

TEEKAY CORP  
Form 20-F  
April 01, 2019  
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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

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FORM 20-F

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(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) or (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, 2018

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 1-12874

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TEEKAY CORPORATION

(Exact name of Registrant as specified in its charter)

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Republic of The Marshall Islands

(Jurisdiction of incorporation or organization)

Not Applicable

(Translation of Registrant's name into English)

4th Floor, Belvedere Building, 69 Pitts Bay Road, Hamilton, HM 08, Bermuda

Telephone: (441) 298-2530

(Address and telephone number of principal executive offices)

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(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered, or to be registered, pursuant to Section 12(b) of the Act.

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Title of each class	Name of each exchange on which registered
Common Stock, par value of \$0.001 per share	New York Stock Exchange

Securities registered, or to be registered, pursuant to Section 12(g) of the Act.  
None  
Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.  
None

Indicate the number of outstanding shares of each issuer's classes of capital or common stock as of the close of the period covered by the annual report.

100,435,210 shares of Common Stock, par value of \$0.001 per share.

Indicate by check mark whether 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

Indicate by check mark if 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 if the registrant (1) has submitted electronically, if any, every Interactive Data File required to be submitted 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 such files). Yes  No

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

Large Accelerated Filer  Accelerated Filer  Non-Accelerated Filer  Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act.

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

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

U.S. GAAP  International Financial Reporting Standards as issued by the International Accounting Standards Board  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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PART I

This annual report of Teekay Corporation on Form 20-F for the year ended December 31, 2018 (or Annual Report) should be read in conjunction with the consolidated financial statements and accompanying notes included in this report.

Unless otherwise indicated, references in this Annual Report to “Teekay,” “the Company,” “we,” “us” and “our” and similar terms refer to Teekay Corporation and its subsidiaries. References in this Annual Report to Teekay LNG refer to Teekay LNG Partners L.P. (NYSE: TGP), to Teekay Tankers refer to Teekay Tankers Ltd. (NYSE: TNK) and to “Teekay Offshore” refer to Teekay Offshore Partners L.P. (NYSE: TOO).

In addition to historical information, this Annual Report contains forward-looking statements that involve risks and uncertainties. Such forward-looking statements relate to future events and our operations, objectives, expectations, performance, financial condition and intentions. When used in this Annual Report, the words “expect,” “intend,” “plan,” “believe,” “anticipate,” “estimate” and variations of such words and similar expressions are intended to identify forward-looking statements. Forward-looking statements in this Annual Report include, in particular, statements regarding:

- our future financial condition and results of operations and our future revenues, expenses and capital expenditures, and our expected financial flexibility to pursue capital expenditures, acquisitions and other expansion opportunities, including vessel acquisitions;
- our dividend policy and our ability to pay cash dividends on our shares of common stock or any increases in quarterly distributions, and the distribution and dividend policies of our publicly-listed subsidiaries, Teekay LNG and Teekay Tankers (or the Controlled Daughter Entities), and our equity-accounted investee, Teekay Offshore (collectively with the Controlled Daughter Entities, the Daughter Entities), including the ability to increase the distribution levels of the Daughter Entities in the future;
- meeting our going concern requirements and our liquidity needs, and the liquidity needs of Teekay LNG and Teekay Tankers, anticipated funds and sources of financing for liquidity needs and the sufficiency of cash flows, and our estimation that we will have sufficient liquidity for at least the next 12 months;
- our ability and plans to obtain financing for new and existing projects, refinance existing debt obligations and fulfill our debt obligations;
- our plans for Teekay Parent, which excludes our interests in the Daughter Entities and includes Teekay Corporation and its remaining subsidiaries, not to have a direct ownership in any conventional tankers and floating production, storage and offloading (or FPSO) units, and increase its free cash flow per share, reduce its net debt and further strengthen its balance sheet;
- conditions and fundamentals of the markets in which we operate, including the balance of supply and demand in these markets and spot tanker charter rates and oil production and competition for providing services;
- our expectations regarding tax liabilities and classifications;
- offshore, liquefied natural gas (or LNG) and liquefied petroleum gas (or LPG) market conditions and fundamentals, including the balance of supply and demand in these markets and charter rates, and estimated growth in size of the world LNG and LPG fleets;
- our expectations as to the useful lives of our vessels;
- our future growth prospects;
- the impact of future changes in the demand for and price of oil, and the related effects on the demand for and price of natural gas;
- expected costs, capabilities, completion and delivery dates of newbuildings, acquisitions and conversions, and the commencement of any related charters or other contracts;
- our ability to maximize the use of our vessels, including the re-deployment or disposition of vessels no longer under long-term time charter or on a short-term charter contract;
-

our expectations regarding the ability of our other customers to make charter payments to us, and the ability of our customers to fulfill purchase obligations at the end of charter contracts;

the future resumption of a LNG plant in Yemen operated by Yemen LNG Company Limited (or YLNG), the expected expiration of the current deferral arrangement with YLNG, the expected further agreement with YLNG to suspend the charter contracts, the expected repayment of deferred hire amounts on Teekay LNG's two 52%-owned vessels, the Marib Spirit and Arwa Spirit, on charter to YLNG, and the expected reduction to Teekay LNG's equity income in 2019 as a result of the charter payment deferral;

expected deliveries of the LNG newbuilding vessels in connection with Teekay LNG's joint venture with China LNG Shipping (Holdings) Limited;

the expected technical and operational capabilities of newbuildings, including the benefits of the M-type, Electronically Controlled, Gas Injection (or MEGI) twin engines in certain LNG carrier newbuildings;

our expectations regarding the schedule and performance of the receiving and regasification terminal in Bahrain, which will be owned and operated by a new joint venture, Bahrain LNG W.L.L., owned by Teekay LNG (30%), National Oil & Gas Authority (or Nogaholding) (30%), Gulf Investment Corporation (or GIC) (24%) and Samsung C&T (or Samsung) (16%) (or the Bahrain LNG Joint Venture), and our expectations regarding the charter of a floating storage unit (or FSU) vessel for the project;

the future valuation or impairment of our assets, including our FPSO units, investment in Teekay Offshore and goodwill;



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our expectations and estimates regarding future charter business, with respect to minimum charter hire payments, revenues and our vessels' ability to perform to specifications and maintain their hire rates in the future; our expectations regarding the ability of Awilco LNG ASA (or Awilco), and Teekay LNG's other customers to make charter payments to Teekay LNG, and the ability of our customers to fulfill purchase obligations at the end of charter contracts, including obligations relating to two of Teekay LNG's LNG carriers completing charters with Awilco in 2019;

compliance with financing agreements and the expected effect of restrictive covenants in such agreements; operating expenses, availability of crew and crewing costs, number of off-hire days, dry-docking requirements and durations and the adequacy and cost of insurance;

the effectiveness of our risk management policies and procedures and the ability of the counterparties to our derivative and other contracts to fulfill their contractual obligations;

the impact on us and the shipping industry of environmental liabilities, including climate change;

the impact and expected cost of, and our ability to comply with, new and existing governmental regulations and maritime self-regulatory organization standards applicable to our business, including the expected cost to install ballast water treatment systems on our vessels and the switch to burning low sulphur fuel in compliance with the International Marine Organization (or IMO) proposals and the effect of IMO 2020, a new regulation for a 0.50% global sulphur cap for marine fuels effective January 1, 2020.

our ability to obtain all permits, licenses and certificates with respect to the conduct of our operations;

expected uses of proceeds from vessel or securities transactions;

the expectations as to the chartering of unchartered vessels;

the impact of our cost saving initiatives;

our entering into joint ventures or partnerships with companies;

our hedging activities relating to foreign exchange, interest rate and spot market risks, and the effects of fluctuations in foreign exchange, interest rate and spot market rates on our business and results of operations;

the potential impact of new accounting guidance; and

our business strategy and other plans and objectives for future operations.

Forward-looking statements involve known and unknown risks and are based upon a number of assumptions and estimates that are inherently subject to significant uncertainties and contingencies, many of which are beyond our control. Actual results may differ materially from those expressed or implied by such forward-looking statements. Important factors that could cause actual results to differ materially include, but are not limited to, those factors discussed below in "Item 3. Key Information—Risk Factors" and other factors detailed from time to time in other reports we file with the U.S. Securities and Exchange Commission (or the SEC).

We do not intend to revise any forward-looking statements in order to reflect any change in our expectations or events or circumstances that may subsequently arise. You should carefully review and consider the various disclosures included in this Annual Report and in our other filings made with the SEC that attempt to advise interested parties of the risks and factors that may affect our business, prospects and results of operations.

Item 1. Identity of Directors, Senior Management and Advisors

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

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Item 3. Key Information

Selected Financial Data

Set forth below is selected consolidated financial and other data of Teekay for fiscal years 2014 through 2018, which have been derived from our consolidated financial statements. The data below should be read in conjunction with the consolidated financial statements and the notes thereto and the Reports of the Independent Registered Public Accounting Firm thereon with respect to fiscal years in the three-year period ended December 31, 2018 (which are included herein) and “Item 5. Operating and Financial Review and Prospects.”

Our consolidated financial statements are prepared in accordance with United States generally accepted accounting principles (or GAAP).

In May 2014, the Financial Accounting Standards Board issued Accounting Standards Update 2014-09, Revenue from Contracts with Customers (or ASU 2014-09). ASU 2014-09 requires an entity to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 became effective for Teekay on January 1, 2018. We adopted ASU 2014-09 as a cumulative-effect adjustment as of the date of adoption. As such, periods prior to January 1, 2018 were not retroactively adjusted. The impact to our historical consolidated results of operation for the year ended December 31, 2018 was as follows:

We previously presented the net allocation for our vessels participating in revenue sharing arrangements (or RSAs) as revenues. We have determined that we are the principal in voyages our vessels perform that are included in the RSAs. As such, the revenue from those voyages is presented in revenues and the difference between this amount and our net allocation from the RSA is presented as voyage expenses. This had the effect of increasing both revenues and voyage expenses for the year ended December 31, 2018 by \$292.6 million.

We manage vessels owned by our equity-accounted investments and third parties. Upon the adoption of ASU 2014-09, costs incurred by us for our seafarers are presented as vessel operating expenses and the reimbursement of such expenses are presented as revenue, instead of such amounts being presented on a net basis. This had the effect of increasing both revenues and vessel operating expenses for the year ended December 31, 2018 by \$82.9 million.

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	Years Ended December 31,					
	2018	2017	2016	2015	2014	
	(in thousands of U.S. Dollars, except share and per share data)					
<b>Income Statement Data:</b>						
Revenues	\$ 1,707,758	\$ 1,880,332	\$ 2,328,569	\$ 2,450,382	\$ 1,993,920	
Income from vessel operations <sup>(1)</sup>	164,319	6,700	384,290	625,132	427,159	
Interest expense	(254,126 )	(268,400 )	(282,966 )	(242,469 )	(208,529 )	
Interest income	8,525	6,290	4,821	5,988	6,827	
Realized and unrealized losses on non-designated derivative instruments	(14,852 )	(38,854 )	(35,091 )	(102,200 )	(231,675 )	
Equity income (loss)	61,054	(37,344 )	85,639	102,871	128,114	
Foreign exchange gain (loss)	6,140	(26,463 )	(6,548 )	(2,195 )	13,431	
Loss on deconsolidation of Teekay Offshore	(7,070 )	(104,788 )	—	—	—	
Other (loss) income	(2,013 )	(53,981 )	(39,013 )	1,566	(1,152 )	
Income tax (expense) recovery	(19,724 )	(12,232 )	(24,468 )	16,767	(10,173 )	
Net (loss) income	(57,747 )	(529,072 )	86,664	405,460	124,002	
Net (income) loss attributable to non-controlling interests	(21,490 )	365,796	(209,846 )	(323,309 )	(178,759 )	
Net (loss) income attributable to shareholders of Teekay Corporation	(79,237 )	(163,276 )	(123,182 )	82,151	(54,757 )	
<b>Per Common Share Data:</b>						
Basic (loss) earnings attributable to shareholders of Teekay Corporation	(0.79 )	(1.89 )	(1.62 )	1.13	(0.76 )	
Diluted (loss) earnings attributable to shareholders of Teekay Corporation	(0.79 )	(1.89 )	(1.62 )	1.12	(0.76 )	
Cash dividends declared	0.2200	0.2200	0.2200	1.7325	1.2650	
<b>Balance Sheet Data (at end of year):</b>						
Cash and cash equivalents	\$ 424,169	\$ 445,452	\$ 567,994	\$ 678,392	\$ 806,904	
Restricted cash	81,470	106,722	237,248	176,437	119,351	
Vessels and equipment	5,517,133	5,208,544	9,138,886	9,366,593	8,106,247	
Net investments in direct financing leases	575,163	495,990	660,594	684,129	704,953	
Total assets	8,391,670	8,092,437	12,814,752	13,061,248	11,779,690	
Total debt (including obligations related to capital leases)	4,993,368	4,578,162	7,032,385	7,443,213	6,715,526	
Capital stock and additional paid-in capital	1,045,659	919,078	887,075	775,018	770,759	
Non-controlling interest	2,058,037	2,102,465	3,189,928	2,782,049	2,290,305	
Total equity	2,867,028	2,879,656	4,089,293	3,701,074	3,388,633	
Number of outstanding shares of common stock	100,435,210	89,127,041	86,149,975	72,711,371	72,500,502	
<b>Other Financial Data:</b>						
EBITDA <sup>(2)</sup>	\$ 483,885	\$ 231,099	\$ 961,102	\$ 1,134,674	\$ 758,781	
Adjusted EBITDA <sup>(2)</sup>	745,076	893,145	1,241,857	1,379,679	1,027,458	
Total debt to total capitalization <sup>(3)</sup>	63.5	% 61.4	% 63.2	% 66.8	% 66.5	%
Net debt to total net capitalization <sup>(4)</sup>	61.0	% 58.3	% 60.4	% 64.0	% 63.1	%
<b>Capital expenditures:</b>						
Expenditures for vessels and equipment	\$ 693,792	\$ 1,054,052	\$ 648,326	\$ 1,795,901	\$ 994,931	

(1) Income from vessel operations includes, among other things, the following:

Years Ended December 31,				
2018	2017	2016	2015	2014

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(in thousands of U.S. Dollars)

Write-down and (loss) gain on sale of vessels	\$(53,693)	\$(270,743)	\$(112,246)	\$(70,175)	\$11,271
Restructuring charges	(4,065 )	(5,101 )	(26,811 )	(14,017 )	(9,826 )
	\$(57,758)	\$(275,844)	\$(139,057)	\$(84,192)	\$1,445

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EBITDA and Adjusted EBITDA are non-GAAP financial measures. EBITDA represents earnings before interest, taxes, depreciation and amortization. Adjusted EBITDA represents EBITDA before foreign exchange gain (loss), items included in other (loss) income, write-down and (loss) gain on sale of vessels, equipment and other operating assets, amortization of in-process revenue contracts, unrealized gains (loss) on derivative instruments, realized losses on interest rate swaps, realized losses on interest rate swap amendments and terminations, loss on deconsolidation of Teekay Offshore, write-downs related to equity-accounted investments, and our share of the above items in non-consolidated joint ventures which are accounted for using the equity method of accounting. EBITDA and Adjusted EBITDA are used as supplemental financial performance measures by management and by external users of our financial statements, such as investors. EBITDA and Adjusted EBITDA assist our management and security holders by increasing the comparability of our fundamental performance from period to period and against the fundamental performance of other companies in our industry that provide EBITDA or Adjusted EBITDA-based information. This increased comparability is achieved by excluding the potentially disparate effects between periods or companies of interest expense, taxes, depreciation or amortization (or other items in determining Adjusted EBITDA), which items are affected by various and possibly changing financing methods, capital structure and historical cost basis and which items may significantly affect net income between periods. We believe that including EBITDA and Adjusted EBITDA benefits security holders in (a) selecting between investing in us and other investment alternatives and (b) monitoring our ongoing financial and operational strength and health in order to assess whether to continue to hold our equity, or debt securities, as applicable. Neither EBITDA nor Adjusted EBITDA should be considered as an alternative to net income, operating income or any other measure of financial performance presented in accordance with GAAP. EBITDA and Adjusted EBITDA exclude some, but not all, items that affect net income and operating income, and these measures may vary among other companies. Therefore, EBITDA and Adjusted EBITDA as presented below may not be comparable to similarly titled measures of other companies.

The following table reconciles our historical consolidated EBITDA and Adjusted EBITDA to net (loss) income.

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands of U.S. Dollars)				
Income Statement Data:					
Reconciliation of EBITDA and Adjusted EBITDA to Net (loss) income					
Net (loss) income	\$(57,747)	\$(529,072)	\$86,664	\$405,460	\$124,002
Income tax expense (recovery)	19,724	12,232	24,468	(16,767)	10,173
Depreciation and amortization	276,307	485,829	571,825	509,500	422,904
Interest expense, net of interest income	245,601	262,110	278,145	236,481	201,702
EBITDA	483,885	231,099	961,102	1,134,674	758,781
Foreign exchange (gain) loss <sup>(a)</sup>	(6,140)	26,463	6,548	2,195	(13,431)
Items included in other loss <sup>(b) (c)</sup>	2,372	48,750	42,401	—	7,699
Write-down and loss (gain) on sale of vessels	53,693	270,743	112,246	70,175	(11,271)
Amortization of in-process revenue contracts	(14,890)	(26,958)	(28,109)	(30,085)	(40,939)
Unrealized (gains) losses on derivative instruments	(12,590)	(13,634)	(69,401)	(38,319)	100,496
Realized losses on interest rate swaps	13,898	53,921	87,320	108,036	125,424
Realized losses on interest rate swap amendments and terminations	13,681	610	8,140	10,876	1,319
Loss on deconsolidation of Teekay Offshore <sup>(d)</sup>	7,070	104,788	—	—	—
Write-down and gain on sale of equity-accounted investments <sup>(e)</sup>	(21,576)	46,168	2,357	—	—
Adjustments relating to equity income <sup>(f)</sup>	225,673	151,195	119,253	122,127	99,380
Adjusted EBITDA	745,076	893,145	1,241,857	1,379,679	1,027,458
(a)					

Foreign exchange (gain) loss includes the unrealized gain of \$21.2 million in 2018 (2017 – gain of \$82.7 million, 2016 – gain of \$75.0 million, 2015 – loss of \$89.2 million, and 2014 – loss of \$167.3 million) on cross currency swaps. In June 2016, as part of its financing initiatives, Teekay Offshore canceled the construction contracts for its two UMS newbuildings. As a result, Teekay Offshore accrued for potential damages resulting from the cancellations and reversed contingent liabilities previously recorded that were relating to the delivery of the UMS newbuildings.

(b) This net loss provision of \$23.4 million for the year ended December 31, 2016 is reported in other loss in our consolidated statements of (loss) income. The newbuilding contracts are held in Teekay Offshore's separate subsidiaries and obligations of these subsidiaries are non-recourse to Teekay Offshore.

The Company held cost-accounted investments at cost. During the year ended December 31, 2016, the Company recorded a write-down of an investment of \$19.0 million. This investment was subsequently sold in 2017, resulting in a gain on sale of cost-accounted investment of \$1.3 million. During 2017, the Company recognized an additional tax indemnification guarantee liability of \$50 million related to the Teekay Nakilat capital leases.

(c) On September 25, 2017, Teekay, Teekay Offshore and Brookfield Business Partners L.P. together with its institutional partners (collectively, Brookfield) completed a strategic partnership (or the Brookfield Transaction), (d) which resulted in the deconsolidation of Teekay Offshore as of that date. For additional information regarding the deconsolidation of Teekay Offshore, please read "Item 18 - Financial Statements: Note 4 – Deconsolidation of TOO".

The year ended December 31, 2018 includes a gain on the sale of Teekay's 43.5% stake in Magnora ASA in November 2018, a gain on the sale of a 2% ownership interest in Teekay Offshore's general partner to Brookfield in July 2018, a loss on the sale of Teekay's investment in KT Maritime (Pty) Ltd. and a gain on the sale of Teekay LNG's 50% ownership interest in the Excelsior Joint Venture.

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Adjustments relating to equity income, which is a non-GAAP measure, should not be considered as an alternative to equity income or any other measure of financial performance or liquidity presented in accordance with GAAP. Adjustments relating to equity income exclude some, but not all, items that affect equity income and these measures may vary among other companies. Therefore, adjustments relating to equity income as presented in this Annual Report may not be comparable to similarly titled measures of other companies. When using Adjusted EBITDA as a measure of liquidity it should be noted that this measure includes the Adjusted EBITDA from our (f)equity-accounted for investments. We do not have control over the operations, nor do we have any legal claim to the revenue and expenses of our equity-accounted for investments. Consequently, the cash flow generated by our equity-accounted for investments may not be available for use by us in the period generated. Equity income from equity-accounted investments is adjusted for depreciation and amortization, interest expense, net of interest income, income tax expense (recovery), amortization of in-process revenue contracts, foreign currency exchange loss (gain), realized and unrealized loss (gain) on derivative instruments and certain other items. Adjustments relating to equity income from our equity-accounted investments are as follows:

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands of U.S. Dollars)				
Depreciation and amortization	115,370	82,513	69,781	69,103	61,367
Interest expense, net of interest income	101,344	63,189	45,584	47,799	42,713
Income tax expense (recovery)	3,209	503	724	476	(188 )
Amortization of in-process revenue contracts	(8,799 )	(4,307 )	(5,482 )	(7,153 )	(8,295 )
Foreign currency exchange loss (gain)	716	366	132	(527 )	(441 )
Write-down and loss (gain) on sale of vessels	16,277	5,479	4,763	(7,472 )	(16,923)
Realized and unrealized (gain) loss on derivative instruments	(4,785 )	3,452	3,075	15,027	21,147
Losses on debt repurchases	2,341	—	—	—	—
Other	—	—	676	4,874	—
Adjustments relating to equity income	225,673	151,195	119,253	122,127	99,380

(3) Total capitalization represents total debt and total equity.

(4) Net debt is a non-GAAP financial measure. Net debt represents total debt less cash, cash equivalents and restricted cash. Total net capitalization represents net debt and total equity.

#### Risk Factors

Some of the following risks relate principally to the industry in which we operate and to our business in general. Other risks relate principally to the securities market and to ownership of our common stock. The occurrence of any of the events described in this section could materially and adversely affect our business, financial condition, operating results and ability to pay interest or principal or dividends on, and the trading price of our public debt and common stock.

Changes in the oil and natural gas markets could result in decreased demand for our vessels and services.

Demand for our vessels and services in transporting, production and storage of oil, petroleum products, LNG and LPG depend upon world and regional oil, petroleum and natural gas markets. Any decrease in shipments of oil, petroleum products, LNG or LPG in those markets could have a material adverse effect on our business, financial condition and results of operations. Historically, those markets have been volatile as a result of the many conditions and events that affect the price, production and transport of oil, petroleum products, LNG or LPG, and competition from alternative energy sources. A slowdown of the U.S. and world economies may result in reduced consumption of oil, petroleum products and natural gas and decreased demand for our vessels and services, which would reduce vessel earnings. A decline in oil prices may adversely affect our growth prospects and results of operations.

Although global crude oil and gas prices have experienced moderate recovery since falling from the highs of mid-2014, prices have not returned to those same highs and remain volatile due to global and regional geopolitical and economic risks and changes. A further decline in oil prices may adversely affect our business, results of operations and financial condition and our ability to make cash distributions, as a result of, among other things:

- a reduction in or termination of production of oil at certain fields we service, which may reduce our revenues under production-based components of our FPSO unit contracts or life-of-field contracts;
- reductions in revenues from certain FPSO unit contracts that are affected by changes to oil prices;
- a reduction in both the competitiveness of natural gas as a fuel for power generation and the market price of natural gas, to the extent that natural gas prices are benchmarked to the price of crude oil;
- lower demand for vessels of the types we own and operate, which may reduce available charter rates and revenue to us upon redeployment of our vessels, in particular FPSO units, following expiration or termination of existing contracts or upon the initial chartering of vessels, or which may result in extended periods of our vessels being idle between contracts;



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- customers potentially seeking to renegotiate or terminate existing vessel contracts, failing to extend or renew contracts upon expiration, or seeking to negotiate cancellable contracts;
- the inability or refusal of customers to make charter payments to us, including purchase obligations at the end of certain charter contracts, due to financial constraints or otherwise; or
- declines in vessel values, which may result in losses to us upon vessel sales or impairment charges against our earnings.

Current market conditions limit our access to capital and our growth.

We have relied primarily upon bank financing and debt and equity offerings, primarily by the Daughter Entities, to fund our growth. Current market conditions generally in the energy sector and for master limited partnerships have significantly reduced our and the Daughter Entities' access to capital, particularly equity capital, compared to periods prior to mid-2014. Issuing additional common equity given current market conditions is more dilutive and costly than it has been in the past. Lack of access to debt or equity capital at reasonable rates would adversely affect our growth prospects and our ability to refinance debt and pay dividends to our equityholders.

Teekay Parent has limited current liquidity.

As at December 31, 2018, Teekay Parent had total cash and cash equivalents of \$220.2 million and total liquidity, including cash, cash equivalents and undrawn credit facilities, of \$333.4 million. The outstanding principal amount of our 8.5% senior unsecured notes that mature in January 2020 was \$508.6 million and \$497.7 million at December 31, 2018 and March 29, 2019, respectively. Our current and forecasted liquidity could constrain our ability to meet our financial obligations. Teekay Parent will need to pursue one or more financing initiatives in order to refinance or repay its 8.5% senior unsecured notes. We are considering, among other things, subject to market conditions and other factors, debt financings, debt and equity securities issuances and sales of Teekay Parent's FPSO units or other assets.

There is no assurance we will be able to complete any of these transactions on acceptable terms, if at all.

Our ability to repay or refinance debt obligations and to fund capital expenditures will depend on certain financial, business and other factors, many of which are beyond our control. We will need to obtain additional financing, which financing may limit our ability to make cash dividends and distributions, increase our financial leverage and result in dilution to our equityholders.

To fund existing and future debt obligations and capital expenditures and to meet the minimum liquidity requirements under the financial covenants in our credit facilities, we will be required to obtain additional sources of financing, in addition to amounts generated from operations. These anticipated sources of financing include raising additional capital through equity issuances.

Our ability to obtain external financing may be limited by our financial condition at the time of any such financing as well as by adverse market conditions in general. Even if we are successful in obtaining necessary funds, the terms of such financings could limit our ability to pay cash dividends or distributions to security holders or operate our or their businesses as currently conducted. In addition, issuing additional equity securities may result in significant equityholder dilution and would increase the aggregate amount of cash required to maintain quarterly dividends and distributions. The sale of certain assets will reduce cash from operations and the cash available for distribution to equityholders. For more information on our liquidity requirements, please read "Item 18 - Financial Statements: Note 16c — Commitments and Contingencies - Liquidity."

We have guaranteed certain debt of Teekay Tankers and will be directly obligated to make related payments if Teekay Tankers defaults in its payment obligations.

We have guaranteed obligations pursuant to certain credit facilities of Teekay Tankers. Two of Teekay Tankers' term loans require Teekay Parent and Teekay Tankers collectively to maintain the greater of (a) free cash (cash and cash equivalents) of at least \$100.0 million for one of the term loans and \$50.0 million for the other and (b) an aggregate of free cash and undrawn committed revolving credit lines with at least six months to maturity of at least 7.5% for one of the term loans and 5.0% for the other, of their total debt. In addition, certain loan agreements require Teekay Tankers to maintain a minimum liquidity (cash, cash equivalents and undrawn committed revolving credit lines with at least six months to maturity) of \$35.0 million and at least 5.0% of Teekay Tankers' total consolidated debt. As at December 31, 2018, the aggregate outstanding balance on such credit facilities was \$166.4 million. If Teekay Tankers

defaults in paying these obligations, we will be obligated to make the required payments.

The value of our investment in Teekay Offshore could vary significantly.

We own approximately 13.8% of the outstanding common units of Teekay Offshore, which units represent 15.9% of the assets of Teekay Parent, at their current carrying value of \$134.4 million. Based on Teekay Offshore's publicly-traded unit price at December 31, 2018, of \$1.21 per unit, the fair value of this investment was \$68.5 million, and based on the publicly-traded unit price at September 30, 2018 of \$2.33 per unit, the fair value of this investment was \$131.9 million. We also hold warrants exercisable for additional Teekay Offshore common units and we own a 49% interest in Teekay Offshore's general partner. Due to the recent decline in Teekay Offshore's publicly-traded unit price, we may realize a loss if we choose to divest our investment in Teekay Offshore. Further, should we choose not to divest of our investment in Teekay Offshore and the fair value remains below our carrying value for an other than temporary period, we may recognize a significant impairment loss. Based on the publicly-traded unit price of Teekay Offshore's outstanding common units of \$1.20 at March 29, 2019, the fair value of this investment was \$67.9 million.

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The value of our investment in Teekay Offshore may be affected by a number of factors, most of which are beyond our control, including, among others, the following:

- Teekay Offshore's distribution policy, its ability to make cash distributions on its common units and any changes in quarterly distributions;
- Teekay Offshore's results of operations, cash flows, financial condition and liquidity, including variations in quarterly operating results;
- future sales of Teekay Offshore common units or other securities;
- given the number of common units owned by Brookfield and Teekay there is a limited public float of common units;
- investors' perceptions of Teekay Offshore and its markets and industries;
- general economic or financial market conditions;
- conditions in the energy and master limited partnership capital markets;
- a reduction in, or termination of, production of oil at fields Teekay Offshore services;
- lower demand and rates for Teekay Offshore's assets;
- operational issues, including of Teekay Offshore's FPSO units;
- Teekay Offshore's ability to refinance existing debt obligations, to raise additional debt and capital, to fund capital expenditures, and negotiate extensions or new or redeployments of existing assets, including FPSO units;
- the loss by Teekay Offshore of any significant customer(s);
- the ability of Teekay Offshore's customers and other business partners to fulfill their contractual obligations, or the early termination of any contracts;
- the outcome and cost of claims or potential claims against Teekay Offshore;
- the failure of securities analysts to publish research about Teekay Offshore's common units or analysts making changes in their financial estimates; and
- announcements by Teekay Offshore or its competitors of significant contracts, acquisitions or capital commitments.

In addition, pursuant to the terms of the LLC agreement of the general partner of Teekay Offshore, we have agreed to certain restrictions on our ability to transfer our membership interest in the general partner of Teekay Offshore without the prior approval of Brookfield and, if Brookfield agrees to sell all or substantially all of its common units in Teekay Offshore and membership interests in Teekay Offshore's general partner, Brookfield may require us to participate in the sale on the same terms and conditions as Brookfield.

Our reputation could be harmed if Teekay Offshore fails to operate its fleet up to our standards.

In connection with the 2017 transactions among us, Teekay Offshore and Brookfield, we entered into a trademark license agreement with Teekay Offshore, pursuant to which we have granted to Teekay Offshore a license to use certain intellectual property, including trademarks and service marks owned by us, in connection with Teekay Offshore's business. The license permits Teekay Offshore to, among other things, use the Teekay logo and other identifying traits on its vessels. The license is granted subject to Teekay Offshore's compliance with Teekay quality control standards, applicable legal requirements and other conditions, including operation of Teekay Offshore's business consistent with certain key performance indicators applicable to Teekay LNG and Teekay Tankers. However, failure of Teekay Offshore to operate its business or fleet in accordance with such standards and indicators, particularly if a vessel was involved in a significant maritime or environmental incident, may harm our reputation before we are able to terminate the license agreement for noncompliance.

Our cash flow depends substantially on the ability of our subsidiaries and equity-accounted investees, primarily our Daughter Entities, to make distributions to us. Our Daughter Entities have significantly reduced their cash distribution levels.

The source of our cash flow includes cash distributions and dividends from our subsidiaries and equity-accounted investees, primarily Teekay LNG, Teekay Tankers, and Teekay Offshore. The amount of cash our subsidiaries and equity-accounted investees can distribute to us principally depends upon the amount of distributions or dividend declared by each of their Boards of Directors and the amount of cash they generate from their operations.

