1,442,427	1,515,663	1,562,467	1,502,574	1,513,629
Total stockholders' equity	926,840	919,158	1,019,930	914,327	915,115
<b>Fleet Data</b>					
Average number of vessels(2)	47.9	47.8	46.1	46.6	44.1
Number of vessels (at end of period)(2)	46.0	48.0	48.0	47.0	46.0
Average age of fleet (in years)(3)	6.5	7.0	6.8	6.8	6.1
Earnings capacity days(4)	17,544	17,431	16,836	17,021	16,143
Off-hire days(5)	889	502	400	390	431
Net earnings days(6)	16,655	16,929	16,436	16,631	15,712
Percentage utilization(7)	94.9%	97.1%	97.6%	97.7%	97.3%
Average TCE per vessel per day(8)	\$ 17,163	\$ 16,047	\$ 19,825	\$ 22,329	\$ 34,600
Vessel operating expenses per ship per day(9)	\$ 7,755	\$ 7,606	\$ 7,647	\$ 8,677	\$ 9,450



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Vessel overhead burden per ship per day(10)	\$	1,180	\$	1,188	\$	1,144	\$	1,083	\$	1,514
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- (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) Includes chartered vessels.
- (3) 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.
- (4) Earnings capacity days are the total number of days in a given period that we own or control vessels.
- (5) 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.

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- (6) 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.
- (7) Percentage utilization represents the percentage of earnings capacity days that the vessels were actually employed, i.e., earnings capacity days less off-hire 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%.
- (8) 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 costs 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 before commissions and does not take into account off-hire days.

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

	2012	2011	2010	2009	2008
Voyage revenues	\$ 393,989	\$ 395,162	\$ 408,006	\$ 444,926	\$ 623,040
Less: Voyage expenses	(111,797)	(127,156)	(85,813)	(77,224)	(83,065)
Add: Representative operating expenses for bareboat charter (\$10,000 daily)	3,660	3,650	3,650	3,650	3,660
Time charter equivalent revenues	285,852	271,656	325,843	371,352	543,635
Net earnings days	16,655	16,929	16,436	16,631	15,712
Average TCE per vessel per day	\$ 17,163	\$ 16,047	\$ 19,825	\$ 22,329	\$ 34,600

- (9) 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.
- (10) 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.

**Capitalization**

The following table sets forth our (i) cash and cash equivalents, (ii) restricted cash and (iii) consolidated capitalization as of December 31, 2012 on:

an actual basis; and

as adjusted basis giving effect to (i) debt repayments of \$66.5 million, (ii) the drawdown of \$92.0 million under our credit facilities, for the financing of the newbuilding DP2 suezmax shuttle tankers *Rio 2016* delivered on March 11, 2013 and *Brasil 2014* delivered on April 23, 2013, (iii) the release of \$10.3 million from restricted accounts for the repayment of loan installments and (iv) our payment of \$107.0 million on yard installments for our vessels under construction.

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, 2012 and April 26, 2013.

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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, 2012</b>		
	<b>Actual</b>	<b>Adjustments (Unaudited)</b>	<b>Adjusted (Unaudited)</b>
<b>Cash</b>			
Cash and cash equivalents	\$ 144,297	\$ (71,176)	\$ 73,121
Restricted cash	16,192	(10,345)	5,847
Total cash	\$ 160,489	\$ (81,521)	\$ 78,968
<b>Capitalization</b>			
<b>Debt:</b>			
Long-term secured debt obligations (including current portion)	\$ 1,442,427	\$ 25,459	\$ 1,467,886
<b>Stockholders equity:</b>			
Common shares, \$1.00 par value; 100,000,000 shares authorized; 56,443,237 shares issued and outstanding on an actual and as adjusted basis	56,443		56,443
Additional paid-in capital	404,391		403,391
Accumulated other comprehensive loss	(14,728)		(14,728)
Retained earnings	478,428		478,428
Non-controlling interest	2,306		2,306
Total stockholders equity	926,840		926,840
Total capitalization	\$ 2,369,267	\$ 25,459	\$ 2,394,726

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

Not Applicable.

**Risk Factors****Risks Related To Our Industry**

**The charter markets for crude oil carriers and product tankers have deteriorated significantly since the summer of 2008, which 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. While the rates occasionally improved in certain sectors for a limited period between 2009 and 2012, generally they remained significantly below the levels that contributed to our increasing revenues and profitability through 2008. A further significant decline occurred during 2011 and 2012 to low levels, and, apart from possible temporary seasonal or regional rate spikes, charter rates are likely to remain at historically low levels throughout 2013.

As of April 26, 2013, 16 of our vessels were employed under spot charters that are scheduled to expire in May 2013, and 31 of our vessels were employed on time charters or, in one case, a bareboat charter, which, if not extended, are scheduled to expire during the period between June 2013 and June 2028. In addition, five of our vessels have profit sharing provisions in their time charters that are based upon prevailing market rates and one of our vessels is employed in a pool arrangement at variable rates. If the current low rates in the charter market continue for any significant period in 2013, 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. The decline in prevailing charter rates also affects the value of our vessels, which follows the trends of charter rates and earnings on our charters.



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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 some indications that the global economy is improving, concerns over debt levels of certain other European Union member states and poor liquidity of European banks and attempts to find appropriate solutions are expected to lead to slow growth and possible recession in most of Europe in 2013. We cannot provide any assurance that the global recession will not return and tight credit markets will not continue or become more severe.

We face risks attendant to changes in economic environments, changes in interest rates, and instability in the banking, commodities and securities markets around the world, among other geopolitical factors. Major market disruptions and the current adverse changes in market conditions and regulatory climate in the United States and worldwide may adversely affect our business or impair our ability to borrow amounts under our credit facilities or any future financial arrangements. However, these recent and developing economic, geopolitical and governmental factors, together with the concurrent decline in charter rates and vessel values, could have a material adverse effect on our results of operations, financial condition, cash flows or share price.

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

The employment of our 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 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;

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. 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 remain at low levels for a prolonged period of time or further decline.

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### **Charter hire rates are cyclical and volatile.**

The crude oil and petroleum products shipping industry is cyclical with attendant volatility in charter hire rates and profitability. After reaching highs in mid-2008, charter hire rates for oil product carriers have remained poor with some short periods of relative respite. In addition, hire and spot rates for large crude carriers remained low since the middle of 2010, often resulting in rates well below break-even. The charter rates for 25 of our vessels are on variable basis or include a variable element and the time charters (whether fixed or partly variable) for two of our vessels may expire in September and October 2013, respectively. As a result, we will be exposed to changes in the charter rates which could affect our earnings and the value of our vessels at any given time.

Because the factors affecting the supply and demand for vessels are outside of our control and are unpredictable, the nature, timing, direction and degree of changes in industry conditions are also unpredictable.

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

Our tankers 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 11% of the existing world tanker fleet as of March 31, 2013 and, although the order book has substantially declined over the past eighteen months as vessels have been delivered, no assurance can be given that the order book will not begin to increase again 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. Continued weakness or a further decline in 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 suezmax, aframax, panamax, handymax and handysize tankers, as well as owners in the shuttle tanker and LNG markets, who are other independent tanker companies, as well as national and independent oil companies, some of whom 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.**

Since 2009, the frequency of pirate attacks on seagoing vessels has remained high, particularly in the western part of the Indian Ocean, despite a recent decline, and off the west coast of Africa. If piracy attacks result

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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 and economic and trade sanctions can affect the tanker industry, which could adversely affect our business.**

An attack like that of September 11, 2001 in the United States, longer-lasting wars or international hostilities, such as in Afghanistan, Iraq, Syria and Libya, or continued turmoil and hostilities in the Middle East or North Africa or potential hostilities between North and South Korea or between China and Japan 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 and Syria 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 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, and contrary to our charter-terms, our vessels may 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. In 2010, the United States enacted the Comprehensive Iran Sanctions Accountability and Divestment Act, or CISADA, which expanded the scope of the Iran Sanctions Act of 1996. Among other things, CISADA expands the application of the prohibitions to non-U.S. companies, such as our company, and introduces limits on the ability of companies and persons to do business or trade with Iran when such activities relate to the investment, supply or export of refined petroleum or petroleum products. In addition, in October 2012, President Obama issued an executive order implementing the Iran Threat Reduction and Syria Human Rights Act of 2012 (the ITRA) which extends the application of all U.S. laws and regulations relating to Iran to non-U.S. companies controlled by U.S. companies or persons as if they were themselves U.S. companies or persons, expands categories of sanctionable activities, adds additional forms of potential sanctions and imposes certain related reporting obligations with respect to activities of SEC registrants and their affiliates. The ITRA also includes a provision requiring the President of the United States to impose five or more sanctions from Section 6(a) of the Iran Sanctions Act, as amended, on a person the President determines is controlling beneficial owner of, or otherwise owns, operates or controls or insures a vessel that was used to transport crude oil from Iran to another country and (1) if the person is a controlling beneficial owner of the vessel, the person had actual knowledge the vessel was so used or (2) if the person otherwise owns, operates, controls, or insures the vessel,



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the person knew or should have known the vessel was so used. Such a person could be subject to a variety of sanctions, including exclusion from U.S. capital markets, exclusion from financial transactions subject to U.S. jurisdiction, and exclusion of that person's vessels from U.S. ports for up to two years. Finally, in January 2013, the U.S. enacted the Iran Freedom and Counter-Proliferation Act of 2012 (the "IFCPA") which expanded the scope of U.S. sanctions on any person that is part of Iran's energy, shipping or shipbuilding sector and operators of ports in Iran, and imposes penalties on any person who facilitates or otherwise knowingly provides significant financial, material or other support to these entities.

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 the Company and negatively affect our reputation and investor perception of the value of our common stock.

### **Taking advantage of attractive 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;

depletion of existing cash resources greater 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 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

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certain circumstances, we could also be held accountable under these laws for the acts or omissions of Tsakos Shipping & Trading ( Tsakos Shipping ), Tsakos Columbia Shipmanagement ( TCM ) or Tsakos Energy Management Limited ( Tsakos Energy Management ), companies that provide technical and commercial management services for our vessels and us, or others in the management or operation of our vessels. Although we currently maintain, and plan to continue to maintain, for each of our 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.

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 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 vessels would not be asserted against us.

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### **Risks Related To Our Business**

#### **The current low tanker values and any future declines in these values 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 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 have adversely affected tanker values since the middle of 2008, and despite the young age of our fleet and extensive long-term charter employment on many of our vessels, has resulted in a significant decline in the charter-free values of our vessels. Vessel values may remain at current low levels for a prolonged period, decline further or rise. Approximately \$24.3 million of our outstanding indebtedness has been reclassified as current as of December 31, 2012, reflecting the aggregate amount that we would need to repay under certain of our credit facilities if we do not agree to a waiver with our lenders and are requested by lenders to comply with the loan-to-asset value covenants under these credit facilities as of such date. We have paid all of our scheduled loan installments and related loan interest consistently without delay or omission and none of our lenders under these credit facilities have requested such prepayment or additional collateral. We have agreed with all of our lenders under our affected credit facilities to lower loan-to-asset value and corporate leverage requirements until July 1, 2014, when such covenants return to higher levels, unless we agree to extend the waivers with our lenders.

If we are unable to comply with the financial and other covenants under our credit facilities either before or after certain covenant requirements step up on July 1, 2014, including by repaying outstanding debt or posting additional collateral in the case of loan-to-asset value covenants, and are unable to agree to an extension of the amended covenant requirements, our lenders could accelerate our indebtedness. Any such acceleration without an agreed waiver with our lenders, because of the cross-default provisions in our loan agreements, could in turn lead to additional defaults under our other loan agreements and the consequent acceleration of the indebtedness thereunder.

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

During 2012, we derived approximately 50% of our revenues from time charters, as compared to 51% in 2011. As our current period charters on four of our vessels expire in the remainder of 2013, it may not be possible to re-charter these vessels on a period basis at attractive rates given the currently depressed state of the charter market. If attractive period charter opportunities are not available, we would seek to charter our vessels on the spot market, which has been at low levels for some time and is subject to significant fluctuations. In the event a vessel may not find employment at economically viable rates, management may opt to lay up the vessel until such time that rates become attractive again. During the period of layup, the vessel will continue to incur expenditures such as insurance, reduced crew wages and maintenance costs.

#### **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 a result of any 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

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expenses will be more significantly impacted by increases 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 increases in bunker charges are factored into the prospective freight rates for spot market voyages periodically announced by WorldScale 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 except our vessels and the newbuildings that we have under contract. We have engaged Tsakos Energy Management to perform all of our executive functions. Tsakos Energy Management directly provides 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 (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, one of the world's largest independent tanker managers. As a result, we depend upon the continued services of Tsakos Energy Management and Tsakos Energy Management depends on the continued services of Tsakos Shipping and TCM.

We derive significant benefits from our relationship with the Tsakos Group, including purchasing discounts to which we otherwise would not have access. We would be materially adversely affected if 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 more beneficial 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 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, 2012 would have resulted in a payment of approximately \$137.5 million. Tsakos Energy Management's contracts with Tsakos Shipping and with TCM may be terminated

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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 could bring a lawsuit against it. However, because we are not ourselves party to a contract with Tsakos Shipping or TCM, it may be difficult for us 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 our management agreement. Therefore, it is unlikely that we would be able to obtain any meaningful recovery if we 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 the other tankers.**

In addition to the vessels that it manages for us, TCM technically manages a fleet of privately owned vessels and seeks to acquire new third-party clients. These vessels are operated by the same group of TCM 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 possible 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 vessels are unemployed, or could allocate more lucrative opportunities to its other vessels. It is also possible that TCM could in the future agree to manage more tankers that directly compete with us.

### **Clients of Tsakos Shipping have acquired and may acquire further 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

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through Argosy Insurance Company, Bermuda, 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 arms-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;

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 has resulted in a decrease in vessel values. The decrease in value accelerated during 2012 as a result of excess fleet capacity and falling freight rates. In addition, although we currently own a modern fleet, with an average age of 6.5 years as of March 31, 2013, as vessels grow older, they generally decline in value.

We have a policy of considering the disposal of tankers periodically. If we sell tankers 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 that could adversely affect our financial condition and results of operations.

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### **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 provide to crew our vessels. 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 our 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, some of our vessels operate under 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 purchase our newbuildings present certain economic and other risks.**

As of April 26, 2013, we have a contract to construct a newbuilding LNG carrier, to be delivered in 2016. A shuttle tanker newbuilding had also been previously ordered, but the contract is being renegotiated with the shuttle tanker being cancelled and two alternative vessels being considered instead. We 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 periodically experience financial difficulties.

Delays in the delivery of this vessel, or any additional newbuilding or secondhand vessels we may agree to acquire, would 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 recent tensions involving North Korea; weather interference or catastrophic event, such as a major earthquake, tsunami or fire; our requests for changes to the original vessel specifications; requests from our customers, with whom we arrange charters for such vessels, to delay construction and delivery of such vessels due to weak economic conditions and shipping demand and a dispute with the shipyard building the vessel.

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

We have traditionally financed our vessel acquisitions with cash (equity) and bank debt from various reputable national and international commercial banks. In relation to newbuilding contracts, the equity portion covers all or part of the pre-delivery obligations while the debt portion covers the outstanding amount due to the shipyard on delivery. Current and future terms and conditions could be different from terms obtained in the past and could result in higher cost of capital, if available at all. Any adverse development in that respect could materially alter our current and future financial planning and growth and have a potentially negative impact on our balance sheet.



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### **We may not be able to finance the construction of the vessels we have on order.**

We have not finalized financing arrangements to fund the balance of the purchase price due for financing the LNG carrier that we ordered with delivery expected in 2016 or for other orders under negotiation. We cannot assure you that we will be able to obtain additional financing for these newbuildings on terms that are favorable to us or at all.

If we were unable to finance further installments for the newbuildings we have on order, an alternative would be to use the available cash holdings of the Company or, if we should lack adequate cash, to attempt to sell the uncompleted vessels to a buyer who would assume the remainder of the contractual obligations. The amount we would receive from the buyer would depend on market circumstances and could result in a deficit over the advances we had paid to the date of sale plus capitalized costs. Alternatively, we may default on the contract, in which case the builder would sell the vessel and refund our advances less any amounts the builder would deduct to cover all of its own costs. We would be obliged to cover any deficiency arising in such circumstances.

Apart from the delay in receiving the refund of advances and the possible payment of any deficiencies, the direct effect on our operations of not acquiring the vessel would be to forego any revenues and related vessel operating cash flows.

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

The future performance of our 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, regasification 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. While global LNG demand has continued to rise, the rate of its growth has fluctuated due to several factors, including the global economic crisis and continued economic uncertainty, fluctuations in the price of 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. Continued 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 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 regasification;

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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.

Our existing LNG carrier is on charter until March 2016 and we have not arranged a replacement charter for it. Furthermore, we have not yet arranged a charter for our LNG carrier newbuilding with expected delivery in 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 our LNG carriers, or for any new LNG carriers we 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:

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;

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. During the period from 2005 to 2010, the global fleet of LNG carriers grew by an average of 15% per year due to the construction and delivery of new LNG carriers. Although the global newbuilding order book dropped steeply in 2009 and 2010, 99 orders for newbuilding LNG carriers were placed between 2011 and the first quarter of 2013. The newbuilding order book of almost 85 ships as of December 31, 2012 amounts to 23% of global LNG carrier fleet capacity, with the majority of the newbuildings scheduled for delivery in 2014 and 2015. This and any future expansion of the global LNG carrier fleet may have a negative impact on charter hire rates, ship utilization and ship values, which impact could be amplified if the expansion of LNG production capacity does not keep pace with fleet growth.

### **Our effectiveness in attaining accretive charters for our existing LNG carrier at the end of its existing charter or for newbuilding LNG carriers will be determined by the reliability and experience of third-party technical managers.**

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We have subcontracted all technical management aspects of our LNG operation to Hyundai Merchant Marine ( HMM ) 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 in the future. As such, we are currently dependent on the reliability and effectiveness of third-party managers for whom

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we cannot guarantee that their employees, both onshore and at-sea are adequate in their assigned role. We cannot guarantee the quality of their services or the longevity of the management contract.

### **Our growth 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. Our 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 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;

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; and

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

### **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 charter. Changes in the price of fuel may 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 26, 2013, 30 of our vessels were employed under time charters and one of our vessels was employed under a bareboat charter, which expires in September 2013. The ability and willingness of each of our counterparties to perform its obligations under their charters with us 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 customers would not fail to pay charter hire or attempt to renegotiate charter rates and, if our charterers fail to meet their obligations to us or attempt to renegotiate our 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 our vessels, 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 at reasonable rates, and we cannot assure you that the insurance we are able to obtain will cover all foreseen liabilities that we may incur, particularly those involving oil spills and catastrophic environmental damage. In



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addition, we may not be able to insure certain types of losses, including loss of hire, for which insurance coverage may become unavailable.

**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 our 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 if the 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 P&I club has entered into interclub agreements. We cannot assure you that the P&I clubs to which we 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 on 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, 2012, our debt to capital ratio was 60.9 % (debt / debt plus equity), with \$1.44 billion in debt outstanding. We are required to apply a substantial portion of our cash flow from operations, before interest payments, to the payment of principal and interest on this debt. In connection with obtaining waivers from our lenders of non-compliance with certain financial covenants, we have agreed to certain increases in the margin to LIBOR payable under the applicable loans. See Item 5. Operating and Financial Review and Prospects - Debt. In 2012, all of our cash flow derived from operations plus an amount from existing cash resources was dedicated to debt service, excluding any debt prepayment upon the sale of vessels. 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.

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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.

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.**

In 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 is regularly informed of 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, 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. 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 a risk 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 how our current interest



rate swap arrangements have been impacted by recent events.

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**Our 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 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 2013 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 2013 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

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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 expenses are incurred in foreign currencies, we are exposed to exchange rate risks.**

The charterers of our vessels pay us in U.S. dollars. While we incur most of our expenses in U.S. dollars, we have in the past incurred expenses in other currencies, most notably the Euro. In 2012, Euro expenses accounted for approximately 53% of our total operating expenses. 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 March 31, 2013, companies controlled by the Tsakos Holdings Foundation or affiliated with the Tsakos Group own approximately 37% of our outstanding common shares. The Tsakos Holdings Foundation is a Liechtenstein foundation whose beneficiaries include persons and entities affiliated with the Tsakos family, 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.

### **The Public Company Accounting Oversight Board (PCAOB) is currently unable to inspect the audit work and practices of auditors operating in Greece, including our auditor.**

Auditors of U.S. public companies are required by law to undergo periodic Public Company Accounting Oversight Board (PCAOB) inspections that assess their compliance with U.S. law and professional standards in connection with performance of audits of financial statements filed with the SEC. Certain EU countries do not permit the PCAOB to conduct inspections of accounting firms established and operating in EU countries, even if they are part of major international firms. Accordingly, unlike for most U.S. public companies, the PCAOB is prevented from evaluating our auditor's performance of audits and its quality control procedures, and, unlike the shareholders of most U.S. public companies, our shareholders are deprived of the possible benefits of such inspections.

## **Risks Related To Our Common 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 may be unpredictable and volatile.**

The market price of our common 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

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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 and the general state of the securities market. The tanker industry has been highly unpredictable and volatile. The market for common 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 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 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 as intended.**

During 2012, we paid dividends totaling \$0.50 per common share. In April, 2013, the Company announced a dividend of \$0.05 per common share to be paid on June 5, 2013 to holders of record as of May 30, 2013. Subject to the limitations discussed below, we currently intend to continue to pay cash dividends on our common 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 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 net income for any particular year, plus certain additional amounts permitted to the extent 50% of aggregate net income in prior years exceeded dividends paid during such years, as well as other relevant factors. 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.

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 may be adversely affected if we are unable to or do not pay dividends as intended.

### **Provisions in our Bye-laws, our management agreement with Tsakos Energy Management and our shareholder rights plan 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. Furthermore, our shareholder rights plan authorizes issuance to existing shareholders of substantial numbers of preferred share rights and common shares in the event a third party seeks to acquire control of a substantial block of our common shares. 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, even if such transactions would have significant benefits to our shareholders.

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### **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 1981 of Bermuda, as amended (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 from one non-executive director, 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.

### **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. In 1996, Maritime Investment Fund Limited 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 76 vessels and has sold 28 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.

### **Business Overview**

Tsakos Energy Navigation Limited is a leading provider of international seaborne petroleum product and crude oil transportation services and, as of April 26, 2013, operated a fleet of 45 modern petroleum product tankers and crude oil carriers 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 Liquefied Natural Gas ( LNG ) carrier and two 2013-built DP2 shuttle suezmax tankers, bringing our total operating fleet to 48 vessels. We sold two VLCC vessels, *La Madrina* and *La Prudencia*, in the fourth quarter of 2012. We have on order an LNG carrier with expected delivery in 2016. The resulting fleet (assuming no further sales or acquisitions) would comprise 49 vessels representing approximately 4.9 million dwt. In addition, we have also entered into certain agreements for additional vessels with established shipyards, Sungdong Shipbuilding and Hyundai Heavy Industries, and are in discussions with the shipyards regarding the number, size, classification and timing of the vessels to be constructed, including at least one additional LNG carrier.

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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 charterers as customers and to our success in obtaining charter renewals generating strong fleet utilization.

Our fleet is managed by Tsakos Energy Management Limited, or Tsakos Energy Management, an affiliate 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 & Trading, S.A., or Tsakos Shipping. In its capacity as commercial manager, Tsakos Shipping manages vessel purchases and sales and identifies and negotiates charter opportunities for our fleet. Until June 30, 2010, Tsakos Shipping 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 Tsakos Columbia Shipmanagement S.A., or 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* and *VLCC Millennium* which are both technically managed by a non-affiliated ship manager. TCM is based in Athens, Greece and is staffed primarily with former Tsakos Shipping personnel, in addition to certain CSM executives. 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 over 150 vessels and crewing services for an additional 200 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. We also expect to benefit from CSM's significant crewing capabilities. 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.

Tsakos Shipping continues to provide commercial management services for our vessels, which include chartering, charterer relations, obtaining insurance and vessel sale and purchase, supervising newbuilding construction and vessel financing.

As of April 26, 2013, our fleet consisted of the following 48 vessels:

Number of Vessels	Vessel Type
1	VLCC
10	Suezmax
8	Aframax
3	Aframax LR2
9	Panamax LR1
6	Handymax MR2
8	Handysize MR1
1	LNG carrier
2	Shuttle DP2
<b>Total 48</b>	

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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 opportunity to be one of the more versatile operators in the market. The current fleet totals approximately 4.6 million dwt, all of which is double-hulled. As of March 31, 2013, the average age of the tankers in our current operating fleet was 6.5 years, compared with the industry average of 8.7 years.

In addition to the vessels operating in our fleet as of April 26, 2013, we have also entered into certain agreements for additional vessels with established shipyards, Sungdong Shipbuilding and Hyundai Heavy Industries, and are in discussions with the shipyards regarding the number, size, classification and timing of the vessels to be constructed, including at least one additional LNG carrier

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 \$3.6 billion, including investments of approximately \$3.0 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 and handymax tankers, as well as one LNG carrier, 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 at least one additional LNG carrier newbuilding. We also entered the shuttle tanker market with our first DP2 suezmax *Rio 2016* which was delivered in March 2013 and the second DP2 suezmax *Brasil 2014* delivered on April 23, 2013.

***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 adjustments. Over the last five years, our overall average fleet utilization rate was 96.9%.

***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 Petrobras, BP, ExxonMobil, FLOPEC, Hyundai Merchant Marine, Houston Refining, Dorado, Shell and Stena are among the regular customers of Tsakos Energy Navigation, in particular.

***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 and, as a result of the recent deliveries of the *Rio 2016* and the *Brasil 2014*, own two DP2 suezmax shuttle tankers. We are currently in discussions to construct additional vessels, including at least one additional LNG carrier.

***Entering offshore sector.*** With the delivery of two suezmax DP2 shuttle tankers in March and April 2013, which will operate on long-term charters with one of the largest developers of offshore oil fields, we have made a presence in a shipping sector previously dominated by only a small handful of shipping companies. It is our intention to seek other opportunities in servicing the offshore oil exploration and





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production industry, building on the well established relationships with existing oil major customers which are exploiting the rich deposits of sub-marine oil fields.

**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.

As of April 26, 2013, our fleet consisted of the following 48 vessels:

Vessel	Year Built	Deadweight Tons	Year Acquired	Charter Type <sup>(8)</sup>	Expiration of Charter	Hull Type <sup>(1)</sup> (all double hull)
<b>VLCC</b>						
1. Millennium	1998	301,171	1998	bareboat charter	September 2013	
<b>SUEZMAX</b>						
1. Silia T	2002	164,286	2002	time charter	March 2015	
2. Triathlon <sup>(2)</sup>	2002	164,445	2002	time charter	January 2014	
3. Eurochampion 2004	2005	164,608	2005	spot		ice-class 1C
4. Euronike <sup>(2)</sup>	2005	164,565	2005	time charter	September 2014	ice-class 1C
5. Archangel	2006	163,216	2006	time charter	March 2014	ice-class 1A
6. Alaska	2006	163,250	2006	time charter	September 2014	ice-class 1A
7. Arctic <sup>(2)</sup>	2007	163,216	2007	time charter	August 2015	ice-class 1A
8. Antarctic	2007	163,216	2007	time charter	June 2013	ice-class 1A
9. Spyros K <sup>(3)</sup>	2011	157,740	2011	time charter	May 2022	
10. Dimitris P <sup>(3)</sup>	2011	157,648	2011	time charter	August 2023	
<b>SUEZMAX DP2 SHUTTLE</b>						
1. Rio 2016 <sup>(7)</sup>	2013	157,000	2013	time charter	April 2028	
2. Brasil 2014 <sup>(7)</sup>	2013	157,000	2013	time charter	May 2028	
<b>AFRAMAX</b>						
1. Proteas	2006	117,055	2006	spot		ice-class 1A
2. Promitheas	2006	117,055	2006	spot		ice-class 1A
3. Propontis	2006	117,055	2006	time charter	March 2015	ice-class 1A
4. Izumo Princess	2007	105,374	2007	spot		DNA
5. Sakura Princess	2007	105,365	2007	pool		DNA
6. Maria Princess	2008	105,346	2008	spot		DNA
7. Nippon Princess	2008	105,392	2008	time charter	June 2014	DNA
8. Ise Princess	2009	105,361	2009	spot		DNA
9. Asahi Princess	2009	105,372	2009	spot		DNA
10. Sapporo Princess	2010	105,354	2010	spot		DNA
11. Uruga Princess	2010	105,344	2010	spot		DNA
<b>PANAMAX</b>						
1. Andes <sup>(3)(5)</sup>	2003	68,439	2003	time charter	November 2016	
2. Maya <sup>(3)(4)(5)</sup>	2003	68,439	2003	time charter	September 2016	
3. Inca <sup>(3)(4)(5)</sup>	2003	68,439	2003	time charter	May 2016	
4. Selecao	2008	74,296	2008	time charter	August 2014	
5. Socrates	2008	74,327	2008	time charter	July 2014	
6. World Harmony <sup>(3)(5)</sup>	2009	74,200	2010	time charter	April 2016	
7. Chantal <sup>(3)(5)</sup>	2009	74,329	2010	time charter	June 2016	
8. Selini	2009	74,296	2010	time charter	April 2015	
9. Salamina	2009	74,251	2010	time charter	April 2015	



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Vessel	Year Built	Deadweight Tons	Year Acquired	Charter Type <sup>(8)</sup>	Expiration of Charter	Hull Type <sup>(1)</sup> (all double hull)
<b>HANDYMAX</b>						
1. <i>Artemis</i>	2005	53,039	2006	time charter	November 2014	ice-class 1A
2. <i>Afrodite</i>	2005	53,082	2006	spot		ice-class 1A
3. <i>Ariadne</i> <sup>(2)</sup>	2005	53,021	2006	time charter	April 2014	ice-class 1A
4. <i>Aris</i>	2005	53,107	2006	time charter	May 2017	ice-class 1A
5. <i>Apollon</i> <sup>(2)(6)</sup>	2005	53,149	2006	spot		ice-class 1A
6. <i>Ajax</i>	2005	53,095	2006	time charter	May 2017	ice-class 1A
<b>HANDYSIZE</b>						
1. <i>Didimon</i>	2005	37,432	2005	time charter	March 2014	
2. <i>Arion</i>	2006	37,061	2006	spot		ice-class 1A
3. <i>Delphi</i>	2004	37,432	2006	time charter	November 2013	
4. <i>Amphitrite</i>	2006	37,061	2006	spot		ice-class 1A
5. <i>Andromeda</i>	2007	37,061	2007	spot		ice-class 1A
6. <i>Aegeas</i>	2007	37,061	2007	time charter	October 2013	ice-class 1A
7. <i>Byzantion</i>	2007	37,275	2007	spot		ice-class 1B
8. <i>Bosporos</i>	2007	37,275	2007	spot		ice-class 1B
<b>LNG</b>						
1. <i>Neo Energy</i>	2007	85,602	2007	time charter	March 2016	Membrane
<b>Total Vessels</b>	<b>48</b>	<b>4,786,911</b>				

- (1) 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.
- (2) 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.
- (3) 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.
- (4) 49% of the holding company of these vessels is held by a third party.
- (5) Charterers have the option to terminate the charter party after at least 12 months with a three months notice.
- (6) This vessel will enter into a new time charter in May 2013.
- (7) Newbuilding shuttle tankers *Rio 2016* and *Brasil 2014* are currently on repositioning voyages from the Korean shipyard to Brazil. En route the *Rio 2016* loaded a spot cargo and *Brasil 2014* is also expected to load a spot cargo en route. Expected delivery to the charterer in Brazil is mid-May for the *Rio 2016* and end of May for *Brasil 2014* at which time they will commence 15-year time charters.
- (8) Certain of the vessels are operating in the spot market under contracts of affreightment.