Effective for the quarterly distribution of the fourth quarter of 2015, we reduced our quarterly cash dividend per share to \$0.055 from \$0.55, Teekay LNG reduced its quarterly cash distribution per common unit to \$0.14 from \$0.70, and Teekay Offshore reduced its quarterly cash distribution per common unit to \$0.11 from \$0.56. At the time these changes were made, there was a dislocation in the capital markets relative to the stability of our businesses. More specifically, the future equity capital requirements for our committed growth projects, coupled with the relative weakness in energy and capital markets, resulted in our conclusion that it would be in the best interests of our shareholders to conserve more of our internally generated cash flows to fund committed existing growth projects and to reduce debt levels.

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We and Teekay LNG each maintained these reduced dividend and distribution levels throughout 2016, 2017 and 2018. Teekay LNG has announced a distribution increase of 36% from 2018 levels, effective in the first quarter of 2019. Teekay Offshore maintained its reduced distribution level throughout 2016, and in September 2017, Teekay Offshore further reduced its quarterly cash distribution per common unit to \$0.01 in connection with the Brookfield Transaction. Pursuant to the terms of the amended limited liability company agreement entered into upon closing of the Brookfield Transaction, Teekay Offshore's general partner and we have agreed not to declare or pay (or cause the general partner to declare or to pay) any quarterly distribution on the Teekay Offshore common units in an amount over \$0.01 per unit without the prior consent of Brookfield. Teekay Offshore maintained this dividend and distribution level through 2018 and further reduced its quarterly cash distribution per common unit to \$nil in January 2019 in order to reinvest additional cash in the business. There is no guarantee that quarterly cash distributions payable to common unitholders of Teekay Offshore will return to historical levels.

Effective May 2018, Teekay Tankers eliminated the payment of its minimum quarterly dividend of \$0.03 per share in order to preserve liquidity during the cyclical downturn of the tanker spot market. Otherwise, its dividend policy remains the same, with quarterly dividends expected to range from 30% to 50% of its quarterly adjusted net income, subject to reserves its Board of Directors may determine are necessary for the prudent operations of Teekay Tankers.

These distribution reductions by Teekay Offshore, Teekay LNG and Teekay Tankers substantially reduced our cash flows from them, including by currently eliminating any distributions on our incentive distribution rights in Teekay Offshore and Teekay LNG.

The amount of cash our subsidiaries and equity-accounted investees generate from their operations may fluctuate from quarter-to-quarter based on, among other things:

- the rates they obtain from their charters, voyages and contracts;
- the price and level of production of, and demand for, crude oil, LNG and LPG, including the level of production at the offshore oil fields Teekay Offshore services under contracts of affreightment;
- the operating performance of our and Teekay Offshore's FPSO units, whereby receipt of incentive-based revenue from the FPSO units is dependent upon the fulfillment of the applicable performance criteria;
- the level of their operating costs, such as the cost of crews and repairs and maintenance;
- the number of off-hire days for their vessels and the timing of, and number of days required for, dry docking of vessels;
- the rates, if any, at which Teekay Offshore may be able to redeploy shuttle tankers in the spot market as conventional oil tankers during any periods of reduced or terminated oil production at fields serviced by contracts of affreightment;
- the rates, if any, at which our subsidiaries and equity-accounted investees may be able to redeploy vessels, particularly FPSO units, after they complete their charters or contracts and are redelivered to us;
- the rates, if any, and ability, at which our subsidiaries and equity-accounted investees may be able to contract our newbuilding vessels, including Teekay Offshore's towage vessels;
- the rates, if any, at which Teekay Tankers can deploy tankers in revenue sharing arrangements and/or the spot market;
- delays in the delivery of any newbuildings or in any future conversions or upgrades of existing vessels, and the beginning of payments under charters relating to those vessels;
- prevailing global and regional economic and political conditions;
- currency exchange rate fluctuations; and
- the effect of governmental regulations and maritime self-regulatory organization standards on the conduct of business.

The actual amount of cash our subsidiaries and equity-accounted investees have available for distribution also depends on other factors such as:

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the level of their capital expenditures, including for maintaining vessels or converting existing vessels for other uses and complying with regulations;

- their debt service requirements and restrictions on distributions contained in their debt agreements, including financial ratio covenants which may indirectly restrict loans, distributions or dividends;
- fluctuations in their working capital needs;
- their ability to make working capital borrowings; and
- the amount of any cash reserves, including reserves for future maintenance capital expenditures, working capital and other matters, established by the Boards of Directors of the Daughter Entities at their discretion.

The amount of cash our subsidiaries and equity-accounted investees generate from operations may differ materially from their profit or loss for the period, which will be affected by non-cash items and the timing of debt service payments. As a result of this and the other factors mentioned above, our subsidiaries and equity-accounted investees may make cash distributions during periods when they record losses and may not make cash distributions during periods when they record net income.

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The cyclical nature of the tanker industry may lead to volatile changes in charter rates and significant fluctuations in the utilization of our vessels, which may adversely affect our earnings and profitability.

Historically, the tanker industry has been cyclical, experiencing volatility in profitability due to changes in the supply of and demand for tanker capacity and changes in the supply of and demand for oil and oil products. The cyclical nature of the tanker industry may cause significant increases or decreases in the revenue we earn from our vessels and may also cause significant increases or decreases in the value of our vessels. If the tanker market is depressed, our earnings may decrease, particularly with respect to the conventional tanker vessels owned by Teekay Tankers, which accounted for approximately 44% and 23% of our consolidated revenues during 2018 and 2017, respectively. These vessels are primarily employed on the spot-charter market, which is highly volatile and fluctuates based upon tanker and oil supply and demand. Declining spot rates in a given period generally will result in corresponding declines in operating results for that period. The successful operation of our vessels in the spot-charter market depends upon, among other things, obtaining profitable spot charters and minimizing, to the extent possible, time spent waiting for charters and time spent traveling unladen to pick up cargo. Future spot rates may not be sufficient to enable our vessels trading in the spot tanker market to operate profitably or to provide sufficient cash flow to service our debt obligations. The factors affecting the supply of and demand for tankers are outside of our control, and the nature, timing and degree of changes in industry conditions are unpredictable.

Factors that influence demand for tanker capacity include:

- demand for oil and oil products;
- supply of oil and oil products;
- regional availability of refining capacity;
- global and regional economic and political conditions;
- the distance oil and oil products are to be moved by sea; and
- changes in seaborne and other transportation patterns.

Factors that influence the supply of tanker capacity include:

- the number of newbuilding deliveries;
- the scrapping rate of older vessels;
- conversion of tankers to other uses;
- the number of vessels that are out of service; and
- environmental concerns and regulations.

Changes in demand for transportation of oil over longer distances and in the supply of tankers to carry that oil may materially affect our revenues, profitability and cash flows.

Reduction in oil produced from offshore oil fields may adversely affect the results of operations from our FPSO units. As at December 31, 2018, we had three FPSO units operating in our fleet. The revenue earned by certain FPSO units depends upon the volume of oil produced from offshore oil fields. Oil production levels are affected by several factors, all of which are beyond our control, including: geologic factors, including general declines in production that occur naturally over time; mechanical failure or operator error; the rate of technical developments in extracting oil and related infrastructure and implementation costs; and operator decisions based on revenue compared to costs from continued operations.

Factors that may affect an operator's decision to initiate or continue production include: changes in oil prices; capital budget limitations; the availability of necessary drilling and other governmental permits; the availability of qualified personnel and equipment; the quality of drilling prospects in the area; and regulatory changes. The rate of oil production at fields we service may decline from existing or future levels, and may be terminated, all of which could

harm our business and operating results.

The redeployment risk of FPSO units is high given their lack of alternative uses and significant costs.

FPSO units are specialized vessels that have very limited alternative uses and high fixed costs. In addition, FPSO units typically require substantial capital investments prior to being redeployed to a new field and production service agreement. These factors increase the redeployment risk of FPSO units. Our clients may also terminate certain of our FPSO production service agreements prior to their expiration under specified circumstances. Any idle time prior to the commencement of a new contract or our inability to redeploy the vessels at acceptable rates may have an adverse effect on our business and operating results.



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The duration of many of our FPSO contracts is the life of the relevant oil field or is subject to extension by the field operator or vessel charterer. If the oil field no longer produces oil or is abandoned or the contract term is not extended, we will no longer generate revenue under the related contract and will need to seek to redeploy affected vessels. Certain FPSO contracts under which our vessels operate are subject to extensions beyond their initial term. The likelihood of these contracts being extended may be negatively affected by reductions in oil field reserves, low oil prices generally or other factors. If we are unable to promptly redeploy any affected vessels at rates at least equal to those under the contracts, if at all, our operating results will be harmed. Any potential redeployment may not be under long-term contracts, which may affect the stability of our business and operating results.

Charter rates for conventional oil and product tankers may fluctuate substantially over time and may be lower when we are attempting to re-charter these vessels, which could adversely affect our operating results. Any changes in charter rates for LNG carriers, LPG carriers, or FPSO units could also adversely affect redeployment opportunities for those vessels.

Our ability to re-charter our conventional oil and product tankers following expiration of existing time-charter contracts and the rates payable upon any renewal or replacement charters will depend upon, among other things, the state of the conventional tanker market. Conventional oil and product tanker trades are highly competitive and have experienced significant fluctuations in charter rates based on, among other things, oil, refined petroleum product and vessel demand. For example, an oversupply of conventional oil tankers can significantly reduce their charter rates. There also exists some volatility in charter rates for LNG and LPG carriers, and FPSO units, which could also adversely affect redeployment opportunities for those vessels. If upon scheduled expiration or any early termination we are unable to renew or replace fixed-rate charters on favorable terms, if at all, or if we choose not to renew or replace fixed-rate charters, we may employ applicable vessels in the volatile spot market. Increasing our exposure to the spot market, particularly during periods of unfavorable market conditions, could harm our results of operations and make them more volatile.

Over time, the value of our vessels may decline, which could adversely affect our operating results.

Vessel values for oil and product tankers, LNG and LPG carriers, and FPSO units can fluctuate substantially over time due to a number of different factors, including:

- prevailing economic conditions in oil and energy markets;
- a substantial or extended decline in demand for oil or natural gas;
- increases in the supply of vessel capacity;
- competition from more technologically advanced vessels;
- the cost of retrofitting or modifying existing vessels, as a result of technological advances in vessel design or equipment, changes in applicable environmental or other regulations or standards, or otherwise; and
- a decrease in oil reserves in the fields and other fields in which our FPSO units or other vessels might otherwise be deployed.

Vessel values may decline from existing levels. If operation of a vessel is not profitable, or if we cannot redeploy a chartered vessel at attractive rates upon charter termination, rather than continue to incur costs to maintain and finance the vessel, we may seek to dispose of it. Our inability to dispose of the vessel at a fair market value or the disposal of the vessel at a fair market value that is lower than its book value could result in a loss on its sale and adversely affect our results of operations and financial condition. Teekay Parent anticipates selling its three FPSO units in the future. If the sales price for any such transactions is lower than the carrying value of the applicable FPSO unit, we could incur a material impairment charge.

Further, if we determine at any time that a vessel's future useful life and earnings require us to impair its value on our financial statements, we may need to recognize a significant impairment charge against our earnings. Such a determination involves numerous assumptions and estimates, some of which require more discretion and are less predictable, including certain estimates for our FPSO units. We recognized asset impairment charges, excluding impairment charges recognized by Teekay Offshore subsequent to its deconsolidation on September 25, 2017, of \$53.7 million, \$270.7 million and \$112.2 million in 2018, 2017, and 2016, respectively. The 2017 charge included

impairments recognized of \$205.7 million for two of our three FPSO units, the Petrojarl Banff and Petrojarl Foinaven. Declining market values of our vessels could adversely affect our liquidity and result in breaches of our financing agreements.

Market values of vessels fluctuate depending upon general economic and market conditions affecting relevant markets and industries and competition from other shipping companies and other modes of transportation. In addition, as vessels become older, they generally decline in value. Declining vessel values could adversely affect our liquidity by limiting our ability to raise cash by refinancing vessels. Declining vessel values could also result in a breach of loan covenants and events of default under certain of our credit facilities that require us to maintain certain loan-to-value ratios. If we are unable to pledge additional collateral in the event of a decline in vessel values, the lenders under these facilities could accelerate our debt and foreclose on our vessels pledged as collateral for the loans. As of December 31, 2018, the total outstanding debt under credit facilities with this type of loan-to-value covenant tied to conventional tanker values was \$575.6 million and tied to LNG carrier values was \$442.2 million. We have five financing arrangements that require us to maintain vessel value to outstanding loan principal balance ratios ranging from 115% to 135%. At December 31, 2018, we were in compliance with these required ratios.

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Our growth depends on continued growth in demand for LNG and LPG, and LNG and LPG shipping. A significant portion of our growth strategy focuses on continued expansion in the LNG and LPG shipping sectors.

Expansion of the LNG and LPG shipping sectors depends on growth in world and regional demand for LNG and LPG and marine transportation of LNG and LPG, as well as the supply of LNG and LPG. Demand for LNG and LPG and for the marine transportation of LNG and LPG could be negatively affected by a number of factors, such as:

- increases in the cost of natural gas derived from LNG relative to the cost of natural gas generally;
- increases in the cost of LPG relative to the cost of naphtha and other competing petrochemicals;
- 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 relative to other energy sources or other factors making consumption of natural gas less attractive;
- additional sources of natural gas, including shale gas;
- availability of alternative energy sources; and
- negative global or regional economic or political conditions, particularly in LNG and LPG consuming regions, which could reduce energy consumption or its rate of growth.

Reduced demand for LNG or LPG and LNG or LPG shipping could have a material adverse effect on future growth of Teekay LNG and could harm its results. Growth of the LNG and LPG markets may be limited by infrastructure constraints and community and environmental group resistance to new LNG and LPG infrastructure over concerns about the environment, safety and terrorism. If the LNG or LPG supply chain is disrupted or does not continue to grow, or if a significant LNG or LPG explosion, spill or similar incident occurs, it could have a material adverse effect on demand for LNG or LPG and could harm our business, results of operations and financial condition.

The intense competition in our markets may lead to reduced profitability or reduced expansion opportunities.

Our vessels operate in highly competitive markets. Competition arises primarily from other vessel owners, including major oil companies and independent companies. We also compete with owners of other size vessels. Our market share is insufficient to enforce any degree of pricing discipline in the markets in which we operate, and our competitive position may erode in the future. Any new markets that we enter could include participants that have greater financial strength and capital resources than we have. We may not be successful in entering new markets.

One of our objectives is to enter into additional long-term, fixed-rate charters for our LNG and LPG carriers, and FPSO units. The process of obtaining new long-term time charters is highly competitive and generally involves an intensive screening process and competitive bids, and often extends for several months. We expect competition for providing services for potential gas and offshore projects from other experienced companies, including state-sponsored entities. Our competitors may have greater financial resources than us. This increased competition may cause greater price competition for charters. As a result of these factors, we may be unable to expand our relationships with existing customers or to obtain new customers on a profitable basis, if at all, which would have a material adverse effect on our business, results of operations and financial condition.

Teekay Offshore is not controlled by us and may engage in competition with us.

We have entered into an omnibus agreement with Teekay LNG, Teekay Offshore and related parties governing, among other things, when Teekay, Teekay LNG, and Teekay Offshore may compete with each other and providing for rights of first offer on the transfer or rechartering of certain LNG carriers, oil tankers, shuttle tankers, FSO units and FPSO units. Subject to applicable exceptions, the omnibus agreement generally provides that, without the approval of the other applicable parties, (a) neither Teekay nor Teekay LNG will own or operate offshore vessels (i.e. dynamically positioned shuttle tankers, FSO units and FPSO units) that are subject to contracts with a duration of three years or more, excluding extension options, (b) neither Teekay nor Teekay Offshore will own or operate LNG carriers and (c) neither Teekay LNG nor Teekay Offshore will own or operate crude oil tankers, other than crude oil tankers

included in their respective fleets as of the dates of their respective initial public offerings and certain replacement tankers. If Teekay or its affiliates no longer control the general partner of Teekay LNG or Teekay Offshore or if there is a change of control of Teekay, the general partner of Teekay LNG or Teekay Offshore or Teekay, as applicable, may terminate relevant noncompetition and rights of first offer provisions of the omnibus agreement. During 2018, Brookfield Business Partners L.P. and its institutional investors acquired a 51% ownership interest in the general partner of Teekay Offshore and have the right to appoint a majority of the directors of the general partner's Board of Directors. This transaction constituted a change of control, giving Teekay Offshore the right to elect to terminate the omnibus agreement as it applies to Teekay Offshore, though we have not received any indication from Teekay Offshore that it intends to do so.

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The loss of any key customer or its inability to pay for our services could result in a significant loss of revenue in a given period.

We have derived, and believe that we will continue to derive, a significant portion of our revenues from a limited number of customers. One customer, an international oil company, accounted for an aggregate of 11%, or \$195.0 million, of our consolidated revenues during 2018 (2017 – two customers for 24%, or \$442.4 million; 2016 – two customers for 29%, or \$653.6 million). During these periods, no other customer accounted for over 10% of our revenues for the applicable period. The loss of any significant customer or a substantial decline in the amount of services requested by a significant customer, or the inability of a significant customer to pay for our services, could have a material adverse effect on our business, financial condition and results of operations.

We could lose a customer or the benefits of a contract if:

- the customer fails to make payments because of its financial inability, disagreements with us or otherwise;
- we agree to reduce the payments due to us under a contract because of the customer's inability to continue making the original payments;
- the customer exercises certain rights to terminate the contract; or
- the customer terminates the contract because we fail to deliver the vessel within a fixed period of time, the vessel is lost or damaged beyond repair, there are serious deficiencies in the vessel or prolonged periods of off-hire, or we default under the contract.

If we lose a key customer, we may be unable to obtain replacement long-term charters. If a customer exercises its right under some charters to purchase the vessel, or terminate the charter, we may be unable to acquire an adequate replacement vessel or charter. Any replacement newbuilding would not generate revenues during its construction and we may be unable to charter any replacement vessel on terms as favorable to us as those of the terminated charter.

The loss of any of our significant customers or a reduction in revenues from them could have a material adverse effect on our business, results of operations and financial condition and our ability to pay dividends and service our debt.

In June 2017, Teekay LNG reached an agreement with Awilco to defer a portion of charter hire and extend the two LNG carrier bareboat charter contracts that were originally due to expire in November 2017 and August 2018 to December 2019, which would also include related purchase obligations on both vessels due at that time. However, there is no assurance that Awilco will be able to generate enough operating cash flows or have the ability to raise enough equity to pay for the charter hire deferrals and associated purchase obligations for the two LNG carriers. Future adverse economic conditions, including disruptions in the global credit markets, could adversely affect our business, financial condition and results of operations.

Economic downturns and financial crises in the global markets could produce illiquidity in the capital markets, market volatility, increased exposure to interest rate and credit risks and reduced access to capital markets. If global financial markets and economic conditions significantly deteriorate in the future, we may face restricted access to the capital markets or bank lending, which may make it more difficult and costly to fund future growth. Decreased access to such resources could have a material adverse effect on our business, financial condition and results of operations.

Future adverse economic conditions or other developments may affect our customers' ability to charter our vessels and pay for our services and may adversely affect our business and results of operations.

Future adverse economic conditions or other developments relating directly to our customers may lead to a decline in our customers' operations or ability to pay for our services, which could result in decreased demand for our vessels and services. Our customers' inability to pay for any reason could also result in their default on our current contracts and charters. The decline in the amount of services requested by our customers or their default on our contracts with them could have a material adverse effect on our business, financial condition and results of operations.

Our operations are subject to substantial environmental and other regulations, which may significantly increase our expenses.

Our operations are affected by extensive and changing international, national and local environmental protection laws, regulations, treaties and conventions in force in international waters, the jurisdictional waters of the countries in which our vessels operate, as well as the countries of our vessels' registration, including those governing oil spills, discharges to air and water, and the handling and disposal of hazardous substances and wastes. Many of these requirements are designed to reduce the risk of oil spills and other pollution. In addition, we believe that the heightened environmental, quality and security concerns of insurance underwriters, regulators and charterers will lead to additional regulatory requirements, including enhanced risk assessment and security requirements and greater inspection and safety requirements on vessels. We expect to incur substantial expenses in complying with these laws and regulations, including expenses for vessel modifications and changes in operating procedures.

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These requirements can affect the resale value or useful lives of our vessels, require a reduction in cargo capacity, ship modifications or operational changes or restrictions, lead to decreased availability of insurance coverage for environmental matters or result in the denial of access to certain jurisdictional waters or ports, or detention in, certain ports. Under local, national and foreign laws, as well as international treaties and conventions, we could incur material liabilities, including clean-up obligations, in the event that there is a release of petroleum or other hazardous substances from our vessels or otherwise in connection with our operations. We could also become subject to personal injury or property damage claims relating to the release of or exposure to hazardous materials associated with our operations. In addition, failure to comply with applicable laws and regulations may result in administrative and civil penalties, criminal sanctions or the suspension or termination of our operations, including, in certain instances, seizure or detention of our vessels. For further information about regulations affecting our business and related requirements on us, please read “Item 4. Information on the Company—B. Operations—Regulations.”

We may be unable to make or realize expected benefits from acquisitions and implementing our long-term strategy of growth through acquisitions may harm our financial condition and performance.

A principal component of our long-term strategy is to continue to grow by expanding our business both in the geographic areas and markets where we have historically focused as well as into new geographic areas, market segments and services. We may not be successful in expanding our operations and any expansion may not be profitable. Our long-term strategy of growth through acquisitions involves business risks commonly encountered in acquisitions of companies, including:

- interruption of, or loss of momentum in, the activities of one or more of an acquired company’s businesses and our businesses;
- additional demands on members of our senior management while integrating acquired businesses, which would decrease the time they have to manage our existing business, service existing customers and attract new customers;
- difficulties identifying suitable acquisition candidates;
- difficulties integrating the operations, personnel and business culture of acquired companies;
- difficulties coordinating and managing geographically separate organizations;
- adverse effects on relationships with our existing suppliers and customers, and those of the companies acquired;
- difficulties entering geographic markets or new market segments in which we have no or limited experience; and
- loss of key officers and employees of acquired companies.

Acquisitions may not be profitable to us at the time of their completion and may not generate revenues sufficient to justify our investment. In addition, our acquisition growth strategy exposes us to risks that may harm our results of operations and financial condition, including risks that we may: fail to realize anticipated benefits, such as cost-savings, revenue and cash flow enhancements and earnings accretion; decrease our liquidity by using a significant portion of our available cash or borrowing capacity to finance acquisitions; incur additional indebtedness, which may result in significantly increased interest expense or financial leverage, or issue additional equity securities to finance acquisitions, which may result in significant shareholder dilution; incur or assume unanticipated liabilities, losses or costs associated with the business acquired; or incur other significant charges, such as impairment of goodwill or other intangible assets, asset devaluation or restructuring charges.

Unlike newbuildings, existing vessels typically do not carry warranties as to their condition. While we generally inspect existing vessels prior to purchase, such an inspection would normally not provide us with as much knowledge of a vessel’s condition as we would possess if it had been built for us and operated by us during its life. Repairs and maintenance costs for existing vessels are difficult to predict and may be substantially higher than for vessels we have operated since they were built. These costs could decrease our cash flow and reduce our liquidity.

Our insurance may not be sufficient to cover losses that may occur to our property or as a result of our operations.

The operation of oil and product tankers, lightering vessels, oil and gas transfer operations, LNG and LPG carriers and FPSO units are inherently risky. Although we carry hull and machinery (marine and war risk) and protection and indemnity insurance, all risks may not be adequately insured against, and any particular claim may not be paid. In addition, only certain of our LNG and LPG carriers carry insurance covering the loss of revenues resulting from vessel off-hire time based on its cost compared to our off-hire experience. Any significant off-hire time of our vessels could harm our business, operating results and financial condition. Any claims relating to our operations covered by insurance would be subject to deductibles, and since it is possible that a large number of claims may be brought, the aggregate amount of these deductibles could be material. Certain of our insurance coverage is maintained through mutual protection and indemnity associations and as a member of such associations we may be required to make additional payments over and above budgeted premiums if member claims exceed association reserves.

We may be unable to procure adequate insurance coverage at commercially reasonable rates in the future. For example, more stringent environmental regulations have led in the past to increased costs for, and in the future may result in the lack of availability of, insurance against risks of environmental damage or pollution. A catastrophic oil spill, marine disaster or natural disaster could result in losses that exceed our insurance coverage, which could harm our business, financial condition and operating results. Any uninsured or under-insured loss could harm our business and financial condition. In addition, our insurance may be voidable by the insurers as a result of certain of our actions, such as our ships failing to maintain certification with applicable maritime regulatory organizations.



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Changes in the insurance markets attributable to terrorist attacks, environmental catastrophes or political changes may also make certain types of insurance more difficult for us to obtain. In addition, the insurance that may be available may be significantly more expensive than our existing coverage.

Past port calls by our vessels, or third-party vessels from which we derived pooling revenues, to countries that are subject to sanctions imposed by the United States and the European Union may impact investors' decisions to invest in our securities.

The United States has imposed sanctions on several countries or regions such as Cuba, North Korea, Syria and the Crimea region of the Ukraine. The United States and the European Union (or EU) also had imposed sanctions on trade with Iran. The EU lifted these sanctions in January 2016. At that time, the U.S. lifted its secondary sanctions on Iran which applied to foreign persons but has retained its primary sanctions which apply to U.S. entities and their foreign subsidiaries. In the past, conventional oil tankers owned or chartered-in by us, or third-party vessels participating in revenue sharing arrangements (or RSAs) from which we derive revenue, made limited port calls to those countries for the loading and discharging of oil products. Those port calls did not violate U.S. or EU sanctions at the time and we intend to maintain our compliance with all U.S. and EU sanctions. In addition, we have no future contracted loadings or discharges in any of those countries and intend not to enter into voyage charter contracts for the transport of oil or gas to or from Iran or Syria.

We believe that our compliance with these sanctions and our lack of any future port calls to those countries does not and will not adversely impact our revenues, because port calls to these countries have never accounted for any material amount of our revenues. However, some investors might decide not to invest in us simply because we have previously called on, or through our participation in RSAs have previously received revenue from calls on, ports in these sanctioned countries. Any such investor reaction could adversely affect the market for our common shares. Marine transportation and oil production is inherently risky, and an incident involving loss or damage to a vessel, significant loss of product or environmental contamination by any of our vessels could harm our reputation and business.

Our vessels, crew and cargoes are at risk of being damaged, injured or lost because of events such as:

- marine disaster;
- bad weather or natural disasters;
- mechanical failures;
- grounding, fire, explosions and collisions;
- piracy (hijacking and kidnapping);
- cyber-attack;
- human error; and
- war and terrorism.

An accident involving any of our vessels could result in any of the following:

- death or injury to persons, loss of property or environmental damage or pollution;
- delays in the delivery of cargo;
- loss of revenues from or termination of charter contracts;
- governmental fines, penalties or restrictions on conducting business;
- higher insurance rates; and
- damage to our reputation and customer relationships generally.

Any of these results could have a material adverse effect on our business, financial condition and operating results. In addition, any damage to, or environmental contamination involving, oil production facilities serviced by our vessels could result in the suspension or curtailment of operations by our customer, which would in turn result in loss of revenues to us.

Our operating results are subject to seasonal fluctuations.

We operate our conventional tankers in markets that have historically exhibited seasonal variations in demand and, therefore, in charter rates. This seasonality may result in quarter-to-quarter volatility in our results of operations. Tanker markets are typically stronger in the winter months as a result of increased oil consumption in the Northern Hemisphere. In addition, unpredictable weather patterns in these months tend to disrupt vessel scheduling, which historically has increased oil price volatility and oil trading activities in the winter months. As a result, our revenues have historically been weaker during the fiscal quarters ended June 30 and September 30, and stronger in our fiscal quarters ended March 31 and December 31.

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Due to harsh winter weather conditions, oil field operators in the North Sea typically schedule oil platform and other infrastructure repairs and maintenance during the summer months. Because the North Sea is our primary existing offshore oil market for our FPSO units, this seasonal repair and maintenance activity contributes to quarter-to-quarter volatility in our results of operations, as oil production typically is lower in the fiscal quarters ended June 30 and September 30 in this region compared with production in the fiscal quarters ended March 31 and December 31.

We and the Daughter Entities expend substantial sums during construction of newbuildings or upgrades to our or their existing vessels, including upgrades to FPSO units, without earning revenue and without assurance that they will be completed.

We are typically required to expend substantial sums as progress payments during construction of a newbuilding or upgrades to our existing FPSO units, but we do not derive any revenue from the vessel until after its delivery. In addition, under some of our time charters if our delivery of a vessel to a customer is delayed, we may be required to pay liquidated damages in amounts equal to or, under some charters, almost double the hire rate during the delay. For prolonged delays, the customer may terminate the time charter and, in addition to the resulting loss of revenues, we may be responsible for additional substantial liquidated charges.

Our newbuilding financing commitments typically have been pre-arranged. However, if we are unable to obtain financing required to complete payments on any of our newbuilding orders, we could effectively forfeit all or a portion of the progress payments previously made. As of December 31, 2018, Teekay LNG had 6 LNG carrier newbuildings scheduled for delivery in 2019 (of which one is 100% owned, four are 50%-owned and one is 20%-owned), and one 30%-owned LNG receiving and regasification terminal under construction scheduled for completion in 2019. In January 2019, Teekay LNG had in place \$636 million, based on its proportionate share of the remaining newbuilding installments, of financing required for the majority of its remaining newbuilding vessels, and its LNG receiving and regasification terminal under construction.

Actual results of new technologies or technologies upgrades may differ from expected results and affect our results of operations.

Teekay LNG has invested and is investing in technology upgrades such as MEGI twin engines and other equipment and designs for certain LNG carrier newbuildings, including, among other things, to improve fuel efficiency and vessel performance. These new engine designs and other equipment may not perform to expectations, which may result in performance issues or claims based on failure to achieve specification included in charter party agreements. Actual fuel consumption for Teekay LNG's MEGI LNG carriers exceeds specified levels in certain charter party agreements, which may result in reimbursement by Teekay LNG to the charterer for the cost of the excess fuel consumed. The amount of the reimbursements generally will increase to the extent fuel prices increase, including as a result of the IMO 2020 regulations that will take effect January 1, 2020 and limit Sulphur content in vessel fuel oils. Teekay LNG is considering installing additional equipment to lower fuel consumption on these vessels and taking action against the shipbuilders for failure to deliver vessels that meet anticipated levels of fuel efficiency. Continued reimbursement obligations or unrecovered capital expenditures could harm our results of operations or financial condition.

We make substantial capital expenditures to expand the size of our fleet and generally are required to make significant installment payments for acquisitions of newbuilding vessels. Depending on whether we finance our expenditures through cash from operations or by incurring debt or issuing equity securities, our financial leverage could increase, or our shareholders could be diluted.

We regularly evaluate and pursue opportunities to provide the marine transportation requirements for various projects, and we have recently submitted bids to provide transportation solutions for LNG and LPG projects. We may submit additional bids from time to time. The award process relating to LNG and LPG transportation, typically involves various stages and takes several months to complete. If we bid on and are awarded contracts relating to any LNG and LPG projects, we will need to incur significant capital expenditures to build the related LNG and LPG carriers.

To fund the remaining portion of existing or future capital expenditures, we will be required to use existing liquidity, cash from operations or incur borrowings or raise capital through the incurrence of debt or issuance of additional equity, debt or hybrid securities. Our ability to obtain bank financing or to access the capital markets for future offerings may be limited by our financial condition at the time of any such financing or offering as well as by adverse market conditions resulting from, among other things, general economic conditions and contingencies and uncertainties that are beyond our control. Our failure to obtain the funds for necessary future capital expenditures could have a material adverse effect on our business, results of operations and financial condition. Even if we are successful in obtaining necessary funds, incurring additional debt may significantly increase our interest expense and financial leverage, which could limit our financial flexibility and ability to pursue other business opportunities. Issuing additional equity securities may result in significant shareholder dilution and would increase the aggregate amount of cash required to pay quarterly dividends.

In addition, although delivery of the completed vessel will not occur until much later (approximately two to three years from the time the order is placed), we typically must pay an initial installment up-front upon signing the purchase contract. During the construction period, we generally are required to make installment payments on newbuildings prior to their delivery, in addition to incurring financing, miscellaneous construction and project management costs, but we do not derive any income from the vessel until after its delivery. If we finance these payments by issuing debt or equity securities, we will increase the aggregate amount of interest or cash required to maintain our current level of quarterly distributions/dividends to unitholders/shareholders prior to generating cash from the operation of the newbuilding.

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Exposure to currency exchange rate and interest rate fluctuations results in fluctuations in our cash flows and operating results.

Substantially all of our revenues are earned in U.S. Dollars, although we are paid in Euros, Australian Dollars, Norwegian Kroner and British Pounds under some of our charters. A portion of our operating costs are incurred in currencies other than U.S. Dollars, including a significant portion in British Pounds. This partial mismatch in operating revenues and expenses leads to fluctuations in net income due to changes in the value of the U.S. Dollar relative to other currencies, in particular the British Pound, the Euro, Singapore Dollar, Australian Dollar, and Canadian Dollar. We also make payments under two Euro-denominated term loans. If the amount of these and other Euro-denominated obligations exceeds our Euro-denominated revenues, we must convert other currencies, primarily the U.S. Dollar, into Euros. An increase in the strength of the Euro relative to the U.S. Dollar would require us to convert more U.S. Dollars to Euros to satisfy those obligations.

Because we report our operating results in U.S. Dollars, changes in the value of the U.S. Dollar relative to other currencies also result in fluctuations of our reported revenues and earnings. Under U.S. accounting guidelines, all foreign currency-denominated monetary assets and liabilities, such as cash and cash equivalents, accounts receivable, restricted cash, accounts payable, accrued liabilities, advances from affiliates and long-term debt are revalued and reported based on the prevailing exchange rate at the end of the applicable period. This revaluation historically has caused us to report significant unrealized foreign currency exchange gains or losses each period. The primary source of these gains and losses is our Euro-denominated term loans and our Norwegian Kroner-denominated bonds.

We are exposed to the impact of interest rate changes primarily through our borrowings that require us to make interest payments based on LIBOR, EURIBOR or NIBOR. Significant increases in interest rates could adversely affect our operating margins, results of operations and our ability to service our debt. In addition, there is uncertainty as to the continued use of LIBOR in the future. LIBOR is the subject of recent national, international and other regulatory guidance and proposals for reform. These reforms and other pressures may cause LIBOR to be eliminated or to perform differently than in the past. The consequences of these developments cannot be entirely predicted but could include an increase in the cost of our variable rate indebtedness and obligations. From time to time, we use interest rate swaps to reduce our exposure to market risk from changes in interest rates. The principal objective of these contracts is to minimize the risks and costs associated with our floating-rate debt.

In addition, we are exposed to credit loss in the event of non-performance by the counterparties to the interest rate swap agreements. For further information about our financial instruments at December 31, 2018, that are sensitive to changes in interest rates, please read "Item 11 - Quantitative and Qualitative Disclosures About Market Risk."

Teekay LNG may have more difficulty entering into long-term, fixed-rate LNG time-charters if the active short-term, medium-term or spot LNG shipping markets continue to develop.

LNG shipping historically has been transacted with long-term, fixed-rate time-charters, usually with terms ranging from 20 to 25 years. One of Teekay LNG's principal strategies is to enter into additional long-term, fixed-rate LNG time-charters. In recent years, the amount of LNG traded on a spot and short-term basis (defined as contracts with a duration of 4 years or less) has been increasing. In 2018, spot and short-term trades accounted for approximately 30% of global LNG trade.

If the active spot, short-term or medium-term markets continue to develop, Teekay LNG may have increased difficulty entering into long-term, fixed-rate time-charters for its LNG carriers and, as a result, its cash flow may decrease and be less stable. In addition, an active short-term, medium-term or spot LNG market may require Teekay LNG to enter into charters based on changing market prices, as opposed to contracts based on a fixed rate, which could result in a decrease in its cash flow in periods when the market price for shipping LNG is depressed.

Many of our seafaring employees are covered by collective bargaining agreements and the failure to renew those agreements or any future labor agreements may disrupt operations and adversely affect our cash flows.

A significant portion of our seafarers are employed under collective bargaining agreements. We may become subject to additional labor agreements in the future. We may suffer labor disruptions if relationships deteriorate with the seafarers or the unions that represent them. Our collective bargaining agreements may not prevent labor disruptions, particularly when the agreements are being renegotiated. Salaries are typically renegotiated annually or bi-annually for seafarers and annually for onshore operational staff and may increase our cost of operation. Any labor disruptions could harm our operations and could have a material adverse effect on our business, results of operations and financial condition.

We and certain of our joint venture partners may be unable to attract and retain qualified, skilled employees or crew necessary to operate our business.

Our success depends in large part on our ability to attract and retain highly skilled and qualified personnel. In crewing our vessels, we require technically skilled employees with specialized training who can perform physically demanding work. Any inability we experience in the future to hire, train and retain a sufficient number of qualified employees could impair our ability to manage, maintain and grow our business.

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Terrorist attacks, increased hostilities, political change or war could lead to further economic instability, increased costs and disruption of business.

Terrorist attacks, and the current or future conflicts in the Middle East, South East Asia, West Africa (Nigeria), Libya and elsewhere, and political change, may adversely affect our business, operating results, financial condition, and ability to raise capital and future growth. Continuing hostilities in the Middle East especially among Qatar, Saudi Arabia, the United Arab Emirates, Yemen and elsewhere may lead to additional armed conflicts or to further acts of terrorism and civil disturbance in the United States or elsewhere, which may contribute to economic instability and disruption of oil production and distribution, which could result in reduced demand for our services and have an adverse impact on our operations and or our ability to conduct business.

In addition, oil facilities, shipyards, vessels, pipelines and oil fields could be targets of future terrorist attacks and warlike operations and our vessels could be targets of hijackers, terrorists or warlike operations. Any such attacks could lead to, among other things, bodily injury or loss of life, vessel or other property damage, increased vessel operational costs, including insurance costs, and the inability to transport oil to or from certain locations. Terrorist attacks, war, hijacking or other events beyond our control that adversely affect the distribution, production or transportation of oil to be shipped by us could entitle customers to terminate charters, which would harm our cash flow and business.

Acts of piracy on ocean-going vessels continue to be a risk, which could adversely affect our business.

Acts of piracy have historically affected ocean-going vessels trading in regions of the world such as the South China Sea, Gulf of Guinea and the Indian Ocean off the coast of Somalia. While there continues to be a significant risk of piracy incidents in the Gulf of Aden and Indian Ocean, recently there have been increases in the frequency and severity of piracy incidents off the coast of West Africa and a resurgent piracy risk in the Straits of Malacca, Sulu & Celebes Sea and surrounding waters. If these piracy attacks result in regions in which our vessels are deployed being named on the Joint War Committee Listed Areas, war risk insurance premiums payable for such coverage may increase significantly and such insurance coverage may be more difficult to obtain. In addition, crew costs, including costs which are incurred to the extent we employ on-board armed security guards and escort vessels, could increase in such circumstances. 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 and results of operations.

Our and many of our customers' substantial operations outside the United States expose us to political, governmental and economic instability, which could harm our operations.

Because our operations, and the operations of certain of our customers, are primarily conducted outside of the United States, they may be affected by economic, political and governmental conditions in the countries where we engage in business, including Brazil, or where our vessels are registered. Any disruption caused by these factors could harm our business, including by reducing the levels of oil exploration, development and production activities in these areas. We derive some of our revenues from shipping oil and gas from politically and economically unstable regions. Conflicts in these regions have included attacks on ships and other efforts to disrupt shipping.

Hostilities, strikes, or other political or economic instability in regions where we operate or where we may operate could have a material adverse effect on the growth of our business, results of operations and financial condition and ability to make cash distributions. In addition, tariffs, trade embargoes and other economic sanctions by the United States or other countries against countries in which we operate or to which we trade could harm our business and ability to make cash distributions. Finally, a government could requisition one or more of our vessels, which is most likely during war or national emergency. Any such requisition would cause a loss of the vessel and could harm our cash flow and financial results.

Two of the six MALT LNG Carriers in the Teekay LNG-Marubeni Joint Venture, the Marib Spirit and Arwa Spirit, are currently under long-term charter contracts with YLNG. Due to the political unrest in Yemen, YLNG decided to temporarily close operation of its LNG plant in Yemen in 2015. As a result, commencing January 1, 2016, the Teekay LNG-Marubeni Joint Venture agreed to successive deferral arrangements with YLNG pursuant to which a portion of the charter payments were deferred. Concurrent with the anticipated expiry of the most current deferral arrangement, which is expected to occur within the first half of 2019, the Teekay LNG-Marubeni Joint Venture intends to enter into a further agreement with YLNG pursuant to which the Teekay-LNG Marubeni Joint Venture and YLNG will suspend the two charter contracts for a period of up to three years. Should the LNG plant in Yemen resume operations during such suspended term, it is intended that YLNG will be required to repay the deferred amounts plus interest over a period of installments. However, there is no assurance if or when the LNG plant will resume operations and, accordingly, if YLNG will be able to repay all or any portion of the deferred amounts.

A cyber-attack could materially disrupt our business

We rely on information technology systems and networks in our operations and the administration of our business. Cyber-attacks have increased in number and sophistication in recent years. Our operations could be targeted by individuals or groups seeking to sabotage or disrupt our information technology systems and networks, or to steal data. A successful cyber-attack could materially disrupt our operations, including the safety of our operations, or lead to unauthorized release of information or alteration of information on our systems. Any such attack or other breach of our information technology systems could have a material adverse effect on our business and results of operations.



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Our failure to comply with data privacy laws could damage our customer relationships and expose us to litigation risks and potential fines.

Data privacy is subject to frequently changing rules and regulations, which sometimes conflict among the various jurisdictions and countries in which we provide services and continue to develop in ways which we cannot predict, including with respect to evolving technologies such as cloud computing. The European Union has adopted the General Data Privacy Regulation (or GDPR), a comprehensive legal framework to govern data collection, use and sharing and related consumer privacy rights which took effect in May 2018. The GDPR includes significant penalties for non-compliance. Our failure to adhere to or successfully implement processes in response to changing regulatory requirements in this area could result in legal liability or impairment to our reputation in the marketplace, which could have a material adverse effect on our business, financial condition and results of operations.

The ARC7 LNG carrier newbuildings for the Yamal LNG Project are customized vessels and Teekay LNG's financial condition, results of operations and ability to make distributions to us could be substantially affected if the remaining portion of the Yamal LNG Project is abandoned.

On July 9, 2014, Teekay LNG's Yamal LNG Joint Venture ordered six internationally-flagged icebreaker LNG carriers for a project located on the Yamal Peninsula in Northern Russia (or the Yamal LNG Project), two of which newbuilding carriers delivered in 2018. The Yamal LNG Project is a joint venture between Russia-based Novatek OAO (50.1%), France-based Total S.A. (20%), China-based China National Petroleum Corporation (20%) and Silk Road Fund (9.9%).

The four remaining ARC7 LNG carrier newbuildings ordered by the Yamal LNG Joint Venture, which are scheduled for delivery during the remainder of 2019, are being specifically built for the Arctic requirements of the Yamal LNG Project and will have limited redeployment opportunities to operate as conventional trading LNG carriers if the project is abandoned or cancelled. If the project is abandoned or cancelled after commencement of operations, the Yamal LNG Joint Venture may be unable to reach an agreement with the shipyard allowing for the termination of the shipbuilding contracts (since no such optional termination right exists under these contracts), change the vessel specifications to reflect those applicable to more conventional LNG carriers and which do not incorporate ice-breaking capabilities, or find suitable alternative employment for the newbuilding vessels on a long-term basis with other LNG projects or otherwise.

The Yamal LNG Project may be abandoned for various reasons, including, among others:

- failure to achieve expected operating results;
- changes in demand for LNG;
- adverse changes in Russian regulations or governmental policy relating to the project or the export of LNG;
- technical challenges of completing and operating the complex project, particularly in extreme Arctic conditions;
- labor disputes; and
- environmental regulations or potential claims.

If the project is abandoned, proceeds if any, received from limited Yamal LNG project sponsor guarantees and potential alternative employment, if any, of the vessels and from potential sales of components and scrapping of the vessels likely would fall substantially short of the cost of the vessels to the Yamal LNG Joint Venture. Any such shortfall could have a material adverse effect on Teekay LNG's financial condition, results of operations and ability to make cash distributions to us.

Sanctions against key participants in the Yamal LNG Project could impede completion or performance of the Yamal LNG Project, which could have a material adverse effect on us.

The U.S. Treasury Department's Office of Foreign Assets Control (or OFAC) placed Russia-based Novatek, a 50.1% owner of the Yamal LNG Project, on the Sectoral Sanctions Identifications List. OFAC also previously imposed

sanctions on an investor in Novatek and these sanctions also remain in effect. The current restrictions on Novatek prohibit U.S. persons (and their subsidiaries) from participating in debt financing transactions of greater than 60 days maturity with Novatek and, by virtue of Novatek's 50.1% ownership interest, the Yamal LNG Project. The European Union also imposed certain sanctions on Russia. These sanctions require a European Union license or authorization before a party can provide certain technologies or technical assistance, financing, financial assistance, or brokering with regard to these technologies. However, the technologies being currently sanctioned by the EU appear to focus on oil exploration projects, not gas projects. In addition, OFAC and other governments or organizations may impose additional sanctions on Novatek, the Yamal LNG Project or other project participants, which may further hinder the ability of the Yamal LNG Project to receive necessary financing. Although we believe that we are in compliance with all applicable sanctions, laws and regulations, and intend to maintain such compliance, the scope of these sanctions laws may be subject to change. Future sanctions may prohibit the Yamal LNG Joint Venture from performing under its contracts with the Yamal LNG Project, which could have a material adverse effect on Teekay LNG's financial condition, results of operations and ability to make cash distributions.

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Failure of the Yamal LNG Project to achieve expected results could lead to a default under the time-charter contracts by the charter party.

The charter party under the Yamal LNG Joint Venture's time-charter contracts for the Yamal LNG Project is Yamal Trade Pte. Ltd., a wholly-owned subsidiary of Yamal LNG, the project's sponsor. If the Yamal LNG Project does not achieve expected results, the risk of charter party default may increase. If the charter party defaults on the time-charter contracts, Teekay LNG may be unable to redeploy the vessels under other time-charter contracts or may be forced to scrap the vessels. Any such default could adversely affect Teekay LNG's results of operations and ability to make cash distributions to us.

Maritime claimants could arrest, or port authorities could detain, our vessels, which could interrupt our cash flow. Crew members, suppliers of goods and services to a vessel, shippers of cargo and other parties may be entitled to a maritime lien against that vessel for unsatisfied debts, claims or damages. In many jurisdictions, a maritime lienholder may enforce its lien by arresting a vessel through foreclosure proceedings. The arrest or attachment of one or more of our vessels could interrupt our cash flow and require us to pay large sums of funds to have the arrest or attachment lifted. In addition, in some jurisdictions, such as South Africa, under the "sister ship" theory of liability, a claimant may arrest both the vessel that is subject to the claimant's maritime lien and any "associated" vessel, which is any vessel owned or controlled by the same owner. Claimants could try to assert "sister ship" liability against one vessel in our fleet for claims relating to another of our ships. In addition, port authorities may seek to detain our vessels in port, which could adversely affect our operating results or relationships with customers.

Climate change and greenhouse gas restrictions may adversely impact our operations and markets.

Due to concern over the risk of climate change, a number of countries have adopted, or are considering the adoption of, regulatory frameworks to reduce greenhouse gas emissions. These regulatory measures include, among others, adoption of cap and trade regimes, carbon taxes, increased efficiency standards, and incentives or mandates for renewable energy. Compliance with changes in laws, regulations and obligations relating to climate change could increase our costs related to operating and maintaining our vessels and require us to install new emission controls, acquire allowances or pay taxes related to our greenhouse gas emissions, or administer and manage a greenhouse gas emissions program. Revenue generation and strategic growth opportunities may also be adversely affected.

Adverse effects upon the oil and gas industry relating to climate change may also adversely affect demand for our services. Although we do not expect that demand for oil and gas will lessen dramatically over the short term, in the long term, climate change may reduce the demand for oil and gas or increased regulation of greenhouse gases may create greater incentives for use of alternative energy sources. Any long-term material adverse effect on the oil and gas industry could have a significant financial and operational adverse impact on our business that we cannot predict with certainty at this time.

We have substantial debt levels and may incur additional debt.

As of December 31, 2018, our consolidated long-term debt and obligations related to capital leases totaled \$5.0 billion and we had the capacity to borrow an additional \$0.3 billion under our revolving credit facilities. These credit facilities may be used by us for general corporate purposes. In addition to our consolidated debt, as of December 31, 2018, our total proportionate interest in debt of joint ventures, excluding Teekay Offshore, we do not control was \$1.8 billion, of which Teekay Tankers or Teekay LNG has guaranteed \$0.9 billion and the remaining \$0.9 billion has limited recourse to Teekay LNG. Our consolidated debt, capital lease obligations and joint venture debt could increase substantially. We will continue to have the ability to incur additional debt, subject to limitations in our credit facilities. Our level of debt could have important consequences to us, including:

our ability to obtain additional financing, if necessary, for working capital, capital expenditures, acquisitions or other purposes, and our ability to refinance our credit facilities may be impaired or such financing may not be available on favorable terms, if at all;

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we will need to use a substantial portion of our cash flow to make principal and interest payments on our debt, reducing the funds that would otherwise be available for operations, future business opportunities and dividends to shareholders;

our debt level may make us more vulnerable than our competitors with less debt to competitive pressures or a downturn in our industry or the economy generally; and

our debt level may limit our flexibility in obtaining additional financing, pursuing other business opportunities and responding to changing business and economic conditions.

Financing agreements containing operating and financial restrictions may restrict our business and financing activities.

The operating and financial restrictions and covenants in our revolving credit facilities, term loans, lease obligations, indentures and in any of our future financing agreements could adversely affect our ability to finance future operations or capital needs or to pursue and expand our business activities. For example, these financing arrangements restrict our ability to:

incur additional indebtedness and guarantee indebtedness;

pay dividends or make other distributions or repurchase or redeem our capital stock;

prepay, redeem or repurchase certain debt;

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- issue certain preferred shares or similar equity securities;
- make loans and investments;
- enter into a new line of business;
- incur or permit certain liens to exist;
- enter into transactions with affiliates;
- create unrestricted subsidiaries;
- transfer, sell, convey or otherwise dispose of assets;
- make certain acquisitions and investments;
  - enter into agreements restricting our subsidiaries' ability to pay dividends;
  - and
- consolidate, merge or sell all or substantially all of our assets.

In addition, certain of our debt agreements require, us to comply with certain financial covenants. Our ability to comply with covenants and restrictions contained in debt instruments and lease obligations may be affected by events beyond our control, including prevailing economic, financial and industry conditions. If market or other economic conditions deteriorate, we may fail to comply with these covenants. If we breach any of the restrictions, covenants, ratios or tests in our financing agreements or indentures, our obligations may become immediately due and payable, and the lenders' commitment under our credit facilities, if any, to make further loans may terminate. This could lead to cross-defaults under our other financing agreements and result in obligations becoming due and commitments being terminated under such agreements. A default under financing agreements could also result in foreclosure on any of our vessels and other assets securing related loans.

Furthermore, the termination of any of our charter contracts by our customers could result in the repayment of the debt facilities to which the chartered vessels relate.

Because we are organized under the laws of the Marshall Islands, it may be difficult to serve us with legal process or enforce judgments against us, our directors or our management.

We are organized under the laws of the Marshall Islands, and all of our assets are located outside of the United States. In addition, a majority of our directors and officers are non-residents of the United States, and all or a substantial portion of the assets of these non-residents are located outside the United States. As a result, it may be difficult or impossible to bring an action against us or against these individuals in the United States. Even if successful in bringing an action of this kind, the laws of the Marshall Islands and of other jurisdictions may prevent or restrict the enforcement of a judgment against our assets or the assets of our general partner or its directors and officers.

As a Marshall Islands corporation with our headquarters in Bermuda, and with a majority of our subsidiaries being Marshall Islands entities and also having subsidiaries in other offshore jurisdictions, our operations may be subject to economic substance requirements of the European Union, which could harm our business.

Finance ministers of the EU rate jurisdictions for tax transparency, governance, real economic activity and corporate tax rate. Countries that do not adequately cooperate with the finance ministers are put on a "grey list" or a "blacklist". Various countries, including the Republic of the Marshall Islands and Bermuda, are currently on the blacklist.

EU member states have agreed upon a set of measures, which they can choose to apply against the listed countries, including increased monitoring and audits, withholding taxes, special documentation requirements and anti-abuse provisions. The European Commission has stated it will continue to support member states' efforts to develop a more coordinated approach to sanctions for the listed countries in 2019. EU legislation prohibits EU funds from being channelled or transited through entities in countries on the blacklist.

We are a Marshall Islands corporation with our headquarters in Bermuda. A majority of our subsidiaries are Marshall Islands entities and many of our subsidiaries are either organized or registered in Bermuda. It is difficult to determine how the EU blacklisting of these jurisdictions will affect our business. These jurisdictions have enacted or may enact economic substance laws and regulations with which we may be obligated to comply. We understand that recently-adopted Bermudian legislation requires each Bermudian-registered entity to maintain a substantial economic presence in Bermuda and provides that a registered entity that carries on a relevant activity may comply with the economic substance requirements if (i) it is directed and managed in Bermuda, (ii) its core income-generating activities are undertaken in Bermuda with respect to the relevant activity, (iii) it maintains adequate physical presence in Bermuda, (iv) it has adequate full-time employees in Bermuda with suitable qualifications, and (v) it incurs adequate operating expenditures in Bermuda in relation to the relevant activity. We do not know what actions the Marshall Islands may take, if any, to remove itself from the list; whether the EU will remove the Marshall Islands or Bermuda from the list; how quickly the EU would react to any changes in legislation of the Marshall Islands, Bermuda or other applicable jurisdictions; or how EU banks or other counterparties will react while we or any of our subsidiaries remain as entities organized and existing or registered under the laws of blacklisted countries. The effect of the EU blacklist, and any noncompliance by us with any legislation adopted by applicable countries to achieve removal from the list, could have a material adverse effect on our business, financial condition and operating results.

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Our joint venture arrangements impose obligations upon us but limit our control of the joint ventures, which may affect our ability to achieve our joint venture objectives.

For financial or strategic reasons, we conduct a portion of our business through joint ventures. Generally, we are obligated to provide proportionate financial support for the joint ventures although our control of the business entity may be substantially limited. Due to this limited control, we generally have less flexibility to pursue our own objectives through joint ventures or to access available cash of the joint ventures than we would with our own subsidiaries. There is no assurance that our joint venture partners will continue their relationships with us in the future or that we will be able to achieve our financial or strategic objectives relating to the joint ventures and the markets in which they operate. In addition, our joint venture partners may have business objectives that are inconsistent with ours, experience financial and other difficulties that may affect the success of the joint venture or be unable or unwilling to fulfill their obligations under the joint ventures, which may affect our financial condition or results of operations.

We depend on certain joint venture partners to assist us in operating our businesses and competing in our markets. Our ability to compete for certain projects, enter into new charters, secure financings and expand our customer relationships depends in part on our ability to leverage our relationship with our joint venture partners and their reputation and relationships in the shipping industry. If our joint venture partners suffer material damage to its financial condition, reputation or relationships, it may harm the ability of us or our subsidiaries to:

- renew existing charters and contracts of affreightment upon their expiration;
- obtain new charters and contracts of affreightment;
- successfully interact with shipyards during periods of shipyard construction constraints;
- obtain financing on commercially acceptable terms, if at all; or
- maintain satisfactory relationships with suppliers and other third parties.

If our or our subsidiaries' ability to do any of the things described above is impaired, it could have a material adverse effect on our business, results of operations and financial condition and our ability to make cash distributions.

We may experience operational problems with vessels that reduce revenue and increase costs.

FPSO units are complex and their operations are technically challenging. Marine transportation and oil production operations are subject to mechanical risks and problems as well as environmental risks. Operational problems may lead to loss of revenue or higher than anticipated operating expenses or require additional capital expenditures. Any of these results could harm our business, financial condition and operating results.

Teekay Tankers' U.S. Gulf lightering business competes with alternative methods of delivering crude oil to ports, which may limit its earnings in this area of its operations.

Teekay Tankers' U.S. Gulf lightering business faces competition from alternative methods of delivering crude oil shipments to port, including offshore offloading facilities. While we believe that lightering offers advantages over alternative methods of delivering crude oil to U.S. Gulf ports, Teekay Tankers' lightering revenues may be limited due to the availability of alternative methods.

Teekay Tankers' full service lightering operations are subject to specific risks that could lead to accidents, oil spills or property damage.

Lightering is subject to specific risks arising from the process of safely bringing two large moving tankers next to each other and mooring them for lightering operations. These operations require a high degree of expertise and present a higher risk of collision compared to when docking a vessel at port. Lightering operations, similar to marine transportation in general, are also subject to risks due to events such as mechanical failures, human error, and weather conditions.

### Tax Risks

In addition to the following risk factors, you should read "Item 4E — Taxation of the Company", "Item 10 — Additional Information — Material U.S. Federal Income Tax Considerations" and "Item 10 — Additional Information — Non-United States Tax Considerations" for a more complete discussion of the expected material U.S. federal and non-U.S. income tax considerations relating to us and the ownership and disposition of our common stock.





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U.S. tax authorities could treat us as a “passive foreign investment company,” which could have adverse U.S. federal income tax consequences to U.S. shareholders.

A non-U.S. entity treated as a corporation for U.S. federal income tax purposes will be treated as a “passive foreign investment company” (or PFIC) for such purposes in any taxable year for which either (a) at least 75% of its gross income consists of “passive income” or (b) at least 50% of the average value of the entity’s assets is attributable to assets that produce or are held for the production of “passive income.” For purposes of these tests, “passive income” includes dividends, interest, gains from the sale or exchange of investment property and rents and royalties (other than rents and royalties that are received from unrelated parties in connection with the active conduct of a trade or business). By contrast, income derived from the performance of services does not constitute “passive income.”

There are legal uncertainties involved in determining whether the income derived from our time-chartering activities constitutes rental income or income derived from the performance of services, including the decision in *Tidewater Inc. v. United States*, 565 F.3d 299 (5th Cir. 2009), which 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 Internal Revenue Code of 1986, as amended (or the Code). However, the Internal Revenue Service (or IRS) stated in an Action on Decision (AOD 2010-01) that it disagrees with, and will not acquiesce to, the way that the rental versus services framework was applied to the facts in the *Tidewater* decision, and in its discussion stated that the time charters at issue in *Tidewater* would be treated as producing services income for PFIC purposes. The IRS’s statement with respect to *Tidewater* cannot be relied upon or otherwise cited as precedent by taxpayers. Consequently, in the absence of any binding legal authority specifically relating to the statutory provisions governing PFICs, there can be no assurance that the IRS or a court would not follow the *Tidewater* decision in interpreting the PFIC provisions of the Code. Nevertheless, based on the current composition of our assets and operations (and those of our subsidiaries), we intend to take the position that we are not now and have never been a PFIC. No assurance can be given, however, that this position would be sustained by a court if contested by the IRS or that we would not constitute a PFIC for any future taxable year if there were to be changes in our assets, income or operations.

If the IRS were to determine that we are or have been a PFIC for any taxable year during which a U.S. Holder (as defined below under "Item 10 — Additional Information — Material U.S. Federal Income Tax Considerations") held our common stock, such U.S. Holder would face adverse tax consequences. For a more comprehensive discussion regarding the tax consequences to U.S. Holders if we are treated as a PFIC, please read "Item 10 — Additional Information — Material U.S. Federal Income Tax Considerations — United States Federal Income Taxation of U.S. Holders — Consequences of Possible PFIC Classification".

We are subject to taxes, which reduce our operating results.

We or our subsidiaries are subject to tax in certain jurisdictions in which we or our subsidiaries are organized, own assets or have operations, which reduces our operating results. In computing our tax obligations in these jurisdictions, we are required to take various tax accounting and reporting positions on matters that are not entirely free from doubt and for which we have not received rulings from the governing authorities. We cannot assure you that upon review of these positions, the applicable authorities will agree with our positions. A successful challenge by a tax authority could result in additional tax imposed on us or our subsidiaries, further reducing our operating results. In addition, changes in our operations or ownership could result in additional tax being imposed on us or on our subsidiaries in jurisdictions in which operations are conducted. For example, changes in the ownership of our stock may cause us to be unable to claim an exemption from U.S. federal income tax under Section 883 of the Code. If we were not exempt from tax under Section 883 of the Code, we would be subject to U.S. federal income tax on shipping income attributable to our subsidiaries’ transportation of cargoes to or from the United States, the amount of which is not within our complete control. Also, jurisdictions in which we or our subsidiaries are organized, own assets or have operations may change their tax laws, or we may enter into new business transactions relating to such jurisdictions, which could result in increased tax liability and reduce our operating results. Please read "Item 4 — Information on the Company — Taxation of the Company."

Item 4. Information on the Company

A. Overview, History and Development

Overview

We are a leading provider of international crude oil and gas marine transportation services and through our strategic partnership in Teekay Offshore with Brookfield Business Partners L.P. and certain affiliates (collectively, Brookfield) we also offer offshore oil production, storage and offloading services. We generate revenue primarily under long-term, fixed-rate contracts with a diverse customer base of major energy and utility companies. Over the past 15 years, we have undergone a major transformation from being primarily an owner of ships in the cyclical spot tanker business to being an asset manager in the “Marine Midstream” sector. This transformation has included our expansion into the liquefied natural gas (or LNG) and liquefied petroleum gas (or LPG) shipping sectors through our publicly-listed subsidiary Teekay LNG Partners L.P. (NYSE: TGP) (or Teekay LNG), the continuation of our conventional tanker business through our publicly-listed subsidiary Teekay Tankers Ltd. (NYSE: TNK) (or Teekay Tankers), and further growth of our operations in the offshore production, storage and transportation sector through our ownership of TPO AS (formerly TPO Investments AS) and through our equity-accounted investment Teekay Offshore Partners L.P. (NYSE: TOO) (or Teekay Offshore).

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The combined Teekay entities operate total assets under management of approximately \$16 billion, comprised of approximately 205 liquefied gas, offshore, and conventional tanker assets (excluding vessels managed for third parties). With offices in 14 countries and approximately 8,000 seagoing and shore-based employees, Teekay provides a comprehensive set of marine services to the world's leading oil and gas companies. We are the world's third largest independent LNG carrier owner and operator and one of the world's largest owner and operator of mid-sized crude tankers. Teekay Offshore is the world's largest operator of shuttle tankers and fourth largest independent provider of leased floating production, storage and offloading (or FPSO) unit solutions. Our organizational structure can be divided into (a) our controlling interests in our publicly-listed subsidiaries, Teekay LNG and Teekay Tankers (or the Controlled Daughter Entities), our equity-accounted investment in Teekay Offshore (together with the Controlled Daughter Entities, the Daughter Entities), and (b) Teekay and its remaining subsidiaries, which is referred to herein as Teekay Parent.

Our business strategy across the Teekay Group is focused on the following:

- Generate attractive long-term risk-adjusted returns, utilizing our market leading positions, global footprint and operational excellence;
- Offer a wide breadth of marine midstream solutions to meet our customers' needs; and
- Provide superior customer service by maintain high reliability, safety, environmental and quality standards.

As of January 1, 2019, the Teekay group had approximately \$16 billion of contracted, forward fixed-rate revenues. The revenue-weighted average remaining term of the Teekay group's contracts was approximately 8.4 years as of January 1, 2019, excluding spot market contracts and extension options. "Revenue-weighted average" represents the average remaining fixed contract duration of the applicable contracts, weighted on the basis of aggregate fixed forward payments to be received from each operating segment, excluding extension options. Fixed forward payments for Teekay Offshore are on a 100% basis and our other equity-accounted investments and joint ventures are proportionately adjusted in the calculation to reflect our ownership interests in such investments and joint ventures.