On March 21, 2011, the Company ordered two suezmax DP2 shuttle tankers from Sungdong Shipbuilding in South Korea. We took delivery of the first suezmax DP2 tanker *Rio 2016* on March 11, 2013, and the second one, *Brasil 2014* on April 23, 2013. In addition, an LNG carrier has been ordered from Hyundai Heavy Industries (see below). 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 Sungdong shipyard and Hyundai Heavy Industries in South Korea in the design of the newbuildings and continues to work with the shipyard during the construction period. TCM provides supervisory personnel present during the construction. A further shuttle tanker had been ordered from Sungdong, but the contract is being renegotiated with the shuttle tanker being cancelled and two alternative vessels being considered instead. A first installment of \$4.5 million had been paid in the first quarter of 2013 and this amount will remain as the first installment of whatever new constructions are decided upon.

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Our newbuildings under construction as of April 26, 2013 consisted of one LNG carrier (Hull 2612) of 86,000 deadweight tons at the Hyundai Heavy Industries shipyard in South Korea, for a purchase price of \$210.4 million, including extra costs agreed as of March 31, 2013. This contract is currently under renegotiation with regards to size, specifications and delivery time, which is now expected to be in 2016. It is possible that the contract price will increase as a result. As of April 23, 2013, we have not yet secured bank financing for the LNG carrier under construction. We believe that our LNG carrier will be equipped with the latest tri-fuel diesel electric propulsion technology.

Under the newbuilding contracts, the purchase prices for the ships are subject to deductions for delayed delivery, excessive fuel consumption and failure to meet specified deadweight tonnage requirements. We make progress payments equal to 30% or 50% of the purchase price of each vessel during the period of its construction. As of April 26, 2013, we had made progress payments of \$35.9 million out of the total purchase price of approximately \$298.4 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 \$59.4 million is contracted to be paid during 2013, although as part of the renegotiations on both contracts, it is expected that a lesser amount will be paid.

### **Fleet Deployment**

We strive 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. In the past two years, this proportion has been over 72% as we took proactive steps to meet any potential impact of the expanding world fleet on freight rates. The remainder of the fleet is in the spot market. We believe that our fleet deployment strategy 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 2012, 2011 and 2010 as a percentage of operating days.

<b>Employment Basis</b>	<b>Year Ended December 31,</b>		
	<b>2012</b>	<b>2011</b>	<b>2010</b>
Time Charter fixed rate	30%	22%	19%
Time Charter variable rate	32%	39%	45%
Period Employment at variable rates	11%	15%	19%
Spot Voyage	27%	25%	17%
Total Net Earnings Days	16,655	16,929	16,436

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 19 tankers currently operating on spot voyages.

### **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 fleet's technical management, including crewing, maintenance

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and repair, and voyage operations, has been subcontracted by Tsakos Energy Management to Tsakos Columbia Shipmanagement. 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. One vessel was sub-contracted to third-party ship managers during all of 2012.

The following chart illustrates the management of our fleet:

\* Technical management of this vessel is subcontracted to an unaffiliated third party.

\*\* Technical management of this vessel, which is under bareboat charter, is the responsibility of the charterer.

## **Management Contract**

### **Executive and Commercial Management**

Pursuant to our management agreement with Tsakos Energy Management, our 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 2012 monthly fees for operating vessels were be \$27,500 per owned vessel and \$20,400 for chartered-in vessels or chartered out on a bareboat basis or under construction. The monthly fee for the LNG carrier, *Neo Energy*, was \$35,000 from April 2012. The same fees will apply for 2013. 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. We paid Tsakos Energy Management aggregate management fees of \$15.6 million in 2012, \$15.3 million in 2011 and \$13.8 million in 2010. From these amounts, Tsakos Energy Management paid a technical management fee to Tsakos Columbia Shipmanagement. 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;

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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. We pay a chartering commission of 1.25% to Tsakos Shipping for every charter involving our vessels. In addition, Tsakos Shipping may charge a brokerage commission on the sale of a vessel. In 2012, 2011 and 2010 this commission was approximately 1% of the sale price of a vessel. The total amount we paid for these chartering and sale brokerage commissions was \$5.3 million in 2012, \$5.5 million in 2011 and \$6.3 million in 2010. 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. In 2011, \$2.8 million was charged for fourteen vessels delivered between 2007 and September 2011. This amount was added to the cost of the vessels concerned and is being amortized over the remaining life of the vessels. No fee was paid in 2012 as no vessels were delivered.

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 our 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.

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 by us, 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 by us, each broker involved will receive a commission from us generally at the industry standard rate of one percent of the sale price, but subject to negotiation. In accordance with the management

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agreement, Tsakos Energy Management is entitled to charge us 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 Tsakos Columbia Shipmanagement, or TCM, to manage the day-to-day aspects of vessel operations, including maintenance and repair, provisioning, and crewing of our vessels. 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 63 operating vessels under management (including our 47 vessels) at March 31, 2013, with a further two to be delivered, one of which is a vessel under construction for us, totaling approximately 5.8 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 132 employees engaged in ship management and approximately 2,500 seafaring employees of whom 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 our 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* and the VLCC *Millennium* is provided by non-affiliated ship managers.

*Maintenance and Repair.* Each of our 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.

### **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 our 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 our vessels.

**Table of Contents****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 2012.

<b>Customer</b>	<b>Year Ended December 31, 2012</b>
Petrobras	16.7%
ExxonMobil	13.8%
FLOPEC	9.5%
SHELL International	8.2%
HMM	6.6%
Methane	6.2%
BP Shipping	5.4%
Mansel	2.9%
Litasco	2.9%
Dorado	2.3%
Star tankers	2.3%
TOR	1.9%
Sun	1.7%
Mercuria	1.5%
Chevron	1.4%
Gazprom	1.4%
Clearlake	1.4%

**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 have 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.

*IMO.* The International Maritime Organization ( IMO ) has negotiated international conventions that impose liability for oil pollution in international waters and in a signatory's territorial waters. In March 1992, the IMO adopted 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, which became effective in July 1993 (in relation to newbuildings) and in July 1995 (in relation to existing tankers) in many of the jurisdictions in which our tanker fleet operates, provide that (1) tankers 25 years old and older must be of double-hull construction or of a mid-deck design with double side construction (with some exceptions for tankers between 25 and 30 years old), and (2) all tankers will be subject to enhanced



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inspections. Also, under IMO regulations, a tanker must be of double-hull construction or a mid-deck design with double-side construction or be of another approved design if that tanker (1) is the subject of a contract for a major conversion or original construction on or after July 6, 1993, (2) commences a major conversion or has its keel laid on or after January 6, 1994, or (3) completes a major conversion or is a newbuilding delivered on or after July 6, 1996. All of the vessels in our fleet are of double hull construction.

Revisions to Annex I of MARPOL were adopted in 2001. The revised regulations, which became effective in 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 tonnes deadweight or more constructed after 1982. The changes, which have increased the number of tankers that are scrapped, are intended to reduce the likelihood of oil pollution in international waters.

In December 2003, as a result of the oil spill in November 2002 following the loss of the oil tanker *Prestige*, which was not owned by a company affiliated with us, the IMO proposed an amendment to MARPOL 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 sets limits on sulfur oxide and nitrogen oxide emissions from ship exhausts and prohibits deliberate emissions of ozone depleting substances, such as chlorofluorocarbons. Annex VI also includes a global cap on the sulfur content of fuel oil and allows for special areas to be established with more stringent controls on sulfur emissions. 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. 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. In April 2008, the Marine Environment Protection Committee ( MEPC ) of the IMO approved proposed amendments to Annex VI regarding particulate matter, nitrogen oxide and sulfur oxide emissions standards. These amendments were adopted by the MEPC in October 2008 and entered into force in July 2010. They 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.

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Additionally, more stringent emission standards could apply in coastal areas designated as Emission Control Areas. The United States ratified the amendments in October 2008.

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, the Company's liquefied natural gas ( LNG ) carrier meets IMO requirements for liquefied gas carriers. 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 new discharge levels apply to the Company's LNG carrier.

On January 1, 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 on traditional garbage but also on 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. A protocol has been put into place to ensure that (i) garbage is disposed of in accordance with the 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.

Tsakos Colombia 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

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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 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 July 1, 2010. The ISM Code requires shipowners, 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.

*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 (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. Since July 31, 2009, liability in respect of a double-hulled tanker over 3,000 gross tons has been limited to the greater of \$2,000 per gross ton or \$17,088,000 (subject to periodic adjustment). 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 have double-hulls, and existing vessels which do not comply with the double-hull requirement must be phased out by 2015. Currently, 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. In October 2008 the Coast Guard adopted amendments to the financial responsibility regulations to require with effect from January 15, 2009 evidence of financial responsibility in an amount equal to or greater than the statutory limitation of liability from time to time. Under the regulations, evidence of financial responsibility may be

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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.

The Coast Guard's regulations concerning certificates of financial responsibility provide, in accordance with OPA 90, that claimants may bring suit directly against an insurer or guarantor that furnishes certificates of financial responsibility. If an insurer or guarantor is sued directly, it is prohibited from asserting any contractual defense that it may have had against the responsible party and is limited to asserting those defenses available to the responsible party and the defense that the incident was caused by the willful misconduct of the responsible party. Some organizations, which had typically provided certificates of financial responsibility under pre-OPA 90 laws, including the major protection and indemnity organizations, have declined to furnish evidence of insurance for vessel owners and operators if they have been subject to direct actions or required to waive insurance policy defenses. We have certificates of financial responsibility in place for our vessels, where required.

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.

We have complied and 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 are required to obtain a CWA permit regulating and authorizing discharges of ballast water and other wastewaters incidental to the operation of our vessels if we operate within the three mile territorial waters or inland waters of the United States. This permit, which the EPA has designated as the Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels, or VGP, incorporates the current U.S. Coast Guard requirements for ballast water management, as well as supplemental ballast water requirements, and includes requirements applicable to 26 specific wastewater streams, such as deck runoff, bilge water and gray water. 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. On March 28, 2013, the EPA published a new draft VGP to replace the existing VGP when it expires in December 2013. The new VGP is expected to operate in a similar way to the existing one. We intend to comply with the existing and new VGP and the associated record keeping requirements, and we do not believe that the costs associated with obtaining such permits and complying with their obligations will have a material impact on our operations.

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*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. The marine diesel engine emission standards are currently limited to new engines beginning with the 2004 model year. On April 30, 2010, 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 dioxides (NOx), which will apply from 2016. Compliance with these standards may result in our incurring costs to install control equipment on our vessels.

In March 2009, the United States and Canada required vessels operating within designated specific areas of their respective coastal waters (extending to 200 nautical miles offshore) as Emissions Control Areas ( ECA ) under the Annex VI amendments. On March 26, 2010 the IMO designated the waters off North American coasts as an ECA, meaning that vessels entering the designated ECA must use compliant fuel when operating in the area. The North American ECA has been in force since August 1, 2012 and all vessels operating in the ECA must now use fuel with a sulfur content of 1.0% dropping to a 0.1% sulfur content in 2015. From 2016 NOx after-treatment requirements will also apply. In July 2011 the IMO adopted further amendments to MARPOL and set up the US Caribbean ECA in the waters of Puerto Rico and the Virgin Islands. The new ECA is scheduled to take effect on January 1, 2014. Since July 2009 California has required vessels operating within 24 nautical miles of its coast to use marine gas oil with a sulfur content of 1.0% or less. It is expected that the California regulations will be phased out in favor of the North American ECA requirements in 2015. Compliance with the North American ECA, as well as the possibility of more stringent emissions requirements from marine diesel engines or port operations by vessels adopted by the EPA or the states where we operate, could entail significant capital expenditures or otherwise increase the costs of our operations.

*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 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

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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 1.5% is not permitted. Though operators must comply with the stricter limit of 1.0% imposed by revised MARPOL Annex VI and the European Union is now in the process of aligning its limits with MARPOL. 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.

*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 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 \$4.51 million plus \$632 for each additional gross ton over 5,000. For vessels of over 140,000 gross tons, liability is limited to approximately \$89.8 million. As the Convention calculates liability in terms of IMF Special Drawing Rights, these figures are based on currency exchange rates on April 26, 2013. 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. On March 23, 2012 the U.S. Coast Guard adopted revised ballast water discharge standards that set maximum acceptable limits for living organisms in ballast water discharges and established

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standards for ballast water management systems. The regulations took effect on June 21, 2012 and will be phased in depending on the size of a vessel's ballast water tanks and the vessel's next dry-docking date. The requirements of the Coast Guard regulations are consistent with those in EPA's new VGP. Some states have addressed invasive species through ballast water management and hull cleaning requirements. We could incur additional costs to comply with the new Coast Guard regulations, the new VGP, or additional state ballast water management requirements.

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 6, 2013 the BWM Convention has been adopted by 36 states, representing 29.07% of world tonnage. The MEPC passed a resolution in March 2010 calling on those countries that had already ratified the BWM Convention to encourage the installation of ballast water management systems on vessels operating in their waters.

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.

Our LNG vessels may also become subject to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996 as amended by the Protocol to the HNS Convention, adopted in April 2010 (2010 HNS Protocol) (collectively, 2010 HNS Convention), if it is entered into force. The Convention creates a regime of liability and compensation for damage from hazardous and noxious substances (or HNS), including liquefied gases. The 2010 HNS Convention sets up a two-tier system of compensation composed of compulsory insurance taken out by ship owners and an HNS Fund which comes into play when the insurance is insufficient to satisfy a claim or does not cover the incident. Under the 2010 HNS Convention, if damage is caused by bulk HNS, claims for compensation will first be sought from the ship owner up to a maximum of 100 million Special Drawing Rights (or SDR). If the damage is caused by packaged HNS or by both bulk and packaged HNS, the maximum liability is 115 million SDR. Once the limit is reached, compensation will be paid from the HNS Fund up to a maximum of 250 million SDR. The 2010 HNS Convention has not been ratified by a sufficient number of countries to enter into force, and we cannot estimate the costs that may be needed to comply with any such requirements that may be adopted with any certainty at this time.

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 has been adopted, but agreements were signed at the 2010 United Nations climate change conference extending the deadline to decide on whether or not to extend the validity of the Kyoto Protocol, and requiring developed countries to raise the level of their emission reductions whilst helping poor countries to do the same. The Kyoto Protocol was extended to 2020 at the 2012 climate change conference with the hope that a new climate change treaty would be adopted by 2015 and come into effect by 2020. We believe that there is pressure to include shipping in any new treaty. In July 2011 MEPC adopted two new sets of mandatory requirements addressing greenhouse gas emissions from shipping. The Energy Efficiency Design Index establishes minimum energy efficiency levels per capacity mile and will apply to new vessels. Currently operating vessels must develop Ship Energy Efficiency Plans. These requirements entered into force in January 2013 and could cause us to incur additional compliance costs. The IMO is also considering the development of market-based mechanisms for limiting greenhouse gas emissions from ships, but it is impossible to predict with certainty the likelihood of adoption of such measures or their impact on our operations. The European Union intends to expand its

emissions trading scheme to vessels. In the United States the EPA has issued a finding that greenhouse gas emissions endanger the public health and safety and adopted greenhouse gas emissions standards for certain

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mobile sources and large stationary sources. Although the mobile source emissions standards do not apply to greenhouse gas emissions from vessels, the EPA is considering a petition from the California Attorney General and environmental groups to regulate greenhouse gas emissions from ocean-going vessels. 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.

*Trading Restrictions:* The Company is aware of the restrictions applicable to it on trading with Cuba, Iran, 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, directly 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. More recent charterer-party agreements relating to the Company's vessels now preclude Iran from the vessels' trading unless agreed between owner and charterer after taking into account all relevant sanctions legislation. Between January 1, 2012 and March 31, 2013, the Company's vessels made nearly 2,500 port calls around the world, none of which were to those countries. In 2011, one call was to Iran, three to Syria and two to Sudan under charterers' instruction. There were no calls to Cuba. 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**

Our vessels have been certified as being in class by their respective classification societies: Bureau Veritas, Det Norske Veritas, American Bureau of Shipping, Korean Register, Lloyd's Register of Shipping or Nippon Kaiji Kyokai. Every vessel's hull and machinery is classed by a classification society authorized by its country of registry. 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 rules and regulations of the country of registry of the vessel and the international conventions of which that country is a member. Each vessel is inspected by a surveyor of the classification society every year, an annual survey, every two to three years, an intermediate survey, and every four to five years, a special survey. Vessels also may be required, as part of the intermediate survey process, to be dry-docked every 24 to 30 months for inspection of the underwater parts of the vessel and for necessary repair related to such inspection.

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. 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.

TCM, our technical manager, has a document of compliance with the ISO 9000 standards of total quality management. ISO 9000 is a series of international standards for quality systems that includes ISO 9002, the standard most commonly used in the shipping industry. Our technical manager has also completed the implementation of the ISM Code. Our technical manager has obtained documents of compliance for our offices and safety management certificates for our vessels, as required by the IMO. Our technical manager has also received ISO 14001 certification.

### **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;



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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. 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 lead 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 (total loss 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 underwriters 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 \$9.7 million in 2012. 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 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.

World events have an impact on insurance costs and can result in increases in premium; however, a more significant driver of premium levels is market capacity. During 2011, which turned out to be the most expensive year ever for insurance claims. there were huge global catastrophe losses, including the earthquakes of New Zealand and Japan, tornadoes in the U.S., cyclones in Australia and floods in Thailand, however, despite these losses, the 2012 year renewal was benign. It is expected that Hull & Machinery Insurance renewals for 2013-2014 Policy year will also produce ameliorated premiums, partly due to reduced vessel values. The insurance markets maintain their list of World Wide War Risks Exclusions, as defined by the Joint War Committee in the London insurance market,

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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. The 2011 P&I renewal saw a 1.9% reduction in price whereas the 2012 year saw a 2% increase. 2013 was renewed with an increase in premium of 10%, the uplift being mainly as a result of the previous year having seen the largest and third largest P&I claims of all time in the grounding and wreck removal of the *Costa Concordia* and the *Rena*. At March 31, 2013, 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 cover for other liabilities. P&I, Hull and Machinery and War Risk insurance premiums are accounted for as part of operation 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, 2013. 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 Tsakos Shipping's reputation as a manager. 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 Afghanistan and Iraq, economic sanctions, including those with respect to Iran, and terrorist attacks such as those made against the United States in September 2001 and various international locations since then 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 Overseas Shipholding Group Inc., Teekay Shipping Corporation and General Maritime Corporation. 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.

### **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, 2013, individually and in the aggregate, was not material to us.

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

None.

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**Item 5. Operating and Financial Review and Prospects**  
**General Market Overview World Oil Demand / Supply and Trade (ICAP)**

*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 ICAP Shipping ( "ICAP" ). ICAP has advised that the statistical data and other information contained herein are drawn from its database and other sources. In connection therewith, ICAP has advised that: (a) certain information in ICAP '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 ICAP 's database; and (c) while ICAP 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**

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

*All text, data and charts provided by ICAP Shipping*

Following the growing discount between WTI and Brent, the two benchmarks moved further apart in 2012, with the former declining 7.1% (-\$7.00/bbl) through the year and the latter rising 2.5% (+\$2.71/bbl). The decline in WTI was the first drop in oil prices since the financial crisis ravaged prices in 2008. However these relatively small annual changes (versus recent years which have seen annual increases between 8.2% and 78.0% for WTI and 15.9% and 117.5% for Brent) hide the intra-year fluctuations. After beginning 2012 around \$110/bbl, Brent pushed to a high of \$128/bbl by the end of Q1 (the highest level since July 2008) due to geopolitical tensions between Iran, Israel and the US over the former 's nuclear ambitions, as well as supply disruptions from South Sudan, Yemen and Syria. WTI peaked around the same time just short of \$110/bbl, having started the year around \$100/bbl.

The subsequent economic concerns over the US, Eurozone and China, combined with the promise of ample supply from Saudi Arabia in light of the Iranian concerns led prices to drop around 30% in three months to \$88/bbl for Brent and \$78/bbl for WTI. As EU sanctions against Iran took hold on 1<sup>st</sup> July, both curbing global supply and leading to increased tensions over the possibility of an Iranian retaliation by blocking the Strait of Hormuz, through which 17m bpd of oil from the Middle East Gulf transit, prices soon pushed back into three-figures. This was supported by the loose monetary policy from the world 's central banks, as well as additional supply disruptions in the North Sea.

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This second rally of the year was halted just short of \$120/bbl for Brent and \$100/bbl for WTI in August/September by further signals from Saudi Arabia about increasing production, combined with rising crude stocks ahead of seasonal refinery maintenance. Continued fragility in the global economy also played a role, lowering expectations of future oil demand growth. The remainder of the year was quiet relative to the volatile start, with prices range bound between \$105/bbl and \$110/bbl for Brent and \$85/bbl and \$90/bbl for WTI for the final two months of the year.

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

The WTI discount to Brent widened to -\$17.61/bbl in 2012, from -\$16.50/bbl in 2011, reflecting the growing oil supply in the US as the pursuit of unconventional hydrocarbons continues, swelling storage tanks and depressing local prices due to the near-complete ban on crude oil exports. The reversal of the 150,000 bpd Seaway pipeline, originally designed to ship crude from the US Gulf Coast to US Midwest refineries, was hoped to alleviate some of the supply glut at Cushing, Oklahoma, but the production growth continues at such a rate that the capacity is insufficient to tighten the discount. An expansion in January 2013 to 400,000 bpd resulted in full storage tanks in the US Gulf Coast, meaning subsequent flows have had to be pared back in order for the facilities to cope. Enterprise and Enbridge, the owners of Seaway, plan to build a second pipeline with a capacity of 450,000 bpd running parallel to the first, due in 2014. TransCanada are constructing the southern section of their 700,000 bpd Keystone XL pipeline, along a similar route to Seaway, with the aim of linking it to a northern section shipping Canadian crude to Cushing, Oklahoma however this section is currently awaiting Federal approval. Once complete these will allow significant crude volumes to reach the main US Gulf refining centre. At present exporting US crude requires a Federal permit from the US government, with a number of oil companies and traders applying and/or holding these. So far there has been little export activity in line with the low volumes via pipeline, most of which is absorbed by the refineries, but one refiner has moved a small number of seaborne cargoes from the US Gulf to a refinery in Canada.

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The International Energy Agency (IEA) currently estimates worldwide 2012 oil production at 90.8m bpd, which comprises crude oil (conventional and unconventional), natural gas liquids (NGLs), condensates and biofuels. This represents a 2.7% increase on the 88.4m bpd produced in 2011, the highest annual increase since 2004/2003. OPEC increased its share of global production to 41.2% from 40.3% in 2011, raising production 5.1% from 35.6m bpd to 37.4m bpd. This was led by Saudi Arabia (+5.4%) as it attempted to quell rising oil prices due to the Iranian sanctions, and to ensure the high cost of energy does not damage the fledgling global economic recovery. However the strongest supply growth was seen in the US and Canada as they further developed their unconventional reserves (shale oil, tight oil and tar sands), increasing production 12.4% and 6.5%, respectively. These gains, along with small increases in production from the FSU (+0.7%) and Asia (+1.2%) helped offset declines in OECD Europe (-8.0%), OECD Pacific (-8.8%), Africa (-11.2%) and Latin America (-1.2%) to see non-OPEC production increase 1.1% from 52.8m bpd to 53.3m bpd.

The increase in non-OPEC supply is forecast to continue in 2013, with the IEA currently estimating growth of 2.1% to 54.46m bpd. This is once again led by the US (+9.2%) and Canada (+5.6%), with support from Africa, Latin America and OECD Pacific. OECD Europe is expected to continue to decline (-5.2%). South Sudan is expected to re-commence exports in May, potentially adding as much as 200,000 bpd, whilst some of the unplanned outages seen last year in the UK, Brazil and China should be reversed this year. The IEA does not forecast OPEC production, however Q1 2013 averaged 30.5m bpd, lower than 31.3m bpd average seen both in Q1 2012 and for the full year. The quota remains unchanged since November 2011 at 30m bpd. Saudi Arabian production is expected to slowly rise through the summer as Asian refineries return from maintenance and domestic direct crude burning demand rises. Iran will likely continue to see declining export volumes as the limited number of buyers must make significant cuts to continue to receive the 180-day reprieve from the US for importing Iranian crude.

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The IEA estimates global oil demand increased 1% in 2012, to 89.8m bpd from 88.9m bpd. The stronger supply growth means the oil market was effectively oversupplied by an average of 1m bpd in 2012 for the first time since 2008. Non-OECD demand continues to gain on OECD demand, with the former increasing 3.5% to 43.9m bpd from 42.4m bpd, and the latter falling 1.2% from 46.5m bpd to 45.9m bpd. Europe led the decline in the OECD, falling 4.5%, whilst the 4.0% increase in Chinese demand was the main contributor to the non-OECD growth.

Demand for 2013 is currently forecast to increase by 0.9% to 90.6m bpd, with non-OECD demand increasing 2.9% to 45.1m bpd and OECD demand falling 1.0% to 45.5m bpd, bringing non-OECD demand closer to 50% of the global total. North America is expected to arrest the declines which has seen oil demand fall every year between 2008 and 2012 (with one exception in 2010), increasing by 0.1% to 23.8m bpd. European demand is expected to fall a further 2.4% to 13.4m bpd, levels last seen in the region in 1987. Chinese demand which leads the non-OECD demand growth, is expected to grow by 4.0% from 9.6m bpd to 10.0m bpd, outpaced in percentage-terms only by Africa, which is forecast to see demand rise by 8.5% from 3.4m bpd to 3.7m bpd.

### **Implied Chinese Stockbuild/draw and OECD Stock Levels**

OECD stocks increased aggressively through the first half of 2012, rising from 2.65bn bbl (crude and products) to 2.73bn bbl by August due to stockbuilding ahead of the Iranian sanctions commencing. This was echoed in China, although the data has to be implied from domestic production, imports, exports and refinery throughput. However, once the sanctions were live major consuming regions including China and the OECD have been drawing down on stocks, with the OECD ending the year broadly flat at 2.67bn bbl. OECD stocks rebounded sharply in January only to drop back in February. OECD North America stocks remain consistently above the five-year average, reflecting the growing US and Canadian production and lacklustre demand. OECD Europe remains well below the five-year average, however weaker demand sees less need to hold high levels of stocks. OECD Pacific remains broadly around its five-year average. Chinese stocks have tended to fluctuate between stock builds and stock draws since the initial drawdown last summer, with a slight bias towards stock draws, however the data is far less accurate than that of official releases from the OECD.

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

The Iranian sanctions played a role in splitting the fortunes of the crude tanker market in 2012. The stockbuilding during the first half of the year increased demand for crude tankers and boosted employment, to the benefit of freight rates. China imported an average of 5.7m bpd during the first six month of 2012, 9.9% higher than the 5.1m bpd during the first six months of 2011. This coincided with Saudi Arabia ramping up production to around 10m bpd through the first half of the year to ensure ample supply, which China duly bought, along with growing volumes from West Africa and Latin America. This had the impact of driving Chinese tonne-miles 16.4% higher for the first six months year-on-year, significantly higher than demand growth forecasts.

Over the same period the US also contributed strongly to tonne-mile growth. The Motiva refinery in Port Arthur, Texas, a joint venture between Shell and Saudi Aramco, was scheduled to expand to 600,000 bpd from 275,000 bpd, which led to stockbuilding of Saudi crude ahead of opening. This also built on the increased need for heavy crude, predominantly from Saudi Arabia, in order to offset the lightening US crude slate as a result of the growing production of light shale oil. Many US Gulf refineries are heavily invested in coking units to process heavier Mexican and Venezuelan grades, so to take advantage of the abundant domestic light supply it needs to be blended with a growing volume of heavier crude. Declining Mexican production and political tensions with Venezuela have led to Saudi Arabia supplying a growing percentage, further boosting tonne-miles. Imports of Middle East crude increased to 2.2m bpd in the first six months of 2012, up 32.2% from 1.6m bpd in the same period in 2011. Broader stockbuilding similar to China as well as other OECD economies also saw the US take increasing volumes of imports. Even with a 40.3% reduction in imports from West Africa, due to the similar properties of West African crude to US domestic production, US tonne-miles were 5.7% higher for the first six months of 2012 year-on-year, despite limited demand growth.

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However once the Iranian sanctions had been passed and supply fears proved unfounded, the major consuming economies began to draw on their stocks, curbing crude tanker demand. During the final six months of 2012 China imported 5.2m bpd, up just 3.7% from the 5.1m bpd during the last six months of 2011. This had a knock-on effect on Chinese tonne-miles, rising just 9.6% over the period, which would have been lower had it not been for a slight pick up in seasonal buying during Q4. Saudi Arabia was also consuming more of its own record production for direct crude burning (to meet summer electricity demand), before beginning to curb production as prices settled around \$110/bbl with output averaging 9.7m bpd during the second half of the year.