Teekay LNG includes all of our LNG and LPG carriers. LNG carriers are usually chartered to carry LNG pursuant to time-charter contracts, where a vessel is hired for a fixed period of time. LPG carriers are mainly chartered to carry LPG and ammonia on time charters, on contracts of affreightment or spot voyage charters. As of December 31, 2018, Teekay LNG's fleet, including newbuildings on order, had a total cargo carrying capacity of approximately 9.2 million cubic meters. Please read "—B. Operations—Our Fleet."

Teekay Tankers includes a substantial majority of our conventional crude oil tankers and product carriers. Teekay Tankers' conventional crude oil tankers and product tankers primarily operate in the spot-tanker market or are subject to time charters or contracts of affreightment that are priced on a spot-market basis or are short-term, fixed-rate contracts. Teekay Tankers considers contracts that have an original term of less than one year in duration to be short-term. Certain of its conventional crude oil tankers and product tankers are on fixed-rate time-charter contracts with an initial duration of at least one year. Our conventional Aframax, Suezmax, and large product tankers are among the vessels included in Teekay Tankers. Please read "—B. Operations—Our Fleet."

We have chartering staff located in Singapore; London, England; and Houston, USA. Each office serves our clients headquartered in that office's region. Fleet operations, vessel positions and charter market rates are monitored around the clock. We believe that monitoring such information is critical to making informed bids on competitive brokered business.

Teekay Offshore includes shuttle tanker operations, FPSO units, FSO units, and offshore support which includes UMS, which primarily operate under long-term fixed-rate contracts, and long-distance towing and offshore installation vessels. The Company does not currently have any intention to reinvest in the offshore space.

Teekay Parent currently owns three FPSO units; however, Teekay Parent does not intend to retain these assets over the long term.

The Teekay organization was founded in 1973. We are incorporated under the laws of the Republic of The Marshall Islands as Teekay Corporation and maintain our principal executive office at 4th floor, Belvedere Building, 69 Pitts Bay Road, Hamilton, HM 08, Bermuda. Our telephone number at such address is (441) 298-2530.

The SEC maintains an Internet site at [www.sec.gov](http://www.sec.gov), that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. Our website is [www.teekay.com](http://www.teekay.com). The information contained on our website is not part of this annual report.

**Our Ownership of the Daughter Entities and Recent Equity Offerings and Transactions by Daughter Entities**

Our ownership of Teekay Tankers was 28.8% as of December 31, 2018. We maintain voting control of Teekay Tankers through our ownership of shares of Class A and Class B Common Stock and continue to consolidate this subsidiary. Our ownership of Teekay LNG was 33.1% (including our 2% general partner interest) as of December 31, 2018. We maintain control of Teekay LNG by virtue of our control of the general partner and continue to consolidate this subsidiary. Our ownership interest in Teekay Offshore was 14.1% (including 13.8% of the outstanding publicly traded common units and 49% of the general partner interest) as of December 31, 2018. We have significant influence over Teekay Offshore and account for our investment in Teekay Offshore using the equity method. Please read “Item 18. Financial Statements: Note 5 — Equity Financing Transactions of the Daughter Entities.”

Please read “Item 5. Operating and Financial Review and Prospects—Management’s Discussion and Analysis of Financial Condition and Results of Operations— Recent Developments and Results of Operations” for more information on recent transactions.

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### B. Operations

We (excluding our investment in Teekay Offshore) have three primary lines of business: offshore production (FPSO units), liquefied gas carriers, and conventional tankers. We manage these businesses for the benefit of all stakeholders. We allocate capital and assess performance from the separate perspectives of Teekay LNG and Teekay Tankers, Teekay Parent, and its investment in Teekay Offshore, as well as from the perspective of the lines of business (the Line of Business approach). The primary focus of our organizational structure, internal reporting and allocation of resources by the chief operating decision maker, is on Teekay LNG and Teekay Tankers, Teekay Parent, and its investment in Teekay Offshore (the Legal Entity approach). However, we have continued to incorporate the Line of Business approach as in certain cases there is more than one line of business in each of Teekay LNG, Teekay Tankers and Teekay Parent, and we believe this information allows a better understanding of our performance and prospects for future net cash flows. We assess the performance of, and make decisions to allocate resources to, our investment in Teekay Offshore as a whole and not at the level of the individual lines of business within Teekay Offshore, which are (1) offshore production (FPSO units), (2) offshore logistics (shuttle tankers, the HiLoad DP unit, floating storage and offtake (or FSO) units, units for maintenance and safety (or UMS) and long-distance towing and offshore installation vessels), and (3) conventional tankers.

### Teekay LNG

Teekay LNG's vessels primarily compete in the LNG and LPG markets. LNG carriers are usually chartered to carry LNG pursuant to time-charter contracts, where a vessel is hired for a fixed period of time and the charter rate is payable to the owner on a monthly basis. LNG shipping historically has been transacted with long-term, fixed-rate time-charter contracts. LNG projects require significant capital expenditures and typically involve an integrated chain of dedicated facilities and cooperative activities. Accordingly, the overall success of an LNG project depends heavily on long-range planning and coordination of project activities, including marine transportation. Most shipping requirements for new LNG projects continue to be provided on a long-term basis, though the level of spot voyages (typically consisting of a single voyage), short-term time-charters and medium-term time-charters have grown in the past few years. The amount of LNG traded on a spot and short-term basis (defined as contracts with a duration of four years or less) has increased from approximately 10% of total LNG supply in 2010 to almost 30% in 2018.

In the LNG market, Teekay LNG competes principally with other private and state-controlled energy and utilities companies that generally operate captive fleets, and independent ship owners and operators. Many major energy companies compete directly with independent owners by transporting LNG for third parties in addition to their own LNG. Given the complex, long-term nature of LNG projects, major energy companies historically have transported LNG through their captive fleets. However, independent fleet operators have been obtaining an increasing percentage of charters for new or expanded LNG projects as some major energy companies have continued to divest non-core businesses.

LNG carriers transport LNG internationally between liquefaction facilities and import terminals. After natural gas is transported by pipeline from production fields to a liquefaction facility, it is supercooled to a temperature of approximately negative 260 degrees Fahrenheit. This process reduces its volume to approximately 1/600th of its volume in a gaseous state. The reduced volume facilitates economical storage and transportation by ship over long distances, enabling countries with limited natural gas reserves or limited access to long-distance transmission pipelines to meet their demand for natural gas. LNG carriers include a sophisticated containment system that holds the LNG and provides insulation to reduce the amount of LNG that boils off naturally. That natural boil off is either used as fuel to power the engines on the ship or it can be reliquified and put back into the tanks. LNG is transported overseas in specially built tanks on double-hulled ships to a receiving terminal, where it is offloaded and stored in insulated tanks. In regasification facilities at the receiving terminal, the LNG is returned to its gaseous state (or regasified) and then shipped by pipeline for distribution to natural gas customers.

With the exception of the Arctic Spirit and Polar Spirit, which are the only two ships in the world that utilize the Ishikawajima Harima Heavy Industries Self Supporting Prismatic Tank IMO Type B (or IHI SPB) independent tank technology, Teekay LNG's fleet makes use of one of the Gaz Transport and Technigaz (or GTT) membrane containment systems. The GTT membrane systems are used in the majority of LNG tankers now being constructed. New LNG carriers generally have an expected lifespan of approximately 35 to 40 years. Unlike the oil tanker industry, there are currently no regulations that require the phase-out from trading of LNG carriers after they reach a certain age. As at December 31, 2018, Teekay LNG's LNG carriers, excluding newbuilding vessels but including equity-accounted vessels, had an average age of approximately eight years, compared to the world LNG carrier fleet average age of approximately 10 years. In addition, as at that date, there were approximately 555 vessels in the world LNG fleet and approximately 136 additional LNG carriers under construction or on order for delivery through 2022.

In the LPG market, Teekay LNG competes principally with independent ship owners and operators, and other private and state-controlled energy and chemical companies that generally operate captive fleets.

LPG shipping involves the transportation of three main categories of cargo: liquid petroleum gases, including propane, butane and ethane; petrochemical gases including ethylene, propylene and butadiene; and ammonia. LPG carriers are mainly chartered to carry LPG on time-charters, contracts of affreightment or spot voyage charters. The two largest consumers of LPG are residential users and the petrochemical industry. Residential users, particularly in developing regions where electricity and gas pipelines are not developed, do not have fuel switching alternatives and generally are not LPG price sensitive. The petrochemical industry, however, has the ability to switch between LPG and other feedstock fuels depending on price and availability of alternatives. As at December 31, 2018, Teekay LNG's LPG and multi-gas carriers had an average age of approximately eight years compared to world average of 15 years as of December 31, 2018.

As of December 31, 2018, the worldwide LPG tanker fleet consisted of approximately 1,451 vessels with an average age of approximately 15 years and approximately 74 additional LPG vessels on order for delivery through 2022. LPG carriers range in size from approximately 100 to approximately 88,000 cubic meters (or cbm). Approximately 47% (in terms of vessel numbers) of the worldwide fleet is less than 5,000 cbm. New LPG carriers generally have an expected lifespan of approximately 30 to 35 years.

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Teekay LNG includes all of our LNG and LPG carriers. As at December 31, 2018, Teekay LNG had ownership interests in 43 LNG carriers, as well as six additional newbuilding LNG carriers on order. In addition, as at December 31, 2018, Teekay LNG had full ownership of seven LPG carriers and 50% ownership, through its joint venture agreement with Exmar, in another 20 LPG carriers and two chartered-in LPG carriers.

Teekay Tankers

Teekay Tankers owns a substantial majority of our conventional crude oil tankers and product carriers. Our conventional crude oil tankers and product tankers primarily operate in the spot-tanker market or are subject to time charters or contracts of affreightment that are priced on a spot-market basis or are short-term, fixed-rate contracts. We consider contracts that have an original term of less than one year in duration to be short-term. Certain of our conventional crude oil tankers and product tankers are on fixed-rate time-charter contracts with an initial duration of at least one year.

Most of Teekay Tankers' conventional tankers operate pursuant to pooling or revenue sharing commercial management arrangements. Under such arrangements, different vessel owners pool their vessels, which are managed by a pool manager, to improve utilization and reduce expenses. In general, revenues generated by the vessels operating in a pool or revenue sharing commercial management arrangement, less related voyage expenses (such as fuel and port charges) and administrative expenses, are pooled and allocated to the vessel owners according to a pre-determined formula. As of December 31, 2018, 54 of Teekay Tankers' owned and leased vessels and three of Teekay Tankers' time-chartered in vessels operated in the spot market through participation in Teekay-managed RSAs or on spot voyage charters. Twenty-nine of Teekay Tankers' owned and leased vessels operated in the Suezmax RSAs, ten of Teekay Tankers' owned and leased vessels and one of Teekay Tankers' time-chartered in vessels operated in the Aframax RSAs, eight of Teekay Tankers' owned and leased vessels operated in the Taurus LR2 RSAs, and seven of Teekay Tankers' owned and leased vessels and two time-chartered in vessels operated in the spot market on voyage charters. In addition, as of December 31, 2018, two of Teekay Tankers' owned vessels operated under fixed-rate time-charter contracts.

Teekay Tankers' vessels compete primarily in the Aframax and Suezmax tanker markets. In these markets, international seaborne oil and other petroleum products transportation services are provided by two main types of operators: captive fleets of major oil companies (both private and state-owned) and independent ship-owner fleets. Many major oil companies and other oil trading companies, the primary charterers of our vessels, also operate their own vessels and transport their own oil and oil for third-party charterers in direct competition with independent owners and operators. Competition for charters in the Aframax and Suezmax spot charter market is intense and is based upon price, location, the size, age, condition and acceptability of the vessel, and the reputation of the vessel's manager.

Teekay Tankers competes principally with other owners in the spot-charter market through the global tanker charter market. This market is comprised of tanker broker companies that represent both charterers and ship-owners in chartering transactions. Within this market, some transactions, referred to as "market cargoes," are offered by charterers through two or more brokers simultaneously and shown to the widest possible range of owners; other transactions, referred to as "private cargoes," are given by the charterer to only one broker and shown selectively to a limited number of owners whose tankers are most likely to be acceptable to the charterer and are in position to undertake the voyage.

Teekay Tankers' competition in the Aframax (85,000 to 124,999 dwt) market is also affected by the availability of other size vessels that compete in that market. Suezmax (125,000 to 199,999 dwt) vessels and Panamax (55,000 to 84,999 dwt) vessels can compete for many of the same charters for which our Aframax tankers compete; Aframax size vessels and VLCCs (200,000 to 319,999 dwt) can compete for many of the same charters for which our Suezmax tankers may compete. Because of their large size, Very Large Crude Carriers (or VLCCs) and Ultra Large Crude Carriers (or ULCCs) (320,000+ dwt) rarely compete directly with Aframax tankers, and ULCCs rarely compete with

Suezmax tankers for specific charters. However, because VLCCs and ULCCs comprise a substantial portion of the total capacity of the market, movements by such vessels into Suezmax trades and of Suezmax vessels into Aframax trades would heighten the already intense competition.

Teekay Tankers also competes in the Long Range 2 (or LR2) (85,000 to 109,999 dwt) product tanker market. Competition in the LR2 product tanker market is affected by the availability of other size vessels that compete in the market. Long Range 1 (or LR1) (55,000-84,999 dwt) size vessels can compete for many of the same charters for which Teekay Tankers' LR2 tankers compete.

The operation of tanker vessels, as well as the seaborne transportation of crude oil and refined petroleum products, is a competitive market. There are several large operators of Aframax, Suezmax, and LR2 tonnage that provide these services globally.

Teekay Tankers believe that it has competitive advantages in the Aframax and Suezmax tanker market as a result of the quality, type and dimensions of its vessels and their market share in the Indo-Pacific and Atlantic Basins. As of December 31, 2018, its Aframax/LR2 tanker fleet (excluding Aframax/LR2-size shuttle tankers and newbuildings) had an average age of approximately 11.2 years and their Suezmax tanker fleet (excluding Suezmax-size shuttle tankers and newbuildings) had an average age of approximately 10.7 years. This compares to an average age for the world oil tanker fleet of approximately 10.5 years, for the world Aframax/LR2 tanker fleet of approximately 10.0 years and for the world Suezmax tanker fleet of approximately 9.5 years.

Teekay Tankers completed a merger with TIL in November 2017, acquiring all of the remaining 27.0 million issued and outstanding common shares of TIL, in a share-for-share exchange at a ratio of 3.3 shares of Teekay Tankers' Class A common stock for each share of TIL common stock. As a result of the merger, TIL became a wholly-owned subsidiary of Teekay Tankers. At the time of the merger, TIL owned a modern fleet of 10 Suezmax tankers, six Aframax tankers and two LR2 product tankers. For additional information, please read "Item 18 - Financial Statements: Note 22 — Equity-accounted Investments".



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In May 2017, Teekay Tankers completed the acquisition from Teekay Holdings Ltd., a wholly-owned subsidiary of Teekay, of the remaining 50% interest in Teekay Tanker Operations Ltd. (or TTOL), which owns conventional tanker commercial management and technical management operations and directly administers four commercially managed tanker RSAs.

Teekay Tankers acquired a ship-to-ship transfer business (now known as Teekay Marine Solutions or TMS) in July 2015 from a company jointly owned by Teekay and I.M. Skaugen SE (or Skaugen). TMS provides a full suite of ship-to-ship transfer services in the oil, gas and dry bulk industries. In addition to full service lightering and lightering support, it also provides consultancy, terminal management and project development services. TMS owns three STS support vessels.

### Teekay Parent

Our long-term vision is for Teekay Parent to be primarily a portfolio manager and project developer with the Teekay Group's fixed assets primarily owned directly by its Controlled Daughter Entities. Our primary financial objectives for Teekay Parent are to increase the value of our three FPSO units and the value of our investments in Teekay LNG, Teekay Tankers and Teekay Offshore, increase Teekay Parent's free cash flow per share and, as a service provider to its Daughter Entities, provide scale and other benefits across the Teekay Group. We also intend to (a) continue to reduce debt of Teekay Parent, including by selling the three FPSO units or other assets in the future and using the net proceeds to repay debt and (b) seek to increase the distributions of Teekay LNG in a sustainable manner and the dividends of Teekay Tankers as the tanker market recovers.

### FPSO Units

FPSO units are offshore production facilities that are ship-shaped or cylindrical-shaped and store processed crude oil in tanks located in the hull of the vessel. FPSO units are typically used as production facilities to develop marginal oil fields or deepwater areas remote from existing pipeline infrastructure. Of four major types of floating production systems, FPSO units are the most common type. Typically, the other types of floating production systems do not have significant storage and need to be connected into a pipeline system or use an FSO unit for storage. FPSO units are less weight-sensitive than other types of floating production systems and their extensive deck area provides flexibility in process plant layouts. In addition, the ability to utilize surplus or aging tanker hulls for conversion to an FPSO unit provides a relatively inexpensive solution compared to the new construction of other floating production systems. A majority of the cost of an FPSO comes from its top-side production equipment and thus, FPSO units are expensive relative to conventional tankers. An FPSO unit carries on board all the necessary production and processing facilities normally associated with a fixed production platform. As the name suggests, FPSO units are not fixed permanently to the seabed but are designed to be moored at one location for long periods of time. In a typical FPSO unit installation, the untreated well-stream is brought to the surface via subsea equipment on the sea floor that is connected to the FPSO unit by flexible flow lines called risers. The risers carry oil, gas and water from the ocean floor to the vessel, which processes it on board. The resulting crude oil is stored in the hull of the vessel and subsequently transferred to tankers either via a buoy or tandem loading system for transport to shore.

Traditionally for large field developments, the major oil companies have owned and operated new, custom-built FPSO units. FPSO units for smaller fields have generally been provided by independent FPSO contractors under life-of-field production contracts, where the contract's duration is for the useful life of the oil field. FPSO units have been used to develop offshore fields around the world since the late 1970s. Most independent FPSO contractors have backgrounds in marine energy transportation, oil field services or oil field engineering and construction. As of December 31, 2018, there were approximately 179 FPSO units active and operating, another 23 idle FPSO units, and 16 FPSO units on order in the world fleet. At December 31, 2018, Teekay Parent owned three FPSO units, in which it has 100% ownership interests. Other major independent FPSO contractors are SBM Offshore N.V., BW Offshore, MODEC, Bumi Armada, Yinson Holdings and Bluewater.

Investment in Teekay Offshore and Other

Teekay Offshore is primarily involved with various aspects of the offshore oil industry, including (1) offshore production (FPSO units) and (2) offshore logistics (shuttle tankers, floating storage and offtake (or FSO) units, units for maintenance and safety (or UMS) and long-distance towing and offshore installation vessels). While the Company does not have any intention to reinvest in the offshore space, it continues to look to maximize the value of its investment in Teekay Offshore.

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## Our Consolidated Fleet under Management

As at December 31, 2018, Teekay and its Controlled Daughter Entities operated under management a fleet of 155 vessels (excluding vessels managed for third parties), including chartered-in vessels and newbuildings/conversions on order. The following table summarizes our fleet under management as at December 31, 2018:

	Owned Vessels	Chartered-in Vessels	Newbuildings / Conversions	Total
Teekay LNG				
LNG Vessels	43	(1) —	6	(2) 49
LPG/Multigas Vessels	27	(3) 2	(4) —	29
Suezmax Tankers	1	—	—	1
Handymax Product Tanker	1	—	—	1
	72	2	6	80
Teekay Tankers				
Aframax Tankers	17	3	—	20
Suezmax Tankers	30	—	—	30
VLCC	1	(5) —	—	1
Product Tankers	9	—	—	9
STS Support Vessels	3	3	—	6
	60	6	—	66
Teekay Parent				
FPSO Units	3	—	—	3
FSO Units	—	3	—	3
Shuttle Tankers	—	2	—	2
Bunker Barge	—	1	—	1
	3	6	—	9
Total	135	14	6	155

(1) Includes a 99% interest in nine LNG carriers, a 70% interest in three LNG carriers, a 69% interest in two LNG carriers, a 52% interest in six LNG carriers, a 50% interest in two LNG carriers, a 49% interest in one LNG carrier, a 40% interest in four LNG carriers, a 33% interest in four LNG carriers, a 30% interest in two LNG carriers, and a 20% interest in one LNG carrier.

(2) Includes a 50% interest in four LNG newbuildings, and a 20% interest in one LNG newbuilding, the Pan Africa, that was delivered in January 2019. One 100%-owned LNG newbuilding, the Yamal Spirit, was delivered in January 2019.

(3) Includes a 99% interest in seven LPG carriers and a 50% interest in 20 LPG carriers.

(4) 50% interest in both LPG carriers.

(5) VLCC is 50%-owned by Teekay Tankers.

Our vessels are of Bahamian, Belgian, Canadian, Cyprus, Danish, Greek, Hong Kong, Isle of Man, Liberian, Malta, Marshall Islands, Netherlands, Norwegian, Panama, Singapore, and Spanish registry.

Many of our Aframax and Suezmax vessels have been designed and constructed as substantially identical sister ships. These vessels can, in many situations, be interchanged, providing scheduling flexibility and greater capacity utilization. In addition, spare parts and technical knowledge can be applied to all the vessels in the particular series, thereby generating operating efficiencies.

Please read “Item 18. Financial Statements: Note 8 — Long-Term Debt” for information with respect to major encumbrances against our vessels.



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### Safety, Management of Ship Operations and Administration

Safety and environmental compliance are our top operational priorities. We operate our vessels in a manner intended to protect the safety and health of our employees, the general public and the environment. We seek to manage the risks inherent in our business and are committed to eliminating incidents that threaten the safety and integrity of our vessels, such as groundings, fires, collisions and oil spills. In 2008, we introduced the Quality Assurance and Training Officers Program (or QATO) to conduct rigorous internal audits of our processes and provide our seafarers with on-board training. In 2007, we introduced a behavior-based safety program called "Safety in Action" to improve the safety culture in our fleet. We are also committed to reducing our emissions and waste generation. In 2010, we introduced a safety leadership program for our employees titled "Operational Leadership, The Journey" which sets out our operational expectations, the responsibilities of individual employees and our commitment to empowering our employees to work safely and live Teekay's vision through a positive and responsible attitude. In 2016, we introduced a 5-year "Safety Road Map" that comprises a number of safety projects to further enhance the culture of safety on board Teekay's vessels.

Key performance indicators facilitate regular monitoring of our operational performance. Targets are set on an annual basis to drive continuous improvement, and indicators are reviewed quarterly to determine if remedial action is necessary to reach the targets.

We, through certain of our subsidiaries, assist our operating subsidiaries in managing their ship operations. All vessels are operated under our comprehensive and integrated Safety Management System that complies with the International Safety Management Code (or ISM Code), the International Standards Organization's (or ISO) 9001 for Quality Assurance, ISO 14001 for Environment Management Systems, ISO 45001 for Occupational Health and Safety Management System and the Maritime Labour Convention 2006 (MLC 2006) that became effective in 2013. The management system is certified by Det Norske Veritas Germanischer Lloyd (or DNV-GL), the Norwegian classification society. It has also been separately approved by the Australian and Spanish flag administrations. Although certification is valid for five years, compliance with the above-mentioned standards is confirmed on a yearly basis by a rigorous auditing procedure that includes both internal audits as well as external verification audits by DNV-GL and certain flag states.

We provide, through certain of our subsidiaries, expertise in various functions critical to the operations of our operating subsidiaries. We believe this arrangement affords a safe, efficient and cost-effective operation. Our subsidiaries also provide to us access to human resources, financial and other administrative functions pursuant to administrative services agreements.

Critical ship management functions undertaken by our subsidiaries are:

- vessel maintenance (including repairs and dry docking) and certification;
- crewing by competent seafarers;
- procurement of stores, bunkers and spare parts;
- management of emergencies and incidents;
- supervision of shipyard and projects during new-building and conversions;
- insurance; and
- financial management services.

These functions are supported by onboard and onshore systems for maintenance, inventory, purchasing and budget management.

Our day-to-day focus on cost efficiencies is applied to all aspects of our operations. We believe that the generally uniform design of some of our existing and new-building vessels and the adoption of common equipment standards

provides operational efficiencies, including with respect to crew training and vessel management, equipment operation and repair, and spare parts ordering. In addition, we and two other shipping companies have a purchasing alliance, Teekay Bergesen Worldwide, which leverages the purchasing power of the combined fleets, mainly in such commodity areas as lube oils, paints and other chemicals.

#### Risk of Loss and Insurance

The operation of any ocean-going vessel carries an inherent risk of catastrophic marine disasters, death or injury of persons and property losses caused by adverse weather conditions, mechanical failures, human error, war, terrorism, piracy and other circumstances or events. In addition, the transportation and transfer/lightering of crude oil, petroleum products, LNG and LPG is subject to the risk of spills and to business interruptions due to political circumstances in foreign countries, hostilities, labor strikes, sanctions and boycotts. The occurrence of any of these events may result in loss of revenues or increased costs.

We carry hull and machinery (marine and war risks) and protection and indemnity insurance coverage to protect against most of the accident-related risks involved in the conduct of our business. Hull and machinery insurance covers loss of or damage to a vessel due to marine perils such as collision, grounding and weather. Protection and indemnity insurance indemnifies us against liabilities incurred while operating vessels, including injury to our crew or third parties, cargo loss and pollution. The current maximum amount of our coverage for pollution is \$1 billion per vessel per incident. We also carry insurance policies covering war risks (including piracy and terrorism) and, for some of our LNG carriers, loss of revenues resulting from vessel off-hire time due to a marine casualty.

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We believe that our current insurance coverage is adequate to protect against most of the accident-related risks involved in the conduct of our business and that we maintain appropriate levels of environmental damage and pollution insurance coverage. However, we cannot guarantee that all covered risks are adequately insured against, that any particular claim will be paid or that we will be able to procure adequate insurance coverage at commercially reasonable rates in the future. More stringent environmental regulations have resulted in increased costs for, and may result in the lack of availability of, insurance against risks of environmental damage or pollution.

In our operations, we use a thorough risk management program that includes, among other things, risk analysis tools, maintenance and assessment programs, a seafarers' competence training program, seafarers' workshops and membership in emergency response organizations.

We have achieved certification under the standards reflected in ISO 9001 for quality assurance, ISO 14001 for environment management systems, OHSAS 18001, and the IMO's International Management Code for the Safe Operation of Ships and Pollution Prevention on a fully integrated basis.

### Operations Outside of the United States

Because our operations are primarily conducted outside of the United States, we are affected by currency fluctuations, to the extent we do not contract in U.S. dollars, and by changing economic, political and governmental conditions in the countries where we engage in business or where our vessels are registered. Past political conflicts in those regions, particularly in the Arabian Gulf, have included attacks on tankers, mining of waterways and other efforts to disrupt shipping in the area. Vessels trading in certain regions have also been subject to acts of piracy. In addition to tankers, targets of terrorist attacks could include oil pipelines, LNG facilities and offshore oil fields. The escalation of existing, or the outbreak of future, hostilities or other political instability in regions where we operate could affect our trade patterns, increase insurance costs, increase tanker operational costs and otherwise adversely affect our operations and performance. In addition, tariffs, trade embargoes, and other economic sanctions by the United States or other countries against countries in the Indo-Pacific Basin or elsewhere as a result of terrorist attacks or otherwise may limit trading activities with those countries, which could also adversely affect our operations and performance.

### Customers

We have derived, and believe that we will continue to derive, a significant portion of our revenues from a limited number of customers. Our customers include major energy and utility companies, major oil traders, large oil and LNG consumers and petroleum product producers, government agencies, and various other entities that depend upon marine transportation. One customer, an international oil company, accounted for an aggregate of 11%, or \$195.0 million, of our consolidated revenues during 2018 (2017 – two customers for 24%, or \$442.4 million; 2016 – two customers for 29%, or \$653.6 million). During these periods, no other customer accounted for over 10% of our revenues for the applicable period. The loss of any significant customer or a substantial decline in the amount of services requested by a significant customer, or the inability of a significant customer to pay for our services, could have a material adverse effect on our business, financial condition and results of operations.

### Flag, Classification, Audits and Inspections

Our vessels are registered with reputable flag states, and the hull and machinery of all of our vessels have been "Classed" by one of the major classification societies and members of International Association of Classification Societies Ltd (or IACS): Bureau Veritas (or BV), Lloyd's Register of Shipping, the American Bureau of Shipping or DNV-GL.

The applicable classification society certifies that the vessel's design and build conform to the applicable Class rules and meets the requirements of the applicable rules and regulations of the country of registry of the vessel and the international conventions to which that country is a signatory. The classification society also verifies throughout the vessel's life that it continues to be maintained in accordance with those rules. In order to validate this, the vessels are surveyed by the classification society, in accordance to the classification society rules, which in the case of our vessels follows a comprehensive five-year special survey cycle, renewed every fifth year. During each five-year period, the vessel undergoes annual and intermediate surveys, the scrutiny and intensity of which is primarily dictated by the age

of the vessel. As our vessels are modern and we have enhanced the resiliency of the underwater coatings of each vessel hull and marked the hull to facilitate underwater inspections by divers, their underwater areas are inspected in a dry dock at two and a half to five-year intervals. In-water inspection is carried out during the second or third annual inspection (e.g. during an intermediate survey).

In addition to class surveys, the vessel's flag state also verifies the condition of the vessel during annual flag state inspections, either independently or by additional authorization to class. Also, port state authorities of a vessel's port of call are authorized under international conventions to undertake regular and spot checks of vessels visiting their jurisdiction.

Processes followed onboard are audited by either the flag state or the classification society acting on behalf of the flag state to ensure that they meet the requirements of the ISM Code. DNV-GL typically carries out this task. We also follow an internal process of internal audits undertaken annually at each office and vessel.

We follow a comprehensive inspections scheme supported by our sea staff, shore-based operational and technical specialists and members of our QATO program. We carry out a minimum of two such inspections annually, which helps ensure us that:

- our vessels and operations adhere to our operating standards;



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- the structural integrity of the vessel is being maintained;
- machinery and equipment are being maintained to give reliable service;
- we are optimizing performance in terms of speed and fuel consumption; and
- our vessels' appearance supports our brand and meets customer expectations.

Our customers also often carry out vetting inspections under the Ship Inspection Report Program, which is a significant safety initiative introduced by the Oil Companies International Marine Forum to specifically address concerns about sub-standard vessels. The inspection results permit charterers to screen a vessel to ensure that it meets their general and specific risk-based shipping requirements.

We believe that the heightened environmental and quality concerns of insurance underwriters, regulators and charterers will generally lead to greater scrutiny, inspection and safety requirements on all vessels in the oil tanker and LNG and LPG carrier markets and will accelerate the scrapping or phasing out of older vessels throughout these markets.

Overall, we believe that our well-maintained and high-quality vessels provide us with a competitive advantage in the current environment of increasing regulation and customer emphasis on quality of service.

### Regulations

#### General

Our business and the operation of our vessels are significantly affected by international conventions and national, state and local laws and regulations 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 change frequently, we cannot predict the ultimate cost of compliance or their impact on the resale price or useful life of our vessels. Additional conventions, laws, and regulations may be adopted that could limit our ability to do business or increase the cost of our doing business and that may materially affect our operations. We are required by various governmental and quasi-governmental agencies to obtain permits, licenses and certificates with respect to our operations. Subject to the discussion below and to the fact that the kinds of permits, licenses and certificates required for the operations of the vessels we own will depend on a number of factors, we believe that we will be able to continue to obtain all permits, licenses and certificates material to the conduct of our operations.

#### International Maritime Organization (or IMO)

The IMO is the United Nations' agency for maritime safety and prevention of pollution. IMO regulations relating to pollution prevention for oil tankers have been adopted by many of the jurisdictions in which our tanker fleet operates. Under IMO regulations and subject to limited exceptions, a tanker must be of double-hull construction in accordance with the requirements set out in these regulations, or be of another approved design ensuring the same level of protection against oil pollution. All of our tankers are double-hulled.

Many countries, but not the United States, have ratified and follow the liability regime adopted by the IMO and set out in the International Convention on Civil Liability for Oil Pollution Damage, 1969, as amended (or CLC). Under this convention, 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 (e.g., crude oil, fuel oil, heavy diesel oil or lubricating oil), subject to certain defenses. The right to limit liability to specified amounts that are periodically revised is forfeited under the CLC when the spill is caused by the owner's actual fault or when the spill is caused by the owner's intentional or reckless conduct. Vessels trading to contracting states must provide evidence of insurance covering the limited liability of the owner. In jurisdictions where the CLC has not been adopted, various legislative regimes or common law governs, and liability is imposed either on the basis of fault or in a manner similar to the CLC.

IMO regulations also include the International Convention for Safety of Life at Sea (or SOLAS), including amendments to SOLAS implementing the International Ship and Port Facility Security Code (or ISPS), the ISM Code, the International Convention on Load Lines of 1966, and, specifically with respect to LNG and LPG carriers, the International Code for Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (the IGC Code). The IMO Marine Safety Committee has also published guidelines for vessels with dynamic positioning (DP) systems,

which would apply to shuttle tankers and DP-assisted FSO units and FPSO units. SOLAS provides rules for the construction of and the equipment required for commercial vessels and includes regulations for their safe operation. Flag states which have ratified the convention and the treaty generally employ the classification societies, which have incorporated SOLAS requirements into their class rules, to undertake surveys to confirm compliance. SOLAS and other IMO regulations concerning safety, including those relating to treaties on training of shipboard personnel, lifesaving appliances, radio equipment and the global maritime distress and safety system, are applicable to our operations. Non-compliance with IMO regulations, including SOLAS, the ISM Code, ISPS, the IGC Code for LNG and LPG carriers, and the specific requirements for shuttle tankers, FSO units and FPSO units under the NPD (Norway) and HSE (United Kingdom) regulations, may subject us to increased liability or penalties, may lead to decreases in available insurance coverage for affected vessels and may result in the denial of access to or detention in some ports. For example, the United States Coast Guard (or USCG) and European Union authorities have indicated that vessels not in compliance with the ISM Code will be prohibited from trading in United States and European Union ports. The ISM Code requires vessel operators to obtain a safety management certification for each vessel they manage, evidencing the shipowner's development and maintenance of an extensive safety management system. Each of the existing vessels in our fleet is currently ISM Code-certified, and we expect to obtain safety management certificates for each newbuilding vessel upon delivery.

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With regard to offshore support vessels, such as UMS, SOLAS permits certain exemptions and equivalents to be allowed by the relevant vessel's flag state. The International Code on Intact Stability, 2008 also applies generally to offshore support vessels. In 2016, the IMO's Maritime Safety Committee (or MSC) adopted amendments to the IS Code relating to ships engaged in anchor handling operations and to ships engaged in lifting and towing operations, including escort towing. These amendments are expected to enter into force on January 1, 2020. The IMO has also developed non-mandatory codes and guidelines which apply to various types or aspects of offshore support vessels. LNG and LPG carriers are also subject to regulation under the IGC Code. Each LNG and LPG carrier must obtain a certificate of compliance evidencing that it meets the requirements of the IGC Code, including requirements relating to its design and construction. Each of our LNG and LPG carriers is currently IGC Code compliant, and each of the shipbuilding contracts for our LNG newbuildings, and for the LPG newbuildings requires IGC Code compliance prior to delivery. Amendments to the IGC Code, aligning wheelhouse window fire-rating requirements with those in SOLAS chapter II-2, were adopted in 2016 and are expected to enter into force on January 1, 2020.

In addition, the International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (the IGF Code), which entered into force on January 1, 2017, is mandatory for ships fueled by gases or other low-flashpoint fuels, setting out mandatory provisions for the arrangement, installation, control and monitoring of machinery, equipment and systems using low-flashpoint fuel.

Annex VI to the IMO's International Convention for the Prevention of Pollution from Ships (MARPOL) (or Annex VI) sets limits on sulfur oxide and nitrogen oxide (or NOx) emissions from ship exhausts and prohibits emissions of ozone depleting substances, emissions of volatile compounds from cargo tanks and the incineration of specific substances. Annex VI also includes a world-wide cap on the sulfur content of fuel oil and allows for special "emission control areas" (or ECAs) to be established with more stringent controls on sulfur emissions. Annex VI provides for a three-tier reduction in NOx emissions from marine diesel engines, with the final tier (or Tier III) to apply to engines installed on vessels constructed on or after January 1, 2016, and which operate in the North American ECA or the U.S. Caribbean Sea ECA as well as ECAs designated in the future by the IMO. In October 2016, the IMO's Marine Environment Protection Committee (or MEPC) approved the designation of the North Sea (including the English Channel) and the Baltic Sea as ECAs for NOx emissions; these ECAs and the related amendments to Annex VI of MARPOL (with some exceptions) entered into effect on January 1, 2019. This requirement will be applicable for new ships constructed on or after January 1, 2021 if they visit the Baltic or North Sea (including the English Channel) and requires the future trading area of a ship to be assessed at the contract stage. There are exemption provisions to allow ships with only Tier II engines, to navigate in a NOx Tier III ECA if the ship is departing from a shipyard where the ship is newly built or visiting a shipyard for conversion/repair/maintenance without loading/unloading cargoes. Effective January 1, 2020, Annex VI imposes a global limit for sulphur in fuel oil used on board ships of 0.50% m/m (mass by mass), regardless of whether a ship is operating outside a designated ECA. To comply with this new standard, ships may utilize different fuels containing low or zero sulphur (e.g., LNG or biofuels), or utilize exhaust gas cleaning systems, known as "scrubbers". Amendments to the information to be included in bunker delivery notes relating to the supply of marine fuel oil to ships fitted with alternative mechanisms to address sulphur emission requirements (e.g., scrubbers) became effective January 1, 2019. We have taken and continue to take steps to comply with the 2020 sulphur limit. At present, we have not installed any scrubbers on our existing fleet, and we intend to switch over to burning low sulphur fuel from January 1, 2020.

As of March 1, 2018, amendments to Annex VI impose new requirements for ships of 5,000 gross tonnage and above to collect fuel oil consumption data for ships, as well as certain other data including proxies for transport work; the amendments also set forth criteria for determining whether cargo residues are harmful to the marine environment and a new Garbage Record Book format.

The IMO has issued guidance regarding protecting against acts of piracy off the coast of Somalia. We comply with these guidelines.

The IMO's Ballast Water Management Convention entered into force on September 8, 2017. As of December 31, 2018, there were 79 contracting states to the convention. The convention stipulates two standards for discharged

ballast water. The D-1 standard covers ballast water exchange while the D-2 standard covers ballast water treatment. The convention requires the implementation of either the D-1 or D-2 standard. There will be a transitional period from the entry into force to the International Oil Pollution Prevention (or IOPP) renewal survey in which ballast water exchange (reg. D-1) can be employed. The IMO's Marine Environment Protection Committee (or MEPC), made a decision at the 71st meeting held in July 2017 to extend the implementation date for the D-2 standard to September 8, 2019. All ships constructed before September 8, 2017 will have to install a BWMS at their first renewal survey associated with the IOPP Certificate under MARPOL Annex I after September 8, 2019. New ships constructed after September 8, 2017 will have to comply with Regulation D2 at the time of delivery. D1 requirements - approvals of BWMP and issuance of BWMC or SOC (Statement of Compliance) shall remain unaffected with this extension and all vessels will have to meet D1 requirements (Plan approvals) post September 8, 2017.

The MEPC agreed to a compromise on the implementation dates for the D-2 discharge standard: ships constructed on or after September 8, 2017 must comply with the D-2 standard upon delivery. Existing ships should be D-2 compliant on the first IOPP renewal following entry into force if the survey is completed on or after September 8, 2019, or a renewal IOPP survey is completed on or after September 8, 2014 but prior to September 8, 2017. Ships should be D-2 compliant on the second IOPP renewal survey after September 8, 2017 if the first renewal survey after that date is completed prior to September 8, 2019 and if the previous two conditions are not met. Vessels will be required to meet the discharge standard D-2 by installing an approved Ballast Water Management System (or BWMS).

Besides the IMO convention, ships sailing in U.S. waters are required to employ a type-approved BWMS which is compliant with USCG regulations. The USCG has approved a number of BWMS - Alfa Laval (Sweden), Ocean Saver (Norway), Sunrui (China), Optimarin (Norway), Ecochlor (USA), Erma First (Greece), Hyundai Heavy Industries Co. Ltd. (Korea), Qingdao Headway Technology Co. Ltd. (China), and JFE Engineering Corporation (Japan), out of which first two makers are under Teekay's approved list for retrofit. We estimate that the installation of approved BWMS may cost between \$2 million and \$3 million per vessel.

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Amendments to MARPOL Annex VI that makes the data collection system for fuel oil consumption of ships mandatory were adopted at the 70th session of the MEPC held in October 2016 and entered into force on March 1, 2018. The amendments require operators to update the vessels Ship Energy Efficiency Management Plan (SEEMP) to include a part II describing the ship specific methodology that will be used for collecting and measuring data for fuel oil consumption, distance travelled, hours underway, ensuring data quality is maintained and the processes that will be used to report the data to the Administration. This must be verified as compliant on or before December 31, 2018, with the first data collection period being for the 2019 calendar year. A Confirmation of Compliance will be issued by the administration/registered organization, which must be kept on board the ship.

MARPOL Annex I also states that oil residue may be discharged directly from the sludge tank to the shore reception facility through standard discharge connections. They may also be discharged to the incinerator or to an auxiliary boiler suitable for burning the oil by means of a dedicated discharge pump. Amendments to Annex I expand on the requirements for discharge connections and piping to ensure residues are properly disposed of. Annex I is applicable for existing vessels with a first renewal survey beginning on or after January 1, 2017.

Amendments to MARPOL Annex V were adopted at the 70th session of the MEPC held in October 2016 and entered into force on March 1, 2018. The changes include criteria for determining whether cargo residues are harmful to the marine environment and a new Garbage Record Book (or GRB) format with a new garbage category for e-waste. Solid bulk cargo as per regulation VI/1-1.2 of SOLAS, other than grain, shall now be classified as per the criteria in the new Appendix I of MARPOL Annex V, and the shipper shall then declare whether or not the cargo is harmful to the marine environment. A new form of the GRB has been included in Appendix II to MARPOL Annex V. The GRB is now divided into two parts: Part I - for all garbage other than cargo residues, applicable to all ships. PART II - for cargo residues only applicable to ships carrying solid bulk cargo. These changes are reflected in the vessels latest revised GRB.

The IMO has also adopted an International Code for Ships Operating in Polar Waters (or Polar Code) which deals with matters regarding design, construction, equipment, operation, search and rescue and environmental protection in relation to ships operating in waters surrounding the two poles. The Polar Code includes both safety and environmental provisions. The Polar Code and related amendments entered into force in January 2017. The Polar Code is mandatory for new vessels built after January 1, 2017. For existing ships, this code will be applicable from the first intermediate or renewal survey, whichever occurs first, beginning on or after January 1, 2018.

MSC 91 adopted amendments to SOLAS Regulation II-2/10 to clarify that a minimum of two-way portable radiotelephone apparatus for each fire party for firefighters' communication shall be carried on board. These radio devices shall be of explosion proof type or intrinsically safe type. All existing ships built before July 1, 2014 should comply with this requirement by the first safety equipment survey after July 1, 2018. All new vessels constructed (keel laid) on or after July 1, 2014 must comply with this requirement at the time of delivery. Amendments to SOLAS Regulation II-1/3/-12 on protection against noise, Regulation II-2/1 and II 2/10 on firefighting and new Regulation XI-1/2-1 on harmonization of survey periods of cargo ships not subject to the ESP code become effective January 1, 2020.

As per MSC. 338(91), requirements have been highlighted for audio and visual indicators for breathing apparatus which will alert the user before the volume of the air in the cylinder has been reduced to no less than 200 liters. This applies to ships constructed on or after July 1, 2014. Ships constructed before July 1, 2014 must comply no later than July 1, 2019.

Cyber-related risks are operational risks that are appropriately assessed and managed in accordance with the safety management requirements of the ISM Code. Cyber risks are required to be appropriately addressed in our safety management system no later than the first annual verification of the company's Document of Compliance after January 1, 2021.

The IMO continues to review and introduce new regulations; as such, it is impossible to predict what additional requirements, if any, may be adopted by the IMO and what effect, if any, such regulations might have on our operations.

European Union (or EU)

The EU has adopted legislation that: bans from European waters manifestly sub-standard vessels (defined as vessels that have been detained twice by EU port authorities, in the preceding two years); creates obligations on the part of EU member port states to inspect minimum percentages of vessels using these ports annually; provides for increased surveillance of vessels posing a high risk to maritime safety or the marine environment; and provides the EU with greater authority and control over classification societies, including the ability to seek to suspend or revoke the authority of negligent societies.

Two regulations, that are part of the implementation of the Port State Control Directive, came into force on January 1, 2011 and introduced a ranking system (published on a public website and updated daily) displaying shipping companies operating in the EU with the worst safety records. The ranking is judged upon the results of the technical inspections carried out on the vessels owned by a particular shipping company. Those shipping companies that have the most positive safety records are rewarded by subjecting them to fewer inspections, while those with the most safety shortcomings or technical failings recorded upon inspection will in turn be subject to a greater frequency of official inspections to their vessels.

The EU has, by way of Directive 2005/35/EC, which has been amended by Directive 2009/123/EC created a legal framework for imposing criminal penalties in the event of discharges of oil and other noxious substances from ships sailing in its waters, irrespective of their flag. This relates to discharges of oil or other noxious substances from vessels. Minor discharges shall not automatically be considered as offenses, except where repetition leads to deterioration in the quality of the water. The persons responsible may be subject to criminal penalties if they have acted with intent, recklessly or with serious negligence and the act of inciting, aiding and abetting a person to discharge a polluting substance may also lead to criminal penalties.

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The EU adopted a Directive requiring the use of low sulfur fuel. Since January 1, 2015, vessels have been required to burn fuel with sulfur content not exceeding 0.1% while within EU member states' territorial seas, exclusive economic zones and pollution control zones that are included in SOX Emission Control Areas. Other jurisdictions have also adopted similar regulations. Since January 1, 2014, the California Air Resources Board has required vessels to burn fuel with 0.1% sulfur content or less within 24 nautical miles of California. China also established emission control areas and continues to establish such areas, restricting the maximum sulfur content of the fuel to be used by vessels within those areas, which limits become progressively stricter over time.

IMO regulations required that as of January 1, 2015, all vessels operating within ECAs worldwide recognized under MARPOL Annex VI must comply with 0.1% sulfur requirements. Certain modifications were necessary in order to optimize operation on low sulphur marine gas oil (LSMGO) of equipment originally designed to operate on Heavy Fuel Oil (or HFO), and to ensure our compliance with the EU Directive. In addition, LSMGO is more expensive than HFO and this impacts the costs of operations. Our exposure to increased cost is in our spot trading vessels, although our competitors bear a similar cost increase as this is a regulatory item applicable to all vessels. All required vessels in our fleet trading to and within regulated low sulfur areas are able to comply with fuel requirements. The global cap on the sulfur content of fuel oil is currently 3.5%, to be reduced to 0.5% by January 1, 2020.

The EU Regulation on Ship Recycling entered into force on December 30, 2013. This regulation aims to prevent, reduce and minimize accidents, injuries and other negative effects on human health and the environment when ships are recycled and the hazardous waste they contain is removed. The legislation applies to all ships flying the flag of an EU country and to vessels with non-EU flags that call at an EU port or anchorage. It sets out responsibilities for ship owners and for recycling facilities both in the EU and in other countries. Each new ship has to have on board an inventory of the hazardous materials (such as asbestos, lead or mercury) it contains in either its structure or equipment. The use of certain hazardous materials is forbidden. Before a ship is recycled, its owner must provide the company carrying out the work with specific information about the vessel and prepare a ship recycling plan. Recycling may only take place at facilities listed on the EU 'List of facilities'. In 2014, the Council Decision 2014/241/EU authorized EU countries having ships flying their flag or registered under their flag to ratify or to accede to the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships. Compliance timelines are as follows: EU-flagged new-buildings were required to have onboard a verified Inventory of Hazardous Materials (IHM) with a Statement of Compliance at the latest by December 31, 2018, existing EU-flagged vessels are required to have onboard a verified IHM with a Statement of Compliance at the latest by December 31, 2020, non-EU-flagged vessels calling at EU ports are also required to have onboard a verified IHM with a Statement of Compliance latest by December 31, 2020. The EU Commission also adopted a European List of approved ship recycling facilities, as well as four further implementing decisions dealing with certification and other administrative requirements set out in the EU Ship Recycling Regulation.

North Sea, Canada, and Brazil

Our shuttle tankers and FPSO units primarily operate in the North Sea, Brazil and Newfoundland.

There is no international regime in force which deals with compensation for oil pollution from offshore craft, such as FPSOs. Whether the CLC and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage 1971, as amended by the 1992 Protocol (or the Fund Convention), which deal with liability and compensation for oil pollution and the Convention on Limitation of Liability for Maritime Claims 1976, as amended by the 1996 Protocol (or the 1976 Limitation of Liability Convention), which deals with limitation of liability for maritime claims, apply to FPSOs is neither straightforward nor certain. This is due to the definition of "ship" under these conventions and the requirement that oil is "carried" on board the relevant vessel. Nevertheless, the wording of the 1992 Protocol to the CLC leaves room for arguing that FPSOs and oil pollution caused by them can come under the ambit of these conventions for the purposes of liability and compensation. However, the application of these conventions also depends on their implementation by the relevant domestic laws of the countries which are parties to them.

UK's Merchant Shipping Act 1995, as amended (or MSA), implements the CLC but uses a wider definition of a "ship" than the one used in the CLC and in its 1992 Protocol but still refers to the criteria used by the CLC. It is therefore doubtful that FPSOs fall within its wording. However, the MSA also includes separate provisions for liability for oil

pollution. These apply to vessels which fall within a much wider definition and include non-seagoing vessels. It is arguable that the wording of these MSA provisions is wide enough to cover oil pollution caused by offshore crafts such as FPSOs. The liability regime under these MSA provisions is similar to that imposed under the CLC but limitation of liability is subject to the 1976 Limitation of Liability Convention regime (as implemented in the MSA). With regard to the 1976 Limitation of Liability Convention, it is, again, doubtful whether it applies to FPSOs, as it contains certain exceptions in relation to vessels constructed for or adapted to and engaged in drilling and in relation to floating platforms constructed for the purpose of exploring or exploiting natural resources of the seabed or its subsoil. However, these exceptions are not included in the legislation implementing the 1976 Limitation of Liability Convention in the UK, which is also to be found in the MSA. In addition, the MSA sets out a very wide definition of “ship” in relation to which the 1976 Limitation of Liability Convention is to apply and there is room for argument that if FPSOs fall within that definition of “ship”, they are subject in the UK to the limitation provisions of the 1976 Limitation of Liability Convention.

In the absence of an international regime regulating liability and compensation for oil pollution caused by offshore oil and gas facilities, the Offshore Pollution Liability Agreement 1974 was entered into by a number of oil companies and became effective in 1975. This is a voluntary industry oil pollution compensation scheme which is funded by the parties to it. These are operators or intending operators of offshore facilities used in the exploration for and production of oil and gas located within the jurisdictions of a number of “Designated States” which include the UK, Denmark, Norway, Germany, France, Greenland, Ireland, the Netherlands, the Isle of Man and the Faroe Islands. The scheme provides for strict liability of the relevant operator for pollution damage and remedial costs, subject to a limit, and the operators must provide evidence of financial responsibility in the form of insurance or other security to meet the liability under the scheme.



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With regard to FPSOs, Chapter 7 of Annex I of MARPOL (which contains regulations for the prevention of oil pollution) sets out special requirements for fixed and floating platforms, including, amongst others, FPSOs and FSUs. The IMO's Marine Environment Protection Committee has issued guidelines for the application of MARPOL Annex I requirements to FPSOs and FSUs.

The EU's Directive 2004/35/CE on environmental liability with regard to the prevention and remedying of environmental damage (or the Environmental Liability Directive) deals with liability for environmental damage on the basis of the "polluter pays" principle. Environmental damage includes damage to protected species and natural habitats and damage to water and land. Under this Directive, operators whose activities caused the environmental damage or the imminent threat of such damage are to be held liable for the damage (subject to certain exceptions). With regard to environmental damage caused by specific activities listed in the Directive, operators are strictly liable. This is without prejudice to their right to limit their liability in accordance with national legislation implementing the 1976 Limitation of Liability Convention. The Directive applies both to damage which has already occurred and where there is an imminent threat of damage. It also requires the relevant operator to take preventive action, to report an imminent threat and any environmental damage to the regulators and to perform remedial measures, such as clean-up. The Environmental Liability Directive is implemented in the UK by the Environmental Damage (Prevention and Remediation) Regulations 2015.

In June 2013, the EU adopted Directive 2013/30/EU on safety of offshore oil and gas operations and amending Directive 2004/35/EC (or the Offshore Safety Directive). This Directive lays down minimum requirements for member states and the European Maritime Safety Agency for the purposes of reducing the occurrence of major accidents related to offshore oil and gas operations, thus increasing protection of the marine environment and coastal economies against pollution, establishing minimum conditions for safe offshore exploration and exploitation of oil and gas, and limiting disruptions to the EU's energy production and improving responses to accidents. The Offshore Safety Directive sets out extensive requirements, such as preparation of a major hazard report with risk assessment, emergency response plan and safety and environmental management system applicable to the relevant oil and gas installation before the planned commencement of the operations, independent verification of safety and environmental critical elements identified in the risk assessment for the relevant oil and gas installation, and ensuring that factors such as the applicant's safety and environmental performance and its financial capabilities or security to meet potential liabilities arising from the oil and gas operations are taken into account when considering granting a license. Under the Offshore Safety Directive, Member States are to ensure that the relevant licensee is financially liable for the prevention and remediation of environmental damage (as defined in the Environmental Liability Directive) caused by offshore oil and gas operations carried out by or on behalf of the licensee or the operator. Member States must lay down rules on penalties applicable to infringements of the legislation adopted pursuant to this Directive. Member States were required to bring into force laws, regulations and administrative provisions necessary to comply with this Directive by July 19, 2015. The Offshore Safety Directive has been implemented in the UK by a number of different UK Regulations, including the Environmental Damage (Prevention and Remediation) (England) Regulations 2015, as amended, (which revoked and replaced the Environmental Damage (Prevention and Remediation) Regulations 2015)) and the Offshore Installations (Offshore Safety Directive) (Safety Case etc.) Regulations 2015, as amended, both of which entered into force on July 19, 2015.

In addition to the regulations imposed by the IMO and EU, countries having jurisdiction over North Sea areas impose regulatory requirements in connection with operations in those areas, including HSE in the United Kingdom and NPD in Norway. These regulatory requirements, together with additional requirements imposed by operators in North Sea oil fields, require that we make further expenditures for sophisticated equipment, reporting and redundancy systems on the shuttle tankers and for the training of seagoing staff. Additional regulations and requirements may be adopted or imposed that could limit our ability to do business or further increase the cost of doing business in the North Sea. In Norway, the Norwegian Pollution Control Authority requires the installation of volatile organic compound emissions (or VOC) reduction units on most shuttle tankers serving the Norwegian continental shelf. Customers bear the cost to install and operate the VOC equipment on board the shuttle tankers.

In addition to the requirements of major IMO shipping conventions, the exploration for and production of oil and gas within the Newfoundland & Labrador (or NL) offshore area is conducted pursuant to the Canada Newfoundland and

Labrador Atlantic Accord Implementation Act (the Accord Act) in accordance with the conditions of a license and authorization issued by the Canada-Newfoundland and Labrador Offshore Petroleum Board (or CNLOPB). Various regulations dealing with environmental, occupational health and safety, and other aspects of offshore oil and gas activities have been enacted under the Accord Act. The CNLOPB has also issued interpretive guidelines concerning compliance with the regulations, and compliance with CNLOPB guidelines may be a condition of the issuance or renewal of the license and authorizations. These regulations and guidelines require that the shuttle tankers in the NL offshore area meet stringent standards for equipment, reporting and redundancy systems, and for the training and equipping of seagoing staff. Further, licensees are required by the Accord Act to provide a benefits plan satisfactory to CNLOPB. Such plans generally require the licensee to: establish an office in NL; give NL residents first consideration for training and employment; make expenditures for research and development and education and training to be carried out in NL; and give first consideration to services provided from within NL and to goods manufactured in NL. These regulatory requirements may change as regulations and CNLOPB guidelines are amended or replaced from time to time.

In addition to the regulations imposed by the IMO, Brazil imposes regulatory requirements in connection with operations in its territory, including specific requirements for the operations of vessels flagged in countries other than Brazil. Brazil has several maritime regulations and frequent amendments and updates. With respect to environmental protection while operating under Brazilian waters, the Federal Constitution establishes that the State shall regulate and impose protections to the environment, establishing liability in the civil, administrative and criminal spheres. Law no. 6938/1981 sets the National Environmental Policy and Law no. 9966/2000, known as "The Oil Law", institutes several rules, liabilities and penalties regarding the handling oil or other dangerous substances, being applicable to foreign vessels and platforms operating in Brazilian waters.

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Regulating the exploitation and production of oil and natural gas, Law no. 9.478/1997, known as “The Petroleum Law”, created the National Petroleum Agency (or ANP), responsible for regulating and supervising the industry through directives and resolutions. After the discovery of the pre-salt, the mentioned law was altered in some points by Law no. 12.351/2010 (the "Pre-Salt Law") being the industry also regulated by several administrative Regulations issued by the ANP. ANP is currently reviewing an amendment to its Ordinance 170/02, with aims to specifically regulate ship-to-ship operations in addition to the transportation of hydrocarbons and byproducts.

Additional requirements and restrictions for the operation of offshore vessels and shuttle tankers are imposed by Law 9.432/97 and by the National Waterway Transport Agency (or ANTAQ), instituted by Law 10.233/2001, by way of frequently updated administrative resolutions.

The transit of vessels and permanence and operation of offshore units in Brazil are further regulated by the Maritime Authorities, through law and administrative Ordinances known as “NORMAM”. Brazil also is a signatory of several IMO/MARPOL conventions, including the deliberation to reduce Sulphur emissions as of January 1, 2020, agreed during the 70<sup>o</sup> session of the Marine Environment Protection Committee, held at IMO’s headquarters on June 2016. Under Brazil’s environmental laws, owners and operators of vessels are strictly liable for damages to the environment. Other penalties for non-compliance with environmental laws include fines, loss of tax incentives and suspension of activities. Operators such as Petrobras may impose additional requirements, such as compliance with specific health, safety and environmental standards or the use of local labor. Additional regulations and requirements may be adopted or imposed that could limit our ability to do business or further increase the cost of doing business in Brazil.

### United States

The United States has enacted an extensive regulatory and liability regime for the protection and clean-up of the environment from oil spills, including discharges of oil cargoes, bunker fuels or lubricants, primarily through the Oil Pollution Act of 1990 (or OPA 90) and the Comprehensive Environmental Response, Compensation and Liability Act (or CERCLA). OPA 90 affects all owners, bareboat charterers, 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 U.S. territorial sea and 200-mile exclusive economic zone around the United States. CERCLA applies to the discharge of “hazardous substances” rather than “oil” and imposes strict joint and several liabilities upon the owners, operators or bareboat charterers of vessels for clean-up costs and damages arising from discharges of hazardous substances. We believe that petroleum products and LNG and LPG should not be considered hazardous substances under CERCLA, but additives to oil or lubricants used on LNG or LPG carriers and other vessels might fall within its scope.

Under OPA 90, vessel owners, operators and bareboat charterers are “responsible parties” and are jointly, severally and strictly liable (unless the oil spill results solely from the act or omission of a third party, an act of God or an act of war and the responsible party reports the incident and reasonably cooperates with the appropriate authorities) for all containment and clean-up costs and other damages arising from discharges or threatened discharges of oil from their vessels. These other damages are defined broadly to include: natural resources damages and the related assessment costs; real and personal property damages; net loss of taxes, royalties, rents, fees and other lost revenues; lost profits or impairment of earning capacity due to property or natural resources damage; net cost of public services necessitated by a spill response, such as protection from fire, safety or health hazards; and loss of subsistence use of natural resources.

OPA 90 limits the liability of responsible parties in an amount it periodically updates. The liability limits do not apply if the incident was proximately caused by violation of applicable U.S. federal safety, construction or operating regulations, including IMO conventions to which the United States is a signatory, or by the responsible party’s 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. Liability under CERCLA is also subject to limits unless the incident is caused by gross negligence, willful misconduct or a violation of certain regulations. We currently maintain for each of our vessels pollution liability coverage in the maximum coverage amount of \$1 billion per incident. A catastrophic spill could exceed the coverage available, which could harm our business, financial condition and results of operations.

Under OPA 90, with limited exceptions, all newly built or converted tankers delivered after January 1, 1994 and operating in U.S. waters must be double-hulled. All of our tankers are double-hulled.

OPA 90 also requires owners and operators of vessels to establish and maintain with the USCG evidence of financial responsibility in an amount at least equal to the relevant limitation amount for such vessels under the statute. The USCG has implemented regulations requiring that an owner or operator of a fleet of vessels must demonstrate evidence of financial responsibility in an amount sufficient to cover the vessel in the fleet having the greatest maximum limited liability under OPA 90 and CERCLA. Evidence of financial responsibility may be demonstrated by insurance, surety bond, self-insurance, guaranty or an alternate method subject to approval by the USCG. Under the self-insurance provisions, the ship owners or operators 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. We have complied with the USCG regulations by using self-insurance for certain vessels and obtaining financial guaranties from a third party for the remaining vessels. If other vessels in our fleet trade into the United States in the future, we expect to obtain guaranties from third-party insurers.

OPA 90 and CERCLA permit individual U.S. states to impose their own liability regimes with regard to oil or hazardous substance pollution incidents occurring within their boundaries, and some states have enacted legislation providing for unlimited strict liability for spills. Several coastal states, such as California, Washington and Alaska require state-specific evidence of financial responsibility and vessel response plans. We intend to comply with all applicable state regulations in the ports where our vessels call.

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Owners or operators of vessels, including tankers operating in U.S. waters, are required to file vessel response plans with the USCG, and their tankers are required to operate in compliance with USCG approved plans. Such response plans must, among other things: 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”; describe crew training and drills; and identify a qualified individual with full authority to implement removal actions. All our vessels have USCG approved vessel response plans. In addition, we conduct regular oil spill response drills in accordance with the guidelines set out in OPA 90. The USCG has announced it intends to propose similar regulations requiring certain vessels to prepare response plans for the release of hazardous substances.

OPA 90 and CERCLA do not preclude claimants from seeking damages resulting from the discharge of oil and hazardous substances under other applicable law, including maritime tort law. Such claims could include attempts to characterize the transportation of LNG or LPG aboard a vessel as an ultra-hazardous activity under a doctrine that would impose strict liability for damages resulting from that activity. The application of this doctrine varies by jurisdiction.

The U.S. Clean Water Act (or the Clean Water Act) also prohibits the discharge of oil or hazardous substances in U.S. navigable waters and imposes strict liability in the form of penalties for unauthorized discharges. The Clean Water Act imposes substantial liability for the costs of removal, remediation and damages and complements the remedies available under OPA 90 and CERCLA discussed above.