Problems at the Motiva expansion delayed the start-up, cutting the need for crude imports. This led to Middle East/US volumes dropping to 2.1m bpd for the remainder of the year, having reached 2.3m bpd in Q2 2012. This was still sufficient to register 7.4% growth in Middle Eastern imports from the 1.9m bpd seen in the same period in 2011, but the impact of a 32.1% decline in imports from West Africa over the second half of the year led total US tonne-miles to drop by 5.7% versus the last six months of 2011. The decline in tonne-miles during the second half of the year from the US and slower growth from China was partially offset by more imports into Europe as refiners took advantage of lower Chinese and US competition for West African crude. India also turned heavily towards Latin American imports as it struggled to pay for and transport Iranian crude.

Over the course of the year, Chinese tonne-miles increased 13.1%, a significant improvement on the 0.8% increase in 2011, whilst US tonne-miles fell by 0.2%, a slowdown on the 4.2% decline seen in 2011. Japan and India were the other regions to see an improvement in tonne-mile growth, registering 3.0% and 33.2% in 2012 versus -1.4% and -2.6% in 2011, respectively. South Korea and Europe saw their rate of tonne-mile growth slow in 2012 to 9.9% and 2.8%, from 11.9% and 4.5% in 2011, respectively.

With China expanding storage facilities as well as adding up to 800,000 bpd of refinery capacity in 2013, the broad stock draw will likely have to be reversed. With non-OPEC supply growth forecast to continue, OPEC, led by Saudi Arabia could keep production off recent peaks to defend prices (many Middle Eastern economies now need higher oil revenues to meet budget requirements). This means the marginal barrel of supply is moving further westward, when the demand growth exists exclusively in the east. This should see the average voyage length increase and lift tonne-miles. The US, whilst not increasing demand, will continue to need 2m+ bpd of heavy crude, predominately from Saudi Arabia to keep offsetting its own production, further adding to the Asian-led tonne-mile growth. Once more heavy crude can be piped into the US from Canada the trade from the Middle East may be curtailed, however environmental and political wrangling are keeping the proposed Keystone XL pipeline (running from Canada to the US Midwest) at the pre-approval stage. The Iranian sanctions will keep their limited buyers looking elsewhere for supply, usually from an increased distance, as has been seen by India moving to securing Latin American supplies.

Floating storage remained a negligible part of global shipping throughout 2012. This was because oil prices remained in backwardation (where prompt crude prices trade at a premium to future crude prices) for most of the year. This is in contrast to the contango (where prompt crude prices trade at a discount to future crude prices) seen after the financial crisis which allowed oil majors, traders and banks to buy physical cargoes and sell the forward contract whilst storing the oil or oil products on vessels, locking in a profit. That is not to say no vessels are employed in floating storage. A number of older vessels continue to store fuel oil in Singapore/Malaysia due to a shortage of available onshore storage. This has little impact on freight rates as they were effectively discounted from the global trading fleet prior to their storage contracts due to their limited trading capabilities, hence their new employment. West Africa also has a number of older vessels storing various oil products, once again having limited impact on freight rates.

The shortage of buyers for Iranian crude since the passing of the sanctions has led Iran to continue to use its own vessels to store unsold cargo. The ability to track how much is being stored and how much is being shipped is near-impossible to determine due to the myriad of methods Iran is employing to sell its crude, as well as switching off the tracking beacons on its vessels which normally show their movement. Due to the sanctions the Iranian vessels are not available for international charter and so their employment status has little impact on the



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global tanker fleet. As well as using its own vessels for a combination of storage and export, Iran also relies on third party vessels to move its oil. As nearly all vessels are re-insured through the London insurance market, the EU sanctions effectively prevent the vast majority of vessels calling in Iran as it will nullify their insurance. In order to avoid this countries importing Iranian crude must either take the crude on Iranian vessels or offer sovereign guarantees for insuring other (usually domestically owned) vessels. Therefore the only impact Iranian storage can have on the market is through a growing proportion of their own vessels storing and becoming more reliant on third party vessels, which would alter the supply for other trades. Given the lack of willingness to offer sovereign guarantees it would seem likely Iran will need to keep more of their own vessels moving rather than storing if their production, and therefore oil revenues, is to continue.

The number of vessels in formal lay-up remains small. One tanker owner announced in November they were mothballing two VLCCs in Singapore, the only official declaration. A number of other owners will likely be refusing to charter vessels below breakeven levels, but stopping short of official lay-up due to the potential loss of oil major approvals and the inability to re-enter the market quickly when rates improve. Other owners will continue to trade even if revenue is below operating costs, because although variable, operating costs are fixed in the short-term (crew wages, communications and stores).

In the product tanker market, US imports of gasoline fell for the sixth consecutive year, falling 19.7% to a full year average of 0.65m bpd. Gasoline exports declined 12.0% to a full year average of 0.42m bpd, the first decline since 2007 after rapid export growth. This implies the US was net short of gasoline by just 0.23m bpd in 2012, having been close to 1m bpd in 2006 and 2007 at the peak of US demand. Distillate exports continued their rapid ascent, rising a further 18.2% to hit a full year average of 1.0m bpd in 2012, up from just 0.11m bpd in 2003. This is predominantly exported to Europe, the Caribbean and Central & South America. The US extended its net product exporter status after switching in 2011. The US exported a combined average of 2.0m bpd of gasoline, jet/kerosene, distillate/gasoil and fuel oil in 2012, versus imports for the same products of just 1.0m bpd. The most recent year as a net importer in 2010 saw imports at 1.6m bpd and exports at 1.4m bpd.

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Therefore the shale oil developments has not just had an impact on US crude oil requirements and trade, but also on the oil products trade through higher refinery utilisation (due to cheap supply) which has increased the supply of domestic product at a time when demand is undergoing a number of structural changes. Impacts on demand include changing environmental attitudes, more biofuel blending as well as high unemployment (affecting consumption) and the wider economic problems which impact industrial and manufacturing demand for oil products. With plentiful cheap energy the US economy is well primed to recover more quickly from the aftermath of the global financial crisis than other OECD economies. This means we may see more of the excess US product consumed domestically, tempering the rapid US export growth. However, the disconnect between the different parts of the US will mean there will continue to be strong cross trade, and so headline net figures should be kept in perspective. For example the plentiful supply of gasoline in the US Gulf is limited from reaching the supply-short US Atlantic Coast by the capacity of the Colonial pipeline (2.5m bpd) and the limited Jones Act tankers, meaning gasoline will be exported from the US Gulf to consuming economies and imported from others into the US Atlantic Coast.

OECD Europe oil products imports declined for the fourth consecutive year, falling 3.4% to a full year average of 2.1m bpd in 2012. However the combined recent declines have been small, with peak imports in 2009 of 2.2m bpd. Distillate imports, the largest component, were down 1.1% in 2012, however imports of distillate from the US continued to rise, increasing 22.1%. Distillate imports from the US have risen from negligible levels (0.04m bpd) as recently as 2007 to 0.3m bpd in 2012, nearly a third of total OECD Europe distillate imports. Gasoline and fuel oil imports both declined in 2012 following one-off increases in 2011, whilst jet/kerosene imports halted two years of declines to increase by 0.7%, predominantly from North America and the Middle East.

Pressure on European refineries by new efficient facilities in Asia and cheaply-fed units in North America will likely continue, potentially leading to a reverse in the four year decline in product imports into OECD Europe. A number of new refineries in the Middle East will likely add to this pressure in the coming years. Those that remain may find the quality is outstripped by imported oil products, which could add cross trade potential. This would see European refineries supplying the growing import markets in Latin America and Africa, whilst being supplied themselves by India, the Middle East and the US. Australia has already shut a number of refineries in recent months, with more up for sale (to be closed if no buyer is found), with operators looking to focus on larger refining hubs rather than regional markets, preferring to trade product in. This has had a positive impact on the Asian product tanker market in recent months as they source their growing short fall from India, Singapore and South Korea, in a prelude to what could unfold in Europe.

### **World Tanker Fleet**

VLCC fleet growth was 6.2% in 2012, lower than the recent high of 8.0% seen in 2011 although still above the slower growth period seen during 2007-2010 (ranging from a low of 0.2% in 2008 and high of 2.8% in 2009). 49 VLCCs were delivered to the fleet in 2012, from an initial orderbook for the year of 72, implying slippage of 32%. 2012 saw the lowest number of removals from the fleet in recent years, with just 14 leaving the trading fleet. This comprised seven sent for demolition, five for conversion projects (for the offshore industry), one for permanent storage and one laid-up, presumed never to return to trade. The high deliveries in previous years were strongly tempered by conversion projects to both FPSO (Floating Production Storage and Offloading) and dry bulk vessels. This impact has now been reduced due to a smaller number of suitable candidates for FPSOs whilst the dry bulk market no longer offers the post-conversion cost upside it once did. The net additions to the fleet therefore totalled 35 VLCCs, the second highest since 2000 after 2011 (which saw net additions of 42). At the start of 2013 there were 47 VLCCs listed for delivery this year, although with further slippage this is expected to be nearer 35. Five VLCCs were removed in Q1 2013, therefore conservatively allowing for around 15 by year-end, net additions and therefore fleet growth should continue to slow.

Growth in the Suezmax fleet registered 5.4% in 2012, lower than the 7.5% seen in 2011 despite a higher number of deliveries. 45 Suezmaxes entered the trading fleet in 2012, down 27% on the 62 initially scheduled for

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delivery at the start of the year. This exceeds the 43 delivered in 2011 however the 21 removals in 2012 compared with just 12 in 2011 led to the decline in fleet growth. All but one of the removals was sent for demolition, with the remaining one sold for an offshore conversion project. Therefore the net additions to the fleet last year totalled 24, down from 31 in 2011. At the start of 2013 there were 41 Suezmaxes scheduled for delivery this year, however this is expected to be closer to 28. Demolition in 2013 remains slow with just one vessel removed during Q1, however even if the rate of removals remains low, the declining deliveries should see fleet growth reduced further this year.

The Aframax fleet remained broadly unchanged in 2012, with fleet growth at just 0.4% following the 41 removals nearly completely offsetting the 45 deliveries. The 45 additions were down 29% on the 63 originally stated for 2012 delivery at the start of the year. The declining deliveries and increasing removals in recent years has seen fleet growth fall steadily from a high of 9.7% in 2009. Net fleet was therefore just four vessels in 2012, down from 33 in 2011 following 59 deliveries and 26 removals. At the start of 2013 there were 33 Aframax listed for delivery this year, which should total nearer 25 after factoring in slippage. Eight removals in Q1 this year suggests if these levels continue fleet growth could be negative in 2013.

Panamax fleet growth was 2.2% in 2012 as the number of deliveries continued to fall, with just 15 additions to the fleet following high slippage of 53% with 32 originally scheduled. Deliveries have fallen steadily from 43 in 2007, however whilst removals were also on the rise (rising from nine in 2007 to 21 in 2010), 2011 and 2012 saw this reversed with just six vessels removed from the trading fleet in each year. Net additions in 2012 were therefore nine vessels, down on the 21 seen in 2011. At the start of 2013 there were 27 vessels listed for delivery this year, although this will likely be closer to 19 after slippage. During Q1 this year just two vessels were removed, implying unless scrapping accelerates fleet growth could creep up this year.

The MR products tanker fleet (45,000 dwt – 55,000 dwt) continued to see slowing fleet growth, increasing just 4.0% with only 47 deliveries. This compares with 128 additions at the height of the fleet expansion in 2008, registering fleet growth of 20.4%. The 47 delivered represents slippage of 36% following scheduled deliveries of 73 at the start of 2012. The traditionally young fleet tends to starve the sector of removals, although nine were demolished last year, up from just two in 2011. This means net additions were 38 vessels in 2012, down from 66 in both 2010 and 2011. Due to the high slippage from 2012, the listed deliveries for 2013 stood at 107 in January this year, although repeat slippage should reduce this significantly. With just one MR removed in Q1 it would seem likely that fleet growth will increase in 2013, although it will remain significantly lower than the highs seen in 2008.

The Handy products tanker fleet (27,000 dwt – 45,000 dwt) continues to decline in size, with 2012 the third consecutive year of negative fleet growth due to the older age profile of the fleet and limited orderbook. Just 16 vessels were delivered last year, from an initial list of 21, implying 24% slippage. These were more than offset by the 23 removals, giving net removals of seven vessels. The fleet is now a similar size to that seen at the start of 2008, with recent declines cancelling out the 2008 and 2009 growth. At the start of 2013 there were 22 vessels listed for delivery this year, although slippage will temper this. Six vessels were removed in Q1 therefore it would seem likely the fleet will continue to decline in size this year.

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

	Jan-04	Jan-05	Jan-06	Jan-07	Jan-08	Jan-09	Jan-10	Jan-11	Jan-12	Jan-13
VLCC	\$79.0m	\$120.0m	\$122.0m	\$130.0m	\$146.0m	n/a	\$100.0m	\$105.0m	\$100.0m	\$90.0m
Suezmax	\$53.0m	\$ 74.0m	\$ 73.0m	\$ 80.5m	\$ 86.0m	n/a	\$ 60.0m	\$ 65.0m	\$ 62.0m	\$60.0m
Aframax (Uncoated)	\$44.5m	\$ 62.5m	\$ 61.0m	\$ 65.5m	\$ 72.0m	n/a	\$ 51.0m	\$ 57.0m	\$ 52.0m	\$48.0m
47k dwt (Epoxy Coated)	\$34.0m	\$ 41.0m	\$ 43.5m	\$ 47.0m	\$ 51.0m	n/a	\$ 32.0m	\$ 37.0m	\$ 34.5m	\$32.0m

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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There were 13 new VLCCs contracted in 2012, slightly down on the 16 seen in 2011. These were split evenly between China, Japan and South Korea (five, four and four), with a Chinese owner ordering four and a Greek owner ordering one in China, whilst Japanese owners supported domestic yards and Middle Eastern buyers ordered in South Korea. The quiet year came amid continued rumours of a large state-backed order by Chinese owners, however a drip-feed approach now seems the likely outcome, supported by a further nine orders by another Chinese owner so far this year (plus a further four from other owners). The current orderbook now stands at 66 vessels (11% of the fleet). Newbuilding prices in South Korea continued to slip through the year, beginning around \$100m before assessments fell to \$95m in May and \$90m in September, where prices still remain today. Discounts from these levels are available from China. It is questioned how much profit margin there is at these levels for the shipyards, if any at all.

For the Suezmaxes there were 18 orders throughout 2012, slightly lower than the 20 seen in 2011. Of these two were shuttle tankers, compared with 12 of the 20 in 2011, which cannot be considered in the regular Suezmax fleet profile due to their likely long-term employment outside of international trade. Over half (10) of the orders last year came from a Chinese owner, placed in a domestic yard. Of the remaining eight, seven were placed in South Korea, including the two shuttle tankers, with one other from a European owner ordered in China. The current orderbook, including shuttle tankers, is now 59 vessels (12% of the fleet), or 48 excluding shuttle tankers (11% of the fleet). Price assessments began 2012 around \$62m for South Korean built vessels, edging down to \$60m in September where they still remain. One Suezmax shuttle tanker has been ordered so far in 2013, whilst no conventional orders have been placed.

The Aframax sector had 22 orders in 2012, however two were shuttle tankers and so can be overlooked for international trade. South Korea picked up the majority of the orders with 14, including the shuttle tankers, whilst China saw seven and Japan just one. Of the 22 orders, four have been specified as fully epoxy coated vessels, enabling them to trade refined oil products, although it cannot be ruled out that other uncoated vessels will be switched to fully epoxy coated before construction begins. The current orderbook, including shuttle tankers, totals 79 vessels (8% of the fleet) or 66 when excluding non-international trading vessels (7% of the fleet). Prices for uncoated Aframax tonnage in South Korea began the year at \$52m before being revised to around \$48m in September. At the start of 2013 this was further reduced to \$45m before picking up to \$47m at present.

Following the 66 MR orders seen in 2011, 129 firm orders were placed in 2012 as large owners and operators continued to invest in the sector. The vast majority were placed in South Korea however a solid number were placed in China, with small showings in Brazil, Romania and Vietnam. The heavy investment in research and development by the yards into eco vessels, reducing fuel consumption through engine and design improvements, has contributed to the ordering spree, coupled with the future trade prospects for the sector. Orders tended to be placed for at least four vessels at a time, but regularly up to 10. Such confidence therefore tended to further fuel investment by others. The orderbook is currently 250 vessels (24% of the fleet). Despite the heavy ordering prices actually fell through the year, from around \$34.5m at the start of 2012 to \$33m by year-end. It has since fallen further to around \$32m in South Korea.

The fall in the price of an MR newbuilding, despite the strong ordering activity, highlights the oversupply in the shipbuilding industry. Shipyard capacity increased rapidly during the last shipping boom, primarily in China, to cope with the ever-increasing orders. China's desire to become the largest shipbuilding nation suggests much of this capacity will continue to be supported, effectively keeping the shipbuilding market oversupplied. The strong Japanese yen effectively priced the Japanese yards out during 2012 however the aggressive weakening of the currency seen so far in 2013 may see them become competitive once again. Unless more significant volumes of shipyard capacity are closed it would seem unlikely there is much chance of prices outpacing input inflation in the medium term, and looking lacklustre in the short-term.

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

	<b>Jan-04</b>	<b>Jan-05</b>	<b>Jan-06</b>	<b>Jan-07</b>	<b>Jan-08</b>	<b>Jan-09</b>	<b>Jan-10</b>	<b>Jan-11</b>	<b>Jan-12</b>	<b>Jan-13</b>
<b>VLCC</b>	\$72.0m	\$110.0m	\$120.0m	\$117.0m	\$138.0m	n/a	\$77.0m	\$80.0m	\$55.0m	\$51.0m
<b>Suezmax</b>	\$49.5m	\$ 75.0m	\$ 76.0m	\$ 80.0m	\$ 96.0m	n/a	\$55.0m	\$56.0m	\$43.0m	\$37.0m
<b>Aframax (Uncoated)</b>	\$39.0m	\$ 59.0m	\$ 65.0m	\$ 65.0m	\$ 73.0m	n/a	\$39.0m	\$41.0m	\$32.0m	\$27.0m
<b>47k dwt (Epoxy Coated)</b>	\$30.0m	\$ 40.0m	\$ 47.0m	\$ 47.0m	\$ 52.0m	n/a	\$24.5m	\$26.0m	\$25.5m	\$22.0m

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

Second-hand prices remained under pressure during 2012 with all sectors finishing the year at assessments lower than in January. VLCC prices slipped 7% from around \$55m to \$51m for a five-year old vessel, whilst Suezmaxes and Aframaxes fell by 14% and 16% respectively, from \$43m and \$32m to \$37m and \$27m, respectively. This was despite a slight increase in Suezmax assessments during Q2 and Q3. Even with the intense newbuilding activity in the MR sector, second-hand tonnage assessments fell 18% from \$25.5m to \$21m due to existing tonnage on the water unable to offer the fuel savings of a newbuilding (although some can be retro-fitted, this will unlikely yield the same levels of fuel savings). However through Q1 2013 these have recovered somewhat to around \$24m, an increase which has not been reflected in the crude tanker market, with prices remaining at levels seen at the end of last year.

**Vessel earnings**

After 2011 proved the fledging recovery in freight rates from 2009 levels was a false dawn there were high hopes for 2012 to make a second attempt at the next upward phase shipping market cycle. With the disruptions such as the Arab Spring in Libya resolved, fleet growth continuing to slow and the global economy tentatively improving, albeit with plenty of problems yet to resolve, the broad consensus was for a moderate increase in freight rates. However plenty of uncertainties remained, with the Iran sanctions looming and subsequent geopolitical tensions, as well as the Chinese economic slowdown and perennial eurozone issues.

Slow steaming remained a vital support to freight rates by slowing the vessel, both during laden and ballast, in weak markets the reduced fuel consumption tends to more than offset the increased voyage time. The need has arisen due to both oversupply in the fleet and high bunker fuel costs. With the practice now commonplace across the tanker fleet (to varying degrees depending on the vessel), fleet supply has been artificially reduced due to the lower number of voyages each vessel can undertake per year. However it produces a problem for the future, which is displayed during intra-year market rallies, as when the market recovers, vessels are able to speed up, increasing capacity at short notice. Some fuel saving retro-fitting measures applied to existing vessels may limit their future speed increases, whilst first generation eco vessels (pre-dominantly MRs) have de-rated engines, preventing them from speeding up economically. However current second generation eco vessels enable fuel saving across the speed spectrum, and so could contribute to increasing capacity.

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**VLCC Time Charter Equivalent Spot Market Earnings**

**VLCC**

Benchmark VLCCs spot earnings began the year brightly, averaging \$23,500/day in Q1 as seasonal demand and increased stockbuilding ahead of the Iranian sanctions boosted shipments, particularly on long haul West Africa/East and Middle East/US voyages. Adjusting for slow steaming owners would have seen rates rise to around \$29,500/day. Continued stockbuilding in Q2 supported by strong US buying of Middle Eastern crude offered further support in a usually weaker quarter, with freight rates averaging \$26,500/day basis normal speed and \$31,000/day at slower speeds. Q3 was a shock to the market as major consuming economies began drawing on stocks following the uneventful (no supply shortage) passing of the EU sanctions against Iran. This led Saudi Arabia to begin reining in production, starving the Middle East loading market of cargo and seeing rates average *negative* \$1,500/day (whereby freight costs exceed the freight received) basis normal speed and a little under \$8,000/day for slow speed through the quarter. This shows the importance of slow steaming, as no owner would have operated their vessel at historical speeds through Q3. Some seasonal increase in demand in Q4 helped offset some of the poor Q3 earnings, averaging \$12,000/day for normal speed and \$18,500/day under slow steaming.

The full year averaged \$15,000/day under normal speeding and \$22,000/day at slower speeds. Whilst an improvement on levels seen in 2011, the cash flow after operating costs (around \$10,000 to \$12,000/day) remains challenging for shipowners. This is set to be tested further with Q1 2013 averaging just \$4,000/day and \$12,000/day for both steaming options, suffering due to continued oversupply, reduced Middle East cargoes and poor refinery margins lowering demand for crude by refiners.

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**Suezmax Time Charter Equivalent Spot Market Earnings**

**Suezmax**

The Suezmax composite (basis 70% West Africa/US Atlantic Coast and 30% Black Sea/Med.) began the year brightly, averaging \$19,000/day in Q1. In fact levels were sufficiently strong that slow steaming only yielded an additional \$1,000/day. This was despite sharply lower US imports from West Africa, helped by the strong showing of Suezmaxes being sent for demolition. Q2 failed to see a similar increase as with the VLCCs, sliding to around \$13,500/day basis normal speeding and \$15,000/day for slow steaming. During Q3 rates fell further, although not to the extent of the VLCCs due to the Suezmaxes lower exposure to the Middle East. Here rates averaged just \$4,000/day for normal speeding and improved to \$7,000/day for slow steaming. A marginal rebound to \$6,500/day (normal) and \$9,000/day (slow) in Q4 helped offset some of the declines of Q3, however the Suezmaxes, like the VLCCs, saw a year of two very different halves.

Year-on-year there was little change, with both averaging around \$11,000/day for normal speeding and \$13,000/day for slow steaming. The decline in the benchmark West Africa/US Atlantic Coast trade has cost the sector a large proportion of its cargo however more support from the supply side (high removals and little interest in newbuildings) should help compensate for this. The current fleet is also finding new employment opportunities including Caribs/Singapore and more liftings from Iraq, helping Q1 2013 average \$9,000/day basis normal speeding and \$11,000/day slow steaming.

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**Aframax Time Charter Equivalent Spot Market Earnings**

**Aframax**

The Aframax composite (a straight average of six worldwide voyages [four west and two east]) was broadly unchanged in Q1 2012 versus the end of 2011, averaging \$10,000/day basis normal speed and improving to \$14,000/day for slow steaming. Aframax freight rates are often strongest during Q1, usual led by the Baltic ice season, however it was particularly uneventful in 2012 hence the minimal upside. Freight rates dropped to \$8,500/day basis normal speeding and \$12,500/day in Q2, with no route standing out versus the others. Q3 rates continued to slide in line with the broader crude tanker market, averaging \$5,000/day under normal speed and \$9,000/day at slower speeds. The Asian market provided what little strength there was, helping offset a weak North Sea market. The North Sea has lost some cargoes to VLCCs, which have been exporting Brent to South Korea as refiners look to take advantage of the Free Trade Agreement tax breaks between the EU and South Korea. Q4 saw little change, with freight rates rising to \$7,000/day (normal) and \$11,000/day (slow), once again with Asian-based routes outperforming.

Similarly to the Suezmaxes the full year average for the sector was unchanged on 2011, with both years averaging \$8,000/day basis normal speed and \$12,000/day when slow steaming. A late ice season in the Baltic this year has seen rates improve only marginally in Q1 2013 to \$9,500/day basis normal speeding and \$13,000/day at slower speeds. However some exceptionally high rates seen in April as the ice finally arrived will boost full quarter Q2 rates.



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**MR Time Charter Equivalent Spot Market Earnings**

**MR**

The MR composite (a straight average of six worldwide voyages [three west and three east]) averaged \$9,500/day basis normal speeding and \$10,000/day at slower speeds during Q1, with gasoline shipments from the UK Continent to the US the best performer. This was supported by the growing back-haul volumes of gasoil from the US Gulf to the UK Continent. Q2 saw little change in the sector average, with rates sliding a few hundred dollars. However the fortunes of specific voyages changed, with a firming in Asian markets and softening in the west. The average freight rate for MRs slipped a little further in Q3 to \$9,000/day basis normal speeding and \$9,500/day slow steaming, with rates broadly unchanged in Asia but slightly weaker in the west. By Q4 rates had firmed significantly, averaging \$16,000/day at both normal and slow speeds. Therefore at Q4 bunker fuel prices of \$620/tonne, \$16,000/day is the approximate point at which it becomes economic for a vessel to speed up, as the higher rates mean the fuel saving no longer offsets the longer voyage time. The lower the bunker fuel price, the lower the rates need to be for it to be economic to speed up. The firm Q4 rates were attributed to strengthening across the sector due to higher refinery margins leading to increased cargo volumes.

The full year average continued to slip marginally to around \$11,000/day for normal speeding and \$11,500/day for slower speeds. However strength from Q4 was carried through to Q1 2013, averaging \$18,000/day at normal speeds and a little less at slower speeds, helped by increased demand into Australia as refineries close as well as a firm north Atlantic market. This implies the average for this year will reverse the gentle drift downwards seen between 2010 and 2012.

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### **Shuttle Tankers**

Shuttle tankers are vessels designed primarily to load crude from offshore facilities, usually employed on long-term contracts to ship the crude short distances to the shore. Differences to conventional tankers include dynamic positioning and bow thrusters, which enable them to load safely in extreme weather environments at sea. Due to the additional cost and expertise involved in purchasing and operating these specialised vessels they remain accessible only to experienced market participants or those with experience in the conventional tanker market with long-standing relationships with charterers. They are also usually ordered against long-term employment contracts ensuring the expensive assets are not exposed to volatile spot markets. However during off-hire time from a contract they can be also be used as conventional tankers, meaning they are not left sitting idle if offshore facilities are undergoing maintenance.

The global Suezmax shuttle tanker fleet (the largest sized shuttle tankers) comprises 39 vessels, with the newest vessels being one delivered in 2011 and four so far in 2013. None were delivered in 2012. Two shuttle tanker orders were placed in 2012, down from 12 in 2011, whilst one has been booked so far this year. Of the 39 Suezmax vessels ordered since the start of 2011, 15 have been shuttle tankers, all by established industry names. The current Suezmax shuttle tanker orderbook is made up of 11 vessels, with eight more due this year and three in 2014. In the Aframax sector there are 30 shuttle tankers, with four delivered in 2011, six in 2012 and one so far in 2013. Two orders were placed in 2012, lifting the orderbook to 11 vessels, set for delivery between 2013 and 2016. There are a further 14 shuttle tankers in the Panamax to Handy size range, with one delivered in each of 2011 and 2012 (both Panamax). There are a further two on order (both Panamax), due later this year. There have been no recent orders for shuttle tankers outside of the Suezmax and Aframax sectors.

The outlook for the offshore energy industry remains bullish as the high energy price environment spurs oil and gas investment into new frontiers such as ultra deepwater. The flexibility of the offshore sector, particularly self-powered facilities such as shuttle tankers, also ensures the investment is not tied to any one geographic region (outside of contracts), as would be the case for onshore investment.

### **LNG Market**

The LNG market has remained a prominent feature of the broader shipping industry over the past year. This has been in part due to the market being one of the few performing shipping sectors, fuelled by demand from Japan as it continues to keep much of its nuclear power generation offline. This has kept daily hire rates in six figures throughout 2012, however this has now dropped to just below \$100,000/day due to weak European demand. The continued shale gas developments in the US have also kept the sector in the spotlight, combined with bullish forecasts for natural gas demand in the future (cleanest burning fossil fuel and abundant in supply). A number of US companies have submitted proposals for export of shale gas through LNG, totalling 30bn cubic feet per day. At present the US requires Federal approval to export LNG to non-Free Trade Agreement countries and so far just one LNG export facility in the lower 48 states has been approved. It would seem unlikely all the capacity will be approved, as there will be a delicate balance as to how much should be approved. Approve too much capacity and too much gas will exit the US for higher prices paid by European and Asian buyers, lifting domestic prices to the detriment of the local economy. Approve too little and prices remain below breakeven, leading to shutting in of production and a shortage of natural gas supplies.

Ahead of these proposals, shipowners have been positioning themselves by ordering vessels, some against charters and other speculatively, in order to capture the future upside. Following the 45 orders placed in 2011, ordering has cooled slightly in 2012 with 31 additional contracts placed, with South Korea remaining the dominant builder. The orderbook now comprises 90 vessels, with delivery dates through to 2017. The current fleet is made up of 368 vessels, with 15 delivered in 2011, two in 2012 and three so far in 2013. Similarly to the shuttle tanker fleet, the LNG sector remains the preserve of established shipowners, with the orderbook controlled by a small number of companies. LNG orders remain popular with shipyards given their higher profit margin than comparable sized tankers, dry bulk vessels or containerhips.

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As with LNG vessels, LNG infrastructure is extremely capital intensive, and a number of LNG projects have been subject to cancellations and delays, most recently Woodside Petroleum's onshore Browse LNG project in Western Australia, which has been cancelled due to cost blowouts. Whilst this may be replaced with a Floating LNG facility (FLNG), the future utilisation of the LNG shipping market will be high geared towards both LNG supply as well as LNG orders.