Our vessels that discharge certain effluents, including ballast water, in U.S. waters must obtain a Clean Water Act permit from the Environmental Protection Agency (or EPA) titled the “Vessel General Permit” and comply with a range of effluent limitations, best management practices, reporting, inspections and other requirements. The Vessel General Permit incorporated USCG requirements for ballast water exchange and includes specific technology-based requirements for vessels, and includes an implementation schedule to require vessels to meet the ballast water effluent limitations by the first dry docking after January 1, 2016, depending on the vessel size. The Vessel Incidental Discharge Act (or VIDA) was signed into law on December 4, 2018 and establishes a new framework for the regulation of vessel incidental discharges under the CWA. VIDA requires the EPA to develop performance standards for incidental discharges and requires the USCG to develop regulations within two years of the EPA’s promulgation of standards. Under VIDA, all provisions of the Vessel General Permit remain in force and effect as currently written until the USCG regulations are finalized. Vessels that are constructed after December 1, 2013 are subject to the ballast water numeric effluent limitations. Several U.S. states have added specific requirements to the Vessel General Permit and, in some cases, may require vessels to install ballast water treatment technology to meet biological performance standards.

**Greenhouse Gas Regulation**

In February 2005, the Kyoto Protocol to the United Nations Framework Convention on Climate Change (or the Kyoto Protocol) entered into force. Pursuant to the Kyoto Protocol, adopting countries are required to implement national programs to reduce emissions of greenhouse gases. In December 2009, more than 27 nations, including the United States, entered into the Copenhagen Accord. The Copenhagen Accord is non-binding but is intended to pave the way for a comprehensive, international treaty on climate change. In December 2015, the Paris Agreement (or the Paris Agreement) was adopted by a large number of countries at the 21st Session of the Conference of Parties (commonly known as COP 21, a conference of the countries which are parties to the United Nations Framework Convention on Climate Change; the COP is the highest decision-making authority of this organization). The Paris Agreement, which entered into force on November 4, 2016, deals with greenhouse gas emission reduction measures and targets from 2020 in order to limit the global temperature increases to well below 2° Celsius above pre-industrial levels. Although shipping was ultimately not included in the Paris Agreement, it is expected that the adoption of the Paris Agreement may lead to regulatory changes in relation to curbing greenhouse gas emissions from shipping.

In July 2011, the IMO adopted regulations imposing technical and operational measures for the reduction of greenhouse gas emissions. These new regulations formed a new chapter in Annex VI and became effective on January 1, 2013. The new technical and operational measures include the “Energy Efficiency Design Index” (or the EEDI), which is mandatory for newbuilding vessels, and the “Ship Energy Efficiency Management Plan,” which is mandatory for all vessels. In October 2016, the IMO’s MEPC adopted updated guidelines for the calculation of the

EEDI. In October 2014, the IMO's MEPC agreed in principle to develop a system of data collection regarding fuel consumption of ships. In October 2016, the IMO adopted a mandatory data collection system under which vessels of 5,000 gross tonnages and above are to collect fuel consumption and other data and to report the aggregated data so collected to their flag state at the end of each calendar year. The new requirements entered into force on March 1, 2018. All vessels are required to submit fuel consumption data to their respective administration/registered organizations for onward submission to the IMO for analysis and to help with decision making on future measures. The amendments require operators to update the vessels Ship Energy Efficiency Management Plan (SEEMP) to include a part II describing the ship specific methodology that will be used for collecting and measuring data for fuel oil consumption, distance travelled, hours underway and processes that will be used to report the data to the Administration, in order to ensure data quality is maintained. The vessels were required to be verified as compliant on or before December 31, 2018, with the first data collection period being for the 2019 calendar year. A Confirmation of Compliance will be issued by the administration/registered organization, which must be kept on board the ship. The IMO also approved a roadmap for the development of a comprehensive IMO strategy on reduction of greenhouse gas emissions from ships with an initial strategy adopted on April 13, 2018 and a revised strategy to be adopted in 2023.

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The EU also has indicated that it intends to propose an expansion of an existing EU emissions trading regime to include emissions of greenhouse gases from vessels, and individual countries in the EU may impose additional requirements. The EU has adopted Regulation (EU) 2015/757 on the monitoring, reporting and verification (or MRV) of CO<sub>2</sub> emissions from vessels (or the MRV Regulation), which entered into force on July 1, 2015. The MRV Regulation aims to quantify and reduce CO<sub>2</sub> emissions from shipping. It lists the requirements on the MRV of carbon dioxide emissions and requires ship owners and operators to annually monitor, report and verify CO<sub>2</sub> emissions for vessels larger than 5,000 gross tonnage calling at any EU and EFTA (Norway and Iceland) port (with a few exceptions, such as fish-catching or fish-processing vessels). Data collection takes place on a per voyage basis and started January 1, 2018. The reported CO<sub>2</sub> emissions, together with additional data, such as cargo and energy efficiency parameters, are to be verified by independent verifiers and sent to a central inspection database hosted by the European Maritime Safety Agency (EMSA) to collate all the data applicable to the EU region. Companies responsible for the operation of large ships using EU ports are required to report their CO<sub>2</sub> emissions. While the EU was considering a proposal for the inclusion of shipping in the EU Emissions Trading System as from 2021 (in the absence of a comparable system operating under the IMO), it appears that the decision to include shipping may be deferred until 2023.

In the United States, the EPA issued an “endangerment finding” regarding greenhouse gases under the Clean Air Act. While this finding in itself does not impose any requirements on our industry, it authorizes the EPA to regulate directly greenhouse gas emissions through a rule-making process. In addition, climate change initiatives are being considered in the United States Congress and by individual states. Any passage of new climate control legislation or other regulatory initiatives by the IMO, EU, the United States or other countries or states where we operate that restrict emissions of greenhouse gases could have a significant financial and operational impact on our business that we cannot predict with certainty at this time.

Vessel Security

The ISPS was adopted by the IMO in December 2002 in the wake of heightened concern over worldwide terrorism and became effective on July 1, 2004. The objective of ISPS is to enhance maritime security by detecting security threats to ships and ports and by requiring the development of security plans and other measures designed to prevent such threats. Each of the existing vessels in our fleet currently complies with the requirements of ISPS and Maritime Transportation Security Act of 2002 (U.S. specific requirements). Procedures are in place to inform the relevant reporting regimes such as Maritime Security Council Horn of Africa (or MSCHOA), the Maritime Domain Awareness for Trade - Gulf of Guinea (or MDAT-GoG), the Information Fusion Center (or IFC) whenever our vessels are calling in the Indian Ocean Region, or West Coast of Africa (or WAF) or Southeast Asia high-risk areas respectively. In order to mitigate the security risk, security arrangements are required for vessels which travel through these high-risk areas.

C. Organizational Structure

Our organizational structure includes, among others, our interests in Teekay LNG and Teekay Tankers, which are our publicly-traded subsidiaries, and our publicly-traded equity-accounted investee Teekay Offshore.

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The following chart provides an overview of our organizational structure as at March 1, 2019. Please read Exhibit 8.1 to this Annual Report for a list of our subsidiaries as at March 1, 2019.

Teekay LNG is controlled by its general partner. Teekay Corporation indirectly owns a 100% beneficial ownership (1) in the general partner. However, in certain limited cases, approval of a majority of the unitholders of Teekay LNG is required to approve certain actions.

Teekay Tankers has two classes of shares: Class A common stock and Class B common stock. Teekay Corporation indirectly owns 100% of the Class B shares which have up to five votes each but aggregate voting power capped at (2) 49%. As a result of Teekay Corporation's ownership of Class A and Class B shares, it holds aggregate voting power of 54.1% as of March 1, 2019.

Teekay Offshore is controlled by its general partner. An affiliate of Brookfield and Teekay indirectly have (3) ownership interests of 51% and 49% of the general partner, respectively. Teekay has significant influence over Teekay Offshore and accounts for its investment in Teekay Offshore using the equity method.

We are entitled to distributions on our general and limited partner interests in each of Teekay LNG and Teekay Offshore. The general partner of each of Teekay LNG and Teekay Offshore is also entitled to distributions payable (4) with respect to incentive distribution rights. Incentive distribution rights represent the right to receive an increasing percentage of quarterly distributions of available cash from operating surplus after the minimum quarterly distribution and the target distribution levels have been achieved.

Teekay LNG is a Marshall Islands limited partnership formed by us in 2004 as part of our strategy to expand our operations in the LNG and LPG shipping sectors. Teekay LNG provides LNG, LPG and crude oil marine transportation service, primarily under long-term, fixed-rate contracts with major energy and utility companies. As of December 31, 2018, Teekay LNG's fleet, including its equity investees, included 49 LNG carriers (including 6 newbuildings), 29 LPG/multigas carriers, one conventional tanker and one Handymax product tanker. Teekay LNG's ownership interests in these vessels range from 20% to 100%. Teekay LNG also has a 30% interest in an LNG receiving and regasification terminal under construction.

Teekay Offshore is a Marshall Islands limited partnership formed by us in 2006 as part of our strategy to expand our operations in the offshore oil marine transportation, processing and storage sectors. Teekay Parent owns three FPSO units which, pursuant to an omnibus agreement we entered into in connection with Teekay Offshore's initial public offering in 2006, we have agreed to offer to Teekay Offshore in the future. Please read "Item 7. Major Shareholders and Certain Relationships with Related Party Transactions - Competition with Teekay Tankers, Teekay Offshore and Teekay LNG" for information with respect to the omnibus agreement.

In December 2007, we added Teekay Tankers to our structure. Teekay Tankers is a Marshall Islands corporation formed by us to own our conventional tanker business. As of December 31, 2018, Teekay Tankers' fleet included 20 double-hull Aframax tankers (including three chartered-in vessel), 30 double-hull Suezmax tankers, nine product tankers, and one VLCC, all of which trade either in the spot tanker market or under short- or medium-term, fixed-rate time-charter contracts. Teekay Tankers owns 100% of its fleet, other than a 50% interest in the VLCC and the in-chartered vessels. Prior to October 1, 2018, we provided Teekay Tankers with certain commercial, technical, administrative, and strategic services under a long-term management agreement through a wholly-owned subsidiary. As of October 1, 2018, Teekay Tankers elected to receive commercial and technical management services directly from its wholly-owned subsidiaries, who receive various services from us and our affiliates.

We entered into an omnibus agreement with Teekay LNG, Teekay Offshore and related parties governing, among other things, when we, Teekay LNG, and Teekay Offshore may compete with each other and certain rights of first offer on LNG carriers, oil tankers, shuttle tankers, FSO units and FPSO units.



Teekay Parent owns three FPSO units, in addition to its interests in its subsidiaries and equity-accounted investments. For additional information about Teekay LNG and Teekay Tankers please read Item 4.B. above.

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D. Property, Plant and Equipment

Other than our vessels, and Teekay LNG's 30% interest, through the Bahrain LNG Joint Venture, in an LNG receiving and regasification terminal under construction, we do not have any material property. Please read "Item 18. Financial Statements: Note 8 — Long-Term Debt for information about major encumbrances against our vessels.

E. Taxation of the Company

United States Taxation

The following is a discussion of the expected material U.S. federal income tax considerations applicable to us. This discussion is based upon the provisions of the Code, legislative history, applicable U.S. Treasury Regulations (or Treasury Regulations), judicial authority and administrative interpretations, all as in effect on the date of this Annual Report, and which are subject to change, possibly with retroactive effect, or are subject to different interpretations. Changes in these authorities may cause the tax consequences to vary substantially from the consequences described below.

**Taxation of Operating Income.** A significant portion of our gross income will be attributable to the transportation of crude oil and related products. For this purpose, gross income attributable to transportation (or Transportation Income) includes income derived from, or in connection with, the use (or hiring or leasing for use) of a vessel to transport cargo, or the performance of services directly related to the use of any vessel to transport cargo, and thus includes income from time charters, contracts of affreightment, bareboat charters, and voyage charters.

Fifty percent (50%) of Transportation Income that either begins or ends, but that does not both begin and end, in the United States (or U.S. Source International Transportation Income) is considered to be derived from sources within the United States. Transportation Income that both begins and ends in the United States (or U.S. Source Domestic Transportation Income) is considered to be 100% derived from sources within the United States. Transportation Income exclusively between non-U.S. destinations is considered to be 100% derived from sources outside the United States. Transportation Income derived from sources outside the United States generally is not subject to U.S. federal income tax.

Based on our current operations, a substantial portion of our Transportation Income is from sources outside the United States and not subject to U.S. federal income tax. However, certain of our subsidiaries which have made special U.S. tax elections to be treated as partnerships or disregarded as entities separate from us for U.S. federal income tax purposes are potentially engaged in activities which could give rise to U.S. Source International Transportation Income. Unless the exemption from U.S. taxation under Section 883 of the Code (or the Section 883 Exemption) applies, our U.S. Source International Transportation Income generally is subject to U.S. federal income taxation under either the net basis and branch profits taxes or the 4% gross basis tax, each of which is discussed below. Furthermore, certain of our subsidiaries engaged in activities which could give rise to U.S. Source International Transportation Income rely on our ability to claim the Section 883 Exemption.

**The Section 883 Exemption.** In general, the Section 883 Exemption provides that if a non-U.S. corporation satisfies the requirements of Section 883 of the Code and the Treasury Regulations thereunder (or the Section 883 Regulations), it will not be subject to the net basis and branch profits taxes or the 4% gross basis tax described below on its U.S. Source International Transportation Income. As discussed below, we believe the Section 883 Exemption will apply and we will not be taxed on our U.S. Source International Transportation Income. The Section 883 Exemption does not apply to U.S. Source Domestic Transportation Income.

A non-U.S. corporation will qualify for the Section 883 Exemption if, among other things, it (i) is organized in a jurisdiction outside the United States that grants an exemption from tax to U.S. corporations on international Transportation Income (or an Equivalent Exemption), (ii) meets one of three ownership tests (or Ownership Tests) described in the Section 883 Regulations, and (iii) meets certain substantiation, reporting and other requirements (or the Substantiation Requirements).

We are organized under the laws of the Republic of the Marshall Islands. The U.S. Treasury Department has recognized the Republic of the Marshall Islands as a jurisdiction that grants an Equivalent Exemption. We also believe that we will be able to satisfy the Substantiation Requirements necessary to qualify for the Section 883 Exemption. Consequently, our U.S. Source International Transportation Income (including for this purpose, our share of any such income earned by our subsidiaries that have properly elected to be treated as partnerships or disregarded as entities separate from us for U.S. federal income tax purposes) will be exempt from U.S. federal income taxation provided we satisfy one of the Ownership Tests. We believe that we should satisfy one of the Ownership Tests because our stock is primarily and regularly traded on an established securities market in the United States within the meaning of Section 883 of the Code and the Section 883 Regulations. We can give no assurance, however, that changes in the ownership of our stock subsequent to the date of this report will permit us to continue to qualify for the Section 883 exemption.

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Net Basis Tax and Branch Profits Tax. If the Section 883 Exemption does not apply, our U.S. Source International Transportation Income may be treated as effectively connected with the conduct of a trade or business in the United States (or Effectively Connected Income) if we have a fixed place of business in the United States and substantially all of our U.S. Source International Transportation Income is attributable to regularly scheduled transportation or, in the case of income derived from bareboat charters, is attributable to a fixed place of business in the United States. Based on our current operations, none of our potential U.S. Source International Transportation Income is attributable to regularly scheduled transportation or is derived from bareboat charters attributable to a fixed place of business in the United States. As a result, we do not anticipate that any of our U.S. Source International Transportation Income will be treated as Effectively Connected Income. However, there is no assurance that we will not earn income pursuant to regularly scheduled transportation or bareboat charters attributable to a fixed place of business in the United States in the future, which would result in such income being treated as Effectively Connected Income. U.S. Source Domestic Transportation Income generally will be treated as Effectively Connected Income.

Any income we earn that is treated as Effectively Connected Income would be subject to U.S. federal corporate income tax (the statutory rate for 2018 onwards is 21%) and a 30% branch profits tax imposed under Section 884 of the Code. In addition, a branch interest tax could be imposed on certain interest paid, or deemed paid, by us.

On the sale of a vessel that has produced Effectively Connected Income, we generally would be subject to the net basis and branch profits taxes with respect to our gain recognized up to the amount of certain prior deductions for depreciation that reduced Effectively Connected Income. Otherwise, we would not be subject to U.S. federal income tax with respect to gain realized on the sale of a vessel, provided the sale is considered to occur outside of the United States under U.S. federal income tax principles.

The 4% Gross Basis Tax. If the Section 883 Exemption does not apply and we are not subject to the net basis and branch profits taxes described above, we will be subject to a 4% U.S. federal income tax on our subsidiaries' gross U.S. Source International Transportation Income, without benefit of deductions. For 2018, we estimate that, if the Section 883 Exemption and the net basis tax did not apply, the U.S. federal income tax on such U.S. Source International Transportation Income would have been approximately \$6.2 million. In addition, we estimate that certain of our subsidiaries that are unable to claim the Section 883 Exemption were subject to less than \$0.2 million in the aggregate of U.S. federal income tax on the U.S. source portion of their U.S. Source International Transportation Income for 2018. If the Section 883 Exemption does not apply, the amount of such tax for which we or our subsidiaries may be liable in any year will depend upon the amount of income we earn from voyages into or out of the United States in such year, however, which is not within our complete control.

**Marshall Islands Taxation**

We believe that neither we nor our subsidiaries will be subject to taxation under the laws of the Marshall Islands, nor that distributions by our subsidiaries to us will be subject to any taxes under the laws of the Marshall Islands, other than taxes, fines, or fees due to (i) the incorporation, dissolution, continued existence, merger, domestication (or similar concepts) of legal entities registered in the Republic of the Marshall Islands, (ii) filing certificates (such as certificates of incumbency, merger, or re-domiciliation) with the Marshall Islands registrar, (iii) obtaining certificates of good standing from, or certified copies of documents filed with, the Marshall Islands registrar, (iv) compliance with Marshall Islands law concerning vessel ownership, such as tonnage tax, or (v) non-compliance with requests made by the Marshall Islands registrar of corporations relating to our books and records and the books and records of our subsidiaries.

**Other Taxation**

We and our subsidiaries are subject to taxation in certain non-U.S. jurisdictions because we or our subsidiaries are either organized, or conduct business or operations in such jurisdictions. In other non-U.S. jurisdictions, we rely on statutory exemptions from tax. However, we cannot assure that any statutory exemptions from tax on which we rely will continue as tax laws in those jurisdictions may change, or we may enter into new business transactions relating to such jurisdictions, which could affect our tax liability. Please read "Item 18. Financial Statements: Note 21 — Income

Taxes".

Item 4A. Unresolved Staff Comments

None.

Item 5. Operating and Financial Review and Prospects

The following discussion should be read in conjunction with the financial statements and notes thereto appearing elsewhere in this report.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

Teekay Corporation is an operational leader and project developer in the marine midstream space. We have 100% and 49% general partnership interests in two publicly-listed master limited partnerships, Teekay LNG and Teekay Offshore, respectively. In addition, we have a controlling ownership interest in publicly-listed Teekay Tankers and we directly own three floating production storage and offloading (or FPSO) units. Teekay provides a comprehensive set of marine services to the world's leading oil and gas companies.

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## Structure

To understand our financial condition and results of operations, a general understanding of our organizational structure is required. Our organizational structure can be divided into (a) our controlling interests in two publicly-traded subsidiaries, Teekay LNG and Teekay Tankers (together, the Controlled Daughter Entities), (b) Teekay and its remaining subsidiaries, which is referred to herein as Teekay Parent, and (c) our equity-accounted investment in Teekay Offshore (together with the Controlled Daughter Entities, the Daughter Entities). Since we control the voting interests of the Controlled Daughter Entities through our ownership of the sole general partner interest of Teekay LNG and of Class A and Class B common shares of Teekay Tankers, we consolidate the results of these subsidiaries. On September 25, 2017, Teekay, Teekay Offshore and Brookfield Business Partners L.P., together with its institutional partners (collectively, Brookfield) completed a strategic partnership (or the Brookfield Transaction) which resulted in the deconsolidation of Teekay Offshore as of that date. Although Teekay owned less than 50% of Teekay Offshore, Teekay maintained control of Teekay Offshore until September 25, 2017, by virtue of its 100% ownership interest in the general partner of Teekay Offshore, Teekay Offshore GP L.L.C. (or TOO GP). In connection with Brookfield's acquisition of a 49% interest in TOO GP as part of the Brookfield Transaction, Teekay and Brookfield entered into an amended limited liability company agreement whereby Brookfield obtained certain participatory rights in the management of TOO GP, which resulted in Teekay deconsolidating Teekay Offshore for accounting purposes on September 25, 2017. In July 2018, Brookfield exercised its option to acquire an additional 2% of ownership interests in TOO GP from Teekay. Subsequent to the closing of the Brookfield Transaction, Teekay maintains significant influence over Teekay Offshore and accounts for its investment in Teekay Offshore using the equity method.

As of December 31, 2018, excluding our incentive distribution rights in Teekay LNG and Teekay Offshore, we had economic interests in Teekay LNG, Teekay Tankers and Teekay Offshore of 33.1%, 28.8% and 14.1% respectively. Please read “Item 4.C. Information on the Company – Organizational Structure.”

Teekay Offshore and Teekay LNG primarily hold assets that generate long-term fixed-rate cash flows. The strategic rationale for establishing these two master limited partnerships was to illuminate the higher value of fixed-rate cash flows to Teekay investors, realize advantages of a lower cost of equity when investing in new offshore or liquefied natural gas (or LNG) projects, enhance returns to Teekay through fee-based revenue and ownership of the partnerships' incentive distribution rights and increase our access to capital for growth. Teekay Tankers holds a substantial majority of our conventional tanker assets. In addition to Teekay Parent's investments in Teekay LNG, Teekay Tankers and Teekay Offshore, Teekay Parent continues to own three FPSO units. Our long-term vision is for Teekay Parent to be primarily a portfolio manager and project developer with the Teekay Group's fixed assets primarily owned directly by the Daughter Entities. Our primary financial objectives for Teekay Parent are to increase the value of our three FPSO units and the value of our investments in Teekay LNG, Teekay Tankers and Teekay Offshore, increase Teekay Parent's free cash flow per share and, as a service provider to its Daughter Entities, provide scale and other benefits across the Teekay Group.

Teekay entered into an omnibus agreement with Teekay LNG, Teekay Offshore and related parties governing, among other things, when Teekay, Teekay LNG, and Teekay Offshore may compete with each other and certain rights of first offer on LNG carriers, oil tankers, shuttle tankers, floating storage and offtake (or FSO) units and FPSO units. The Brookfield Transaction constituted a change in control of Teekay Offshore, which gives Teekay Offshore the right to elect to terminate the omnibus agreement, although we have not received any indication from Teekay Offshore that it intends to do so.

We (excluding our investment in Teekay Offshore) have three primary lines of business: offshore production (FPSO units), liquefied gas carriers and conventional tankers. We manage these businesses for the benefit of all stakeholders. We allocate capital and assess performance from the separate perspectives of Teekay LNG and Teekay Tankers, Teekay Parent, and its investment in Teekay Offshore, as well as from the perspective of the lines of business (the

Line of Business approach). The primary focus of our organizational structure, internal reporting and allocation of resources by the chief operating decision maker, is on Teekay LNG and Teekay Tankers, Teekay Parent, and its investment in Teekay Offshore (the Legal Entity approach). As a result, a substantial majority of the information provided in this Annual Report is presented in accordance with the Legal Entity approach. However, we have continued to incorporate the Line of Business approach in our financial reporting because in certain cases there is more than one line of business in each of Teekay LNG, Teekay Tankers and Teekay Parent, and we believe this information allows a better understanding of our performance and prospects for future net cash flows. We present our investment in Teekay Offshore as a separate operating segment. We assess the performance of, and make decisions to allocate resources to, our investment in Teekay Offshore as a whole and not at the level of the individual lines of business within Teekay Offshore, which are (1) offshore production (FPSO units), (2) offshore logistics (shuttle tankers, the HiLoad DP unit, FSO units, units for maintenance and safety (or UMS) and long-distance towing and offshore installation vessels), and (3) conventional tankers.

#### IMPORTANT FINANCIAL AND OPERATIONAL TERMS AND CONCEPTS

We use a variety of financial and operational terms and concepts when analyzing our performance. These include the following:

**Revenues.** Revenues primarily include revenues from voyage charters, pool arrangements, time charters accounted for under operating and direct financing leases, and FPSO contracts. Revenues are affected by hire rates and the number of days a vessel operates, the daily production volume on FPSO units, and the oil price for certain FPSO units. Revenues are also affected by the mix of business between time charters, voyage charters, and vessels operating in pool arrangements. Hire rates for voyage charters are more volatile, as they are typically tied to prevailing market rates at the time of a voyage.

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**Voyage Expenses.** Voyage expenses are all expenses unique to a particular voyage, including any fuel expenses, port fees, cargo loading and unloading expenses, canal tolls, agency fees and commissions. Voyage expenses are typically paid by the customer under time charters and FPSO contracts and by us under voyage charters.

**Vessel Operating Expenses.** Under all types of charters and contracts for our vessels, except for bareboat charters, we are responsible for vessel operating expenses, which include crewing, repairs and maintenance, insurance, stores, lube oils and communication expenses. The two largest components of our vessel operating expenses are crew costs and repairs and maintenance. We expect these expenses to increase as our fleet matures and to the extent that it expands. We are taking steps to maintain these expenses at a stable level but expect an increase in line with inflation in respect of crew, material, and maintenance costs. The strengthening or weakening of the U.S. Dollar relative to foreign currencies may result in significant decreases or increases, respectively, in our vessel operating expenses, depending on the currencies in which such expenses are incurred.

**Income from Vessel Operations.** To assist us in evaluating our operations by segment, we analyze our income from vessel operations for each segment, which represents the income we receive from the segment after deducting operating expenses, but prior to the deduction of interest expense, realized and unrealized gains (losses) on non-designated derivative instruments, income taxes, foreign currency and other income and losses.

**Dry docking.** We must periodically dry dock each of our vessels for inspection, repairs and maintenance and any modifications to comply with industry certification or governmental requirements. Generally, we dry dock each of our vessels every two and a half to five years, depending upon the type of vessel and its age. In addition, a shipping society classification intermediate survey is performed on our LNG carriers between the second and third year of the five-year dry-docking cycle. We capitalize a substantial portion of the costs incurred during dry docking and for the survey and amortize those costs on a straight-line basis from the completion of a dry docking or intermediate survey over the estimated useful life of the dry dock. We expense as incurred costs for routine repairs and maintenance performed during dry dockings that do not improve or extend the useful lives of the assets and annual class survey costs for our FPSO units. The number of dry dockings undertaken in a given period and the nature of the work performed determine the level of dry-docking expenditures.

**Depreciation and Amortization.** Our depreciation and amortization expense typically consists of:

- charges related to the depreciation and amortization of the historical cost of our fleet (less an estimated residual value) over the estimated useful lives of our vessels;
- charges related to the amortization of dry-docking expenditures over the useful life of the dry dock; and
- charges related to the amortization of intangible assets, including the fair value of time charters and customer relationships where amounts have been attributed to those items in acquisitions; these amounts are amortized over the period in which the asset is expected to contribute to our future cash flows.

**Time-Charter Equivalent (TCE) Rates.** Bulk shipping industry freight rates are commonly measured in the shipping industry in terms of “time-charter equivalent” (or TCE) rates, which represent revenues less voyage expenses divided by revenue days.

**Revenue Days.** Revenue days are the total number of calendar days our vessels were in our possession during a period, less the total number of off-hire days during the period associated with major repairs, dry dockings or special or intermediate surveys. Consequently, revenue days represent the total number of days available for the vessel to earn revenue. Idle days, which are days when the vessel is available for the vessel to earn revenue, yet is not employed, are included in revenue days. We use revenue days to explain changes in our revenues between periods.



Calendar-Ship-Days. Calendar-ship-days are equal to the total number of calendar days that our vessels were in our possession during a period. As a result, we use calendar-ship-days primarily in explaining changes in vessel operating expenses, time-charter hire expense and depreciation and amortization.

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### ITEMS YOU SHOULD CONSIDER WHEN EVALUATING OUR RESULTS

You should consider the following factors when evaluating our historical financial performance and assessing our future prospects:

- Deconsolidation of Teekay Offshore. On September 25, 2017, Teekay deconsolidated Teekay Offshore (please read "Item 18 – Financial Statements: Note 4 – Deconsolidation of Teekay Offshore and Note 3 – Segment Reporting"). Our consolidated results presented in this report include those of Teekay Offshore until the date of its deconsolidation.

Adoption of Accounting Standards Update 2014-09. In May 2014, the Financial Accounting Standards Board (or FASB) issued Accounting Standards Update 2014-09, Revenue from Contracts with Customers (or ASU 2014-09) (please read "Item 18 – Financial Statements: Note 2 – Recent Accounting Pronouncements"). Teekay has adopted ASU 2014-09 as a cumulative-effect adjustment as of January 1, 2018, and as a result, comparative 2017 and 2016 periods do not reflect the effect of this new standard. The following differences had a material effect on revenues reported in the year ended December 31, 2018:

Teekay Tankers previously presented the net allocation for its vessels participating in revenue sharing arrangements (or RSAs) as revenues. Teekay Tankers is the principal in voyages its vessels perform that are included in the RSAs. As such, under ASU 2014-09, the revenue from those voyages is presented in revenues and the difference between this amount and Teekay Tankers' net allocation from the RSA is presented as voyage expenses. This had the effect of increasing both revenues and voyage expenses for the year ended December 31, 2018 by \$292.6 million.

Teekay manages vessels owned by its equity-accounted investments and third parties. Upon the adoption of ASU 2014-09, costs incurred by Teekay for its seafarers are presented as vessel operating expenses and the reimbursement of such expenses are presented as revenue, instead of such amounts being presented on a net basis. In the Teekay Parent - Other and Corporate G&A segment, this had the effect of increasing both revenues and vessel operating expenses for the year ended December 31, 2018 by \$82.9 million.

Our revenues are affected by cyclicity in the tanker markets. The cyclical nature of the tanker industry causes significant increases or decreases in the revenue we earn from our vessels, particularly those we trade in the spot conventional tanker market.

- Tanker rates also fluctuate based on seasonal variations in demand. 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 increased refinery maintenance. In addition, unpredictable weather patterns during the winter months tend to disrupt vessel scheduling, which historically has increased oil price volatility and oil trading activities in the winter months. As a result, revenues generated by our vessels have historically been weaker during the quarters ended June 30 and September 30, and stronger in the quarters ended December 31 and March 31.

The size of and types of vessels in our fleet continues to change. Our results of operations reflect changes in the size and composition of our fleet due to certain vessel deliveries, vessel dispositions and changes to the number of vessels we charter in, as well as our entry into new markets. Please read "—Results of Operations" below for further details about vessel dispositions, deliveries and vessels chartered in. Due to the nature of our business, we expect our fleet to continue to fluctuate in size and composition.

- Vessel operating and other costs are facing industry-wide cost pressures. The shipping industry continues to forecast a shortfall in qualified personnel, although weak shipping and offshore markets and slowing growth may ease officer shortages. We will continue to focus on our manning and training strategies to meet future needs but going forward,

crew compensation may increase. In addition, factors such as pressure on commodity and raw material prices, as well as changes in regulatory requirements could also contribute to operating expenditure increases. We continue to take action aimed at improving operational efficiencies and tempering the effect of inflationary and other price escalations; however, increases to operational costs are still likely to occur in the future.

Our net income is affected by fluctuations in the fair value of our derivative instruments. Most of our existing cross currency and interest rate swap agreements and foreign currency forward contracts are not designated as hedges for accounting purposes. Although we believe the non-designated derivative instruments are economic hedges, the changes in their fair value are included in our consolidated statements of (loss) income as unrealized gains or losses on non-designated derivatives. The unrealized changes in fair value do not affect our cash flows or liquidity.

The amount and timing of dry dockings of our vessels can affect our revenues between periods. Our vessels are off hire at various times due to scheduled and unscheduled maintenance. During 2018 and 2017, on a consolidated basis, we incurred 451 and 796 off-hire days relating to dry docking, respectively. The financial impact from these periods of off-hire, if material, is explained in further detail below in "—Results of Operations". Twenty-one of our vessels are scheduled for dry docking during 2019.

Our financial results are affected by fluctuations in currency exchange rates. Under GAAP, all foreign currency-denominated monetary assets and liabilities (including cash and cash equivalents, restricted cash, accounts receivable, accounts payable, accrued liabilities, unearned revenue, advances from affiliates, and long-term debt) are revalued and reported based on the prevailing exchange rate at the end of the period. These foreign currency translations fluctuate based on the strength of the U.S. Dollar relative to the applicable foreign currency, mainly to the Euro and NOK, and are included in our results of operations. The translation of all foreign currency-denominated monetary assets and liabilities at each reporting date results in unrealized foreign currency exchange gains or losses but do not currently impact our cash flows.

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The division of our results of operations between the Daughter Entities and Teekay Parent is impacted by the sale of vessels or operations from Teekay Parent to the Daughter Entities. Prior to our adoption of ASU 2017-01 on October 1, 2017, the Controlled Daughter Entities (and Teekay Offshore until its deconsolidation on September 25, 2017) accounted for the acquisition of the vessels or operations from Teekay as a transfer of a business between entities under common control. The method of accounting for such transfers was similar to the pooling of interests method of accounting. Under this method, the carrying amounts of net assets recognized in the balance sheets of each combining entity are carried forward to the balance sheet of the combined entity, and no other assets or liabilities are recognized as a result of the combination. In addition, such transfers were accounted for as if the transfer occurred from the date that the acquiring subsidiary and the acquired vessels were both under the common control of Teekay and had begun operations. As a result, the historical financial information of the Controlled Daughter Entities (and of Teekay Offshore until its deconsolidation on September 25, 2017) included in this Annual Report reflects the financial results of the vessels or operations acquired from Teekay Parent from the date the vessels or operations were both under the common control of Teekay and had begun operations but prior to the date they were owned by the Controlled Daughter Entity (or Teekay Offshore until its deconsolidation on September 25, 2017).

The duration of some of our FPSO contracts is the life of the relevant oil field or is subject to extension by the field operator or vessel charterer. If the oil field no longer produces oil or is abandoned or the contract term is not extended, we will no longer generate revenue under the related contract and will need to seek to redeploy affected vessels. FPSO contracts under which our vessels operate are subject to extensions beyond their initial term. The likelihood of these contracts being extended may be negatively affected by reductions in oil field reserves, low oil prices generally or other factors. If we are unable to promptly redeploy any affected vessels at rates at least equal to those under the contracts, if at all, our operating results will be harmed. Any potential redeployment may not be under long-term contracts, which may affect the stability of our cash flow and our ability to make cash distributions. FPSO units, in particular, are specialized vessels that have very limited alternative uses and high fixed costs. In addition, FPSO units typically require substantial capital investments prior to being redeployed to a new field and production service agreement. Any idle time prior to the commencement of a new contract or our inability to redeploy the vessels at acceptable rates may have an adverse effect on our business and operating results.

**RECENT DEVELOPMENTS AND RESULTS OF OPERATIONS**

The results of operations that follow have first been divided into (a) our controlling interests in our publicly-traded subsidiaries Teekay LNG and Teekay Tankers, (b) Teekay Parent, and (c) the results of Teekay Offshore until its deconsolidation on September 25, 2017. Within the first two of these three groups, we have further subdivided the results into their respective lines of business. The following table (a) presents revenues and income (loss) from vessel operations for each of Teekay LNG and Teekay Tankers, for Teekay Parent, and for Teekay Offshore until its deconsolidation on September 25, 2017, and (b) reconciles these amounts to our consolidated financial statements.

(in thousands of U.S. dollars)	Revenues			Income (loss) from vessel operations		
	2018	2017	2016	2018	2017	2016
Teekay LNG	510,762	432,676	396,444	148,599	148,649	153,181
Teekay Tankers <sup>(1)</sup>	755,763	431,178	550,543	7,204	1,416	96,752
Teekay Parent	451,659	303,566	340,513	8,516	(290,425)	(96,496)
Teekay Offshore <sup>(2)</sup>	—	796,711	1,152,390	—	147,060	230,853
Elimination of intercompany <sup>(1)(3)</sup>	(10,426)	(83,799)	(111,321)	—	—	—
Teekay Corporation Consolidated	1,707,758	1,880,332	2,328,569	164,319	6,700	384,290

(1) During 2014, Teekay sold to Teekay Tankers a 50% interest in Teekay Tankers Operations Ltd. (or TTOL), which owns our conventional tanker commercial management and technical management operations, including direct ownership in five commercially managed revenue sharing arrangements of the Teekay group. Following that sale, Teekay Tankers and Teekay Parent each accounted for their 50% interests in TTOL as equity-accounted investments and, as such, TTOL's results were reflected in equity income of Teekay Tankers and Teekay Parent. Upon consolidation of Teekay Tankers into Teekay, the results of TTOL were accounted for on a consolidated

basis by Teekay. On May 31, 2017, Teekay Tankers acquired from Teekay Parent the remaining 50% interest in TTOL. As a result of the acquisition, the financial information for Teekay Tankers prior to the date that Teekay Tankers acquired interests in TTOL is retroactively adjusted to include the results of TTOL on a consolidated basis during the periods they were under common control of Teekay and had begun operations.

(2) On September 25, 2017, Teekay deconsolidated Teekay Offshore (see “Item 5. Operating and Financial Review and Prospects - Management’s Discussion and Analysis of Financial Condition and Results of Operations - Recent Developments and Results of Operations - Recent Developments in Teekay Offshore” for additional information).

The figures above are those of Teekay Offshore until the date of deconsolidation.

(3) During 2018, Teekay Parent chartered in two LNG carriers from Teekay LNG until March and April 2018. During 2017, Teekay Parent chartered in three FSO units and two shuttle tankers from Teekay Offshore, and two LNG carriers from Teekay LNG. During 2016, Teekay Parent chartered in three FSO units, three shuttle tankers and one Aframax tanker from Teekay Offshore, two LNG carriers from Teekay LNG and two Aframax tankers from Teekay Tankers.

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Summary

Teekay Corporation consolidated income from vessels operations increased to \$164.3 million for the year ended December 31, 2018 compared to \$6.7 million in the prior year. The primary reasons for this increase are as follows:

in Teekay Parent, increases in income from operations due to the write-downs in 2017 of the Petrojarl Foinaven and Petrojarl Banff FPSO units, contract amendments related to the Petrojarl Banff FPSO and Hummingbird Spirit FPSO units that resulted in higher revenues in 2018, higher uptime and production on the Petrojarl Foinaven in 2018 that resulted in higher revenues, the redelivery of our last two chartered-in conventional tankers to their owners in 2017, and the redelivery of two in-chartered LNG carriers to Teekay LNG in 2018; and

in Teekay Tankers, a net increase in income from vessel operations primarily due to losses on the sales of five vessels in 2017, higher realized full service lightering (or FSL) spot rates and changes in the utilization of FSL vessels, scope and timing of repairs and planned maintenance activities in 2018 and redeliveries of various in-chartered tankers to their owners in 2017, partially offset by the expiry of time-charter out contracts, which subsequently traded on the spot market at lower averaged realized rates;

partially offset by

in Teekay LNG, decreases from the redelivery to Teekay LNG of seven multi-gas carriers and two conventional tankers trading in the spot market in 2018, and the Polar Spirit earning a lower time-charter rate upon redeployment; higher general and administrative expenses in 2018; and the write-downs of three conventional tankers and four multi-gas carriers in 2018, net of the initial write-downs of four conventional tankers in 2017, partially offset by deliveries to Teekay LNG of the Torben Spirit, Macoma, Murex, Magdala, Myrina, Megara, Bahrain Spirit and Sean Spirit LNG carrier newbuildings between February 2017 and December 2018 and the commencements of their charter contracts;

the impact of the deconsolidation of Teekay Offshore on September 25, 2017;

Details of the changes to our results of operations for the year ended December 31, 2018, compared to the year ended December 31, 2017 are provided in the following section.

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Year Ended December 31, 2018 versus Year Ended December 31, 2017

Teekay LNG

Recent Developments in Teekay LNG

In December 2018, during the special meeting of Teekay LNG's common unitholders, the common unitholders approved a proposal to allow Teekay LNG to elect to be treated as a corporation, instead of a partnership, for U.S. federal income tax purposes, along with other proposals included in the related proxy statement. As a result, effective January 1, 2019, Teekay LNG will be treated as a corporation for U.S. federal income tax purposes, and commencing in 2019, common and preferred unitholders will receive Form 1099s instead of Schedule K-1s relating to distributions taxable as dividend. Teekay LNG will remain a master limited partnership and all other provisions of the Teekay LNG's limited partnership agreement remain in effect.

This change to Teekay LNG's status for U.S. federal income tax purposes is not expected to result in Teekay LNG recognizing a tax related gain or loss. While some Teekay LNG investors may incur a tax gain on conversion, any gain recognized for U.S. tax purposes is expected to result in tax benefits to investors that are expected to reduce the taxable portion of cash distributions paid by Teekay LNG in the future.

Six of Teekay LNG's LNG carrier newbuildings, the Magdala, Myrina, Megara, Bahrain Spirit floating storage unit (or FSU), Sean Spirit and Yamal Spirit delivered in February 2018, May 2018, July 2018, August 2018, December 2018 and January 2019, respectively. Upon delivery, the Magdala, Myrina and Megara were sold to third parties and leased back under 10-year bareboat charter contracts with purchase obligations for each respective vessel and concurrently commenced their six, eight and eight-year charter contracts with Shell Royal Dutch Plc (or Shell), respectively. The Bahrain Spirit FSU commenced its 21-year charter contract with Bahrain LNG W.L.L. (or the Bahrain LNG Joint Venture) in September 2018 and the Sean Spirit commenced its 13-year charter contract (which the charterer has a cancellation option after seven years) with BP Plc in December 2018. In January 2019, the Yamal Spirit LNG carrier newbuilding was delivered and concurrently commenced its 15-year time-charter contract with Yamal Trade Pte. Ltd. Upon delivery of the vessel, Teekay LNG sold and leased back the vessel under a sale-leaseback financing transaction, which Teekay LNG secured in January 2019 prior to the delivery of the Yamal Spirit.

In January 2018, July 2018 and January 2019, Teekay LNG's joint venture with China LNG, CETS Investment Management (HK) Co. Ltd. and BW LNG Investments Pte. Ltd. (or the Pan Union Joint Venture) took delivery of its second, third and fourth LNG carrier newbuildings, the Pan Americas, Pan Europe and Pan Africa, respectively. Upon delivery, the vessels commenced their 20-year charter contracts with Shell. Teekay LNG has ownership interest in these vessels ranging from 20% to 30% through the Pan Union Joint Venture.

In January 2018, Teekay LNG's 50/50 joint venture with China LNG Shipping (Holdings) Limited (or the Yamal LNG Joint Venture) took delivery of its first ARC7 LNG carrier newbuilding, the Eduard Toll. In September 2018, the Yamal LNG Joint Venture took delivery of its second ARC7 LNG carrier newbuilding, Rudolf Samoylovich, earlier than the scheduled November 2018 delivery date to service the project's second LNG train. Upon delivery, the vessels commenced their 28-year and 27-year charter contracts with Yamal Trade Pte., respectively. The Yamal LNG Joint Venture currently has secured financing in place for its four remaining ARC7 LNG carrier newbuildings.

In January 2018, Teekay LNG sold its 50% ownership interest in one of its joint ventures with Exmar NV (or the Excelsior Joint Venture) to a third party for gross proceeds of approximately \$54 million. Teekay LNG recognized a gain on the sale of its ownership interest of \$5.6 million, which was recorded in equity income for the year ended December 31, 2018.

In March 2018, upon its scheduled redelivery to Teekay LNG from us, Teekay LNG re-chartered the Polar Spirit LNG carrier to an Asian-based energy company for a period of approximately three months and then subsequently secured

employment for the vessel beginning in July 2018 for nine months with a subsidiary of Petroliam Nasional Berhad (or Petronas). In addition, Teekay LNG secured a four-year charter contract for the Arctic Spirit LNG carrier, also with a subsidiary of Petronas, which commenced immediately upon its scheduled redelivery from us to Teekay LNG in May 2018. In May 2018, Teekay LNG agreed to a six-month charter extension of the Torben Spirit LNG carrier to December 2018 with a major energy company, which was further extended for an additional three years from the six-month extension ending in December 2018.

In March, May and July 2018, Teekay LNG's LPG 50%-owned joint venture with Exmar NV (or the Exmar LPG Joint Venture), took delivery of its seventh, eighth and ninth LPG carrier newbuildings in the past four years, the Kapellen, Koksijde and Wepion, respectively. The Kapellen, Koksijde and Wepion are on short-term charter contracts. In February 2018 and January 2019, Compañía Española de Petróleos, S.A.U. (or CEPSA), the charterer, and owner of Teekay LNG's capital leased vessels, the Teide Spirit and Toledo Spirit, sold these vessels to third parties. As a result of these sales, Teekay LNG returned the vessels to CEPSA and the full amount of the associated obligations related to the capital lease were concurrently extinguished. In addition, Teekay LNG incurred associated seafarer severance payments in 2018 of approximately \$1.8 million upon the sale of the Teide Spirit and approximately \$1.8 million in 2019 for the sale of the Toledo Spirit.

In October 2018, Teekay LNG sold the African Spirit Suezmax tanker for net proceeds of \$12.8 million. In December 2018, Teekay LNG sold the European Spirit Suezmax tanker for net proceeds of \$15.7 million. During 2018, prior to the sale of the vessels, Teekay LNG recorded further aggregate write-downs on the two Suezmax tankers totaling \$7.9 million (December 31, 2017 – \$25.1 million).



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Two of the six LNG carriers (or MALT LNG Carriers) in Teekay LNG's 52%-owned joint venture with Marubeni Corporation (or the Teekay LNG-Marubeni Joint Venture), the Marib Spirit and Arwa Spirit, are under long-term charters with Yemen LNG Ltd. (or YLNG), a consortium led by Total SA. Due to the political unrest in Yemen, YLNG decided to temporarily close operation of its LNG plant in Yemen in 2015. As a result, commencing January 1, 2016, the Teekay LNG-Marubeni Joint Venture agreed to successive deferral arrangements with YLNG pursuant to which a portion of the charter payments were deferred. Concurrent with the anticipated expiry of the most current deferral arrangement, which is expected to occur within the first half of 2019, the Teekay LNG-Marubeni Joint Venture intends to enter into a further agreement with YLNG pursuant to which the Teekay LNG-Marubeni Joint Venture and YLNG will suspend the two charter contracts for a period of up to three years. If the LNG plant in Yemen resumes operations, it is intended that YLNG will be required to repay the applicable deferred amounts plus interest over a period of installments. However, there is no assurance whether or when the LNG plant will resume operations if YLNG will be able to repay all or any portion of the deferred amounts. Teekay LNG's proportionate share of the estimated impact of the charter payment deferral and Suspension Agreement for 2019 compared to the original charter rates earned prior to January 1, 2016 is estimated to be a reduction to equity income ranging from \$7 million to \$8 million per quarter, which Teekay LNG expects will be partially offset by sub-chartering employment for the Marib Spirit and Arwa Spirit in 2019.

In September 2018, the Teekay LNG-Marubeni Joint Venture agreed to charter its LNG carrier, the Magellan Spirit, to Teekay LNG for two years at a fixed rate. In turn, Teekay LNG will charter the Magellan Spirit in the spot market or secure a short-term charter for this vessel. Teekay LNG currently has the Magellan Spirit employed on a charter contract until March 31, 2019 at a charter rate that is significantly higher than the charter-in rate.

In February 2019, Teekay LNG entered into a commercial management agreement (or CMA) with a third-party commercial manager (or the Manager) whereby the Manager agreed to commercially manage and employ Teekay LNG's seven multi-gas vessels, with such transition to occur over a period between February 2019 and April 2019. Teekay LNG has the ability to withdraw its vessels from the Manager at any time subject to the requirements provided in the CMA.

## Operating Results – Teekay LNG

The following table compares Teekay LNG's operating results, equity income and number of calendar-ship-days for its vessels for 2018 and 2017:

	Liquefied Gas Carriers		Conventional Tankers		Teekay LNG Total	
	2018	2017	2018	2017	2018	2017
(in thousands of U.S. dollars, except calendar-ship-days)						
Revenues	478,439	385,683	32,323	46,993	510,762	432,676
Voyage expenses	(18,657 )	(3,020 )	(9,580 )	(5,182 )	(28,237 )	(8,202 )
Vessel operating expenses	(103,884)	(83,328)	(13,774)	(18,211)	(117,658)	(101,539)
Time-charter hire expense	(7,670 )	—	—	—	(7,670 )	—
Depreciation and amortization	(119,108)	(95,025)	(5,270)	(10,520)	(124,378)	(105,545)
General and administrative expenses <sup>(1)</sup>	(26,202 )	(15,634)	(2,310)	(2,507)	(28,512)	(18,141)
Write-down and loss on sale of vessels	(33,000 )	—	(20,863)	(50,600)	(53,863)	(50,600)
Restructuring charges	—	—	(1,845)	—	(1,845)	—
Income (loss) from vessel operations	169,918	188,676	(21,319)	(40,027)	148,599	148,649
Equity income	53,546	9,789	—	—	53,546	9,789
Calendar-Ship-Days <sup>(2)</sup>						
Liquefied Gas Carriers	10,125	8,357	—	—	10,125	8,357
Conventional Tankers	—	—	1,389	1,904	1,389	1,904

(1) Includes direct general and administrative expenses and indirect general and administrative expenses allocated to the liquefied gas carriers and conventional tankers based on estimated use of corporate resources.

(2) Calendar-ship-days presented relate to consolidated vessels only and excludes equity-accounted vessels.

Teekay LNG – Liquefied Gas Carriers

As at December 31, 2018, Teekay LNG's liquefied gas fleet, including newbuildings, included 49 LNG carriers and 29 LPG/Multigas carriers, in each case, in which its interests ranged from 20% to 100%. The number of calendar-ship-days for Teekay LNG's liquefied gas carriers consolidated in its financial results increased to 10,125 days in 2018 from 8,357 days in 2017, as a result of the deliveries to Teekay LNG of the Torben Spirit and Murex, Macoma, Magdala, Myrina, Megara, Bahrain Spirit and Sean Spirit LNG carrier newbuildings between February 2017 and December 2018, the Magellan Spirit chartered-in from the Teekay LNG-Marubeni Joint Venture commencing in September 2018 and the acquisition of the Sonoma Spirit in April 2017. During 2018, vessels in this segment were off-hire for scheduled dry dockings of 127 days, unscheduled off-hire for repairs of 146 days and idle for 178 days for repositioning to other charters, compared to vessels in this segment being off-hire for scheduled dry dockings of 63 days, unscheduled off-hire for repairs of 53 days and idle for three days in the same period of the prior year.

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Income from vessel operations decreased to \$169.9 million in 2018 compared to \$188.7 million in 2017, primarily as a result of:

a decrease of \$33.0 million due to 2018 write-downs of the Napa Spirit, Camilla Spirit, Cathinka Spirit and Pan Spirit as a result of Teekay LNG's evaluation of alternative strategies for these assets, the charter rate environment and outlook for charter rates for these vessels at that time;

a decrease of \$28.0 million due to six Multi-gas carriers previously on bareboat charter contracts to wholly-owned subsidiaries of Skaugen and redelivered to Teekay LNG from Skaugen during 2017, which incurred operating expenses following their redelivery, partially offset by higher spot revenues earned by these vessels compared to the rates received from their original contracts in 2017;

a decrease of \$10.6 million due to increased general and administrative expenses in 2018 related to an increase in operational staff relating to new vessel deliveries, higher levels of business development activities, and an increase in professional fees primarily due to the lease dispute for Teekay LNG's RasGas II LNG Carriers and due to claims against Skaugen for damages and losses for Teekay LNG's Multi-gas carriers previously on charter to them, and new vessel deliveries;

a decrease of \$6.1 million due to the Polar Spirit earning a lower time-charter rate upon redeployment after its previous charter contract ended during the first quarter of 2018; and

a decrease of \$0.9 million due to the Catalunya Spirit being off-hire for 30 days in 2018 for a scheduled dry docking, partially offset by the Hispania Spirit being off-hire for 31 days in the first quarter of 2017 for a scheduled dry docking;

partially offset by

an increase of \$48.6 million as a result of the deliveries of the Torben Spirit, Murex, Macoma, Magdala, Myrina and Megara and commencement of their charter contracts;

an increase of \$8.3 million due to the deliveries of the Sean Spirit and the Bahrain Spirit; and

an increase of \$5.1 million as a result of the Magellan Spirit chartered-in contract commencing in September 2018. Equity income related to Teekay LNG's liquefied gas carriers increased to \$53.5 million in 2018 compared to \$9.8 million in 2017, as set forth in the table below:

(in thousands of U.S. Dollars) Year Ended December 31,

	Angola LNG Carrier	Exmar LNG Carriers	Exmar LPG Carriers	MALT LNG Carriers	RasGas LNG Carriers	Pan Union LNG Carriers	Yamal LNG Carriers	Bahrain LNG Joint Venture	Total Equity Income
2018	17,337	9,233	(6,682)	(1,005)	14,730	6,819	9,607	3,507	53,546
2017	16,755	7,397	(7,863)	(16,547)	16,324	496	(1,761)	(5,012)	9,789
Difference	582	1,836	1,181	15,542	(1,594)	6,323	11,368	8,519	43,757

The \$0.6 million increase in Teekay LNG's 33% investment in the four Angola LNG Carriers was primarily due to mark-to-market changes on non-designated derivative instruments. The mark-to-market changes resulted from increases in long-term LIBOR benchmark interest rates for interest rate swaps compared to the same period in 2017.

The \$1.8 million increase in Teekay LNG's 50% investment in the Exmar LNG Carriers was primarily due to a gain of \$5.6 million upon the sale of Teekay LNG's 50% ownership interest in the Excelsior Joint Venture in 2018, which was recorded in equity income, partially offset by lower earnings due to the sale of the Excelsior Joint Venture.

The \$1.2 million increase in equity income from Teekay LNG's 50% ownership interest in the Exmar LPG Carriers was primarily due to the impairment loss recorded on the Courcheville and Temse during 2017, partially offset by lower spot rates earned during 2018 compared to 2017 for certain vessels and the sale of the Courcheville in January 2018.

The \$15.5 million increase in equity income from Teekay LNG's 52% investment in the MALT LNG Carriers was primarily due to higher fleet utilization and higher rates earned as a result of certain vessels that operated in the spot market during 2017 being on short-term charter contracts in 2018.

The \$1.6 million decrease in equity income from Teekay LNG's 40% investment in the RasGas 3 LNG Carriers was primarily due to higher interest expense due to an increase in LIBOR, partially offset by unrealized gains recognized in 2018 relating to its non-designated interest rate swaps compared to unrealized losses in 2017.

The \$6.3 million increase in equity income from the Pan Union LNG Carriers was primarily due to the deliveries of the Pan Union Joint Venture's three LNG carrier newbuildings, the Pan Asia, Pan Americas and Pan Europe, in October 2017, January 2018 and July 2018, respectively, in which Teekay LNG has ownership interests ranging from 20% to 30%.

The \$11.4 million increase in equity income from the 50%-owned investment in the Yamal LNG Carriers was primarily due to the deliveries of the Yamal LNG Joint Venture's first two ARC7 LNG carrier newbuildings, the Eduard Toll and Rudolf Samoylovich, in January 2018 and September 2018, respectively, partially offset by ineffectiveness recognized on hedged-accounted interest rate swaps.

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The \$8.5 million increase in equity income from Teekay LNG's 30%-owned investment in the Bahrain LNG Joint Venture was primarily due to unrealized gains on designated and non-designated derivative instruments recorded in earnings in 2018 compared to losses recorded in earnings in 2017 due to mark-to-market changes and the sub-charter income earned on the Bahrain Spirit.

### Teekay LNG – Conventional Tankers

As at December 31, 2018, Teekay LNG's conventional tanker fleet included one Suezmax-class double-hulled conventional crude oil tanker which it leases under capital lease and one Handymax product tanker, which it owns. Two of Teekay LNG's conventional tankers, the African Spirit and European Spirit, have been trading in the spot market since the termination of their respective fixed-rate charters in November 2017 and August 2017, respectively. The African Spirit, European Spirit and Toledo Spirit were sold in October 2018, December 2018 and January 2019, respectively. The number of calendar-ship-days for Teekay LNG's conventional tankers decreased to 1,389 days in 2018 from 1,904 days in 2017, primarily as a result of the sales of the Asian Spirit, Teide Spirit, European Spirit and African Spirit in March 2017, February 2018, October 2018 and December 2018, respectively. During 2018, the European Spirit was off-hire for 29 days for a scheduled dry docking and 17 days for repairs, and the African Spirit and Alexander Spirit had 15 days of unscheduled off-hire due to repairs, compared to 34 idle days for the Asian Spirit after its firm charter contract ended in January 2017 and two unscheduled off-hire days for the African Spirit for repairs during the same period in 2017. As a result, Teekay LNG's conventional tanker fleet utilization decreased to 95.6% in 2018 compared to 98.1% in 2017.

Loss from vessel operations was \$21.3 million during 2018 compared to \$40.0 million in 2017, primarily as a result of:

a decrease in loss of \$29.7 million due to write-downs of the Alexander Spirit, European Spirit and African Spirit of \$20.9 million for the year ended December 31, 2018, compared to write-downs of the European Spirit, African Spirit, Teide Spirit, and Toledo Spirit of \$50.6 million for the year ended December 31, 2017; partially offset by

an increase in loss of \$4.9 million due to the European Spirit and African Spirit earning lower rates in the spot market and a scheduled dry docking and off-hire days for repairs for the European Spirit in 2018, partially offset by the cessation of depreciation since 2017 when the vessels were first classified as held for sale;

an increase in loss of \$4.9 million due to CEPSA's sale of Teekay LNG's vessel related to a capital lease, the Teide Spirit, in February 2018, and seafarer severance costs upon its sale; and

an increase in loss of \$1.7 million due to lower revenues earned by the Toledo Spirit in 2018 related to the profit-loss-sharing agreement between Teekay LNG and CEPSA.

### Teekay Tankers

#### Recent Developments in Teekay Tankers

During the fourth quarter of 2018, Teekay Tankers entered into time charter-in contracts for 2.5 Aframax vessel equivalents for periods ranging from one to two years with extension options. The new time charter-in contracts have a weighted average daily rate of \$17,600.

In March 2018, Teekay Tankers entered into time charter-in contracts for two Aframax vessels, with average daily rates of approximately \$11,900 and firm periods of 45 days to six months. The charter contract for one of the Aframax tankers included a 50/50 profit sharing component with the option to extend the contract for six months at an escalated rate. The charter contract for the other Aframax tanker had a maximum period of approximately four months and the vessel was used to support full service lightering operations. Teekay Tankers redelivered both Aframax tankers back to their respective owners in June and September 2018. Teekay Tankers also redelivered one in-chartered Aframax tanker back to its owner in March 2018.

In July 2018, Teekay Tankers entered into a time charter-out contract for one Suezmax tanker, with a daily rate of \$17,500 and a firm period of 12 months, with an option to extend the contract at an escalated rate. In January 2018, Teekay Tankers entered into a time charter-out contract for one Suezmax tanker, with a daily rate of \$17,250 and a

period of six to nine months, with an option to extend the contract to a year at an escalated rate.

During 2018, six time chartered-out Suezmax tankers, seven time chartered-out Aframax tankers and two time chartered-out LR2 product tankers were redelivered back to Teekay Tankers. All of these vessels were trading in the spot market as of December 31, 2018.

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## Operating Results – Teekay Tankers

The following table compares Teekay Tankers' operating results, equity income and number of calendar-ship-days for its vessels for 2018 and 2017.

(in thousands of U.S. dollars, except calendar-ship-days)	Year Ended	
	December 31,	
	2018	2017
Revenues <sup>(1)</sup>	755,763	431,178
Voyage expenses <sup>(1)</sup>	(360,576)	(77,368 )
Vessel operating expenses	(209,131)	(175,389)
Time-charter hire expense	(19,538 )	(30,661 )
Depreciation and amortization	(118,514)	(100,481)
General and administrative expenses	(39,775 )	(32,879 )
Loss on sale of vessels	170	(12,984 )
Restructuring charges	(1,195 )	—
Income from vessel operations	7,204	1,416
Equity income (loss)	1,220	(25,370 )
Calendar-Ship-Days <sup>(2)</sup>		
Conventional Tankers	21,226	16,654

(1) The adoption of ASU 2014-09 had the impact of increasing both voyage charter revenues and voyage expenses for the year ended December 31, 2018 by \$292.6 million.

(2) Calendar-ship-days presented relate to owned and in-chartered consolidated vessels.

## Tanker Market

Tanker rates were at multi-year lows during the first half of 2018 as OPEC supply cuts took their toll on tanker demand. However, the market appeared to reach an inflection point in the middle of the year, as an increase in oil supply from both OPEC and non-OPEC sources, and a period of low fleet growth, allowed rates to recover.

Tanker spot rates improved significantly during the fourth quarter of 2018, spurred by both winter market seasonality and positive underlying supply / demand fundamentals. In the fourth quarter of 2018, OPEC crude oil production rose to 33.0 million barrels per day (mb/d), the highest level since July 2017 and up from 32.0 mb/d earlier in the year.

Russian oil production reached a record high 11.5 mb/d by the end of the year, which was positive for mid-size tanker demand in the Mediterranean / Black Sea and Baltic Sea regions. Rising U.S. exports also supported tanker demand, with U.S. crude oil production reaching a record high 11.7 mb/d during the fourth quarter and crude oil exports reaching 2.5 mb/d. This was positive for both crude tanker demand, as well as lightering demand in the U.S. Gulf.

Tanker spot rates have weakened through the first quarter of 2019, which is typical for this time of year as refineries enter seasonal maintenance programs. OPEC supply cuts are also weighing on tanker demand, with OPEC (plus select non-OPEC partners) pledging to cut production by 1.2 mb/d starting in January 2019. Early data suggests that OPEC are achieving a high compliance with these cuts, which is negative for crude tanker demand in the near-term. We expect OPEC cuts to have a negative impact on tanker demand through the first half of the year, though the oil market is reasonably well balanced, and we believe that OPEC will increase production during the second half of the year when oil demand is expected to increase substantially versus first half levels.

The global tanker fleet grew by just 5.7 million deadweight tonnes (mdwt), or 1.0%, in 2018, which was the lowest level of tanker fleet growth since 2001. High tanker scrapping was the main driver of low fleet growth last year, with a total of 22.4 mdwt removed, representing the fifth highest scrapping year on record. Looking ahead, we expect an increase in tanker fleet growth during 2019 as a firmer freight rate environment is expected to lead to comparatively fewer vessels sold for scrap. We expect total tanker fleet growth of approximately 3.5% during 2019, with much of this growth weighted towards the first half of the year. We expect that this will further add to pressure on the tanker market during the early part of the year, though it paves the way for much lower fleet growth in the second half of 2019 and into 2020, when we forecast that the tanker fleet will grow by less than 2%.

Global oil demand remains firm, with the IEA forecasting growth of 1.4 mb/d growth in 2019. Furthermore, we expect that tanker demand will be boosted in 2019 by an increase in global refining capacity. According to the IEA, a total of 2.6 mb/d of new refining capacity will come online in 2019, which is the largest annual increase on record. This is expected to increase both crude and product tanker demand. We also expect that the new IMO 2020 regulations will be positive for tanker demand, as it may increase refinery throughput. The new regulations could also open up a number of new trade patterns and arbitrage opportunities for both crude and product, which would benefit overall tonne-mile demand. Finally, we believe that an increase in US crude exports during the second half of the year will contribute to both crude tanker demand and U.S. Gulf lightering demand. New pipeline capacity to the Gulf Coast is expected to result in increased U.S. crude exports from approximately 2.5 mb/d at present to approximately 4 mb/d by the end of the year.

In summary, we believe that OPEC supply cuts, high fleet growth, and the impact of seasonal refinery maintenance could decrease tanker demand through the first half of the year. However, we believe that demand during the second half of 2019 and 2020 will strengthen due to strong underlying oil demand, an increase in US crude oil exports, the return of OPEC supply, lower tanker fleet growth, and the positive impact of IMO 2020.