### **Company Overview**

As of March 31, 2013, we operated a fleet of 45 modern double-hull tankers providing world-wide marine transportation services for national, major and other independent oil companies and refiners under long, medium and short-term charters, one LNG carrier and one suezmax DP2 shuttle tanker, delivered in March, 2013. Our current fleet consists of one VLCC, eleven suezmaxes including the newly acquired DP2 shuttle tanker, eleven aframaxs, nine panamaxs, six handymaxs, eight 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. We operate our tankers 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 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 capacity 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 2012**

*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.*

The world economy maintained its uncertain path throughout 2012, particularly in the West. The national debt and deficit problems of Europe coupled with the extreme austerity measures required in several countries particularly in the European South, continued to cause considerable concern, further threatening global financial stability. In such an environment, expected demand for oil was adversely affected and eventually exhibited a meager growth. As per the International Energy Agency (IEA), 2012 global oil demand grew by 1.0% from 2011, translating to 89.8 mbpd in 2012 vs. 88.9 mbpd in 2011.

Demand in Europe actually fell, but was offset by increasing demand in the Asia/Pacific region, primarily China and India. While demand for oil was demonstrating low growth, the ongoing supply of crude-carrying vessels continued to negatively affect the tanker market despite a material reduction in the newbuilding orderbook compared to 2011.

As a result of all these factors, overall global fleet utilization remained poor, freight rates for the crude carriers continued to linger at their lowest levels for over a decade, exacerbated by high bunker (fuel) costs, and valuations of vessels fell substantially, worsened by distress sales by financially troubled owners. Product carrier rates experienced some noticeable uplift due to a more favorable vessel supply situation, the export of middle-distillates (gasoline and diesel) from the United States to Europe and an increase in the ton-mile demand due to the closure of certain refineries in Europe.

Our fleet achieved voyage revenues of \$394.0 million in 2012, a decrease of 0.3% from \$395.2 million in 2011. The average size of the fleet increased in 2012 to 47.8 vessels from 46.1 vessels in 2011, and fleet utilization decreased from 97.1% to 94.9% over the same period. Utilization excluding the VLCCs La

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*Prudencia* and *La Madrina* which were being held for sale and unemployed during 2012 was 98.0%. The oversupply of vessels which continued in 2012 resulted in a soft market which kept rates at historically very low levels. However, our average daily time charter rate per vessel after deducting voyage expenses, increased to \$17,163 from \$16,047 in 2011, mainly due to the LNG carrier, whose TCE rate was more than double in 2012. Voyage expenses decreased, as a result of the decrease in the volume of bunkers consumed, as in 2011 the two VLCCs *La Prudencia* and *La Madrina* were trading in the spot market consuming large quantities of bunkers whereas in 2012 those two vessels were not employed being available for inspections by potential buyers. The decrease in bunker volume was offset by increased bunker (fuel) prices. Operating expenses increased by 2.6% to \$133.3 million, proportionately with the increase of the average daily costs per vessel by 2.0% due to increased repairs and maintenance expenses offset by the strengthening of the U.S. Dollar, which primarily impacted crew costs, which, for officers, are generally paid in Euro. In addition, better pricing obtained by our new technical managers for purchases of spares, stores and lubricants and reduced crew costs derived from actions taken since 2009 positively affected operating expenses.

Depreciation was \$94.3 million in 2012 compared to \$101.1 million in 2011 due to the disposal of the two VLCCs held for sale at the end of 2011, which bore no depreciation in 2012, offset by the change in our estimate for scrap value per light weight ton (LWT) from \$300 per ton to \$390 per ton, effective October 1, 2012 which affected positively depreciation expense by \$0.9 million in 2012. Management fees totaled \$15.9 million for 2012, compared to \$15.6 million for 2011, an increase of 1.9%, mainly due to an increase in monthly fees from January 1, 2012. General and administrative expenses were \$4.1 million during 2012 compared to \$4.3 million during 2011.

The net loss on the sale of the two vessels at the end of 2012 amounted to \$1.9 million, compared to the sale of two vessels in 2011 with a net gain of \$5.0 million. In 2012 there was an impairment charge of \$13.6 million relating to the VLCC *Millennium*, while in 2011, the Company incurred an impairment charge, relating to two VLCC vessels in the fleet, amounting to \$39.4 million. There was an operating gain of \$1.3 million in 2012, including the impairment charge, compared to an operating loss of \$37.7 million in 2011, including the impairment charge. Interest and finance costs, net decreased by 3.7% in 2012 to \$51.6 million, due mainly to better valuations on non-hedging interest rate swaps and less payments made on hedging and non-hedging interest rate swaps as seven swaps expired in the later part of 2012 offset by less cash received on bunker hedging swaps. Net loss attributable to us was \$49.3 million compared to \$89.5 million loss in 2011. Diluted losses per share were \$0.92 in 2012 based on 53.3 million diluted weighted average shares outstanding compared to \$1.94 in 2011 based on 46.12 million diluted weighted average shares outstanding.

Some of the more significant developments for the Company during 2012 were:

the signing of a newbuilding agreement for one LNG carrier with an option for a second LNG carrier;

the order of one shuttle tanker;

the sale of the VLCCs *La Madrina* and *La Prudencia*;

the dry-docking of *Arctic*, *Neo Energy*, *Antarctic*, *Sakura Princess*, *Izumo Princess*, *Silia T*, *Socrates*, *Bosporos*, *Byzantium* and *Aegeas* for their mandatory special or intermediate survey;

the payment to our shareholders of dividends totaling \$0.50 per common share with total cash paid out amounting to \$26.6 million.

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The Company operated the following types of vessels during, and at the end of 2012:

<b>Vessel Type</b>	<b>LNG carrier</b>	<b>VLCC</b>	<b>Suezmax</b>	<b>Aframax</b>	<b>Panamax</b>	<b>Handymax MR2</b>	<b>Handysize MR1</b>	<b>Total Fleet</b>
Average number of vessels	1.0	2.9	10.0	11.0	9.0	6.0	8.0	47.9
Number of vessels at end of year	1.0	1.0	10.0	11.0	9.0	6.0	8.0	46.0
Dwt at end of year (in thousands)	86.0	301.0	1,626.0	1,194.0	651.0	318.0	298.0	4,474.0
Percentage of total fleet	1.9%	6.7%	36.3%	26.7%	14.6%	7.1%	6.7%	100.0%
Average age, in years, at end of year	5.9	14.3	6.5	4.7	5.9	7.5	6.5	6.5

We believe that the key factors which determined our financial performance in 2012, within the given freight rate environment in which we operated, were:

the diversified aspect of the fleet, including our acquisition in recent years of purpose-built vessels to access ice-bound ports and carry LNG (liquefied natural gas), 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 any upside in the freight market;

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

the continued control over costs by our technical managers despite pressures caused by rising operating and fuel 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 maintain 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 a dividend policy;

our ability to raise new financing through bank debt at competitive terms despite the current tight credit environment; and

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the sale of vessels when attractive opportunities arise.

We believe that the above factors will also be those that will be behind our future financial performance and will play an especially significant role in the current world economic climate as we proceed through 2013 and into 2014. To these may be added:

the sustainability of the recovery of the product charter market during the year and possibly for the crude charter market by the beginning of next;

the securing of a high level of utilization for our vessels;

the appetite by oil majors to fix vessels on medium to long term charters at economic rates;

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the delivery of the newbuilding suezmax shuttle tankers in March and April 2013; and

our ability to buildup our cash reserves through operations, vessel sales and possibly equity issuance.

Considerable economic and political uncertainty remains in the world as we approach the second quarter of 2013. There are positive signs emanating from the U.S. in terms of the economy and assuming the country's ability to absorb without social disruptions the proposed government spending cuts particularly in an environment of growing consumer confidence. Recent measures in Europe to stabilize the financial situation of certain countries have also provided some confidence that feared dangers (sovereign debt default, Eurozone collapse) are now under control, or at least policies and instruments exist to minimize any potential impact of those dangers. Many of the developing countries still have surging economies albeit with the occasional readjustment or correction in speed. Two significant dampers to expectations for the near future are increasing oil prices and potential conflict in the Korean peninsula. The combination of rising demand for oil and supply limitations (including fear of future limitations) is leading to higher prices which could lead to GDP growth inhibitions and therefore be detrimental to tanker demand. A conflict in the Arabian/Persian Gulf, while possibly resulting in a variation from current tanker trading routes which may or may not be beneficial for the tanker sector, will likely lead to higher oil prices.

We believe it likely, therefore, that 2013 will be another difficult year, but could well see further occasional spikes in rates as we have seen so far this year primarily in the ice-class trades. There is reserved optimism for the tanker sector that in 2013 on average, if we do not at least see a rebound from the depths of the trough in terms of rates, at least the trough should not deepen as far as crude oil transportation is concerned. On the product trade there is increased optimism as the supply of new product carriers is considerably muted compared to the supply of crude tankers. In addition, new or upgraded refineries in the Middle East and Asia are forecast to lead to the expansion of new and longer trade routes for product carriers. LNG carriers are also expected to continue to enjoy a solid year given the high demand for natural gas and limited number of available liquefied natural gas carriers. A further related area which may enjoy respectable returns is in the off-shore support area, which would include storage and shuttle services to off-shore production units. The new fields off Brazil and West Africa are becoming increasingly attractive for development, especially in the light of supply constraints from existing sources and rising oil prices.

### **Chartering Strategy**

We typically charter our 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.

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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. At various stages during 2012, seven of our vessels also operated within a pool of similar vessels 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.

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, who provides the Company 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.

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.



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**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 have increased significantly during the last years and are expected to be in high levels for the coming years, from October 1, 2012, scrap values are calculated at \$390 per lightweight ton. Our estimate was based on the average demolition prices prevailing in the market during the last ten years for which historical data were available. The effect of this change in accounting estimate was to decrease net loss for the year ended December 31, 2012 by \$0.9 million or \$0.02 per weighted average number of shares, both basic and diluted. This change in estimation is expected to result in positive impact of \$3.8 million to our 2013 financial results. While there remains overcapacity within the tanker sector and scrap prices remain at these levels we would expect scrapping to remain a viable alternative to trading older vessels. We also expect commodity prices to remain at buoyant levels as the economic recovery continues to gather pace. 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 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, excluding the VLCC *Millennium* discussed below, is approximately six years. The average remaining operational life is, therefore, nineteen years. Given the extensive remaining life, we do not believe that a significant risk of impairment currently exists, again excluding *Millennium*. 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 2012, 2011 and 2010. Future operating costs are based on the 2012 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 employment of the vessel during its remaining life. We prepare cash flows for each

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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 new 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 continue to trend upwards, 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 broker's 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.

During the latter part of 2012, the overcapacity in the crude tanker sector and the lack of viable alternative employment for the older VLCCs led to a further fall in the values and earnings capacity of the VLCC *Millennium*. The vessel had been employed on a long-term profitable bare boat time charter which is due to expire in September 2013 and which had been expected to be extended. In March 2013, we were unexpectedly informed that the charterers would not after all extend the charter. Given that the likely prospects of employment at rates which will ensure cash flows in excess of its carrying value are low and that other alternatives such as selling the vessel at some stage would result in minimal or even negative cash flow depending on timing of sale, we performed cash flow tests taking into account these various scenarios. As a result, an impairment loss of \$13.6 million was incurred.

At December 31, 2011 the tanker market was also exceptionally weak and an impairment loss of \$39.4 million was incurred on the VLCCs *La Madrina* and *La Prudencia*, which both were classified as held for sale. During the latter part of 2010 an impairment charge of \$3.1 million was incurred on the Aframax tanker *Vergina II*. At December 31, 2012, 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 \$1.6 billion, compared to a total carrying value of \$2.1 billion. While the future cash flow expected to be generated by all the vessels of the fleet, apart from *Millennium*, was comfortably in excess of their carrying value, there were 39 further vessels in our fleet whose aggregate carrying value and market value as determined at December 31, 2012 were of \$1.7 billion and \$1.2 billion, respectively. These vessels were:

Suezmax: *Antarctic, Arctic, Triathlon, Spyros K, Dimitris P*

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

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

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

Handysize: *Delphi, Didimon, 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 recoverability of amounts outstanding and we estimate a provision if there is a possibility of non-recoverability,



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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 ten years. 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 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 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 and bunker swap agreements 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 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 before 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

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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 port charges, canal dues and bunker fuel costs.

*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. During 2010, we sold the *Decathlon* while it was on time-charter and in order to fulfill our obligations under that time-charter we chartered the vessel back on market terms from the buyers for 103 days under its new name *Nordic Passat*. Another vessel was chartered-in during 2010 to cover for the product carrier *Didimon* while it was in dry-dock. As of December 31, 2012, 2011 and 2010, the Company had no vessel 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.

*Management fees.* These are the fixed fees we pay to Tsakos Energy Management under our management agreement with them. For 2013 no increase has been agreed by March 31, 2013 and management fees remain the same as in 2012. Accordingly, monthly fees for operating vessels will be \$27,500 per owned vessel and \$20,400 for chartered-in vessels or chartered out on a bareboat basis or under construction. The monthly fee for the LNG carrier will be \$35,000.

*Depreciation.* We depreciate our vessels on a straight-line basis over their estimated useful lives, after considering their estimated scrap values. Since steel prices have increased significantly during the last years and are expected to be in high levels for the coming years, effective October 1, 2012, our estimate for scrap values was increased from \$300 to \$390 per lightweight ton. This change in estimation is expected to result in positive impact of \$3.8 million to our 2013 financial results. In assessing the useful lives of vessels, we have estimated them to be 25 years (40 years for the LNG carrier), which is in line with the industry wide accepted practice, assuming that all classification society rules have been adhered to concerning survey certification and statutory regulations are followed. 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.

*Amortization of deferred charges.* 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 10 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 in 2012, 2011 and 2010 that an impairment loss had been incurred with respect to the carrying values of the oldest vessel of the fleet in 2012, two older vessels in 2011 and one older vessel in 2010.

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*General and administrative expenses.* These expenses consist primarily of professional fees, office supplies, investor relations, advertising costs, directors' liability insurance, and reimbursement of our directors' and officers' travel-related 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 2012, we received approximately \$5.1 million in net proceeds from hull and machinery and loss of hire claims arising from incidents with or damage incurred on our vessels. Such settlements were generally received as credit-notes from our insurers, Argosy Insurance Company Limited, and used as a 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, 2012 versus year ended December 31, 2011****Voyage revenues**

Voyage revenues earned in 2012 and 2011 per charter category were as follows:

	2012		2011	
	\$ million	% of total	\$ million	% of total
Time charter-bareboat	9.3	2%	9.3	2%
Time charter-fixed rate	95.9	24%	67.0	17%
Time charter-variable rate (profit share)	93.6	24%	123.4	32%
Pool arrangement	20.4	5%	23.6	6%
Voyage charter-contract of affreightment	0.0	0%	13.0	3%
Voyage charter-spot market	174.8	45%	158.9	40%
<b>Total voyage revenue</b>	<b>394.0</b>	<b>100%</b>	<b>395.2</b>	<b>100%</b>

Revenue from vessels was \$394.0 million during the year ended December 31, 2012 compared to \$395.2 million during the year ended December 31, 2011, a 0.3% decrease. There was an average of 47.9 vessels in 2012 compared to an average of 47.8 vessels in 2011. In December 2012, the two VLCCs *La Madrina* and *La Prudencia*, which were held for sale at December 31, 2011, were sold. Based on the total days that the vessels were actually employed as a percentage of the days that we owned or controlled the vessels, the fleet had 94.9% employment compared to 97.1% in the previous year, the lost time being mainly off-hire of the two VLCCs *La Madrina* and *La Prudencia*, which were held for sale, and due to dry-docking activity. Ten vessels undertook dry-docking in 2012 and seven vessels undertook dry-docking in 2011 (discussed further below). The utilization rate achieved, excluding the VLCCs *La Madrina* and *La Prudencia*, was 98.0% in 2012.

Market conditions continued to be poor in 2012, primarily as a result of excess available capacity within the tanker sector. In addition, bunker prices were higher by 5.5% in 2012 compared to 2011, negatively impacting spot charter profitability. However, we had more vessels employed on time charters with fixed rates, a change from period employment or time charter with variable rates. The average time charter equivalent rate per vessel achieved for the year 2012 was higher by 7.0% at \$17,163 per day compared to \$16,047 per day for the previous

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year. The increase is mainly due to the LNG carrier, *Neo Energy* which entered into a new charter agreement in 2012 at more than double the previous rate it was earning. In addition, Aframax crude carriers and the smaller Handysize and Handymax product tankers saw improved rates in 2012 compared to 2011. Panamax tankers, which had the same employment mix for both years achieved similar TCE rates in both years. Suezmax tankers achieved a 10% lower TCE being employed more on time charters with fixed rates in 2012 as opposed to time charters with variable rates in 2011. The VLCCs *La Prudencia* and *La Madrina* were unemployed for the most part of 2012, being available for inspections from potential buyers until their sale in December 2012, while in 2011 they were trading in the spot market earning a low TCE rate partly due to high bunker prices. Our third VLCC, *Millennium*, was under bareboat charter for both years.

**Commissions**

Commissions during 2012 amounted to \$12.2 million compared to \$14.3 million in 2011, a 14.7% decrease. Commissions were 3.1% of revenue from vessels in 2012 compared to 3.6% in 2011. The decrease in commission charges relates to accumulated commissions accrued on freights earned by several of our vessels in prior years, which was reversed following a legal decision to the effect that no further amounts were due to the charterer in question, and also due to changes in employment on several vessels, where commission rates were lower.

**Voyage expenses**

	Total voyage expenses per category			Average daily voyage expenses per vessel		
	Year ended December 31,		% increase/ (decrease)	Year ended December 31,		% increase/ (decrease)
	2012 U.S.\$ million	2011 U.S.\$ million		2012 U.S.\$	2011 U.S.\$	
Bunkering expenses	78.3	91.5	(14.4)%	17,298	20,079	(13.9)%
Port and other expenses	33.5	35.7	(6.2)%	7,387	7,830	(5.7)%
<b>Total voyage expenses</b>	111.8	127.2	(12.1)%	24,685	27,909	(11.6)%
<i>Days on spot and Contract of Affreightment (COA) employment</i>				4,529	4,556	(0.6)%

Voyage expenses include all our costs, other than vessel operating expenses and commissions that are related to a voyage, including port charges, agents fees, canal dues and bunker (fuel) costs. Voyage expenses were \$111.8 million during 2012 compared to \$127.2 million during the prior year, a 12.1% decrease. The total operating days on spot charter and contract of affreightment totaled 4,529 days in 2012 compared to 4,556 days in 2011. Voyage expenses are highly dependent on the voyage patterns followed and size of vessels employed on spot charter or contract of affreightment. In 2012, the decrease in voyage expenses was due to a 24.5% decrease in the volume of bunkers consumed, as in 2011 the two VLCCs *La Prudencia* and *La Madrina* were trading in the spot market, performing long repositioning voyages and consuming high bunker quantities. The decrease in volume is partially off-set by an increase in bunker prices by 5.5% between the two years.

**Charter hire expense**

There was no charter hire expense in 2012 and 2011.

**Table of Contents****Vessel operating expenses**

	Operating expenses per category			Average daily operating expenses per vessel		
	2012 U.S.\$ million	2011 U.S.\$ million	% increase/ (decrease)	2012 U.S.\$	2011 U.S.\$	% increase/ (decrease)
Crew expenses	74.8	76.4	(2.1)%	4,356	4,478	(2.7)%
Insurances	15.5	15.2	1.7%	898	891	0.8%
Repairs and maintenance, and spares	19.8	15.2	30.7%	1,154	888	29.9%
Stores	6.9	6.7	3.7%	403	391	3.0%
Lubricants	6.1	6.1	(0.7)%	353	358	(1.3)%
Other (quality and safety, taxes, registration fees, communications)	10.2	10.3	(0.9)%	592	600	(1.6)%
<b>Total operating expenses</b>	<b>133.3</b>	<b>129.9</b>	<b>2.6%</b>	<b>7,755</b>	<b>7,606</b>	<b>1.9%</b>

*Earnings capacity days excluding vessel on bare-boat charter*

17,178      17,066

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 \$133.3 million during 2012, compared to \$129.9 million during 2011, an increase of 2.6%, primarily due to increased repairs and maintenance expenses as a result of works performed during dry-dockings that did not qualify for capitalization. In 2012 ten dry-dockings were performed, including the first dry-docking of our LNG carrier, *Neo Energy*, which itself negatively affected operating expenses by almost \$1.3 million, compared to only seven dry-dockings in 2011. All other categories of operating expenses remained at the same levels in 2012 due to the efforts of our technical managers and the effective cost control and monitoring performed. As a percentage of voyage revenues, vessel operating expenses were 33.8% in 2012, and 32.9% in 2011.

Operating expenses per ship per day for the fleet increased to \$7,755 for 2012 from \$7,606 in 2011. This was mostly due to the slight increase in operating expenses as earnings capacity days remained almost at the same levels between the two years. Approximately 53% of operating expenses (30% of total costs) incurred are in Euro, mainly relating to vessel officers (a decrease of approximately \$4.4 million due to the strengthening of the US dollar by 7.7% during 2012). The strengthening of the US dollar against the Euro during 2012 positively affected operating expenses, offsetting the increased repairs and maintenance requirements of 2012, as many of the repairs were performed in Euro zone countries. The creation of TCM in 2010, which took over the technical management of the fleet, and the cooperation which existed between Tsakos Shipping and Columbia Shipmanagement Ltd. prior to July 1, 2010, the formal start date of TCM, resulted in increased purchasing power based on the combined fleets managed by Tsakos Shipping and Columbia. This provided considerable savings in the purchase of stores, spares and lubricants both in 2012 and 2011.

**Depreciation**

Depreciation was \$94.3 million during 2012 compared to \$101.1 million during 2011, a decrease of \$6.7 million, or 6.6%. This was due to the VLCCs *La Madrina* and *La Prudencia* which were accounted for as held for sale at the end of 2011, and therefore bore no depreciation expense in 2012, and by the change of the scrap value in the calculation of depreciation expense from October 1, 2012, which resulted in a decrease of \$0.9 million in the fourth quarter of 2012, offset by the addition of the suezmax tankers *Spyros K* and *Dimitris P*, in the second and third quarter of 2011, respectively.



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**Table of Contents****Amortization**

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. In 2012, ten vessels performed dry-docking and in 2011 seven vessels. There was an additional amortization charge of \$1.0 million for the ten vessels which performed dry-docking in 2012. However, there was no further amortization in 2012 of the unamortized cost of *La Madrina* and *La Prudencia* as from the end of 2011 these vessels were accounted for as held for sale. In 2011, amortization cost for those two vessels was \$1.2 million. As a result, the amortization of deferred dry-docking charges was \$4.9 million in both 2011 and 2012.

**Management fees**

The Company pays to Tsakos Energy Management fixed fees per vessel under a management agreement between the companies. The fee pays for services that cover both the management of the individual vessels and of the enterprise as a whole. According to the amended management agreement (from January 2007), there is a prorated adjustment if at 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.

As a consequence, from January 1, 2012, vessel monthly fees for operating vessels increased to \$27,500 from the \$27,000 fee payable in 2011, and for vessels chartered out, vessels on a bare-boat basis and for vessels under construction the monthly fee increased to \$20,400 from \$20,000 payable monthly in 2011. 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. No fee increase has yet been agreed for 2013.

Management fees totaled \$15.9 million during the year ended December 31, 2012, compared to \$15.6 million for the year ended December 31, 2011, a 1.9% increase over the year ended December 31, 2011 due to increased management fees. Total fees include fees paid directly to the third-party ship manager in the case of the LNG carrier. Fees paid relating to vessels under construction are capitalized as part of the vessels costs.

**General and administrative expenses**

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 were \$4.1 million during 2012 compared to \$4.3 million during 2011, a decrease of 4.6%. In 2012, general and administrative expenses were lower mainly due to decreased investor relationship expenses, general office expenses and advertising costs, offset by increased professional fees, and directors' liability insurance.

Total general and administrative expenses plus management fees paid to Tsakos Energy Management, the incentive award and stock compensation expense, together represent the overhead of the Company. On a per vessel basis, daily overhead costs were \$1,180 in 2012 compared to \$1,188 in 2011, the decrease being mainly due to the decreases in general and administrative expenses described above, offset by the increase in management fees. There was no incentive award in 2012 or 2011, and stock compensation expense described below, remained at the same levels.

**Management incentive award**

There was no management incentive award in 2012 and 2011.

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### **Stock compensation expense**

The compensation expense in 2012 of \$0.7 million represents the 2012 portion of the total amortization of the value of restricted share units ( RSUs ). In 2011, an amount of \$0.8 million was amortized. At the beginning of 2012, there were 84,500 RSUs granted, which vested in June 2012. A further 150,000 RSUs were awarded on December 31, 2012 and vested immediately. Almost half of the RSUs granted and vested had been issued to staff of the commercial and technical managers who are considered as non-employees. In the case of RSUs issued to non-employees, amortization is based on the share price on vesting date with quarterly adjustments depending on the share price until vesting, whereas in the case of employees, amortization is based on the share price at grant date. The 150,000 RSUs which granted and vested on December 31, 2012 were valued using the share price at that date.

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

During 2012, we sold the VLCCs *La Madrina* and *La Prudencia*, which were held for sale at December 31, 2011, for net proceeds of \$19.9 million and \$20.3 million respectively resulting in a net loss of \$0.8 million and \$1.1 million respectively. During 2011, we sold the Aframax tanker *Opal Queen*, which was held for sale at December 31, 2010, for net proceeds of \$32.8 million resulting in a gain of \$5.8 million and the Aframax tanker *Vergina II* for net proceeds of \$9.7 million resulting in a loss of \$0.8 million.

### **Vessel impairment charge**

In 2012 there was an impairment charge of \$13.6 million relating to the 1998 built VLCC *Millennium*. An impairment charge relating to the 1993 built VLCC *La Prudencia* and the 1994 built VLCC *La Madrina* totaled \$39.4 million in 2011. The negative market forces existing since 2009 impacted the ability to charter older vessels at accretive rates. In the case of these three vessels, the total weighted average cash flow expected to be generated over the future remaining lives of the vessels under various possible scenarios, was less than the current carrying values of the vessels in our books and consequently the amount of carrying value in excess of the fair market value of these vessels was written-off as an impairment charge in 2012 and 2011 respectively. The poor market for crude carriers continued through much of 2012 and, especially in the fourth quarter when the expected usual seasonal uplift in rates did not occur because of the large increase in the supply of larger crude tankers which surpassed the demand for sea-transported crude oil. *Millennium* has been employed on a long-term profitable bare boat time charter which was due to expire in September 2013 and which had been expected to be extended. In March 2013, we were unexpectedly informed that the charterers would not extend the charter. Expectations for alternative employment at rates which will ensure cash flows in excess of its carrying value are very low and other alternatives such as selling the vessel would result in minimal or even negative cash flow depending on timing of any sale. As a consequence, the carrying value of *Millennium* has been reduced to its fair market value of \$28.6 million at December 31, 2012, but it was not classified as held for sale as it did not meet the criteria for held for sale classification. At December 31, 2011, *La Prudencia* and *La Madrina* were classified as held for sale and their carrying values were reduced to their fair value less cost to sell.

At December 31, 2012, as vessel values continued to decline in the year, 39 of our vessels had carrying values in excess of market values. Apart from the one VLCC mentioned above, 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 the carrying values as at December 31, 2012.

### **Operating loss/income**

For 2012, income from vessel operations was \$1.3 million, including loss on the sale of two vessels amounting to \$1.9 million and impairment charge of \$13.6 million, compared to a loss from vessel operations of \$37.7 million for 2011, including an impairment charge of \$39.4 million and net gains on the sale of vessels amounting to \$5.0 million.

**Table of Contents****Interest and finance costs, net**

	<b>2012</b>	<b>2011</b>
	<b>\$ million</b>	<b>\$ million</b>
Loan interest expense	28.2	25.9
Accrued interest on hedging swaps reclassified from AOCI	1.0	
Interest rate swap cash settlements hedging	20.5	25.8
Less: Interest capitalized	(1.8)	(2.5)
Interest expense, net	47.9	49.2
Interest rate swap cash settlements non-hedging	8.0	9.0
Bunkers swap cash settlements	(2.4)	(6.4)
Change in fair value of non-hedging bunker swaps	1.7	2.1
Amortization of deferred loss on de-designated interest rate swap	1.5	1.5
Expense of portion of accumulated negative valuation of de-designated interest rate swap	0.7	0.5
Change in fair value of non-hedging interest rate swaps	(7.0)	(3.6)
Amortization of loan expenses	1.0	1.0
Bank loan charges	0.2	0.3
Net total	51.6	53.6

Interest and finance costs, net were \$51.6 million for 2012 compared to \$53.6 million for 2011, a 3.7% decrease. Loan interest, excluding payment of swap interest, increased to \$28.2 million from \$25.9 million, a 9.2% increase. Total weighted average bank loans outstanding were approximately \$1,487 million for 2012 compared to \$1,539 million for 2011. However, 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 \$28.5 million from \$34.8 million as seven swaps expired in the second part of 2012. The average loan financing cost in 2012, including the impact of all interest rate swap cash settlements, was 3.75% compared to 3.89%, for 2011. Capitalized interest in 2012 was \$1.8 million, compared to \$2.5 million in 2011. In 2012, there were two vessels under construction for the whole year and one LNG carrier under construction for half of the year, while in 2011 there were four vessels under construction and average accumulated installments were higher by \$2.2 million in 2011.

There was a positive movement in the fair value (mark-to-market) of the non-hedging interest rate swaps in 2012 of \$6.0 million compared to a positive movement of \$3.6 million in 2011. During 2010, the panamax tankers the *Hesnes* and the *Victory III* were sold. As a consequence, the interest rate swap relating to the loan which included the part financing of these vessels became ineligible for special hedge accounting and was de-designated. As a result, a part of the accumulated negative valuation relating to this swap amounting to \$0.8 million was transferred from other comprehensive income/(loss) to the statement of operations in 2010. In addition, the remaining part of the accumulated negative valuation relating to this interest rate swap is being amortized to earnings over the term of the original hedge. In both 2012 and 2011, \$1.5 million was amortized. A further lump-sum of \$0.7 million was transferred from the unamortized negative valuation directly to the statement of operations on sale of *La Madrina* in 2012, while \$0.5 million were expensed in 2011 on sale of the aframax tanker *Vergina II*.

Since 2009, the Company has entered into swap arrangements relating to bunker (fuel) costs, which do not qualify as hedging instruments. In 2012, the Company received \$2.4 million on these swaps in realized gains compared to \$6.4 million in 2011. However, unrealized mark-to-market valuation losses were \$1.7 million in 2012 and \$2.1 million in 2011.

Amortization of loan expenses was \$1.0 million in both 2012 and 2011. Other loan charges, including commitment fees, amounted to \$0.2 million in 2012 and \$0.3 million in 2011.

**Table of Contents****Interest and investment income**

For 2012, interest and investment income amounted to \$1.3 million compared to \$2.7 million in 2011. In both years, the income related to bank deposit interest. The decrease is due to lower average cash balances in 2012 compared with 2011, the rates on cash deposits being at the same levels for both periods.

**Non-controlling interest**

The amount earned by the non-controlling interest (49%) shareholding of the subsidiary which owns the companies owning the vessels *Maya* and *Inca* was \$0.2 million in 2012 compared to \$0.5 million in 2011. Although revenue earned and operating expenses was at the same levels in 2012 and 2011, the difference was due to increased interest and finance costs in 2012 as a result of a waiver obtained at the end of 2011 from its lending bank relating to the then non-compliance with the leverage ratio required by its loan agreement.

**Net loss/income**

As a result of the foregoing, the net loss for 2012 was \$49.3 million or \$0.92 per diluted share versus a net loss of \$89.5 million or \$1.94 per diluted share for 2011.

**Year ended December 31, 2011 versus year ended December 31, 2010****Voyage revenues**

Voyage revenues earned in 2011 and 2010 per charter category were as follows:

	2011		2010	
	\$ million	% of total	\$ million	% of total
Time charter-bareboat	9.3	2%	9.3	2%
Time charter-fixed rate	67.0	17%	69.8	17%
Time charter-variable rate (profit share)	123.4	32%	162.6	40%
Pool arrangement	23.6	6%	14.3	4%
Voyage charter-contract of affreightment	13.0	3%	45.3	11%
Voyage charter-spot market	158.9	40%	106.7	26%
<b>Total voyage revenue</b>	<b>395.2</b>	<b>100%</b>	<b>408.0</b>	<b>100%</b>

Revenue from vessels was \$395.2 million during the year ended December 31, 2011 compared to \$408.0 million during the year ended December 31, 2010, a 3.1% decrease. There was an average of 47.8 vessels in 2011 compared to an average of 46.1 in 2010. During the course of 2011, two tankers were sold and two tankers were acquired. Based on the total days that the vessels were actually employed as a percentage that we owned or controlled the vessels, the fleet had 97.1% employment compared to 97.6% in the previous year, the lost time being mainly off-hire of the two VLCCs *La Madrina* and *La Prudencia*, and due to dry-docking activity. In 2011, seven vessels undertook dry-docking and another seven vessels undertook dry-dock in 2010 (discussed further below).

Due to poorer market conditions in 2011 as a result primarily of excess capacity within the tanker sector, the increased bunker prices by 38%, coupled with the fact that we had more vessels on spot in 2011, the average time charter equivalent rate per vessel achieved for the year 2011 was \$16,047 per day compared to \$19,825 per day for the previous year. Only the smaller Handysize and Handymax tankers saw marginally better rates in 2011 than in 2010. Panamax tankers, which were under fixed employment throughout the year achieved lower TCE by 12%, compared to 2010, still earning more than the TCE that they would achieve trading in the spot market. Aframax tankers were trading on spot for more than half their available days in the year achieving a TCE 34% lower than in 2010. Suezmax rates achieved were 17% less on average in 2011 than in 2010. Suezmaxes were under profit sharing arrangements for most of their available days in both years earning only the minimum in



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2011. The two VLCCs *La Madrina* and *La Prudencia* after a long period of profitable fixed employment were trading on spot, earning substantially lower TCE compared to 2010, due to high bunker prices. The third VLCC *Millennium* is under bareboat charter for both years. The LNG carrier was under time charter during 2011 and 2010 achieving a TCE below the breakeven levels.

**Commissions**

Commissions during 2011 amounted to \$14.3 million compared to \$13.8 million in 2010, a 3.3% increase. Commissions were 3.6% of revenue from vessels in 2011 compared to 3.4% in 2010. The increase in commission charges relates to changes in employment on several vessels, where commission rates were higher, especially in vessels employed in the spot market.

**Voyage expenses**

	Total voyage expenses per category			Average daily voyage expenses per vessel		
	Year ended December 31,		% increase/ (decrease)	Year ended December 31,		% increase/ (decrease)
	2011 U.S.\$ million	2010 U.S.\$ million		2011 U.S.\$	2010 U.S.\$	
Bunkering expenses	91.5	54.5	67.9%	20,079	13,271	51.3%
Port and other expenses	35.7	31.3	14.1%	7,830	7,608	2.9%
<b>Total voyage expenses</b>	127.2	85.8	48.2%	27,909	20,879	33.7%
<i>Days on spot and Contract of Affreightment (COA) employment</i>				4,556	4,110	10.9%

Voyage expenses include all our costs, other than vessel operating expenses and commissions that are related to a voyage, including port charges, agents fees, canal dues and bunker (fuel) costs. Voyage expenses were \$127.2 million during 2011 compared to \$85.8 million during the prior year, a 48.2% increase. The total operating days on spot charter and contract of affreightment totaled 4,556 days in 2011 compared to 4,110 days in 2010. Although voyage expenses are highly dependent on the voyage patterns followed and size of vessels employed on spot, much of the increase can be partly explained by the average cost of bunkers (fuel) purchased for the fleet increasing by 38% from 2010 to 2011, contributing to a \$37.0 million increase in the overall expenditure on bunkers between the two years.

**Charter hire expense**

There was no charter hire expense in 2011. In 2010, charter hire expense amounted to \$1.9 million. The charter hire expense in 2010 related primarily to the vessel *Decathlon*, which was sold to a third-party, but immediately re-chartered at market rate in order that the vessel fulfill its obligations relating to the charter that the vessel was employed on at the time of sale.

**Table of Contents****Vessel operating expenses**

	Operating expenses per category			Average daily operating expenses per vessel		
	2011 U.S.\$ million	2010 U.S.\$ million	% increase/ (decrease)	2011 U.S.\$	2010 U.S.\$	% increase/ (decrease)
Crew expenses	76.4	74.1	3.2%	4,478	4,495	(0.4)%
Insurances	15.3	14.4	5.6%	891	873	2.1%
Repairs and maintenance, and spares	15.2	14.5	4.4%	888	883	0.6%
Stores	6.7	7.4	(9.4)%	391	447	(12.5)%
Lubricants	6.1	6.0	1.3%	358	366	(2.2)%
Quality and Safety	1.5	1.7	(8.3)%	91	102	(10.8)%
Other (taxes, registration fees, communications)	8.7	7.9	9.8%	509	481	5.8%
<b>Total operating expenses</b>	<b>129.9</b>	<b>126.0</b>	<b>3.1%</b>	<b>7,606</b>	<b>7,647</b>	<b>(0.5)%</b>

*Earnings capacity days excluding vessel on bare-boat charter*

*17,066      16,471*

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 \$129.9 million during 2011, compared to \$126.0 million during 2010, an increase of 3.1%, primarily due to the increase in earnings capacity days by 3.6%. As a percentage of voyage revenues, vessel operating expenses were 32.9% in 2011 and 30.9% in 2010.

Operating expenses per ship per day for the fleet decreased to \$7,606 for 2011 from \$7,647 in 2010. This was mostly due to cost reduction efforts and disposal of older vessels. The creation of TCM in 2010 which took over the technical management of the fleet, and the cooperation which existed between Tsakos Shipping and Columbia Shipmanagement Ltd. prior to July 1, 2010, the formal start date of TCM, resulted in a purchasing power based on the combined fleets managed by Tsakos Shipping and Columbia. This provided considerable savings in the purchase of stores, spares and lubricants both in 2011 and 2010. Approximately 49% of operating expenses (26% of total costs) incurred are in Euro, mainly relating to vessel officers (losing approximately \$2.6 million due to the weakening of the US dollar by 5% during 2011), and also to various parts, supplies and repairs acquired or undertaken in Euro zone countries. Despite a weakening of the US dollar against the Euro during 2011, which negatively affected costs, operating expenses per ship per day remained stable due to the cost reduction efforts by our technical managers.

**Depreciation**

Depreciation was \$101.1 million during 2011 compared to \$92.9 million during 2010, an increase of \$8.2 million, or 8.8%. This was partly due to the addition of six vessels acquired in 2010, and two vessels in 2011. All those additions are high-value new vessels which contribute in the increase of depreciation expense. In 2010 five vessels were sold, but they had all been accounted for as held for sale from the end of 2009 and, therefore, had no impact on depreciation expense during 2010 and 2011. In addition, the Aframax tanker *Opal Queen* bore no depreciation during 2011 as it was accounted as held for sale from the end of 2010.

**Amortization**

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 2011, amortization of deferred dry-docking charges was \$4.9 million compared to \$4.6 million during 2010, an increase of 7.1%. The increase is due to the completion of six new dry-dockings within 2011. The relatively small increase in amortization given the number of vessels dry-docked in 2011, was due to younger and smaller vessels that underwent their first dry-dockings in 2011, the costs of which were lower

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than dry-dockings of older and larger vessels. The next dry-docking of these vessels would be in five years, and, therefore, the amortization would be spread over this extended period resulting in a relatively lower annual charge, whereas older vessels would be amortized over 30 months.

### **Management fees**

The Company pays to Tsakos Energy Management fixed fees per vessel under a management agreement between the companies. The fee pays for services that cover both the management of the individual vessels and of the enterprise as a whole. According to the amended management agreement (from January 2007), there is a prorated adjustment if at 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.

As a consequence, from January 1, 2010, monthly fees for owned operating vessels were \$24,000 and for operating vessels chartered-in or chartered out on a bareboat basis or for vessels under construction, \$17,700. From July 1, 2010, most of the fleet is managed by TCM, apart from four vessels which continued to be managed by Columbia Shipmanagement Ltd. until early 2011 and three by other third-party ship managers. Vessel monthly fees were increased to \$27,000 for owned operating vessels or approximately \$99 per day per vessel, substantially less than the savings achieved from the creation of the new ship management company. The monthly fee relating chartered-in or chartered out on a bareboat basis or for vessels under construction increased to \$20,000 and for the LNG carrier to \$32,000. Management fees totaled \$15.6 million during the year ended December 31, 2011, compared to \$14.1 million for the year ended December 31, 2010, a 10.3% increase over the year ended December 31, 2010 due to increased management fees. Total fees include fees paid directly to a third-party ship manager in the case of the LNG carrier. Fees paid relating to vessels under construction are capitalized as part of the vessels' costs. From January 1, 2012 monthly fees for operating vessels are \$27,500 for vessels chartered out or on a bare-boat basis are \$20,400 and from April 1, 2012 for the LNG carrier \$35,000 of which \$10,000 is paid to the Management company and \$25,000 to a third party manager.

### **General and administrative expenses**

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 were \$4.3 million during 2011 compared to \$3.6 million during 2010, an increase of 18.3%. The increase is mainly due to new XBRL reporting system installed, costs and travelling expenses incurred on various new projects that were evaluated during the year and increased directors' fees.

Total general and administrative expenses plus management fees paid to Tsakos Energy Management, the incentive award and stock compensation expense, together represent the overhead of the Company. On a per vessel basis, daily overhead costs were \$1,188 in 2011 compared to \$1,144 in 2010, the increase being mainly due to increases in management fees, general and administrative expenses described above, offset partly by the lack of an incentive award in 2011, and decrease in the stock compensation expense described below.

### **Management incentive award**

There was no management incentive award in 2011. An amount of \$0.4 million was awarded to Tsakos Energy Management for 2010.

### **Stock compensation expense**

The compensation expense in 2011 of \$0.8 million represents the 2011 portion of the total amortization of the value of restricted share units (RSUs). In 2010, an amount of \$1.1 million was amortized. At the beginning



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of 2011, there were 199,750 RSUs granted, but unvested. A further 12,000 RSUs were awarded in the year, none forfeited, with 127,250 grants vesting in the year. Almost half of the RSUs outstanding had been issued to staff of the commercial and technical managers who are considered as non-employees. In the case of RSUs issued to non-employees, amortization is based on the share price on vesting with quarterly adjustments until vesting. As the average share price in 2011 was lower than in 2010, the amortization charge per outstanding RSU fell accordingly. Furthermore the average number of RSUs was lower in 2011 than 2010.

**Gain on sale of vessels**

During 2011, we sold the Aframax tankers *Opal Queen*, which was held for sale at December 31, 2010, for net proceeds of \$32.8 million resulting in a gain of \$5.8 million and the Aframax tanker *Vergina II* for net proceeds of \$9.7 million resulting in a loss of \$0.8 million. During 2010, we sold the Suezmax tanker *Decathlon*, the Aframax tankers *Parthenon* and *Marathon* and the Panamax tankers *Hesnes* and *Victory III* for total net proceeds of \$140.5 million with total net gains of \$19.7 million.

**Vessel impairment charge**

There was an impairment charge in 2011 of \$39.4 million relating to the 1993 built VLCC *La Prudencia* and the 1994 built VLCC *La Madrina*. An impairment charge relating to the 1991 built Aframax tanker *Vergina II* totaled \$3.1 million in 2010. The negative market forces existing in most of 2009 impacted the ability to charter older vessels at accretive rates. In the case of these three vessels, the total weighted average cash flow expected to be generated over the future remaining lives of the vessels under various possible scenarios, was less than the current carrying values of the vessels in our books and consequently the amount of carrying value in excess of the fair market value of these vessels was written-off as an impairment charge. The poor market for crude carriers continued through much of 2011 and especially in the fourth quarter when the expected usual seasonal uplift in rates did not occur because of the large increase in the supply of larger crude tankers which surpassed the demand for sea-transported crude oil. As these two VLCCs were amongst the oldest of double-hulled VLCCs, they were amongst the last to be considered for employment by charterers. Expectations for alternative employment for storage or conversion for off-shore projects also diminished towards the end of the year. As a consequence, the revised scenarios for our more recent cash flow tests gave greater probability to disposing of the *La Prudencia* and *La Madrina*. As such, both vessels were classified as held for sale and therefore the carrying values have been reduced to their fair value less cost to sell at December 31, 2011. In 2010, with respect to *Vergina II*, our tests indicated that the vessel would not generate adequate cash flows in excess of her carrying value and therefore, at December 31, 2010, the carrying value has been reduced to the fair value.

At December 31, 2011, as vessel values continued to decline in the year, 31 of our vessels had carrying values in excess of market values. Apart from the two VLCCs mentioned above, the remainder of our fleet is for the most part young and in all these cases the vessels were expected to generate considerably more cash during their remaining expected lives than the carrying values as at December 31, 2011.

**Operating loss/income**

The loss from vessel operations was \$37.7 million for 2011, including the impairment charge of \$39.4 million, versus \$80.7 million operating income for 2010, including an impairment charge of \$3.1 million.

**Table of Contents****Interest and finance costs, net**

	<b>2011</b> <b>\$ million</b>	<b>2010</b> <b>\$ million</b>
Loan interest expense	25.9	24.5
Interest rate swap cash settlements hedging	25.8	28.5
Less: Interest capitalized	(2.5)	(2.5)
Interest expense, net	49.2	50.5
Interest rate swap cash settlements non-hedging	9.0	7.2
Bunkers swap cash settlements	(6.4)	(2.9)
Change in fair value of non-hedging bunker swaps	2.1	2.6
Amortization of deferred loss on de-designated interest rate swap	1.5	1.3
Expense of portion of accumulated negative valuation of de-designated interest rate swap	0.5	0.8
Change in fair value of non-hedging interest rate swaps	(3.6)	1.3
Amortization of loan expenses	1.0	1.1
Bank loan charges	0.3	0.4
<b>Net total</b>	<b>53.6</b>	<b>62.3</b>

Interest and finance costs, net were \$53.6 million for 2011 compared to \$62.3 million for 2010, a 14.0% decrease. Loan interest, excluding payment of swap interest, increased to \$25.9 million from \$24.5 million, a 5.7% increase. Total weighted average bank loans outstanding were approximately \$1,539 million for 2011 compared to \$1,495 million for 2010. However, 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 \$34.8 million from \$35.7 million as LIBOR increased slightly during 2011. The average loan financing cost in 2011, including the impact of all interest rate swap cash settlements, was 3.89% compared to 3.98% for 2010. Capitalized interest in 2011 was \$2.5 million in both years as there were four vessels under construction in each year, and average accumulated installments and average interest in the two years being approximately the same.

There was a positive movement in the fair value (mark-to-market) of the non-hedging interest rate swaps in 2011 of \$3.6 million compared to a negative movement of \$1.3 million in 2010. During 2010, the panamax tankers *Hesnes* and *Victory III* were sold. As a consequence, the interest rate swap relating to the loan which included the part financing of these vessels became ineligible for special hedge accounting and was de-designated. As a result, a part of the accumulated negative valuation relating to this swap amounting to \$0.8 million was transferred from other comprehensive income/loss to the statement of operations in 2010. In addition, the remaining part of the accumulated negative valuation relating to this interest rate swap is being amortized to earnings over the term of the original hedge. \$1.5 million was amortized within 2011 and \$1.3 million in 2010. In 2011, the aframax tanker *Vergina II*, which was financed by the same loan, was also sold, and a further lump-sum of \$0.5 million was transferred from the unamortized negative valuation directly to the income statement of operations.

In 2009, the Company entered into swap arrangements relating to bunker (fuel) costs, which do not qualify as hedging instruments. In 2011, the Company received \$6.4 million on these swaps in realized gains compared to \$2.9 million in 2010. However, unrealized mark-to-market valuation losses were \$2.1 million in 2011 and \$2.6 million in 2010.

Amortization of loan expenses was \$1.0 million in 2011 and approximately \$1.1 million in 2010. Other loan charges, including commitment fees, amounted to \$0.3 million in 2011 and 2010.

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**Table of Contents****Interest and investment income**

For 2011, interest and investment income amounted to \$2.7 million almost unchanged from \$2.6 million in 2010. In both years the income related to bank deposit interest. In 2011, the average total cash balances were lower than in 2010, but due to effective cash management and slightly better interest rates on deposits, investment income remained at the same levels as in 2010.

**Non-controlling interest**

The amount earned by the non-controlling interest (49%) shareholding of the subsidiary which owns the owning companies of the vessels *Maya* and *Inca* was \$0.5 million in 2011 compared to \$1.3 million in 2010. Although revenue earned per day was at the same level in 2011 and 2010, the difference was due to reduced operating expenses in 2010.

**Net loss/income**

As a result of the foregoing, net loss for 2011 was \$89.5 million or \$1.94 per diluted share versus net income of \$19.8 million or \$0.50 per diluted share for 2010.

**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 newbuilding commitments, other expected capital expenditure on dry-dockings and vessel acquisitions, which in total equaled \$91.9 million in 2012, \$113.8 million in 2011 and \$386.7 million in 2010, will again require us to expend cash in 2013 and in future years. Net cash flow generated by operations is our main source of liquidity. Apart from the possibility of issuing further equity, additional sources of cash include proceeds from asset sales and borrowings, although all borrowing arrangements to date have specifically related to the acquisition of 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 2013, 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, 2014, 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.

Working capital (non-restricted net current assets) has turned to a negative \$51.1 million at December 31, 2012 compared to a positive \$1.9 million at December 31, 2011. Current assets decreased to \$224.0 million at December 31, 2012 from \$287.6 million at December 31, 2011 mainly due to decreased cash in non-restricted cash holdings by \$31.4 million for the reasons described in the following paragraphs and the fact there were two vessels which were accounted for at December 31, 2011 as held for sale in the consolidated balance sheet with an aggregate net value of \$41.4 million, compared to no vessels held for sale at December 31, 2012. Current liabilities decreased to \$258.9 million at December 31, 2012 from \$279.7 million at December 31, 2011, due mainly to decreased current portion of financial instruments by \$16.1 million as seven swap agreements expired in the later part of 2012, decreased accrued liabilities, unearned revenue and current portion of long term debt, offset in part by increased payables by \$10.7 million.

Net cash provided by operating activities was \$60.9 million during 2012 compared to \$45.6 million in the previous year, a 33.5% increase. The increase is mainly due to the increase in revenue (net of voyage expenses) generated by operations as described in the section on voyage revenue above. Expenditure for dry-dockings is deducted from cash generated by operating activities. Total expenditure during 2012 on dry-dockings amounted

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to \$7.6 million compared to \$4.6 million in 2011. In 2012, dry-docking work was performed on the suezmaxes *Silia T*, *Arctic* and *Antarctic*, the aframax *Sakura Princess* and *Izumo Princess*, the panamax *Socrates*, the handysizes *Aegeas*, *Bosporos* and *Byzantion* and the LNG *Neo Energy*. In 2011, dry-docking work was performed on the suezmaxes *Archangel* and *Alaska*, the aframax *Promitheas* and *Proteas*, and the handysize vessels *Amphitrite*, *Andromeda* and *Arion*. Expenditure was higher in 2012 due to the extra number of vessels that undertook dry-docking and also due to the high cost of the LNG carrier *Neo Energy* dry-docking and the dry-docking of *Silia T*, which is one of the oldest vessels of the fleet (built in 2002).

Net cash used in investing activities was \$43.0 million for the year 2012, compared to \$69.2 million for 2011. In 2012 we paid \$81.8 million as yard installments for vessels under construction and \$2.5 million for improvements on existing vessels. No new vessels were acquired in 2012. In 2011, we took delivery of and paid the final installments on the two suezmaxes *Spyros K* and *Dimitris P*. Total expenditure on these two vessels in 2011 amounted to \$66.6 million. Capitalized expenditure on improvements to existing vessels in 2011 amounted to \$4.6 million. At December 31, 2012, we had three DP2 suezmax shuttle tankers on order and one LNG carrier with total remaining payments totaling \$371.8 million, all of which we expect to be covered by new debt or other ways of financing (see below). Delivery of the first DP2 shuttle tanker occurred in the first quarter of 2013 and delivery of the second DP 2 shuttle tanker occurred in the second quarter of 2013. Delivery of the third DP2 shuttle tanker has been cancelled and we are currently in discussion with the shipyard regarding the possible substitution of two alternative vessels at delivery dates to be determined. The contract for the LNG carrier is also being renegotiated to change specifications and delivery timing, as a result of which we would expect the vessel to be delivered in 2016.

In 2012, net sale proceeds from the sale of the VLCC *La Madrina* amounted to \$19.9 million and from the sale of the VLCC *La Prudencia* amounted to \$20.3 million. In 2011, net sale proceeds from the sale of the aframax tanker *Opal Queen* amounted to \$32.8 million and from the sale of the aframax tanker *Vergina II* to \$9.7 million.

Net cash used in financing activities in 2012 amounted to \$49.3 million compared to net cash used in financing activities of \$77.3 million in 2011. Proceeds from new bank loans in 2012 amounted to \$83.6 million compared to \$96.7 million in the previous year. Scheduled repayments of debt amounted to \$125.1 million in 2012, compared to \$119.2 million of repayments in 2011. Prepayments of debt as a result of vessel sales amounted to \$23.6 million in 2012 compared to prepayments of \$24.2 million in 2011. Also in 2012, \$8.1 million was repaid in relation to a loan to the joint-venture subsidiary. Although the Company announced, in August 2011, the authorization by the Board of Directors of a new share buyback program of up to \$20.0 million, there were no repurchases of common shares during 2012 and 2011, nor have there been in the first quarter of 2013. On April 18, 2012, the Company completed an offering of 10.0 million common shares at a price of \$6.50 per share. The net proceeds from the sale of these common shares in this offering, after deducting underwriting discounts and estimated expenses relating to the offering, was \$62.3 million.

In 2012, a quarterly dividend of \$0.15 per share was paid in February, May and September and a quarterly dividend of \$0.05 per share was paid in December. Total dividend payments in 2012 amounting to \$26.6 million. In 2011, total dividends amounted to \$0.60 per common share and payments totaled \$27.7 million. The dividend policy of the Company is to pay a dividend on a quarterly basis. 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.

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, and may include the formation of a master

limited partnership partly owned by other persons, 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.

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### **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 6.5 years at March 31, 2013. We raise the funds for such investments in newbuildings mainly from borrowings and partly out of internally generated funds. Newbuilding contracts generally provide for multiple staged payments of 5% to 10%, with the balance of the vessel purchase price paid upon delivery. In the case of the one shuttle tanker which was delivered in March 2013 and its sister vessel, which was delivered on April 23, 2013, pre-delivery financing had been arranged for part of the installment payments to the shipbuilding yard and on delivery the remainder of the financing was received to cover the final installments. 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 seven 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 seven 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. Negotiations for debt financing for the LNG carrier with expected delivery in 2016, are currently in progress.

**Table of Contents****Summary of Loan Movements Throughout 2012 (in \$ millions):**

Loan	Vessel	Balance at January 1, 2012	New Loans	Repaid	Balance at December 31, 2012
Credit facility	<i>Sakura Princess</i>	68.5	0	33.7	34.8
Credit facility	<i>Silia T, Andes, Didimon, Amphitrite, Izumo Princess, Aegeas</i>	147.3	0	13.1	134.2
Credit facility	<i>Millennium, Triathlon, Eurochampion 2004, Euronike</i>	136.9	0	11.8	125.1
Credit facility	<i>Archangel, Alaska, Arctic, Antarctic</i>	94.6	28.4	10.6	112.4
Credit facility	<i>Delphi, La Prudencia, Byzantion, Bosporos</i>	101.0	0	8.4	92.6
Credit facility	<i>Artemis, Afrodite, Ariadne, Ajax, Apollon, Aris, Proteas Promitheas, Propontis</i>	271.0	0	20.0	251.0
10-year term loan	<i>Arion, Andromeda</i>	35.2	0	3.1	32.1
Credit facility	<i>Maya, Inca</i>	48.1	0	12.5	35.6
Credit facility	<i>Neo Energy</i>	97.5	0	5.0	92.5
10-year term loan	<i>Maria Princess, Nippon Princess</i>	71.8	0	5.5	66.3
Credit facility	<i>Selecao, Socrates</i>	65.9	0	4.6	61.3
10-year term loan	<i>Ise Princess</i>	31.2	0	2.2	29.0
10-year term loan	<i>Asahi Princess</i>	34.7	0	4.4	30.3
12-year term loan	<i>Sapporo Princess</i>	36.3	0	2.5	33.7
10-year term loan	<i>Uraga Princess</i>	35.1	0	2.6	32.5
7-year term loan	<i>World Harmony</i>	32.7	0	2.3	30.4
7-year term loan	<i>Chantal</i>	32.7	0	2.3	30.4
10-year term loan	<i>Selini</i>	40.7	0	3.2	37.5
8-year term loan	<i>Salamina</i>	39.5	0	2.6	36.9
10-year term loan	<i>Spyros K</i>	46.4	0	3.2	43.2
9-year term loan	<i>Dimitris P</i>	48.6	0	3.2	45.4
8-year term loan	<i>Brasil 2014</i>	0.0	27.6	0.0	27.6
8-year term loan	<i>Rio 2016</i>	0.0	27.6	0.0	27.6
<b>Total</b>		<b>1,515.7</b>	<b>83.6</b>	<b>156.8</b>	<b>1,422.4</b>

As a result of such financing activities, long-term debt decreased in 2012 by a net amount of \$73.2 million compared to a net decrease of \$46.8 million in 2011. The debt to capital (equity plus debt) ratio was 60.9% at December 31, 2012, or net of cash, 58.0%, and 62.2% at December 31, 2011 or, net of cash, 59.2%.

We have paid all our scheduled loan installments and related loan and swap interest consistently without delay or omission. However, due to the continued fall in vessels' values, 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, 2012, was in excess of the 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 two cases 125% and in two other cases 110%) of the outstanding associated debt at all times. As at each of December 31, 2012 and 2011, in certain cases, due to the fall in tanker values, the value-to-loan ratios were less than these levels and, therefore, we were in non-compliance with this covenant.

In the event of non-compliance with the value-to-loan ratio without obtaining waivers of these loan-to-value covenants and upon request from our lenders, we 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 will cure the non-compliances. None of our lenders have requested prepayment or additional collateral, except when related to a vessel sale, nor have any declared an event of default under the loan terms,

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which we believe to be a result of our good relationships, the immaterial extent of non-compliance in most cases and the remedial action we have taken. However, if not remedied when requested, these non-compliances would constitute events of default and could result in the lenders requiring immediate repayment of the loans.

We have obtained waivers in respect of the leverage covenant, from all lenders whose loans are affected by the leverage non-compliance, for a period of 18 months to July 1, 2014, during which period the leverage maximum is 80% and the interest rate margin is increased. In addition, we have obtained waivers in respect of loan-to-value ratios on the majority of the related loans for a period of eighteen months to July 1, 2014, during which period the required loan-to-value ratio is at a range of 100%-115% and the interest rate margin is increased. There are six further loans, totaling \$335.6 million where loan-to-value non-compliance existed at December 31, 2012, but for which waivers were not sought, or did not completely cover the related shortfall. In respect of these loans, an amount of \$24.3 million has been reclassified as a current liability.

One of the loans listed above (re *Maya, Inca*) relates to the financing of the subsidiary company in which we have a 51% interest. This loan has a leverage covenant similar to that defined above which relates only to the assets and liabilities of that particular company. As at December 31, 2012, the leverage on this particular loan was in excess of the required level. In addition, the loan-to-value ratio was less than the required percentage. We have agreed upon the terms of a waiver of this leverage covenant covering the 18-month period from December 31, 2012 to July 1, 2014, and thereafter the leverage ceiling to rise to 80% and for the loan-to-value covenant to be waived for the three months from December 31, 2012 and for the following 15 months not to exceed a reduced amount, in return for an increase in the interest rate margin.

In all the aforementioned cases we do not expect to pay down the loans in 2013 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 default on one loan would result in a default on other agreements. Because of the presence of cross-default provisions in our credit facilities as of December 31, 2012, the refusal of any one lender to grant or extend a waiver, if necessary to maintain compliance, could result in most of our indebtedness under loan and interest rate swap agreements being accelerated even if our other lenders have waived covenant defaults under the respective credit facilities.

Interest payable is usually at a variable rate, based on six-month LIBOR plus a margin. Interest rate swap instruments currently cover approximately 24% of the outstanding debt as of April 2013. Seven of the thirteen interest rate swaps existing at December 31, 2011, matured in the second half of 2012. A further two will mature in the second half of 2013, bringing coverage to an estimated 15% of expected outstanding debt at the end of 2013. 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.

**Table of Contents****Long-Term Contractual Obligations as of December 31, 2012 (in \$ millions) were:**

	<b>Total</b>	<b>Less than 1 year (2013)</b>	<b>1-3 years (2014-2015)</b>	<b>3-5 years (2016-2017)</b>	<b>More than 5 years (after January 1, 2018)</b>
<b>Contractual Obligations</b>					
Long-term debt obligations (excluding interest)(1)	1,442.4	162.4	303.8	448.6	527.6
Interest on long-term debt obligations (including interest rate swap payments)(2)	141.0	42.6	54.6	31.1	12.7
Purchase Obligations (newbuildings)(3)	371.8	168.7	203.1		
Management Fees payable to Tsakos Energy Management (based on existing fleet plus contracted future deliveries as at December 31, 2012)	152.8	16.0	32.2	32.2	72.4
<b>Total</b>	<b>2,108.0</b>	<b>389.7</b>	<b>593.7</b>	<b>511.9</b>	<b>612.7</b>

- (1) The amounts shown above for long-term debt obligations and interest obligations exclude the hull cover ratio shortfall of \$24.3 million discussed in the Notes to Consolidated Financial Statements (Note 7).
- (2) The amounts shown above for interest obligations include contractual fixed interest obligations and interest obligations for floating rate debt as at December 31, 2012 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.
- (3) The amounts shown above for purchase obligations (newbuildings) includes amounts payable based on contracts which are currently being renegotiated as to type, size and specification of the contracted newbuildings and timing of delivery. We believe that final amounts payable in respect of purchase obligations in 2013 will be \$124.1 million, of which \$109.3 million had been paid as of April 26, 2013, and for 2014/2015 will be \$247.7 million, with part of this amount likely to be paid in 2016.

**Item 6. Directors, Senior Management and Employees**

The following table sets forth, as of March 31, 2013, information for each of our directors and senior managers.

<b>Name</b>	<b>Age</b>	<b>Positions</b>	<b>Year First Elected</b>
D. John Stavropoulos	80	Chairman of the Board	1994
Nikolas P. Tsakos	49	President and Chief Executive Officer, Director	1993
Michael G. Jolliffe	63	Deputy Chairman of the Board	1993
George V. Saroglou	48	Vice President, Chief Operating Officer, Director	2001
Paul Durham	62	Chief Financial Officer	
Vladimir Jadro	67	Chief Marine Officer	
Peter C. Nicholson	79	Director	1993
Francis T. Nusspickel	72	Director	2004
Richard L. Paniguan	63	Director	2008
Aristides A.N. Patrinos	65	Director	2006
Takis Arapoglou	62	Director	2010
Efthimios E. Mitropoulos	73	Director	2012



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

**D. JOHN STAVROPOULOS**

**CHAIRMAN**

Mr. Stavropoulos served as Executive Vice President and Chief Credit Officer of The First National Bank of Chicago and its parent, First Chicago Corporation, before retiring in 1990 after 33 years with the bank. He chaired the bank's Credit Strategy Committee, Country Risk Management Council and Economic Council. His memberships in professional societies have included Robert Morris Associates (national director), the Association of Reserve City Bankers and the Financial Analysts Federation. Mr. Stavropoulos was appointed by President George H. W. Bush to serve for life on the Presidential Credit Standards Advisory Committee. Mr. Stavropoulos was elected to the board of directors of Aspis Bank in Greece and served as its Chairman from July 2008 to April 2010. Mr. Stavropoulos was a director of CIPSCO from 1979 to 1992, an instructor of Economics and Finance at Northwestern University from 1962 to 1968, serves as a member on the EMEA Alumni Advisory Board of the Kellogg School of Management and is a Chartered Financial Analyst.

**NIKOLAS P. TSAKOS, Dr.**

**PRESIDENT AND CHIEF EXECUTIVE OFFICER**

Mr. Tsakos has been President, Chief Executive Officer and a director of the Company since inception. He has been involved in ship management since 1981 and has 36 months of seafaring experience. He is the former President of the Hellenic Marine Environment Protection Association (HELMPEA). Mr. Tsakos is the Vice Chairman of the Independent Tanker Owners Association (INTERTANKO) and an Executive Committee member, a board member of the UK P&I Club, a board member of the Union of Greek Shipowners (UGS), a council 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 of the Greek Committee of Det Norske Veritas (DNV). He graduated from Columbia University in New York in 1985 with a degree in Economics and Political Science and obtained a Masters 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 served as an officer in the Hellenic Navy in 1988. Mr. Tsakos is the cousin of Mr. Saroglou.

**MICHAEL G. JOLLIFFE**

**DEPUTY CHAIRMAN**

Mr. Jolliffe has been joint Managing Director and then Deputy Chairman of our Board since 1993. He is a director of a number of companies in shipping, agency representation, shipbroking capital services, mining and telemarketing. Mr. Jolliffe is Chief Executive Officer of Titans Maritime Ltd, a shipping company set up in joint venture between Tsakos/Jolliffe families and Anchorage Capital, a N.Y. fund manager. He is also Chairman of the Wighams Group of companies owning companies involved in shipbroking, agency representation and capital markets businesses. Mr. Jolliffe is also a director of InternetQ a telemarketing, multi player games and social content company quoted on the London AIM stock exchange as well as the Chairman of Papua Mining Plc, a gold and copper mining company quoted on the London AIM. Michael Jolliffe is also Chairman of StealthGas, a shipping company which is quoted on the NASDAQ stock exchange in New York and which owns 33 LPG ships, plus four tankers, and has nine additional vessels on order.

**GEORGE V. SAROGLOU**

**CHIEF OPERATING OFFICER**

Mr. Saroglou has been Chief Operating Officer of the Company since 1996. Mr. Saroglou is a shareholder of Pansystems S.A., a Greek information technology systems integrator, where he also worked 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 Bachelors Degree in Science (Mathematics). Mr. Saroglou is the cousin of Mr. Tsakos.

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### **PAUL DURHAM**

#### **CHIEF FINANCIAL OFFICER**

Mr. Durham joined the Tsakos Group 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 of 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.

### **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 and remained a consultant to the company until recently. 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 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 Medical Inc., a New York Stock Exchange listed medical device manufacturer.

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**RICHARD L. PANIGUIAN, CBE**

**DIRECTOR**

Mr. Paniguan was appointed Head of UK Defence and Security Organisation, or DSO, in August 2008, 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 the Deputy Director 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 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.

**TAKIS ARAPOGLOU**

**DIRECTOR**

Mr. Arapoglou joined EFG Hermes (the largest Investment bank in the Middle East, listed in Cairo and London) as CEO of Commercial Banking in October 2010. In 2011 he was elected Board member of EFG Hermes Holding. He was Chairman and CEO of the National Bank of Greece Group (NBG) from 2004 to 2009 and Chairman of the Hellenic Bankers Association from 2005 to 2009. Prior to joining NBG, Mr. Arapoglou was Global Head of the Banks & Securities Industry for Citigroup based in London (2000-2004). He has served in several international bank advisory boards in Europe and Africa and on the board of European Educational Foundations and Institutions including the Institute of Corporate Culture Affairs in Frankfurt, as Chairman. He is currently a member of the international advisory board of Tufts University in Boston, Chairman of the Business Advisory committee of the Athens University of Economics and Business, non executive Vice Chairman of Titan Cement SA, listed in Athens. He has degrees in Mathematics, Engineering and Management from the universities of Athens (Greece), Glasgow and Brunel (UK), respectively.

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### **EFTHIMIOS E. MITROPOULOS**

#### **DIRECTOR**

Mr. Mitropoulos is Secretary-General Emeritus of the International Maritime Organization (IMO), the United Nations specialised 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 books on tankers, modern types of merchant ships, safety of navigation and shipping economics and policy. He is Chairman of the Board of the Maria Tsakos Foundation International Centre for Maritime Research and Tradition and Chancellor of the AMET Maritime University in Chennai, India.

#### ***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 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 or more than fifteen. At December 31, 2012 we had ten members on our Board. 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, 2012, the full Board held four meetings, three of which were in person and one via telephone conference. Each director attended all of the meetings of the Board. In addition, 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. Stavropoulos, Nicholson, Nusspickel, Paniguiian, Patrinos, Arapoglou and Mitropoulos) 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.

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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 the SEC disclosure 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 2012 in regularly scheduled executive sessions without participation of the Company's management and will continue to do so in 2013. Mr. Nicholson currently serves as the Presiding Director for purposes of these meetings.

## **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 Capital Markets Committee, a Risk Committee, an Operational and Environmental R&D Committee and a Chartering Committee.

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### **Audit Committee**

The members of the Audit Committee are Messrs. Nicholson, Nusspickel, Stavropoulos and Arapoglou, each of whom is an independent Director. Mr. Nusspickel is the Chairman of the Audit 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 five meetings during the fiscal year ended December 31, 2012, three of which were in person and two via telephone conference. 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;

approving all fees paid to the auditors;

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

reviewing the Company's relationship with external auditors, including the consideration of audit fees which should be paid as well as any other fees which are payable to auditors in respect of non-audit activities, discussions with the external auditors concerning such issues as compliance with accounting standards and any proposals which the external auditors have made vis-à-vis the Company's accounting standards;

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

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

overseeing general compliance with related regulatory requirements.

The Board of Directors has determined that Messrs. Nusspickel, Stavropoulos 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 members of the Corporate Governance, Nominating and Compensation Committee are Messrs. Arapoglou, Nicholson, Nusspickel, Paniguiian, Patrinos and Stavropoulos, each of whom is an independent Director. Mr. Nicholson is Chairman of the Committee. The Corporate Governance, Nominating and Compensation Committee is appointed by the Board and is responsible for:

assisting the Board and the Company's management in establishing and maintaining a high standard of ethical principles;

ensuring appropriate independence of directors under NYSE and SEC rules;

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identifying and nominating candidates for election to the Board and appointing the Chief Executive Officer and the Company's senior management team;

designing the compensation structure for the Company and for the members of the Board and its various committees; and

designing and overseeing the short-term and long-term incentive compensation program of the Company. During 2012, there were three meetings of the Corporate Governance, Nominating and Compensation Committee.



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### **Capital Markets Committee**

The members of the Capital Markets Committee are Messrs. Arapoglou, Jolliffe, Tsakos and Stavropoulos. Mr. Jolliffe is Chairman of the Capital Markets Committee. The Capital Markets Committee assists the Board and the Company's management regarding matters relating to the raising of capital in the equity and debt markets, relationships with investment banks, communications with existing and prospective investors and compliance with related regulatory requirements.

### **Risk Committee**

The members of the Risk Committee are Messrs. Arapoglou, Nicholson, Saroglou, Stavropoulos, Tsakos, and our Chief Financial Officer, Mr. Durham. Mr. Stavropoulos is Chairman of the Risk Committee. The primary role of the Risk Committee is to assist the Board and the Company's management regarding matters relating to insurance protection coverage of physical assets, third party liabilities, contract employees, charter revenues and officer and director liability. The Risk Committee also assists in the development and maintenance of commercial banking and other direct lender relationships, including loans and, when appropriate, interest rate hedging instruments.

### **Operational and Environmental R&D Committee**

The members of the Operational and Environmental Committee are Messrs. Jolliffe (as of September 27, 2011), Mitropoulos, Nusspickel and Patrinos. Mr. Mitropoulos is Chairman of the Committee as of October 4, 2012. 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 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 vessel 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 vessel and contribute to a better environment.

### **Chartering Committee**

The members of the Chartering Committee are Messrs. Stavropoulos, Saroglou and Tsakos. Mr. Tsakos is Chairman of the Chartering Committee. The Chartering Committee assists the Board and the Company's management regarding the strategies of fleet employment, fleet composition and the general structuring of charter agreements.

### **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, 2012, the aggregate cash compensation of all of the members of the Board was \$615,000 per the following annual fee allocation which was approved by the shareholders of the Company on June 3, 2011:

Service on the Board - \$50,000

Service on the Audit Committee - \$20,000

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

Service on the Operational and Environmental R&D Committee - \$10,000

Service as Chairman of the Corporate Governance, Nominating and Compensation Committee - \$10,000



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Service as Chairman of the Operational and Environmental R&D Committee - \$10,000

Service as Chairman of the Audit Committee - \$20,000

Service as Chairman of the Capital Markets Committee - \$20,000

Service as Chairman of the Board - \$40,000

No fees are paid for service on the Corporate Governance, Nominating and Compensation Committee, Risk Committee and Chartering Committee.

We do not provide benefits for directors upon termination of their service with us.

**Management Company**

Our senior managers, other than Mr. Tsakos, receive salaried compensation from Tsakos Energy Management, which receives a monthly management fee from us pursuant to the management agreement to provide overall executive and commercial management of its affairs. 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, 2012.

**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 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.

The Corporate Governance, Nominating and Compensation Committee has adopted a short-term performance incentive program for Tsakos Energy Management based on the return on equity (R.O.E.) measured by the book value per share at the beginning of each fiscal year and basic earnings per share for that year. U.S. GAAP accounting defines the value of the components.

The Corporate Governance, Nominating and Compensation Committee established the incentive award scale, and the Company's Board of Directors approved the final award, for fiscal years 2008 and 2009, as follows:

R.O.E	Amount of award in US \$ millions	
	2008	2009
15.0%	2.50	3.00
17.5%	3.25	4.00
20.0%	4.00	5.50
22.5%	4.75	
25.0%	5.50	
<b>Final award</b>	<b>4.75</b>	<b>0.00</b>

The awards were given to Tsakos Energy Management and were distributed to the senior personnel of Tsakos Energy Management and Tsakos Shipping whose performance was critical in achieving a return of equity of 23.7% in 2008. The ultimate award of the management incentive award is always at the sole discretion of the Company's Board of Directors. Additionally in 2009, if the R.O.E. was less than 15.0%, but greater than 10.0% then an alternative award was possible if the Company's R.O.E. exceeded the average R.O.E. of its peers (Overseas Shipholding Group, Inc. and Teekay Corporation). In such case, the Board of Directors may elect to award a bonus of \$1.5 million. However, as the 2009 R.O.E. was less than 10%, no incentive award was approved by the Company's Board of Directors.

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A scale was not set for 2010, 2011 and 2012. However, for 2010 the Corporate Governance, Nominating and Compensation Committee recommended a special award of \$425,000 to be distributed to the senior personnel of Tsakos Energy Management and Tsakos Shipping. No such award had been recommended for 2011 nor has been for 2012. A scale has not been set for 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 is on a bareboat charter-out (*Millennium*), 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 1,256 officers and crew members served on board the vessels we own and were managed by our technical managers as of December 31, 2012.

## **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**

During 2012, the Tsakos Energy Navigation Limited 2004 Incentive Plan (the 2004 Plan), which was adopted by our Board and approved by our shareholders at the 2004 Annual Meeting of shareholders, expired with the granting and vesting of the remaining 134,950 RSUs on December 31, 2012. On May 31, 2012, at the 2012 Annual Meeting of shareholders, our shareholders approved a new 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 our vessels, 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 as it was the purpose of the expired 2004 plan, is to provide a means to attract, retain, motivate and reward our present and prospective directors, officers and consultants of the Company and its subsidiaries, and the officers of our vessels and the employees of the management companies providing administrative, commercial, technical and maritime services to, or for the benefit of, the Company, its subsidiaries and their vessels 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 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 RSUs or options.

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Movements of RSUs under the 2004 Plan through December 31, 2012, are as follows:

		<b>Issued</b>	<b>Forfeited</b>	<b>Vested</b>	<b>Non-Vested (as of December 31, 2012)</b>
2006	Directors and officers (D&O)	21,000			
2007	D&O and ships officers	190,650		(21,000)	
	Other personnel	394,000			
2008	D&O and ships officers		(3,200)	(96,050)	
	Other personnel		(7,800)	(194,600)	
2009	D&O	67,800	(1,300)		
	Other personnel	54,000	(4,000)		
2010	D&O	69,000	(2,100)	(130,450)	
	Other personnel	76,000	(1,000)	(211,200)	
2011	D&O	12,000		(62,250)	
	Other personnel			(65,000)	
2012	D&O and ships officers	43,400	6,600	(96,500)	
	Other personnel	72,150	12,800	(122,950)	
	<b>Total</b>	<b>1,000,000</b>		<b>(1,000,000)</b>	

Movements of RSUs under the 2012 Plan through December 31, 2012, are as follows:

		<b>Issued</b>	<b>Forfeited</b>	<b>Vested</b>	<b>Non-Vested (as of December 31, 2012)</b>
2012	Other personnel	15,050		(15,050)	
	<b>Total</b>	<b>15,050</b>		<b>(15,050)</b>	

As of December 31, 2012, there were no outstanding (non-vested) RSUs. Total compensation expense recognized for the year ended December 31, 2012 was \$0.7 million and for the year ended December 31, 2011, \$0.8 million. On November 14, 2007, the Company paid a 100% common share dividend which effected a two-for-one split of the Company's common shares. RSUs that were unvested on that date were adjusted for the share dividend.

**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.

**Management Affiliations**

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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.

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### **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 our fleet. At July 1, 2010, TCM took over the technical management of most of our vessels from Tsakos Shipping. At December 31, 2012, outstanding advances to TCM amounted to \$1.6 million. At December 31, 2012 there was an amount due to Tsakos Shipping of \$1.1 million and at December 31, 2011, there was an amount due to Tsakos Shipping of \$0.09 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 our fleet. Prior to July 1, 2010, Tsakos Energy Management paid Tsakos Shipping a management fee for such services. Under the terms of our management agreement with Tsakos Energy Management, we paid Tsakos Energy Management total management fees of \$15.6 million and supervisory fees of \$0.6 million relating to the construction of our vessels in 2012. An additional amount of \$1.3 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 and application of corporate governance procedures required by the Company. No incentive award was payable to Tsakos Energy Management for 2012 or 2011. An incentive award amounting to \$425,000 was payable at December 31, 2010 to Tsakos Energy Management for 2010.

### **Management Agreement**

Our management agreement with Tsakos Energy Management was amended and restated on March 8, 2007 and has a term of ten years from the effective date of January 1, 2007. Tsakos Energy Management may terminate the management agreement at any time upon not less than one year's notice. In addition, each party may terminate the management agreement in the following circumstances:

certain events of bankruptcy or liquidation involving either party;

a material breach by either party; or

a failure by either party, for a continuous period of six months, materially to perform under circumstances resulting from war, governmental actions, riot, civil commotion, weather, accident, labor disputes or other causes not in the control of the non-performing party.

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, 2012 would have resulted in a payment of approximately \$137.5 million. Under the terms of the Management Agreement between the Company and Tsakos Energy Management Limited, 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 our vessels. These fees are based on the number of ships in our 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 us. For 2013, monthly fees for operating vessels will be \$27,500 per owned vessel and \$20,400 for chartered-in vessels. The monthly fee for the LNG carrier will be \$35,000 of which \$10,000 is payable to the Management Company and \$25,000 to a third party manager. We paid Tsakos Energy Management aggregate management fees of \$15.6 million in 2012, \$15.3 million in 2011 and \$13.8 million in 2010.

**Table of Contents****Chartering 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 which for 2012 was 1%. We have been charged by Tsakos Shipping chartering and brokerage commissions aggregating \$5.3 million in 2012.

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. An aggregate of \$2.8 million has been charged for fourteen vessels delivered between 2007 and 2011. No such an amount was paid in 2012. This amount has been added to the cost of the vessels concerned and is being amortized over the remaining life of the vessels.

**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 2012, we were charged an aggregate of \$9.7 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 2012, we were charged an aggregate of \$3.7 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, 2013 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.

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 56,443,237 common shares outstanding on March 31, 2013. 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.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Outstanding Common Shares
Tsakos Holdings Foundation(1)	14,279,188	25.3%
Redmont Trading Corp.(1)	3,341,317	5.9%
First Tsakos Investments Inc.(1)	10,937,801	19.4%
Kelley Enterprises Inc.(1)	6,829,003	12.1%
Marsland Holdings Limited(1)	4,108,798	7.3%
Sea Consolidation S.A. of Panama(2)	3,952,232	7.0%
DePrince, Race & Zollo, Inc.(3)	3,450,125	6.1%



Intermed Champion S.A. of Panama(2)

1,755,200

3.1%

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	Number of Shares Beneficially Owned	Number of RSUs Granted
<b>Officers and Directors</b>		
D. John Stavropoulos(4)	348,346*	
Nikolas P. Tsakos(5)	204,000*	
Michael G. Jolliffe	22,800*	
George V. Saroglou	60,000*	
Paul Durham	74,000*	
Peter C. Nicholson	33,900*	
Francis T. Nusspickel	18,350*	
Richard L. Paniguiian		
Aristides A.N. Patrinos, Ph.D.	22,911*	
Vladimir Jadro	17,000*	
Takis Arapoglou		
Efthimios E. Mitropoulos		
All officers and directors as a group (13 persons)(5)	801,307**	

\* Represents less than 1% of the common shares outstanding.

\*\* Represents 1.4% of the common shares outstanding.

- (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 May 3, 2012 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, charitable institutions and other unaffiliated persons and entities. The council which controls Tsakos Holdings consists of six 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 six 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 May 3, 2012 by Tsakos Holdings, First Tsakos, Kelley, Marsland and Redmont, as of February 15, 2012, Sea Consolidation S.A. of Panama ( Sea Consolidation ) and Intermed Champion S.A. of Panama ( Intermed ) beneficially owned 3,952,232 and 1,755,200 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 and Intermed 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 and Mr. Panayotis Tsakos is 367 Syngrou Avenue, 175 64 P. Faliro, Athens, Greece.
- (3) According to the Amendment No. 2 to Schedule 13G filed on February 13, 2013 by DePrince, Race & Zollo, Inc. ( DePrince ), as of December 31, 2012, DePrince beneficially owned 3,450,125 common shares. The business address of DePrince is 250 Park Avenue, Suite 250, Winter Park, Florida 32789.
- (4) Mr. Stavropoulos, individually or jointly with his spouse, owns 288,000 shares. In addition, 50,000 shares are held indirectly by his children, and 10,346 shares by his siblings or in-laws. Mr. Stavropoulos has no economic interest in these 60,346 shares. His combined holding directly or indirectly is 348,346 shares.



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(5) Does not include shares owned by Tsakos Holdings, Kelley, Marsland, Redmont Trading Corp., Sea Consolidation or Intermed. As of March 31, 2013, we had 30 shareholders of record. These shareholders of record include CEDEFEST which, as nominee for the Depository Trust Company, is the record holder of 56,370,437 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), (2), (4) 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.

### **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 March 31, 2013, 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 regular quarterly cash dividends on our common shares. The Board of Directors will give consideration each April to the declaration of a supplementary dividend.

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 will be determined based on the audited financial statements we deliver to the banks under our credit facilities which are required to be 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 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.

**Table of Contents****Item 9. The Offer and Listing**

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>
2008 (Annual)	\$ 38.59	\$ 16.71
2009 (Annual)	\$ 22.99	\$ 12.43
2010 (Annual)	\$ 18.06	\$ 9.18
2011 (Annual)	\$ 10.99	\$ 4.78
2012 (Annual)	\$ 8.79	\$ 3.19
<u>2010</u>		
First Quarter	\$ 18.06	\$ 14.74
Second Quarter	\$ 16.53	\$ 13.10
Third Quarter	\$ 14.88	\$ 12.64
Fourth Quarter	\$ 13.84	\$ 9.18
<u>2011</u>		
First Quarter	\$ 10.98	\$ 9.24
Second Quarter	\$ 10.99	\$ 9.87
Third Quarter	\$ 10.13	\$ 5.58
Fourth Quarter	\$ 6.20	\$ 4.78
<u>2012</u>		
First Quarter	\$ 8.79	\$ 5.16
Second Quarter	\$ 8.67	\$ 4.77
Third Quarter	\$ 6.06	\$ 4.74
Fourth Quarter	\$ 5.06	\$ 3.19
October	\$ 5.06	\$ 4.35
November	\$ 4.55	\$ 3.39
December	\$ 3.82	\$ 3.19
<u>2013</u>		
First Quarter	\$ 4.35	\$ 3.64
January	\$ 4.31	\$ 3.71
February	\$ 4.24	\$ 3.71
March	\$ 4.35	\$ 3.64
April(1)	\$ 4.32	\$ 3.40

(1) Through April 26, 2013.

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### **Comparison of Cumulative Total Shareholder Return**

Set forth below is a graph comparing the cumulative total shareholder return of our common shares for the five years ended December 31, 2012 and the quarter ended March 31, 2013, with the cumulative total return of the S&P 500 Index, the Dow Jones U.S. Marine Transportation Index and the Bloomberg Tanker Index. Total shareholder return represents stock price changes and assumes the reinvestment of dividends. The graph assumes the investment of \$100 on December 31, 2007. Past performance is not necessarily an indicator of future results.

Source: Zachs Investment Research, Inc.

### **Item 10. Additional Information**

#### **DESCRIPTION OF SHARE CAPITAL**

Our authorized share capital consists of 100,000,000 shares, par value \$1.00 per share. As of March 31, 2013, there were 56,443,237 outstanding common shares. On November 14, 2007, there was a 2-for-1 split of our common shares, effected as a share dividend.

#### **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.

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### **Shareholder Rights Plan**

Our board of directors has adopted a shareholder rights plan under which our shareholders received one right for each common share they held. Each right will entitle the holder to purchase from the Company a unit consisting of one one-hundredth of a share of our Series A Junior Participating Preferred Shares, or a combination of securities and assets of equivalent value, at an exercise price of \$127.00, subject to adjustment. The following summary description of the rights agreement does not purport to be complete and is qualified in its entirety by reference to the rights agreement between us and The Bank of New York, as rights agent.

If any person or group acquires shares representing 15% or more of our outstanding common shares, the flip-in provision of the rights agreement will be triggered and the rights will entitle a holder, other than such person, any member of such group or related person, as such rights will be null and void, to acquire a number of additional common shares having a market value of twice the exercise price of each right. In lieu of requiring payment of the purchase price upon exercise of the rights following any such event, we may permit the holders simply to surrender the rights, in which event they will be entitled to receive common shares (and other property, as the case may be) with a value of 50% of what could be purchased by payment of the full purchase price.

Until a right is exercised, the holder of the right, as such, will have no rights as a shareholder of our company, including, without limitation, no right to vote or to receive dividends. While the distribution of the rights will not be taxable to shareholders or to us, shareholders may, depending upon the circumstances, recognize taxable income in the event that the rights become exercisable for preferred shares (or other consideration) or for common shares of the acquiring or surviving company or in the event of the redemption of the rights as set forth above.

The existence of the rights agreement and the rights could deter a third party from tendering for the purchase of some or all of our common shares and could have the effect of entrenching management. In addition, they could have the effect of delaying or preventing changes of control of the ownership and management of our company, even if such transactions would have significant benefits to our shareholders.

### **Bermuda Law**

We are an exempted company organized under the Companies Act. 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 the Company or any subsidiary company is a member or which are in any manner controlled directly or indirectly by the Company. We refer you to our Memorandum of Association, which is filed as an exhibit to this Annual Report, for a full description of our objects and purposes. The Companies Act 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.

*Dividends.* Under Bermuda law, a company may pay dividends that are declared from time to time by its board of directors unless 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 or our Bye-laws, questions brought before a general meeting of shareholders are decided by a majority vote of shareholders present at the meeting. Our Bye-laws provide that, subject to the provisions of the Companies Act, 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

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shareholder) entitled to one vote for each common share held by the 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 the following actions: variation of class rights, 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.

*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.* Under Bermuda law, a company is required to convene at least one general shareholders' meeting each calendar year. 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 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 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 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 on the payment of a fee. 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 non-executive 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.



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*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. An amendment to the Memorandum of Association, other than an amendment which alters or reduces a company's share capital as provided in the Companies Act, also requires the approval of the Bermuda Minister of Finance, who may grant or withhold approval at his discretion. Generally, our Bye-laws may be amended by the directors with the approval of a majority vote 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 Supreme Court of Bermuda (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. 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 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 shares. The amalgamation of a company with another company requires the amalgamation agreement to be approved by the board of directors and, except where the amalgamation 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.

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.

*Blank check preferred shares.* Under the terms of our Bye-laws, our board of directors has authority, without any further vote or action by our shareholders, to issue preferred shares with terms and preferences determined by our board. Our board of directors may issue preferred shares on terms calculated to discourage, delay or prevent a change of control of our company or the removal of our management.

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*Staggered board of directors.* Our Bye-laws provide for a staggered board of directors with one-third of our non-executive directors being selected each year. This staggered 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); (ii) the interested person shall not have acquired from us or any subsidiary of ours 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 shareholders of the business combination. The proxy statement shall contain at the front thereof,

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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 outstanding 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.

*Transfer agent and registrar.* The Bank of New York Mellon serves as transfer agent and registrar for our common shares.

*New York Stock Exchange listing.* Our common shares are listed on the New York Stock Exchange under the ticker symbol TNP.

*Other listings.* Our common shares were listed on the Oslo Børs under the symbol TEN until a voluntary de-listing on March 18, 2005 and on the Bermuda Stock Exchange under the symbol TEN. Our common shares are no longer actively traded on either of these exchanges.

## **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 and Greek 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.

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**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 28, 2016. The Government of Bermuda has recently amended the Exempted Undertakings Act to extend the aforementioned tax assurance through March 31, 2035. We intend to apply to the Minister of Finance of Bermuda for such an extension. 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 2012 is \$10,455.

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.

**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

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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.

### ***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

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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.

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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 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, Liberia 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 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, which are our sole class of our issued and outstanding shares, were primarily traded on an established securities market in the United States (the New York Stock Exchange) in 2012 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, which are our sole class of issued and outstanding shares, were listed on the New York Stock Exchange throughout 2012, we satisfied the listing requirement for 2012. 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 satisfied the trading frequency and trading volume tests for 2012 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





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satisfied by a class of stock if, as we believe was the case with our common shares in 2012 and we expect to be the case with our common 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 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 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 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 taxable year.

We do not believe that we were subject to the 5 Percent Override Rule for 2012. Therefore, we believe that we satisfied the Publicly-Traded Test for 2012. However, there is no assurance that we will continue to satisfy 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.

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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 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, 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, 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 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*

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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 of a shareholder's adjusted basis (or fair market value in certain circumstances) in a common share 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.

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 (for taxable years beginning before January 1, 2013), 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) in a taxable year beginning before January 1, 2013, 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 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. 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 for more than one year.

Gain or loss realized by a United States holder on the sale or exchange of common 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.

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### *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).

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, 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 and (2) distributions on our common 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 and gain realized on the sale of common 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

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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 from a decedent prior to 2010 generally will not receive a stepped-up basis in the common shares. Instead, the United States holder will have a tax basis in the common shares equal to the lower of the fair market value of the common 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 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 will be treated as marketable stock for a calendar year if the common 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 for that year, regardless of whether the United States holder actually sells the common shares. The United States holder generally will be allowed a deduction for the decrease in value of the common 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. 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

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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 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

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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.

In August 2001, we created a Risk Committee, which is comprised of our chief financial officer and a standing committee of the board of directors. The primary role of the Risk Committee is 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.

*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, 2013 we had \$215 million in effective hedging swaps and a further \$137 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, 2012 would be an increase of approximately \$0.9 million in earnings and cash flow. An increase of 0.25% in interest rates will increase our loan interest rate payments by \$3.3 million based on the outstanding amounts as of December 31, 2012 and the loans scheduled for amortization as of that date.





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The table below provides information about our financial instruments at December 31, 2012, 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.

	Balance as of Dec. 31, 2012	Expected Maturities(1)					
		2013	2014	2015	2016	2017	Thereafter
(In millions of U.S. dollars, except percentages)							
<b>Long-Term Debt(5):</b>							
Fixed Rate Debt	63.8	10.6	10.6	10.6	10.6	10.6	10.8
Weighted Average Interest Rate	5.19%	5.19%	5.19%	5.19%	5.19%	5.19%	5.19%
Variable Rate Debt(2)	1,378.6	151.8	111	171.6	258	169.4	516.8
Weighted Average Interest Rate	1.64%	2.29%	1.96%	1.78%	1.99%	2.16%	3.04%
	<b>1,442.4</b>	<b>162.4</b>	<b>121.6</b>	<b>182.2</b>	<b>268.6</b>	<b>180.0</b>	<b>527.6</b>
<b>Interest Rate Swaps (or Derivatives):</b>							
Interest rate swaps variable to fixed(3)							
Notional Amount at December 31, 2012	216.9	147.5	5.9	5.9	27.2	3.2	27.2
Average Pay Rate	3.72%	3.26%	3.26%	3.25%	3.09%	3.09%	3.09%
Average Receive Rate	0.56%	0.40%	0.40%	0.60%	1.06%	1.57%	1.99%
Cap and Floor Options(4)							
Notional Amount	145.4	22.7	70	5	47.7		
Average Pay Rate(2)	4.24%	4.23%	4.20%	4.23%	2.23%		
Average Receive Rate	0.63%	0.49%	0.57%	0.60%	0.43%		
	<b>362.3</b>	<b>170.2</b>	<b>75.9</b>	<b>10.9</b>	<b>74.9</b>	<b>3.2</b>	<b>27.2</b>

- (1) These are the expected maturities based on the balances as of December 31, 2012.
- (2) Interest Payments on US Dollar denominated debt and interest rate swaps are based on LIBOR.
- (3) As of December 31, 2012 we had \$216.9 million in effecting hedging swap and a further \$145.4 million in interest rate swaps that do not meet hedging criteria.
- (4) As of December 31, 2012 we had \$145.4 million in interest rate swaps that do not meet hedging criteria.
- (5) The amounts shown above for long-term debt obligations and interest obligations exclude the value-to-loan ratio shortfall of \$24.3 million discussed in the Notes to Consolidated Financial Statements (Note 7).

*Bunker price risk*

During 2012, we entered into the following fixed price bunker (vessel fuel) swap agreements for 3.5% Fuel FOB Rotterdam (barges):

Trade Date	Swap Effective Date	Swap Termination Date	Notional Quantity Per Month	Total Notional Quantity	Fixed Price per MT
October 3, 2012	January 1, 2013	September 30, 2014	250 MT	5,250 MT	\$ 587.00
November 5, 2012	January 1, 2013	September 30, 2014	250 MT	5,250 MT	\$ 572.00

In 2012, the Company received an aggregate cash payment of \$2.4 million for the monthly settlement of the open bunker swap agreements during 2012. Three bunker swap agreements open from 2011, covering 15,000 MT, closed.

*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 2012,



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approximately 30% of the total of our vessel and voyage costs and overhead expenditures were denominated in Euro. Based on 2012 Euro expenditure, therefore, we estimate that for every 1% change in the Euro/U.S. dollar rate there would be a 0.5% impact on vessel operating expenses and on general and administrative 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)

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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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Management has performed an assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2012, based on the criteria established within *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on our assessment, management has determined that the Company's internal control over financial reporting as of December 31, 2012, is 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, 2012, 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, D. John Stavropoulos and Takis 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 is independent in accordance with the rules of the SEC and the listing standards 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, 2012 and 2011.

The chart below sets forth the total amount billed and accrued for the Ernst & Young services performed in 2012 and 2011 and breaks down these amounts by the category of service (in Euros).

	2012	2011
Audit fees	679,500	651,000
Tax fees		21,846
<b>Total fees</b>	<b>679,500</b>	<b>672,846</b>

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### **Audit Fees**

The audit fees include the aggregate fees billed for professional services rendered for the audit of our 2012 and 2011 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).

### **Audit-Related Fees**

Ernst & Young did not provide any other services that would be classified in this category during 2012 or 2011.

### **Tax Fees**

The Ernst & Young office in Columbus, Ohio, United States provided tax services for 2011 by assisting the Company in submitting tax declarations for those subsidiaries whose vessels performed voyages to the United States within 2010. A different U.S. accounting firm provided the same tax services in 2012 for those subsidiaries whose vessels performed voyages to the United States within 2011.

### **All Other Fees**

Ernst & Young did not provide any other services that would be classified in this category during 2012 or 2011.

### **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**

In September 2005, we announced that our board of directors had authorized a common share repurchase program to repurchase up to \$40.0 million of our common shares. In September 2008, we announced that our board of directors had authorized a new common share repurchase program to repurchase up to an additional \$40.0 million of our common shares. The current repurchase program supplemented our prior share repurchase program which was completed on October 1, 2008. The new share repurchase program took effect immediately and will continue until either the amount is fully utilized or the board of directors elects to terminate the program. In 2009 we repurchased an aggregate of 245,400 common shares as treasury stock in the open market pursuant to the share repurchase programs described above at a cost of approximately \$4.0 million. The purchases were made in open market transactions through the New York Stock Exchange with a maximum price set by our board of directors. There have been no share repurchases since October 2009. On August 11, 2011, the Company

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announced the authorization of a new share buy-back program allocating up to \$20.0 million for purchases in the open market and in other transactions. There were no repurchases of common shares under this program during 2011 or 2012.

**Item 16F. Change in Registrant's Certifying Accountant**

Not Applicable.

**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 2012 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	Bye-laws of Tsakos Energy Navigation Limited (filed as an exhibit to the Company's Form 6-K filed with the SEC on June 12, 2008, and hereby incorporated by reference)
4.1	Rights Agreement, dated as of September 29, 2005, between Tsakos Energy Navigation Limited and The Bank of New York, as Rights Agent (filed as an exhibit to the Company's Form 6-K filed with the SEC on September 30, 2005, and hereby incorporated by reference)
4.2	Tsakos Energy Navigation Limited 2012 Incentive Plan (filed herewith)
4.3	Amended and Restated Management Agreement between Tsakos Energy Navigation Limited and Tsakos Energy Management Limited effective January 1, 2007**
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)
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 ICAP Shipping (filed herewith)
101.INS	XBRL Instance Document (furnished herewith)
101.SCH	XBRL Taxonomy Extension Schema (furnished herewith)
101.CAL	XBRL Taxonomy Extension Calculation Linkbase (furnished herewith)
101.DEF	XBRL Taxonomy Extension Definition Linkbase (furnished herewith)
101.LAB	XBRL Taxonomy Extension Label Linkbase (furnished herewith)
101.PRE	XBRL Taxonomy Extension Presentation Linkbase (furnished herewith)

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- \* 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 29, 2013**

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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, 2012 and 2011, and the related consolidated statements of operations, comprehensive income/(loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2012. 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, 2012 and 2011, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2012, 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, 2012, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated April 29, 2013 expressed an unqualified opinion thereon.

**/s/ ERNST & YOUNG (HELLAS) CERTIFIED AUDITORS ACCOUNTANTS S.A.**

Athens, Greece

April 29, 2013

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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, 2012, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (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 Control 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, 2012, 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, 2012 and 2011, and the related consolidated statements of operations, comprehensive income/(loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2012 and our report dated April 29, 2013 expressed an unqualified opinion thereon.

**/s/ ERNST & YOUNG (HELLAS) CERTIFIED AUDITORS ACCOUNTANTS S.A.**

Athens, Greece

April 29, 2013

**Table of Contents****TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES****CONSOLIDATED BALANCE SHEETS**

DECEMBER 31, 2012 AND 2011

(Expressed in thousands of U.S. Dollars except for share and per share data)

	<b>2012</b>	<b>2011</b>
<b><u>ASSETS</u></b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$ 144,297	\$ 175,708
Restricted cash	16,192	5,984
Marketable Securities (Note 4)	1,664	2,534
Accounts receivable, net	28,948	23,421
Insurance claims	4,583	2,448
Due from related companies (Note 2)	1,561	1,641
Advances and other	8,800	7,508
Vessels held for sale		41,427
Inventories	14,356	19,835
Prepaid insurance and other	3,568	5,372
Current portion of financial instruments-Fair value (Note 15)	60	1,755
<b>Total current assets</b>	<b>224,029</b>	<b>287,633</b>
<b>INVESTMENTS</b>	<b>1,000</b>	<b>1,000</b>
<b>FINANCIAL INSTRUMENTS FAIR VALUE, net of current portion (Note 15)</b>	<b>45</b>	
<b>FIXED ASSETS (Note 5)</b>		
Advances for vessels under construction	119,484	37,636
Vessels	2,628,094	2,639,878
Accumulated depreciation	(539,736)	(445,518)
Vessels Net Book Value	2,088,358	2,194,360
<b>Total fixed assets</b>	<b>2,207,842</b>	<b>2,231,996</b>
<b>DEFERRED CHARGES, net (Note 6)</b>	<b>17,968</b>	<b>14,708</b>
<b>Total assets</b>	<b>\$ 2,450,884</b>	<b>\$ 2,535,337</b>
<b><u>LIABILITIES AND STOCKHOLDERS EQUITY</u></b>		
<b>CURRENT LIABILITIES:</b>		
Current portion of long-term debt (Note 7)	\$ 186,651	\$ 196,996
Payables	34,390	23,707
Due to related companies (Note 2)	2,594	1,063
Accrued liabilities	12,442	14,168
Accrued bank interest	4,785	7,081
Unearned revenue	4,907	7,469
Current portion of financial instruments Fair value (Note 15)	13,138	29,228
<b>Total current liabilities</b>	<b>258,907</b>	<b>279,712</b>

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<b>LONG-TERM DEBT, net of current portion (Note 7)</b>	1,255,776	1,318,667
<b>FINANCIAL INSTRUMENTS FAIR VALUE, net of current portion (Note 15)</b>	9,361	17,800
<b>STOCKHOLDERS EQUITY:</b>		
Common stock, \$ 1.00 par value; 100,000,000 shares authorized; 56,443,237 and 46,208,737 shares issued and outstanding at December 31, 2012 and 2011 respectively.	56,443	46,209
Additional paid-in capital	404,391	351,566
Accumulated other comprehensive income/(loss)	(14,728)	(35,030)
Retained earnings	478,428	554,314
<b>Total Tsakos Energy Navigation Limited stockholders equity</b>	924,534	917,059
Noncontrolling Interest	2,306	2,099
<b>Total stockholders equity</b>	926,840	919,158
<b>Total liabilities and stockholders equity</b>	\$ 2,450,884	\$ 2,535,337

The accompanying notes are an integral part of these consolidated financial statements



**Table of Contents****TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**

## CONSOLIDATED STATEMENTS OF OPERATIONS

FOR THE YEARS ENDED DECEMBER 31, 2012, 2011 AND 2010

(Expressed in thousands of U.S. Dollars except for share and per share data)

	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>VOYAGE REVENUES:</b>	\$ 393,989	\$ 395,162	\$ 408,006
<b>EXPENSES:</b>			
Commissions	12,215	14,290	13,837
Voyage expenses	111,797	127,156	85,813
Charter hire expense (Note 5)			1,905
Vessel operating expenses	133,251	129,884	126,022
Depreciation	94,340	101,050	92,889
Amortization of deferred dry-docking costs	4,910	4,878	4,553
Management fees (Note 2(a))	15,887	15,598	14,143
General and administrative expenses	4,093	4,292	3,627
Management incentive award			425
Stock compensation expense (Note 9)	730	820	1,068
Foreign currency losses/(gains)	30	458	(378)
Net loss/(gain) on sale of vessels	1,879	(5,001)	(19,670)
Vessel impairment charge (Note 5)	13,567	39,434	3,077
<b>Total expenses</b>	<b>392,699</b>	<b>432,859</b>	<b>327,311</b>
<b>Operating income/(loss)</b>	<b>1,290</b>	<b>(37,697)</b>	<b>80,695</b>
<b>OTHER INCOME (EXPENSES):</b>			
Interest and finance costs, net (Note 8)	(51,576)	(53,571)	(62,283)
Interest income	1,348	2,715	2,626
Other, net	(118)	(397)	(3)
<b>Total other expenses, net</b>	<b>(50,346)</b>	<b>(51,253)</b>	<b>(59,660)</b>
<b>Net (loss)/income</b>	<b>(49,056)</b>	<b>(88,950)</b>	<b>21,035</b>
Less: Net income attributable to the noncontrolling interest	(207)	(546)	(1,267)
<b>Net (loss)/income attributable to Tsakos Energy Navigation Limited</b>	<b>\$ (49,263)</b>	<b>\$ (89,496)</b>	<b>\$ 19,768</b>
<b>(Loss)/Earnings per share, basic attributable to Tsakos Energy Navigation Limited common shareholders</b>	<b>\$ (0.92)</b>	<b>\$ (1.94)</b>	<b>\$ 0.50</b>
<b>(Loss)/Earnings per share, diluted attributable to Tsakos Energy Navigation Limited common shareholders</b>	<b>\$ (0.92)</b>	<b>\$ (1.94)</b>	<b>\$ 0.50</b>
<b>Weighted average number of shares, basic</b>	<b>53,301,039</b>	<b>46,118,534</b>	<b>39,235,601</b>
<b>Weighted average number of shares, diluted</b>	<b>53,301,039</b>	<b>46,118,534</b>	<b>39,601,678</b>

The accompanying notes are an integral part of these consolidated financial statements



**Table of Contents****TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**

## STATEMENTS OF CONSOLIDATED COMPREHENSIVE INCOME/(LOSS)

FOR THE YEARS ENDED DECEMBER 31, 2012, 2011 AND 2010

(Expressed in thousands of U.S. Dollars)

	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>Net (loss)/income</b>	\$ (49,056)	\$ (88,950)	\$ 21,035
<b>Other comprehensive income/(loss)</b>			
<b>Unrealized gains/(losses) from hedging financial instruments</b>			
Unrealized gain on interest rate swaps, net	17,996	15,245	3,289
Amortization of deferred loss on de-designated financial instruments	2,173	2,020	2,113
<b>Total unrealized gains from hedging financial instruments</b>	20,169	17,265	5,402
Unrealized gain on marketable securities	228	34	
Reclassification from accumulated other comprehensive income relating to realized gains from marketable securities	(95)		
<b>Other Comprehensive income</b>	20,302	17,299	5,402
<b>Comprehensive (loss)/income</b>	(28,754)	(71,651)	26,437
Less: comprehensive income attributable to the noncontrolling interest	(207)	(546)	(1,267)
<b>Comprehensive (loss)/income attributable to Tsakos Energy Navigation Limited</b>	\$ (28,961)	\$ (72,197)	\$ 25,170

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, 2012, 2011 AND 2010

(Expressed in thousands of U.S. Dollars except for share and per share data)

	Common Stock	Additional Paid-in Capital	Retained Earnings	Treasury Stock Shares	Treasury Stock Amount	Accumulated Other Comprehensive Income (Loss)	Tsakos Energy Navigation Limited	Noncontrolling Interest	Total
<b>BALANCE, December 31, 2009</b>	\$ 37,671	\$ 266,706	\$ 679,597	754,706	\$ (17,863)	\$ (57,731)	\$ 908,380	\$ 5,947	\$ 914,327
Net income			19,768				19,768	1,267	21,035
Proceeds from Stock Issuance Program		(156)	(5,036)	(754,706)	17,863		12,671		12,671
Issuance of common stock under Stock Issuance Program	446	6,596					7,042		7,042
Issuance of common stock-offering	7,622	77,074					84,696		84,696
Issuance of 341,650 shares of restricted share units	342	(342)							
Cash dividends paid (\$0.60 per share)			(22,849)				(22,849)		(22,849)
Distribution from Subsidiary to non controlling interest								(3,462)	(3,462)
Other comprehensive income (loss)						5,402	5,402		5,402
Amortization of restricted share units		1,068					1,068		1,068
<b>BALANCE, December 31, 2010</b>	\$ 46,081	\$ 350,946	\$ 671,480		\$	\$ (52,329)	\$ 1,016,178	\$ 3,752	\$ 1,019,930
Net income/(loss)			\$ (89,496)				(89,496)	546	(88,950)
Expenses of 2010 common stock-offering		(72)					(72)		(72)
Issuance of 127,250 shares of restricted share units	128	(128)							
Cash dividends paid (\$0.60 per share)			(27,670)				(27,670)		(27,670)
Distribution from Subsidiary to non controlling interest								(2,199)	(2,199)
Other comprehensive income (loss)						17,299	17,299		17,299
Amortization of restricted share units		820					820		820
<b>BALANCE December 31, 2011</b>	\$ 46,209	\$ 351,566	\$ 554,314		\$	\$ (35,030)	\$ 917,059	\$ 2,099	\$ 919,158
Net income/(loss)			(49,263)				(49,263)	207	(49,056)

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Issuance of 10,000,000 shares	10,000	52,329		62,329		62,329
Issuance of 234,500 shares of restricted share units	234	(234)				
Cash dividends paid (\$0.50 per share)			(26,623)		(26,623)	(26,623)
Other comprehensive income (loss)				20,302	20,302	20,302
Amortization of restricted share units		730			730	730
<b>BALANCE</b>						
<b>December 31, 2012</b>	\$ 56,443	\$ 404,391	\$ 478,428	\$	\$ (14,728)	\$ 924,534
					\$ 2,306	\$ 926,840

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, 2012, 2011 AND 2010

(Expressed in thousands of U.S. Dollars)

	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>Cash Flows from Operating Activities:</b>			
Net (loss)/income	\$ (49,056)	\$ (88,950)	\$ 21,035
Adjustments to reconcile net (loss)/income to net cash provided by operating activities:			
Depreciation	94,340	101,050	92,889
Amortization of deferred dry-docking costs	4,910	4,878	4,553
Amortization of loan fees	946	995	1,138
Stock compensation expense	730	820	1,068
Change in fair value of derivative instruments	(2,832)	515	5,957
Gain on sale of marketable securities	(95)		
Loss/(gain) on sale of vessels	1,879	(5,001)	(19,670)
Vessel impairment charge	13,567	39,434	3,077
Payments for dry-docking	(7,566)	(4,639)	(6,055)
(Increase)/Decrease in:			
Receivables	(8,874)	2,183	(9,209)
Inventories	5,479	(5,824)	(997)
Prepaid insurance and other	1,804	(2,423)	482
Increase/(Decrease) in:			
Payables	12,214	77	(4,570)
Accrued liabilities	(4,022)	4,192	(4,295)
Unearned revenue	(2,562)	(1,720)	(2,076)
<b>Net Cash provided by Operating Activities</b>	<b>60,862</b>	<b>45,587</b>	<b>83,327</b>
<b>Cash Flows from Investing Activities:</b>			
Advances for vessels under construction and acquisitions	(81,848)	(37,937)	(67,024)
Vessel acquisitions and/or improvements	(2,454)	(71,205)	(313,639)
Purchase of marketable securities		(2,500)	
Proceeds from sale of marketable securities	1,098		
Proceeds from the sale of vessels	40,219	42,455	140,548
<b>Net Cash used in Investing Activities</b>	<b>(42,985)</b>	<b>(69,187)</b>	<b>(240,115)</b>
<b>Cash Flows from Financing Activities:</b>			
Proceeds from long-term debt	83,558	96,650	235,024
Financing costs	(1,550)	(963)	(1,870)
Payments of long-term debt	(156,794)	(143,454)	(175,131)
(Increase)/Decrease in restricted cash	(10,208)	307	527
Proceeds from stock issuance program, net	62,329		105,005
Cash dividend	(26,623)	(27,670)	(22,849)
Distribution from subsidiary to noncontrolling interest owners		(2,199)	(3,462)
<b>Net Cash (used in)/provided by Financing Activities</b>	<b>(49,288)</b>	<b>(77,329)</b>	<b>137,244</b>
<b>Net decrease in cash and cash equivalents</b>	<b>(31,411)</b>	<b>(100,929)</b>	<b>(19,544)</b>

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<b>Cash and cash equivalents at beginning of period</b>	175,708	276,637	296,181
<b>Cash and cash equivalents at end of period</b>	\$ 144,297	\$ 175,708	\$ 276,637
<i>Interest paid</i>			
Cash paid for interest, net of amounts capitalized	\$ 57,323	\$ 48,588	\$ 50,129

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**TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**DECEMBER 31, 2012, 2011 AND 2010**

**(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, 2012, 2011 and 2010, the Holding Company consolidated two variable interest entities ( VIE ) for which it is deemed to be the primary beneficiary, i.e. it has a controlling financial interest in those entities. 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.

(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. Actual results could differ from those estimates.

(c) **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 separately reflected in the accompanying Consolidated Statements of Operations.

(d) **Cash and Cash Equivalents:** The Company classifies highly liquid investments such as time deposits and certificates of deposit 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.

(e) **Trade Accounts Receivable, Net:** Trade 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, 2012 and 2011). 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.

- (f) **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.

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(g) **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 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. Effective October 1, 2012 and following management's reassessment of the residual value of the vessels, the estimated scrap value per light weight ton (LWT) was increased to \$0.39 from \$0.30. Management's estimate was based on the average demolition prices prevailing in the market during the last ten years for which historical data were available. The effect of this change in accounting estimate, which did not require retrospective application as per ASC 250 Accounting Changes and Error Corrections, was to decrease net loss for the year ended December 31, 2012 by \$929 or \$0.02 per weighted average number of shares, both basic and diluted. The decrease in annual depreciation expense is expected at approximately \$3.8 million per annum based on the Company's existing fleet. 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.

(h) **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, 2012, 2011 and 2010 indicated an impairment charge (Note 5).

(i) **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 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, 2012, there were no vessels held for sale. At December 31, 2011 the VLCC's *La Prudencia* and *La Madrina* were classified as held for sale (Note 5).

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- (j) **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 ten years of vessels' life and every two and a half years within the following useful life of the vessels). 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.
- (k) **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.
- (l) **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 lease 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 2012, 2011 and 2010, included revenues derived from significant charterers as follows (in percentages of total voyage revenues):

Charterer	2012	2011	2010
A	17%	14%	16%
B	14%	10%	10%

- (m) **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 revenue per day and operating results of the fleet. Thus the Company has determined that it operates in one reportable segment, the worldwide maritime transportation of crude and refined oil. In 2007, the Company acquired a liquefied natural gas (LNG) carrier. This is the only vessel of its kind that the Company currently operates and, as it does not meet the quantitative thresholds used to determine reportable segments, the LNG carrier segment is not a 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.



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- (n) **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 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 these swap agreements are recognized as part of 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 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 / (loss) 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.

- (o) **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.
- (p) **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, 2012.

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- (q) **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 discussed in Note 2. 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).
- (r) **Marketable Securities:** The Company has investments in marketable securities that have readily determinable fair values and are classified as available for sale. Such investments are measured subsequently at fair value in the statement of financial position. Unrealized holding gains and losses for available for sale securities are excluded from earnings and are reported in Accumulated other comprehensive income/(loss) until realized (Note 4).
- (s) **Recent Accounting Pronouncements:** In February 2013, the FASB issued ASU 2013-02, Comprehensive Income (Topic 220) Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income. The objective of this Update is to improve the reporting of reclassifications out of accumulated other comprehensive income. The amendments do not change the current requirements for reporting net income or other comprehensive income in financial statements. However, the amendments require an entity to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, an entity is required to present, either on the face of the statement where net income is presented or in the notes, significant amounts reclassified out of accumulated other comprehensive income by the respective line items of net income but only if the amount reclassified is required under U.S. GAAP to be reclassified to net income in its entirety in the same reporting period. For other amounts that are not required under U.S. GAAP to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures required under U.S. GAAP that provide additional detail about those amounts. The amendments in this update are effective for reporting periods beginning after December 15, 2012. Earlier application is permitted. The provisions of this ASU are not expected to have a material impact on the Company's consolidated financial statements.

**2. Transactions with Related Parties**

The following amounts were charged by related parties for services rendered:

	<b>2012</b>	<b>2011</b>	<b>2010</b>
Tsakos Shipping and Trading S.A. (commissions)	5,304	5,461	6,276
Tsakos Energy Management Limited (management fees)	15,587	15,298	13,843
Tsakos Columbia Shipmanagement S.A.	1,280	1,237	634
Argosy Insurance Company Limited	9,701	9,933	9,361
AirMania Travel S.A.	3,661	2,129	437
<b>Total expenses with related parties</b>	<b>35,533</b>	<b>34,058</b>	<b>30,551</b>



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Balances due from and to related parties are as follows:

	<b>December 31,</b>	
	<b>2012</b>	<b>2011</b>
<b>Due from related parties</b>		
Tsakos Columbia Shipmanagement Ltd	1,561	1,641
<b>Total due from related parties</b>	<b>1,561</b>	<b>1,641</b>
<b>Due to related parties</b>		
Tsakos Shipping and Trading S.A.	1,110	89
Tsakos Energy Management Limited	53	52
Argosy Insurance Company Limited	1,209	607
AirMania Travel S.A.	222	315
<b>Total due to related parties</b>	<b>2,594</b>	<b>1,063</b>

There is also, at December 31, 2012 an amount of \$559 (\$691 in 2011) due to Tsakos Shipping and Trading S.A. and \$329 (\$243 in 2011) due to Argosy Insurance Limited, included in Accrued liabilities which relates to services rendered by related parties 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. As a consequence, from January 1, 2010, monthly management fees for operating vessels were \$24.0 per owned vessel and \$17.7 for chartered in vessels or for owned vessels chartered out on a bare-boat basis. From July 1, 2010, the monthly management fees for operating vessels were increased to \$27.0 per owned vessel except for the LNG carrier which bears a monthly fee of \$32.0 of which \$7.0 is paid to the Management Company and \$25.0 to a third party manager. The monthly management fees for chartered-in vessels or for owned vessels chartered out on a bare-boat basis were increased to \$20.0. Those fees applied until December 31, 2011. From January 1, 2012 monthly fees for operating vessels are \$27.5, for vessels chartered out or on a bare-boat basis are \$20.4 and from April 1, 2012 for the LNG carrier \$35.0 of which \$10.0 is paid to the Management Company and \$25.0 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. The incentive award program is based on the Company's annual return on equity ( ROE ). In 2012 and 2011, there was no such award, whereas in 2010, there was a special award of \$425. The awards are expensed and recognized in accrued liabilities in the accompanying Consolidated Financial Statements when applicable.



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(a) ***Tsakos Energy Management Limited (continued)***: 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 to pay the Management Company the present discounted value of all payments that would have otherwise been due under the main agreement up until June 30 of the tenth year following the date of the termination plus the average of the incentive awards previously paid to TEM multiplied by 10. As at December 31, 2012 such payment would be approximately \$137,514 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 as at December 31, 2012, scheduled for future delivery, are:

Year	Amount
2013	16,013
2014	16,120
2015	16,111
2016	16,080
2017 to 2022	88,440
	152,764

Management fees for vessels are included in the accompanying Consolidated Statements of Operations. 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 2012, \$20.0 in 2011 and in the second half of 2010, and \$17.7 per vessel in the first half of 2010. These fees in total amounted to \$612, \$588 and \$620 for 2012, 2011 and 2010, respectively, and are either accounted for as part of construction costs for delivered vessels or are included in Advances for vessels under construction.

(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 Tsakos family private 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 Company 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.



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(c) **Tsakos Shipping and Trading S.A. ( Tsakos Shipping )**: Until June 30, 2010 the Management Company had appointed Tsakos Shipping to provide technical management to the Company's vessels. From July 1, 2010 such technical management is performed by TCM, while Tsakos Shipping continues to provide services to the Company's vessels as described below. 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, and directors of the Holding Company. 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 to Tsakos Shipping a chartering commission of approximately 1.25% on all freights, hires and demurrages. Such commissions are included in Commissions in the accompanying Consolidated Statements of Operations. Tsakos Shipping also provides sale and purchase of vessels brokerage service. For this service, Tsakos Shipping may charge brokerage commission. In 2012, 2011 and 2010 this commission was approximately 1% of the sale price of a vessel.

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 2011, \$2,800 has been charged for fourteen vessels delivered between 2007 and September 2011. In 2012 no such fee has been charged as there were no vessel deliveries. This amount was added to the cost of the vessels concerned and is being amortized over the remaining life of the vessels. Up to June 30, 2010, the Management Company, at its own expenses, paid technical management fees to Tsakos Shipping, and the Company paid directly to Tsakos Shipping 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 Tsakos Shipping personnel sent overseas to supervise repairs and perform inspections on Company vessels. Commissions due to Tsakos Shipping by the Company have been netted-off against amounts due from Tsakos Shipping for advances made, and the net amount is included in Due to related Companies.

(d) **Other affiliated companies**: In 2010, the Company acquired four panamax tankers from affiliated companies for \$54,500 each (Note 5). The first two, which were delivered in July and August 2010, had attached time charters and the second pair delivered in November and October 2010, had attached pool employment arrangements at market rates. Both the time charters and pool employment arrangements were determined to be at fair market value (Note 15(c)); therefore, no intangible assets or liabilities were recognized upon assumption of these time charters.

Upon acquisition, the Company also assumed the then remaining unpaid balances of \$86,024 related to the financing of two of the panamaxes. The assumed loans were determined to be at fair market value; therefore, no gain or loss was recognized upon assumption of the loans.

(e) **Argosy Insurance Company Limited ( Argosy )**: The Company places its hull and machinery insurance, increased value insurance and war risk and certain other insurance through Argosy, a captive insurance company affiliated with Tsakos Shipping.

(f) **AirMania Travel S.A. ( AirMania )**: Apart from third-party agents, the Company also uses an affiliated company, AirMania, for travel services.

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**3. Long-term Investments**

At December 31, 2012 and 2011, 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 2012, 2011 and 2010.

**4. Marketable securities**

In March 2011, the Company placed \$2,500 in highly liquid, low risk marketable securities which are considered to be available-for-sale for reporting purposes. In December 2012, the Company sold \$1,098 of these marketable securities realizing a gain of \$95 which was reclassified from Accumulated other comprehensive income/(loss) to the Statement of Operations. The fair value of the remaining marketable securities as of December 31, 2012 was \$1,664, and the change in fair value amounting to \$133(positive) is included in Accumulated other comprehensive income/(loss).

**5. Vessels**

**Acquisitions**

In 2012, there were no vessel acquisitions. In 2011, there were two scheduled deliveries of the newly constructed suezmaxes *Spyros K* and *Dimitris P* at a total cost of \$148,526 of which \$66,643 was paid within 2011. In 2010, there were two scheduled deliveries of newly constructed vessels at a total cost of \$128,539 of which \$94,184 was paid in 2010. Also in 2010, the Company acquired four panamax tankers built in 2009 for a total cost of \$218,013 (Note 2(d)).

**Sales**

In 2012 the Company sold the VLCC s *La Madrina* and *La Prudencia*, classified as held for sale at December 31, 2011, for net proceeds of \$40,219 in total, realizing a loss of \$1,879. In 2011, the Company sold the aframax tanker *Opal Queen*, classified as held for sale at December 31, 2010 for net proceeds of \$32,753 realizing a gain of \$5,802 and the aframax tanker *Vergina II* for net proceeds of \$9,702 realizing a loss of \$801. The net capital gain of \$5,001 is separately reflected in the accompanying 2011 Consolidated Statements of Operations. In 2010, the Company sold all five vessels classified as held for sale at December 31, 2009, the suezmax *Decathlon*, the aframax tankers *Marathon* and *Parthenon* and the panamax tankers *Hesnes* and *Victory III* for net proceeds \$140,548 in total realizing a net capital gain of \$19,670, reflected in the accompanying 2010 Consolidated Statements of Operations.

**Charter hire expense**

There was no charter hire expense in 2012 and 2011. In 2010, the suezmax *Nordic Passat* was chartered by the Company from March 2 to June 13, 2010. The total amount of hire charged during this period was \$1,755. Another vessel was chartered from January 30, 2010 to February 9, 2010 at a total hire of \$150.

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**Held for sale and impairment**

In the latter part of 2012, events occurred and circumstances changed, which in the ensuing period indicated that the carrying amount of the VLCC tanker *Millennium*, built in 1998 was not fully recoverable. More specifically, market conditions led to a significant drop in VLCC tanker hire rates and the preference for younger vessels. Notice was received in March, 2013 that the bare-boat charterer on which the vessel was employed, was not to be extended as previously expected. Therefore the Company has evaluated *Millennium* by comparing the weighted estimated undiscounted cash flows to be generated by this vessel under various scenarios against its carrying value. Based on this evaluation the Company determined that the carrying value of *Millennium* was impaired. Consequently its carrying value of \$42,153 has been written down to \$28,586, based on a 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 \$13,567 and is reflected in the accompanying 2012 Consolidated Statements of Operations. During 2011, the carrying values of the VLCC s *La Madrina* and *La Prudencia* were written down resulting in a total impairment charge of \$39,434. The fair value of these vessels as at December 31, 2011 was determined based on level 3 measurement of fair market value of the vessels as determined by management taking into consideration valuations from independent marine valuers, making use of other available market data relating to the vessel and similar vessels and management assumptions for the sale price of these vessels (Note 15(c)). Also at December 31, 2011, these vessels were classified as held for sale. During 2010, the carrying value of the aframax tanker *Vergina II* was written down resulting in an impairment charge of \$3,077.

**6. Deferred Charges**

Deferred charges, consist of dry-docking and special survey costs, net of accumulated amortization, amounted to \$13,327 and \$10,672 at December 31, 2012 and 2011, respectively, and loan fees, net of accumulated amortization, amounted to \$4,641 and \$4,036 and at December 31, 2012 and 2011, respectively. Amortization of deferred dry-docking costs is separately reflected in the accompanying Consolidated Statements of Operations, while amortization of loan fees is included in Interest and finance costs, net (Note 8).

**7. Long Term Debt**

Facility	2012	2011
(a) Credit facilities	939,514	1,030,798
(b) Term bank loans	502,913	484,865
<b>Total</b>	<b>1,442,427</b>	<b>1,515,663</b>
<b>Less current portion</b>	<b>(186,651)</b>	<b>(196,996)</b>
<b>Long-term portion</b>	<b>1,255,776</b>	<b>1,318,667</b>

*(a) Credit facilities*

As at December 31, 2012, the Company had seven 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. At December 31,

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2012 there is no available unused amount. The aggregate available unused amount under these facilities at December 31, 2011 was \$28,358 and was drawn down on January 17, 2012. Interest is payable at a rate based on LIBOR plus a spread. At December 31, 2012, the interest rates on these facilities ranged from 0.81% to 5.19%.

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**Table of Contents****TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****DECEMBER 31, 2012, 2011 AND 2010****(Expressed in thousands of U.S. Dollars, except for share and per share data, unless otherwise stated)***(b) Term bank loans*

Term loan balances outstanding at December 31, 2012 amounted to \$502,913. In July and November 2012, the Company drew down two installments of \$13,800 each on an eight year term loan of \$73.6 million in total agreed in January 2012, relating to the pre and post delivery financing of its first DP2 shuttle tanker *Rio 2016*, delivered in March 2013. In August and December 2012, the Company drew down two installments of \$13,800 each on an eight year term loan of \$73.6 million in total agreed in May 2012, relating to the pre and post delivery financing of its second DP2 shuttle tanker *Brasil 2014*, delivered in late April 2013 (Note 16). The term bank loans are payable in U.S. Dollars in semi-annual installments with balloon payments due at maturity between October 2016 and April 2022. Interest rates on the outstanding loans as at December 31, 2012 are based on LIBOR plus a spread. At December 31, 2012, the interest rates on these term bank loans ranged from 1.04% to 3.26%.

The weighted-average interest rates on the above executed loans for the applicable periods were:

Year ended December 31, 2012	1.87%
Year ended December 31, 2011	1.66%
Year ended December 31, 2010	1.62%

Loan movements for credit facilities and term loans throughout 2012:

Loan	Origination Date	Original Amount	Balance at January 1, 2012	New Loans	Repaid	Balance at December 31, 2012
Credit facility <sup>1</sup>	2005	250,000	68,484		33,629	34,855
Credit facility	2005	220,000	147,360		13,135	134,225
Credit facility	2006	275,000	136,915		11,823	125,092
Credit facility <sup>2</sup>	2004	179,384	94,553	28,358	10,555	112,356
Credit facility <sup>3</sup>	2005	220,000	100,950		8,400	92,550
Credit facility	2006	371,010	271,010		20,000	251,010
10-year term loan	2004	71,250	35,157		3,124	32,032
Credit facility	2006	70,000	48,125		12,500	35,625
Credit facility	2007	120,000	97,500		5,000	92,500
10-year term loan	2007	88,350	71,790		5,520	66,270
Credit facility	2007	82,000	65,900		4,600	61,300
10-year term loan	2009	38,600	31,281		2,235	29,046
8-year term loan	2009	40,000	34,672		4,272	30,400
12 year term loan	2009	40,000	36,250		2,500	33,750
10-year term loan	2010	39,000	35,100		2,600	32,500
7-year term loan	2010	70,000	65,360		4,640	60,720
10-year term loan	2010	43,924	40,706		3,218	37,489
9-year term loan	2010	42,100	39,500		2,600	36,900
10-year term loan	2011	48,000	46,400		3,200	43,200
9-year term loan	2011	48,650	48,650		3,243	45,407
8-year term loan	2012	73,600		27,600		27,600
8-year term loan	2011	73,600		27,600		27,600

Total	1,515,663	83,558	156,794	1,442,427
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**TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**DECEMBER 31, 2012, 2011 AND 2010**

**(Expressed in thousands of U.S. Dollars, except for share and per share data, unless otherwise stated)**

<sup>1</sup> The Company sold one of its vessels (*La Madrina*) secured under this credit facility within 2012 and accordingly, prepaid an amount of \$23,600 included in the repayments in the above table.

<sup>2</sup> This credit facility includes a fixed interest rate portion amounting to \$63,799 as at December 31, 2012 (Note 15(c)).

<sup>3</sup> The Company sold one of its vessels (*La Prudencia*) secured under this credit facility within 2012 and accordingly, on January 31, 2013, prepaid an amount of \$20,352 (Note 16).

The above revolving credit facilities and term bank loans are secured by first priority mortgages on all vessels, 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 \$99,375 in 2012 and \$92,188 in 2011, a minimum hull value in connection with the vessels' outstanding loans, insurance coverage of the vessels against all customary risks and maintenance of operating bank accounts with minimum balances. As at December 31, 2012, the Company was in non-compliance with minimum value-to-loan ratios contained in certain of its debt agreements. These agreements include terms in case of non-compliance with minimum value-to-loan ratios according to which the Company may be required to prepay indebtedness in the form of cash or provide additional security. Effective December 31, 2012 and for a period up to, and including, June 30, 2014 the majority of the Company's lenders waived their right resulting from the aforementioned non-compliance of the value-to-loan covenant.

Following the conclusion of the waivers, an amount of \$24,303 was reclassified within current liabilities representing the amount that the Company would be required to pay to satisfy the remaining value-to-loan ratio shortfall contained in loan agreements with a total outstanding debt as of December 31, 2012 of \$335,604, in the event the lenders were to request such additional security in the form of cash payment.

As of December 31, 2012 the Company was not in compliance with the leverage ratio required by its loans. In this respect, the Company entered into amendatory agreements with its lenders which waive the non-compliance of the leverage ratio covenant referred to above by increasing the relevant ratio for the period from December 31, 2012 through July 1, 2014 from 70% to 80%, establishing in this respect compliance as at December 31, 2012. Following these amendatory agreements and because management concluded that it is not probable that the amended ratio will fail to be met at any next measurement dates within the following 12 months, the debt was not classified as current in the 2012 consolidated balance sheet in accordance with ASC 470-10.

For one of its loan agreements under which an amount of \$34,855 was outstanding at December 31, 2012, on February 28, 2013 the Company entered into an amendatory agreement with the lenders which waives the non-compliance of the leverage ratio covenant and the Security Cover ratio for a period from December 11, 2012 through September 6, 2013, re-establishing compliance as of the balance sheet date. According to this agreement the Company made a prepayment of \$5,050 on February 28, 2013 against the balloon installment due in September 2013 and agreed increased interest rate margins during the waiver period and remaining term of the loan.

**Table of Contents****TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****DECEMBER 31, 2012, 2011 AND 2010****(Expressed in thousands of U.S. Dollars, except for share and per share data, unless otherwise stated)**

As of December 31, 2011, a subsidiary, in which the Company has a 51% interest, was not in compliance with the leverage ratio required by its loan, under which the amount of \$48,125 was outstanding as of that date. In this respect, on April 16, 2012, the subsidiary entered into an amendatory agreement with the lenders which waives the non-compliance of the leverage ratio covenant referred to above for the period from December 31, 2011 through December 31, 2012. This agreement required the subsidiary to make a prepayment in 2012 in the amount of \$8,125 on the loan (classified in current liabilities at December 31, 2011) against the balloon installment due in 2016 and pay increased interest rate margins during the waiver period and remaining term of the loan. On April 8, 2013 the waiver period was extended to June 30, 2014 (inclusive).

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, 2012, Company's working capital (non-restricted net current assets), amounted to a deficit of \$51.1 million. Net cash flow generated from operations is the Company's main source of liquidity whereas other management alternatives to ensure service of Company's commitments include but are not limited to the issuance of additional equity, re-negotiation of new-building commitments, utilization of suitable opportunities for asset sales etc. Management believes, such alternatives along with current available cash holdings and cash expected to be generated from the operation of vessels, will be sufficient to meet the Company's liquidity and working capital needs for a reasonable period of time.

The annual principal payments required to be made after December 31, 2012, excluding hull cover ratio shortfall of \$24,303 discussed above, are as follows:

<b>Year</b>	<b>Amount</b>
2013	162,348
2014	121,583
2015	182,157
2016	268,627
2017	179,916
2018 and thereafter	527,796
	1,442,427

**8. Interest and Finance Costs, net**

	<b>2012</b>	<b>2011</b>	<b>2010</b>
Interest expense	49,701	51,720	53,051
Less: Interest capitalized	(1,758)	(2,532)	(2,520)
Interest expense, net	47,943	49,188	50,531
Interest swap cash settlements non-hedging	8,043	8,977	7,224
Bunkers swap cash settlements	(2,433)	(6,382)	(2,926)
Amortization of loan fees	946	995	1,138
Bank charges	243	277	359
Amortization of deferred loss on termination of financial instruments	2,173	2,020	2,113

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Change in fair value of non-hedging financial instruments	(5,339)	(1,504)	3,844
<b>Net total</b>	<b>51,576</b>	<b>53,571</b>	<b>62,283</b>

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At December 31, 2012, the Company was committed to six floating-to-fixed interest rate swaps with major financial institutions covering notional amounts aggregating to \$362,331 maturing from October 2013 through May 2018, on which it pays fixed rates averaging 4.07% and receives floating rates based on the six-month London interbank offered rate ( LIBOR ) (Note 15).

At December 31, 2012, the Company held four of the six 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 \$216,893.

The fair value of such financial instruments as of December 31, 2012 and 2011 in aggregate amounted to \$11,295 (negative) and \$28,835 (negative), respectively. The estimated net amount of cash flow hedge losses at December 31, 2012 that is estimated to be reclassified into earnings within the next twelve months is \$6,742.

At December 31, 2012 and 2011, the Company held two and three interest rate swaps respectively that did not meet hedge accounting criteria. As such, the changes in their fair values during 2012 and 2011 have been included in change in fair value of non-hedging financial instruments in the table above, and amounted to \$6,989 (positive) and \$3,626 (positive), respectively. In March 2010, one of these swaps that previously met hedge accounting criteria was de-designated as a hedging swap and the remaining loss included in Accumulated other comprehensive income/(loss), and for which the associated future cash flows are deemed probable of occurring (\$1,031 at December 31, 2012), is being amortized to income over the term of the original hedge provided that the variable-rate interest obligations continue. The amount of such loss amortized during 2012 and 2011 was \$1,475 and \$1,514, respectively and for the next year up to December 31, 2013; amortization is expected to be \$877. In addition, in December 2012 and June 2011, two vessels financed by the loan previously hedged by the de-designated swap, was sold and the loss within Accumulated other comprehensive income/(loss) of \$698 in 2012 and \$506 in 2011 that was considered to be directly associated with future cash flows, which were not probable of occurring was immediately reclassified to income. In 2010 an aggregate loss of \$808 due to the de-designation of the swap in March 2010 and a sale of a second vessel in July 2010, was reclassified to income for the same reasons.

At December 31, 2012 and 2011, the Company had two and three bunker swap agreements, respectively, in order to hedge its exposure to bunker price fluctuations associated with the consumption of bunkers by its vessels. During 2011, the Company entered into one bunker swap agreement and disposed it of prior to maturity resulting in a realized gain of \$115 which is included in Bunker swap cash settlements in the table above. The fair value of these financial instruments as of December 31, 2012 and 2011 was \$105 (positive) and \$1,755 (positive), respectively and the changes in their fair values during 2012 and 2011 amounting to \$1,650 (negative) and \$2,122 (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.

**9. Stockholders Equity**

The Company has a shareholder rights plan that authorizes to existing shareholders substantial preferred share rights and additional common shares if any third party acquires 15% or more of the outstanding common shares or announces 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 April 18, 2012, the Company completed an offering of 10 million common shares at a price of \$6.50 per share. The net proceeds from the sale of these common shares in this offering, after deducting underwriting discounts and expenses relating to the offering was \$62,329.

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**TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**  
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**DECEMBER 31, 2012, 2011 AND 2010**

**(Expressed in thousands of U.S. Dollars, except for share and per share data, unless otherwise stated)**

On August 11, 2011, the Company announced the authorization of a new share buy-back program allocating up to \$20,000 for purchases in the open market and in other transactions. The program replaces all open prior programs. There were no repurchases of common shares under this program during 2012 and 2011.

On December 4, 2009, the Company entered into a distribution agency agreement with a Bank for the offer and sale of up to three million of common shares. In accordance with the terms of the distribution agency agreement, the shares may be offered and sold at any time and from time to time through the sales agent by means of ordinary brokers' transactions on the New York Stock Exchange at market prices prevailing at the time of sale or as otherwise agreed with the Bank. Under this program, during 2010, the Company sold all of its 754,706 treasury shares remaining at December 31, 2009 for net proceeds of \$12,671 before the issuance and sale of 445,127 new shares for net proceeds of \$7,042. No further sales of shares under this program were made after May 3, 2010 and the program was formally closed by the Company on October 5, 2010.

On October 26, 2010, the Company commenced a public offering of its common shares through an appointed underwriter and sold 6,726,457 shares at \$11.15 per share. A further 896,861 shares were sold to Tsakos private interests at \$11.30 per share. The offering formally closed on November 1, 2010. The net amount raised was \$84,696.

In 2004, the shareholders approved a share-based incentive plan providing for the granting of up to 1,000,000 of stock options or other share-based awards to directors and officers of the Company, crew members and to employees of the related companies (the 2004 Plan). As at December 31, 2012, all the restricted share units (RSUs) of the 2004 plan had been issued and vested.

On May 31, 2012 the shareholders approved a new share-based incentive plan providing for the granting of up to 1,000,000 of stock options or other share-based awards to directors and officers of the Company, crew members and to employees of the related companies (the 2012 plan).

Movements under both plans are as follows:

	Number of RSUs Granted	Number of RSUs Forfeited	Number of RSUs Vested	Balance of Non- Vested RSUs	Weighted- Average Grant Date Fair Value per share
<b>2004 plan</b>					
December 31, 2010	872,450	(19,400)	(653,300)	199,750	\$ 12.37
Granted June 30, 2011	12,000			12,000	\$ 9.36
Vested during 2011			(127,250)	(127,250)	\$ 12.20
December 31, 2011	884,450	(19,400)	(780,550)	84,500	\$ 12.34
Vested during 2012			(84,500)	(84,500)	\$ 12.34
Granted and vested December 31, 2012	115,550		(115,550)		\$ 3.75
Forfeited shares re-issued and vested December 31, 2012		19,400	(19,400)		\$ 3.75
Balance of the 2004 plan December 31, 2012	1,000,000		(1,000,000)		

**2012 plan**

Granted and vested December 31, 2012 from 2012 plan	15,050	(15,050)	\$ 3.75
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During 2012, 2011 and 2010, 234,500, 127,250 and 341,650 RSUs vested respectively. On December 31, 2012 150,000 RSUs were granted and vested immediately, consisting of the 115,550 outstanding balance of the 2004 plan, 19,400 RSUs which were forfeited from the 2004 plan and re-issued and 15,050 RSUs from the 2012 plan.

On June 30, 2011 12,000 RSUs were issued, vesting on June 30, 2012. The number of RSUs granted and outstanding as at December 31, 2011 and 2010 was 84,500 and 199,750, respectively. At the date of the awards the weighted average fair market value of the Company's stock granted was \$3.75 (2012), \$9.36 (2011) and \$13.06 (2010). The total fair value of shares vested during the years ended December 31, 2012, 2011 and 2010 were \$974, \$987 and \$3,687, respectively.

Total compensation expense recognized in 2012 amounted to \$730 consisting of \$354 for employees and \$376 for non employees. Total compensation expenses recognized in 2011 amounted to \$820 consisting of \$624 for employees and \$196 for non employees. In 2010 total compensation expense amounted to \$1,068 consisting of \$1,024 for employees and \$44 for non-employees. As at December 31, 2012 all granted RSUs were vested and the compensation expense recognized. As at December 31, 2011, the total compensation cost related to the non-vested RSUs for both employees and non-employees not yet recognized is \$153 (\$1,148 at December 31, 2010).

**10. Accumulated other comprehensive income/(loss)**

In 2012, Accumulated other comprehensive income/(loss) decreased with unrealized gains from hedging financial instruments of \$20,169 (\$17,265 in 2011 and \$5,402 in 2010) of which \$17,996 (\$15,245 in 2011 and \$3,289 in 2010) related to unrealized gains on interest rate swaps, and \$2,173 (\$2,020 in 2011 and \$2,113 in 2010) related to amortization of deferred loss on de-designated financial instruments. During 2012, unrealized gains on marketable securities was \$228 (\$34 in 2011), of which \$95 was realized and reclassified into earnings following the sale of some 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 RSUs (Note 9) using the treasury stock method.

	<b>2012</b>	<b>2011</b>	<b>2010</b>
Net (loss)/ income available to common stockholders	\$ (49,263)	\$ (89,496)	\$ 19,768
Weighted average common shares outstanding	53,301,039	46,118,534	39,235,601
Dilutive effect of RSUs			366,077
Weighted average common shares diluted	53,301,039	46,118,534	39,601,678
<b>Basic (loss)/earnings per common share</b>	<b>\$ (0.92)</b>	<b>\$ (1.94)</b>	<b>\$ 0.50</b>
<b>Diluted (loss)/earnings per common share</b>	<b>\$ (0.92)</b>	<b>\$ (1.94)</b>	<b>\$ 0.50</b>

For 2012 and 2011, the RSUs are considered anti-dilutive due to the loss from continuing operations which have resulted in their exclusion from the computation of diluted earnings per common share. For 2010, there were no RSUs considered anti-dilutive; therefore, they are included in

the computation of diluted earnings per common share.

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**TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**DECEMBER 31, 2012, 2011 AND 2010**

**(Expressed in thousands of U.S. Dollars, except for share and per share data, unless otherwise stated)**

**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, Flota Petrolera Ecuatoriana (Flopec), 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. Polaris is deemed to have a significant influence on Mare Success S.A. and as such, is a related party of the Company. There have been no transactions between Polaris and the Company since the incorporation of Mare Success S.A., whereas approximately 9.5% of the Company's 2012 revenue was generated by Flopec.

**13. Income Taxes**

Under the laws of the countries of the Company's incorporation and/or vessels' registration, the companies are subject to registration and tonnage taxes, which have been included in the Vessel operating expenses. However, 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**

As at December 31, 2012, the Company had under construction three DP2 suezmax shuttle tankers and one LNG carrier. The total contracted amount remaining to be paid for the four vessels under construction, plus the extra costs agreed as at December 31, 2012 was \$371,786. Scheduled remaining payments as of December 31, 2012 were \$168,715 payable in 2013, \$47,360 in 2014 and \$155,711 in 2015.

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.

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**TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**  
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**Charters-out**

The future minimum revenues, before reduction for brokerage commissions, expected to be recognized on non-cancelable time charters are as follows:

	<b>Year</b>	<b>Amount</b>
2013		201,392
2014		134,058
2015		93,663
2016 to 2028		558,639
Minimum charter payments		987,752

These amounts do not assume any off-hire.

On December 9, 2010, the Company signed two charter-party agreements with the same charterer, each for the charter of a DP 2 suezmax shuttle tanker for a period of fifteen years to commence on delivery of the vessels, delivered in the first and second quarter of 2013 respectively (Note 16). Revenues of \$529 million to be generated by these vessels have been included in the above table.

**15. Financial Instruments**

(a) **Interest rate risk:** The Company's interest rates and loan repayment terms are described in Notes 7 and 8.

(b) **Concentration of credit risk:** Financial Instruments consist principally of cash, trade accounts receivable, marketable securities, 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 financial assets and accounts payable approximate their respective fair values due to the short maturity of these instruments. The fair value of time charters and pool arrangements attached to vessels acquired in 2010 (Note 2(d)) equaled their market value; therefore, no intangible assets or liabilities were recognized upon acquisition of the time charters and pool arrangements. The fair value of long-term bank loans with variable interest rates

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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 \$62,480 as compared to its carrying amount of \$63,799 (Note 7). The fair value of the investment discussed in Note 3 equates to the amount that would 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, bunker swap agreements discussed in Note 8 above and marketable securities discussed in note 4 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.

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- (c) **Fair value (continued):** The fair value of the impaired vessel *Millennium* discussed in Note 5 as at December 31, 2012 was determined through Level 2 of the fair value hierarchy, as defined in FASB guidance for Fair Value Measurements and was determined by management taking into consideration valuations from independent marine valuers based on observable data such as sale of comparable assets. The fair value of vessels held for sale as at December 31, 2011 was determined based on level 3 measurement of fair market value of the vessels as determined by management taking into consideration valuations from independent marine valuers, making use of other available market data relating to the vessel and similar vessels and management assumptions for the sale price of these vessels. The estimated fair values of the Company's financial instruments, other than derivatives at December 31, 2012 and 2011 are as follows:

	2012		2011	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
<b>Financial assets/(liabilities)</b>				
Cash and cash equivalents	144,297	144,297	175,708	175,708
Restricted cash	16,192	16,192	5,984	5,984
Marketable securities	1,664	1,664	2,534	2,534
Investments	1,000	1,000	1,000	1,000
Debt	1,442,427	1,441,108	1,515,663	1,512,651

*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 Operations or in the balance sheet, as a component of Accumulated other comprehensive income/(loss).

Derivative	Balance Sheet Location	Asset Derivatives		Liability Derivatives	
		December 31, 2012 Fair Value	December 31, 2011 Fair Value	December 31, 2012 Fair Value	December 31, 2011 Fair Value
<b>Derivatives designated as hedging instruments</b>					
Interest rate swaps	Current portion of financial instruments		Fair value	6,824	20,421
	FINANCIAL INSTRUMENTS		FAIR VALUE, net of current portion	4,471	8,414
	Subtotal			11,295	28,835

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## TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

DECEMBER 31, 2012, 2011 AND 2010

(Expressed in thousands of U.S. Dollars, except for share and per share data, unless otherwise stated)

Derivative	Balance Sheet Location	Asset Derivatives		Liability Derivatives	
		December 31, 2012 Fair Value	December 31, 2011 Fair Value	December 31, 2012 Fair Value	December 31, 2011 Fair Value
<b>Derivatives not designated as hedging instruments</b>					
Interest rate swaps	Current portion of financial instruments			6,314	8,807
	FINANCIAL INSTRUMENTS FAIR VALUE, net of current portion			4,890	9,386
Bunker swaps	Current portion of financial instruments	60	1,755		
	FINANCIAL INSTRUMENTS FAIR VALUE, net of current portion	45			
	Subtotal	105	1,755	11,204	18,193
	<b>Total derivatives</b>	<b>105</b>	<b>1,755</b>	<b>22,499</b>	<b>47,028</b>

**Derivatives designated as Hedging Instruments-Net effect on the Statement of Comprehensive Income/(loss) and Statement of Operations**

Derivative	Gain (Loss) Recognized in Accumulated Other Comprehensive Loss on Derivative (Effective Portion)	Amount		
		2012	2011	2010
Interest rate swaps		(2,964)	(9,624)	(25,236)
Total		(2,964)	(9,624)	(25,236)

Derivative	Gain (Loss) Reclassified from Accumulated Other Comprehensive Loss into Income (Effective Portion)	Amount		
		2012	2011	2010
Interest rate swaps	Depreciation expense	(122)	(117)	(42)
Interest rate swaps	Interest and finance costs, net	(23,010)	(26,772)	(29,424)
Total		(23,132)	(26,889)	(29,466)

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	Gain (Loss) Recognized in Income on			
	Derivative (Ineffective Portion)			
Derivative	Location	2012	2011	2010
Interest rate swaps	Interest and finance costs, net			(143)
Total				(143)

The accumulated loss from Derivatives designated as Hedging instruments recognized in Accumulated Other comprehensive Income/(Loss) as of December 31, 2012 and 2011 was \$14,895 and \$35,064 respectively.

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**TSAKOS ENERGY NAVIGATION LIMITED AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**DECEMBER 31, 2012, 2011 AND 2010**

(Expressed in thousands of U.S. Dollars, except for share and per share data, unless otherwise stated)

**Derivatives not designated as Hedging Instruments Net effect on the Statement of Operations**

Derivative	Net Realized and Unrealized Gain (Loss) Recognized on Statement of Operations Location	Amount		
		2012	2011	2010
Interest rate swaps	Interest and finance costs, net	(1,054)	(5,352)	(8,356)
Bunker swaps	Interest and finance costs, net	783	4,260	356
Total		(271)	(1,092)	(8,000)

The following tables summarize the fair values for assets and liabilities measured on a recurring basis as of December 31, 2012 and 2011 using Level 2 inputs (significant other observable inputs):

Recurring measurements:	December 31,	December 31,
	2012	2011
Interest rate swaps	(22,499)	(47,028)
Marketable Securities	1,664	2,534
Bunker swaps	105	1,755
	(20,730)	(42,739)

The following tables present the fair values of items measured at fair value on a nonrecurring basis for the years ended December 31, 2012 and 2011, using Level 2 inputs and Level 3 inputs, respectively (Note 5).

Nonrecurring basis	December 31,	December 31,
	2012	2011
	Significant Other Observable Inputs Assets/ (Liabilities) (Level 2)	Unobservable Inputs Assets/ (Liabilities) (Level 3)
Vessels	\$ 28,586	\$ 43,674
	\$ 28,586	\$ 43,674

**16. Subsequent Events**

- (a) On January 31, 2013 the Company prepaid an amount of \$20,352 relating to a credit facility following the sale of one of the vessels secured under this facility in December 2012.
- (b) On March 6, 2013 the Company drew down \$46,000 from an existing loan facility for the financing of its first DP2 suezmax shuttle tanker *Rio 2016* which was delivered on March 11, 2013.
- (c) During the first quarter of 2013 the first installment of \$4,500 was paid for the construction of one DP2 suezmax shuttle tanker currently under renegotiation. In addition, on April 4, 2013 an amount of \$10,480 was paid for the LNG carrier currently under construction.
- (d) On April 22, 2013 the Company drew down \$46,000 from an existing loan facility for the financing of its second DP2 suezmax shuttle tanker *Brasil 2014* which was delivered to the Company on April 23, 2013.
- (e) In April 2013, the Company received waivers in respect of loan covenants as described in Note 7.
- (f) On April 19, 2013 the Company's Board of Directors declared a quarterly dividend of \$0.05 per share of common stock outstanding to be paid on June 5, 2013 to shareholders of record as of May 30, 2013.