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Teekay Tankers – Conventional Tankers

As at December 31, 2018, Teekay Tankers owned 42 double-hulled conventional oil tankers, had time-chartered in three Aframax tankers, had capital leases for 14 vessels from third parties and owned a 50% interest in one VLCC, the results of which are included in equity (loss) income.

Teekay Tankers' calendar ship days increased in 2018 compared to 2017 primarily due to the addition of 18 vessels that Teekay Tankers acquired as part of the TIL merger in November 2017 and three Aframax in-charters that were delivered to Teekay Tankers during 2018, partially offset by the redeliveries of various in-charters to their owners at various times during 2017 and 2018 and the sale of two Suezmax product tankers, and three Aframax tankers in 2017.

Income from vessel operations increased to \$7.2 million in 2018 compared to \$1.4 million in 2017, primarily as a result of:

- an increase of \$18.6 million primarily due to the addition of 18 vessels that Teekay Tankers acquired as part of the TIL merger in November 2017;

- a net increase of \$16.9 million primarily due to losses on sales of vessels recognized in 2017 and lower operating expenditures in 2018 related to those vessels, partially offset by revenues earned by those vessels in 2017;

- a net increase of \$3.9 million primarily due to Teekay Tankers' full service lightering (or FSL) operations as a result of higher realized FSL spot rates and changes in the utilization of dedicated FSL vessels;

- an increase of \$3.3 million due to the scope and timing of repairs and planned maintenance activities in 2018 as compared to 2017; and

- an increase of \$2.0 million due to the redeliveries of various in-chartered tankers to their owners at various times in 2017;

partially offset by

- a net decrease of \$20.9 million due to the expiration of time-charter out contracts for various vessels, which subsequently traded on spot voyages at lower average realized rates;

- a decrease of \$4.5 million primarily due to lower commissions and management fees earned during 2018 from the management of fewer external vessels;

- a decrease of \$3.8 million due to higher administrative, strategic management and other fees incurred during 2018, primarily relating to levels of corporate support;

- a decrease of \$3.8 million due to higher depreciation recognized related to dry-docking expenditures, which increased in 2018 as compared to 2017;

- a decrease of \$2.9 million due to higher corporate expenses incurred during 2018, primarily as a result of legal expenses related to management initiatives, partially offset by lower legal fees incurred related to the arbitration of STX Offshore & Shipbuilding Co. Ltd (or STX) of South Korea in 2018 as compared to 2017; and

- a decrease of \$2.7 million as a result of higher off-hire days in 2018, as compared to the prior year, primarily due an increase in the number of vessels that entered dry dock during the year.

Equity income (loss) increased to income of \$1.2 million in 2018 from a loss of \$25.4 million in 2017 primarily due to:

- a decrease in equity losses of \$28.4 million primarily due to a \$26.7 million net write-down of Teekay Tankers' investment in TIL to its fair market value in 2017 and lower equity losses in 2018, both resulting from the TIL merger;

partially offset by

- a decrease in equity income of \$1.9 million primarily resulting from lower earnings recognized in 2018 from the High-Q Investment Ltd. (or High-Q) joint venture due to the dry dock of its VLCC, which was completed in June 2018, and the expiry of the time-charter out contract for the VLCC, which subsequently traded on spot voyages at lower average realized rates.



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### Teekay Parent

#### Recent Developments in Teekay Parent

In March 2019, we announced that Chair Emeritus and Director C. Sean Day and Directors Tore Sandvold and Peter S. Janson, are retiring from the Board, effective in June 2019 following our annual meeting of shareholders. Mr. Day will remain as a Director of Teekay GP LLC (the general partner of Teekay LNG Partners L.P.). In addition, William P. Utt will be stepping down from his role as our Chair and Director and as a Director of Teekay GP LLC but will remain as Chair and Director of Teekay Offshore GP LLC (the general partner of Teekay Offshore Partners L.P.). The Board has selected current Teekay director, David Schellenberg, to take over as Teekay's Chair from Mr. Utt in June 2019. The Board has appointed Kenneth Hvid, Teekay's President and Chief Executive Officer, to fill the vacancy on the Board that will be created upon the retirement of Mr. Day. Peter Antturi has been nominated to stand for election at our annual meeting of shareholders in June 2019 to become a Director of Teekay.

The Petrojarl Banff FPSO unit has been operating on the Banff field since its delivery nearly 20 years ago under a charter contract with Canadian Natural Resources (or CNR) that permitted CNR to terminate the contact at any time with six months' notice. In January 2017, Teekay Parent entered into a contract amendment with CNR to ensure the unit would stay on the current field at least until the third quarter of 2018 and to revise the charter rate structure to include a variable component (through an oil price and oil production tariff) in addition to a fixed charter rate. In July 2018, Teekay Parent secured a one-year contract extension with CNR to extend the employment of the Petrojarl Banff FPSO to August 2019.

The Hummingbird Spirit FPSO unit is on a charter contract with Spirit Energy Ltd (or Spirit Energy). In June 2016, Teekay Parent entered into a contract amendment with Spirit Energy to extend the firm period to September 2017 in exchange for a lower fixed charter rate and an oil price tariff. The contract amendment took effect on July 1, 2016. In the second quarter of 2017, Teekay Parent completed a contract extension with Spirit Energy for an additional three years from October 2017 to September 2020 at a higher fixed charter rate plus a variable component based on oil production and oil price.

In November 2018, Teekay Parent sold its 43.5% ownership interest in Magnora ASA (or Magnora, previously Sevan Marine ASA) for total consideration of approximately \$27 million and recognized a gain of \$15.3 million, which is presented in equity income on the consolidated statements of (loss) income.

During 2018, the Company repurchased \$84.1 million in aggregate principal amount of the 8.5% senior unsecured notes that mature in January 2020. During the first quarter of 2019, the Company repurchased \$10.9 million in aggregate principal amount of its 8.5% senior unsecured notes. For more information, please read "Item 18 - Financial Statements: Note 8 - Long-term Debt."

In September 2017, Teekay Parent, Teekay Offshore and Brookfield finalized the Brookfield Transaction which resulted in our deconsolidation of Teekay Offshore and subsequently accounting for our investment in Teekay Offshore by the equity method, which is explained more fully in "Item 18 - Financial Statements: Note 4 - Deconsolidation of Teekay Offshore." In July 2018, Brookfield exercised its option to acquire an additional 2% of ownership interests in Teekay Offshore's general partner from Teekay Parent in exchange for 1.0 million warrants, with each warrant exercisable for one of Teekay Offshore's common units. This resulted in a gain of \$2.2 million reflected in equity income in the Other and Corporate G&A segment in the tables below.

Until December 31, 2017, Teekay Parent directly and indirectly provided substantially all of Teekay Offshore's ship management, commercial, technical, strategic, business development and administrative service needs. On January 1, 2018, as a condition of the Brookfield Transaction, Teekay Offshore acquired, at Teekay's carrying value, a 100% ownership interest in seven subsidiaries (or the Transferred Subsidiaries) that had been devoted exclusively or nearly exclusively to providing such services to Teekay Offshore and its subsidiaries.

The Transferred Subsidiaries provide ship management, commercial, technical, strategic, business development and administrative services to Teekay Offshore, primarily related to Teekay Offshore's FPSO units, shuttle tankers and FSO units. Subsequent to their transfer to Teekay Offshore, the Transferred Subsidiaries continue to provide ship management, commercial, technical, strategic, business development and administrative services to Teekay, primarily related to Teekay Parent's FPSO units. Commencing in the first quarter of 2018, Teekay Parent presented the fees paid by it to Teekay Offshore for services provided by Teekay Offshore in vessel operating expenses and general and administrative expenses. Teekay Parent and certain of its subsidiaries, other than the Transferred Subsidiaries, continue to provide certain other ship management, commercial, technical, strategic and administrative services to Teekay Offshore. Teekay Parent presented the fees received from Teekay Offshore for providing these services in revenues, and the related costs to provide such services in vessel operating expenses.

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## Operating Results – Teekay Parent

The following table compares Teekay Parent's operating results, equity income (loss) and number of calendar-ship-days for its vessels for 2018 and 2017.

	Offshore Production		Conventional Tankers		Other and Corporate G&A		Teekay Parent Total	
	2018	2017	2018	2017	2018	2017	2018	2017
(in thousands of U.S. dollars, except calendar-ship-days)								
Revenues <sup>(1)</sup>	261,736	209,394	—	5,065	189,923	89,107	451,659	303,566
Voyage expenses	(805 )	(186 )	—	(81 )	(37 )	(1,426 )	(842 )	(1,693 )
Vessel operating expenses	(148,871)	(144,325)	—	(5,481 )	(162,054)	(53,179)	(310,925)	(202,985)
Time-charter hire expense	(45,788 )	(38,346 )	—	(12,461)	(22,880 )	(47,847)	(68,668 )	(98,654 )
Depreciation and amortization	(33,271 )	(60,560 )	—	—	(144 )	163	(33,415 )	(60,397 )
General and administrative expenses (2)	(10,043 )	(16,966 )	—	(432 )	(18,225 )	(5,251 )	(28,268 )	(22,649 )
Write-down and loss on sales of vessels	—	(205,659)	—	—	—	—	—	(205,659)
Restructuring charges	—	(110 )	—	—	(1,025 )	(1,844 )	(1,025 )	(1,954 )
Income (loss) from vessel operations	22,958	(256,758)	—	(13,390)	(14,442 )	(20,277)	8,516	(290,425)
Equity income (loss)	15,089	(7,861 )	(510)	(20,677)	(1,384 )	(2,792 )	13,195	(31,330 )
Calendar-Ship-Days <sup>(3)</sup>								
FPSO Units	1,095	1,095	—	—	—	—	1,095	1,095
Conventional Tankers	—	—	—	587	—	—	—	587
Gas carriers	—	—	—	—	185	730	185	730
FSO Units	365	365	—	—	730	730	1,095	1,095
Shuttle Tankers	730	730	—	—	—	—	730	730
Bunker Barges	—	—	—	—	365	365	365	365

Teekay manages vessels owned by its equity-accounted investments and third parties. Subsequent to the adoption of ASU 2014-09, costs incurred by Teekay for its seafarers are presented as vessel operating expenses and the (1) reimbursement of such expenses is presented as revenue, instead of such amounts being presented on a net basis.

This had the effect of increasing both revenues and vessel operating expenses in the Other and Corporate G&A segment for the year ended December 31, 2018 by \$82.9 million.

Includes direct general and administrative expenses and indirect general and administrative expenses allocated to (2) offshore production, conventional tankers and other and corporate G&A based on estimated use of corporate resources.

(3) Apart from three FPSO units in 2018 and 2017, all remaining calendar-ship-days presented relate to in-chartered days.

## Teekay Parent – Offshore Production

Offshore Production consists primarily of our FPSO units. As at December 31, 2018, we owned three FPSO units, and we in-chartered two shuttle tankers and one FSO unit from Teekay Offshore.

The charter contracts for the Hummingbird Spirit FPSO unit and the Petrojarl Banff FPSO unit include an incentive compensation component based on oil production and oil price. In addition, the Petrojarl Foinaven FPSO unit's charter contract includes incentives based on total oil production for the year, certain operational measures, and the average annual oil price. As such, changes in oil prices impact Teekay Parent's incentive compensation under these contracts and may negatively impact its future revenues if oil prices fall below current levels.

Income (loss) from vessel operations increased to \$23.0 million during 2018 compared to (\$256.8 million) in 2017, primarily as a result of:

an increase of \$205.7 million due to the impairments of the Petrojarl Banff and Petrojarl Foinaven FPSO units in the third quarter of 2017, primarily due to changes to the estimated cash flows and carrying values of the asset groups as a result of the deconsolidation of Teekay Offshore on September 25, 2017, and a re-evaluation of the estimated future net cash flows of the units;

an increase of \$28.0 million for the year ended December 31, 2018 related to the Petrojarl Banff FPSO unit, primarily due to a higher day rate and tariff earned in 2018 due to the contract amendment in 2017 described above under the heading "Recent Developments in Teekay Parent", and lower depreciation as an impairment charge was taken on the unit in the third quarter of 2017. This was partially offset by a decrease in production and an increase in planned maintenance costs;

an increase of \$26.3 million for the year ended December 31, 2018 related to the Petrojarl Foinaven FPSO unit, primarily due to higher uptime and production in 2018 resulting in higher revenues, and lower depreciation as an impairment charge was taken on the unit in the third quarter of 2017. This was partially offset by a decrease in production and an increase in planned maintenance costs; and

an increase of \$17.7 million for the year ended December 31, 2018 related to the Hummingbird Spirit FPSO unit, primarily due to the contract amendment that took effect on October 1, 2017 along with higher production in the fourth quarter of 2018.

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Teekay Parent – Conventional Tankers

As at December 31, 2018 and December 31, 2017, Teekay Parent had no conventional tankers remaining in the fleet, as the last two chartered-in vessels were redelivered to their owners in the fourth quarter of 2017.

Teekay Parent – Other and Corporate G&A

As at December 31, 2018, Teekay Parent had two chartered-in FSO units owned by Teekay Offshore and one chartered-in bunker barge owned by a third party. Teekay Parent redelivered one in-chartered LNG carrier to Teekay LNG early in March 2018 and its other in-chartered LNG carrier was redelivered to Teekay LNG in May 2018.

Loss from vessel operations was \$14.4 million for the year ended December 31, 2018 compared to loss from vessel operations of \$20.3 million for the year ended December 31, 2017, primarily due to the redelivery of the two in-chartered LNG carriers to Teekay LNG in 2018.

Teekay Parent – Equity Income (Loss)

Equity income was \$13.2 million for the year ended December 31, 2018, compared to equity loss of \$31.3 million for the year ended December 31, 2017. The decrease in the equity loss for the year ended December 31, 2018, was primarily due to the sale of Teekay's 43.5% ownership interest in Magnora in November 2018 and a write-down of Teekay Parent's investment in Tanker Investments Ltd. (or TIL) to its fair market value in 2017, and lower equity losses in 2018 subsequent to the TIL merger in November 2017.

Equity-Accounted Investment in Teekay Offshore

Recent Developments in Teekay Offshore

Following the Brookfield Transaction on September 25, 2017, Teekay deconsolidated Teekay Offshore. Teekay currently has significant influence over Teekay Offshore and accounts for its investment in Teekay Offshore using the equity method. As of December 31, 2018, Teekay owned a 13.8% interest in the common units of Teekay Offshore. In January 2019, Teekay Offshore reduced the quarterly common unit cash distributions to \$nil, from \$0.01 per common unit in previous quarters, in order to reinvest additional cash in the business and further strengthen its balance sheet. There are no changes to the quarterly cash distributions relating to any of Teekay Offshore's outstanding preferred units.

In January 2019, Teekay Offshore secured a three-year contract extension with Petrobras to extend the employment of the Piranema Spirit FPSO unit on its Brazilian field. The contract extension commenced in February 2019 and includes customer termination rights with 10 months' notice.

In October 2018, Teekay Offshore entered into a settlement agreement with Petróleo Brasileiro S.A. and Petroleo Netherlands B.V. - PNBV S.A. (or Petrobras) with respect to various disputes relating to the previously-terminated charter contracts of the HiLoad DP unit and Arendal Spirit UMS. As part of the settlement agreement, Petrobras has agreed to pay a total amount of \$96.0 million to Teekay Offshore, \$55.0 million of which was received in the fourth quarter of 2018. The remaining \$41.0 million is to be paid in two separate installments of \$22.0 million and \$19.0 million by the end of 2020 and 2021, respectively, subject to certain potential offsets described below.

If in the ordinary course of business and prior to the end of 2021, new charter contracts are entered into with Petrobras in respect of the Arendal Spirit UMS, Cidade de Rio das Ostras (or Rio das Ostras) FPSO unit and Piranema Spirit FPSO unit, the deferred installments of \$41.0 million will be partly reduced by revenue received from such new contracts in this same period (or the Offset Amounts). The recent three-year contract extension with Petrobras for the Piranema Spirit FPSO unit is not expected to result in Offset Amounts being generated.

In addition, in October 2018, Teekay Offshore entered into a further settlement agreement with Petrobras with regards to a dispute relating to the charter of the Piranema Spirit FPSO unit. Pursuant to the settlement agreement, Teekay Offshore agreed to a reduction in charter rate for the FPSO unit totaling approximately \$11.0 million, which was credited to Petrobras in the fourth quarter of 2018. This amount was accrued in Teekay Offshore's financial statements in prior periods, primarily in 2016 and 2017.

In October 2018, Teekay Offshore entered into a conditional agreement with Alpha Petroleum Resources Limited (or Alpha) for the Petrojarl Varg FPSO unit for Alpha's development of the Cheviot oil field on the UK continental shelf. The FPSO contract is for a seven-year fixed term from first oil, which was originally expected to occur during the second quarter of 2021 and is now delayed, and which would follow completion of a life extension and upgrade phase

for the Petrojarl Varg FPSO unit at Sembcorp Marine's shipyard in Singapore. It is intended that the Petrojarl Varg FPSO unit would be used for the entire expected life of the Cheviot field.

The effectiveness of the agreement remains subject to satisfaction of a number of conditions precedent, including (i) initial funding from Alpha to cover life extension and upgrade costs of the Petrojarl Varg FPSO unit, which is conditional on Alpha finalizing its project financing, and (ii) approval by relevant governmental authorities of Alpha's final field development plan for the Cheviot field. Teekay Offshore understands that Alpha continues to seek required funding for the project, the commencement of which will be delayed pending satisfaction of the conditions precedent. There is no assurance that the conditions will be satisfied.



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In July 2018, Teekay Offshore entered into a contract with Petrobras to extend the employment of the Rio das Ostras FPSO unit for four months until November 2018, with an option to extend to January 2019. In December 2018, Teekay Offshore entered into a further contract extension for two months until March 2019.

In May 2018, the Petrojarl I FPSO unit successfully achieved first oil and commenced its five-year charter contract with a consortium led by Queiroz Galvão Exploração e Produção SA (or QGEP) on the Atlanta oil field in offshore Brazil. The Petrojarl I FPSO unit operates under a charter rate profile with a lower day rate during the first 18 months of production. During the final three and a half years of the contract, the charter contract will increase to a higher day rate. The charter contract also contains an oil price and oil production tariff.

In April 2018, Teekay Offshore signed a contract with Premier Oil to extend the employment of the Voyageur Spirit FPSO unit on the Huntington field for an additional 12 months to April 2019. The new contract, which took effect in April 2018, includes a lower fixed charter rate component and an upside component based on oil production and oil price.

In July 2018, Teekay Offshore entered into an additional contract with Premier Oil to extend the employment of the Voyageur Spirit FPSO unit on the Huntington field for an additional 12 months to April 2020. Compared to the current extension, the new one-year extension, which takes effect in April 2019, maintains the same fixed charter rate and oil production tariff elements, but provides additional potential upside from a formula based on oil price, regardless of production performance.

## Operating Results – Teekay Offshore

The following table summarizes Teekay Offshore's operating results, equity income and number of calendar-ship-days for its vessels for the period up to September 25, 2017.

	Teekay Offshore Total
(in thousands of U.S. dollars, except calendar-ship-days)	<del>200</del> 87
Revenues	-796,711
Voyage expenses	-(68,802 )
Vessel operating expenses	-(249,805 )
Time-charter hire expense	-(60,592 )
Depreciation and amortization	-(219,406 )
General and administrative expenses	-(46,399 )
Asset impairments and net gain on sale of vessels	-(1,500 )
Restructuring charges	-(3,147 )
Income from vessel operations	-147,060
Equity income <sup>(1)</sup>	-12,028
Calendar-Ship-Days <sup>(2)</sup>	
FPSO Units	-1,602
Shuttle Tankers	-8,378
FSO Units	-1,869
UMS	-267
Towage vessels	-2,018
Conventional Tankers	-534

(1) This amount represents equity income from Teekay Offshore's equity interests in OOG-TK Libra GmbH & Co KG and OOG-TKP FPSO GmbH & Co KG.

(2) Calendar-ship-days presented relate to owned and in-chartered consolidated vessels.

Income from vessel operations for Teekay Offshore decreased to \$nil for the year ended December 31, 2018 compared to \$147.1 million for the year ended December 31, 2017, as a result of our deconsolidation of Teekay Offshore on

September 25, 2017.

We recognized equity losses from Teekay Offshore of \$6.9 million for the year ended December 31, 2018, and \$2.5 million during the period between September 26 to December 31, 2017. The equity loss includes our proportionate share of write-downs of two of Teekay Offshore's FPSO units totaling \$9.4 million and gains on Teekay Offshore's settlement with Petrobras in relation to the previously-terminated charter contracts of the HiLoad DP unit and Arendal Spirit UMS of \$12.9 million for the year ended December 31, 2018.

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## Other Consolidated Operating Results

The following table compares our other consolidated operating results for 2018 and 2017:

(in thousands of U.S. dollars, except percentages)	Year Ended	
	2018	2017
Interest expense	(254,126)	(268,400)
Interest income	8,525	6,290
Realized and unrealized losses on non-designated derivative instruments	(14,852)	(38,854)
Foreign exchange gain (loss)	6,140	(26,463)
Loss on deconsolidation of Teekay Offshore	(7,070)	(104,788)
Other loss	(2,013)	(53,981)
Income tax expense	(19,724)	(12,232)

Interest expense. Interest expense decreased to \$254.1 million in 2018, compared to \$268.4 million in 2017, primarily due to:

• a decrease of \$88.5 million as a result of the deconsolidation of Teekay Offshore on September 25, 2017 (please read "Item 18 - Financial Statements: Note 4 — Deconsolidation of Teekay Offshore"); and

• a decrease of \$7.3 million due to the repayment of Teekay Parent's revolving credit facilities;

partially offset by

- an increase \$37.1 million primarily relating to interest incurred on the obligations related to capital leases for the Torben Spirit, Murex, Macoma, Magdala, Myrina, Megara, and Bahrain Spirit upon their deliveries;
- an increase of \$27.4 million primarily due to the debt facilities assumed and refinanced as a result of the merger with TIL in November 2017, the additional interest expense incurred relating to the sale and leaseback of eight Aframax tankers, five Suezmax tankers and one LR2 product tanker during 2018, and an increase in average variable interest rates related to Teekay Tankers' debt facilities; partially offset by a lower average balance on one of Teekay Tankers' corporate revolving credit facilities due to the scheduled repayments and prepayments made on the facility in connection with the sales of three Aframax tankers and two Suezmax tankers in 2017.
- an increase of \$8.5 million as a result of interest incurred on the new 5% Convertible Senior Notes issued by Teekay Parent in January 2018, partially offset by a decrease in interest expense due to the repurchase of the 8.5% senior notes (please read "Item 18 - Financial Statements: Note 8 — Long-Term Debt");
- an increase of \$7.6 million in interest incurred by Teekay LNG as a result of higher LIBOR rates, net of principal debt repayments, as compared to the same periods of the prior year; and
- an increase of \$3.7 million due to decreases in capitalized interest relating to advances and capital contributions to the Yamal LNG Joint Venture for newbuilding installments and capitalized interest relating to newbuilding installments for the Sean Spirit and Yamal Spirit.

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Realized and unrealized (losses) gains on non-designated derivative instruments. Realized and unrealized (losses) gains related to derivative instruments that are not designated as hedges for accounting purposes are included as a separate line item in the consolidated statements of (loss) income. Net realized and unrealized losses on non-designated derivatives were \$14.9 million for 2018, compared to \$38.9 million for 2017, as detailed in the table below:

	Year Ended December 31, 2018 \$	Year Ended December 31, 2017 \$
Realized (losses) gains relating to:		
Interest rate swap agreements	(13,898 )	(53,921 )
Interest rate swap agreement terminations	(13,681 )	(610 )
Foreign currency forward contracts	—	667
Time charter swap agreement	—	1,106
Forward freight agreements	137	270
	(27,442 )	(52,488 )
Unrealized gains (losses) relating to:		
Interest rate swap agreements	33,700	17,005
Foreign currency forward contracts	—	3,925
Stock purchase warrants	(21,053 )	(6,421 )
Time charter swap agreement	—	(875 )
Forward freight agreements	(57 )	—
	12,590	13,634
Total realized and unrealized losses on derivative instruments	(14,852 )	(38,854 )

The realized losses relate to amounts we actually realized for settlements related to these derivative instruments in normal course and amounts paid to terminate interest rate swap agreement terminations.

During 2018 and 2017, we had interest rate swap agreements with aggregate average net outstanding notional amounts of approximately \$1.3 billion and \$2.6 billion, respectively, with average fixed rates of approximately 2.9% and 3.1%, respectively. The decrease in the notional amounts is mainly due to the deconsolidation of Teekay Offshore, which had interest rate swaps with aggregate average notional amount of \$1.8 billion during the period up to September 25, 2017. Short-term variable benchmark interest rates during these periods were generally less than 2.0% and, as such, we incurred realized losses of \$13.9 million and \$53.9 million during 2018 and 2017, respectively, under the interest rate swap agreements. We also incurred realized losses of \$13.7 million during 2018, compared to realized losses of \$0.6 million during 2017, from the termination of interest rate swaps.

We did not recognize any realized gains or realized losses under foreign currency contracts in 2018, compared to realized gains of \$0.7 million in 2017.

We did not recognize a realized gain or realized loss on a time charter swap agreement in 2018 compared to a realized gain of \$1.1 million in 2017. The time-charter swap agreement ended on April 30, 2017.

Primarily as a result of significant changes in long-term benchmark interest rates during 2018 and 2017, we recognized unrealized gains of \$33.7 million for 2018 compared to \$17.0 million for 2017 under the interest rate swap agreements. We did not recognize any unrealized gains or losses under foreign currency contracts in 2018 compared to unrealized gains \$3.9 million in 2017.

As at December 31, 2018, Teekay held 15.5 million Brookfield Transaction Warrants. Please read “Item 18 - Financial Statements: Note 4 — Deconsolidation of Teekay Offshore”. The fair value of the Brookfield Transaction Warrants was \$11.8 million as at December 31, 2018. We recognized unrealized losses of \$20.0 million on these warrants in 2018 compared to \$5.2 million in 2017. Please read “Item 18 Financial Statements: Note 15 — Derivative Instruments and Hedging Activities.”

As of December 31, 2018, Teekay held 1,755,000 Teekay Offshore stock purchase warrants with an exercise price of \$4.55, which have a seven-year term and are exercisable any time after six months following their issuance date. The fair value of these warrants was \$0.2 million as at December 31, 2018. We recognized unrealized losses of \$1.1 million on these warrants in 2018 compared to \$0.6 million in 2017. Please read “Item 18 - Financial Statements: Note 15 — Derivative Instruments and Hedging Activities.”

In January 2014, we and Teekay Tankers received TIL stock purchase warrants, which entitled us and Teekay Tankers to purchase up to 1.5 million shares of common stock of TIL at a fixed price of \$10 per share. On May 31, 2017, TIL entered into a definitive agreement to merge with Teekay Tankers (Please read “Item 18 - Financial Statements: Note 22 — Equity-accounted Investments”). Following the completion of the merger, TIL became a wholly-owned subsidiary of Teekay Tankers, and as a result, the stock purchase warrants are valued at \$nil at December 31, 2018 and December 31, 2017. We recognized \$nil and \$0.6 million of unrealized losses on the stock purchase warrants, respectively, during 2018 and 2017. Please read “Item 18 - Financial Statements: Note 15 — Derivative Instruments and Hedging Activities.”

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Foreign Exchange Loss. Foreign currency exchange gains were \$6.1 million in 2018 compared to losses of \$26.5 million in 2017. Our foreign currency exchange gains, substantially all of which are unrealized, are primarily due to the relevant period-end revaluation of our Norwegian-Kroner (or NOK)-denominated debt and our Euro-denominated term loans, capital leases and restricted cash for financial reporting purposes and the realized and unrealized (losses) gains on our cross currency swaps. Gains on NOK-denominated and Euro-denominated monetary liabilities reflect a stronger U.S. Dollar against the NOK and Euro on the date of revaluation or settlement compared to the rate in effect at the beginning of the period. Losses on NOK-denominated and Euro-denominated monetary liabilities reflect a weaker U.S. Dollar against the NOK and Euro on the date of revaluation or settlement compared to the rate in effect at the beginning of the period. For 2018, foreign currency exchange gain included realized losses of \$6.5 million (2017 – \$18.5 million) and unrealized gains of \$21.2 million (2017 – \$82.7 million) on our cross currency swaps, realized losses on maturity and termination of NOK bonds of \$42.3 million (2017 – \$25.7 million) offset by the unrealized gains of \$19.2 million (2017 – losses of \$23.3 million) on the revaluation of our NOK-denominated debt.

Loss on deconsolidation of Teekay Offshore. Loss on deconsolidation of Teekay Offshore was \$7.1 million in 2018 (2017 – \$104.8 million). Please read "Item 18 - Financial Statements: Note 4 — Deconsolidation of Teekay Offshore."

Other loss. Other loss was \$2.0 million in 2018 compared to \$54.0 million in 2017. Other loss in 2018 includes \$1.8 million related to repurchases of the Company's 8.5% senior unsecured notes and \$0.6 million related to the tax indemnification guarantee liability related to the Teekay Nakilat capital lease. Other loss in 2017 includes a \$50.0 million increase in the tax indemnification guarantee liability related to the Teekay Nakilat capital lease, \$4.5 million related to a settlement agreement entered into between CeFront Technology AS and certain subsidiaries of Teekay Offshore, partially offset by a gain on sale of a cost-accounted investment.

Income Tax Expense. Income tax expense was \$19.7 million in 2018 compared to \$12.2 million in 2017. This increase in income tax expense was primarily due to increases in freight tax accruals in 2018.

Year Ended December 31, 2017 versus Year Ended December 31, 2016

## Teekay LNG

## Operating Results – Teekay LNG

The following table compares Teekay LNG's operating results, equity income and number of calendar-ship-days for its vessels for 2017 and 2016.

	Liquefied Gas Carriers		Conventional Tankers		Teekay LNG Total	
(in thousands of U.S. dollars, except calendar-ship-days)	2017	2016	2017	2016	2017	2016
Revenues	385,683	336,530	46,993	59,914	432,676	396,444
Voyage expenses	(3,020 )	(449 )	(5,182 )	(1,207 )	(8,202 )	(1,656 )
Vessel operating expenses	(84,928 )	(66,087 )	(18,211 )	(22,503 )	(103,139 )	(88,590 )
Depreciation and amortization	(95,025 )	(80,084 )	(10,520 )	(15,458 )	(105,545 )	(95,542 )
General and administrative expenses <sup>(1)</sup>	(14,034 )	(15,310 )	(2,507 )	(3,189 )	(16,541 )	(18,499 )
Write-down and loss on sale of vessels	—	—	(50,600)	(38,976)	(50,600 )	(38,976 )
Income (loss) from vessel operations	188,676	174,600	(40,027)	(21,419)	148,649	153,181
Equity income	9,789	62,307	—	—	9,789	62,307
Calendar-Ship-Days <sup>(2)</sup>						
Liquefied Gas Carriers	8,357	7,440	—	—	8,357	7,440
Conventional Tankers	—	—	1,904	2,439	1,904	2,439

(1) Includes direct general and administrative expenses and indirect general and administrative expenses allocated to the liquefied gas carriers and conventional tankers based on estimated use of corporate resources.

(2) Calendar-ship-days presented relate to consolidated vessels only and excludes equity-accounted vessels.

Teekay LNG – Liquefied Gas Carriers

As at December 31, 2017, Teekay LNG's liquefied gas fleet, including newbuildings, included 50 LNG carriers and 30 LPG/Multigas carriers, in which its interests ranged from 20% to 100%. The number of calendar-ship-days for Teekay LNG's liquefied gas carriers consolidated in its financial results increased to 8,357 days in 2017 from 7,440 days in 2016, as a result of the deliveries to Teekay LNG of the Creole Spirit and Oak Spirit during 2016 and the deliveries of the Torben Spirit, Macoma, and Murex during 2017. During 2017, three of Teekay LNG's consolidated vessels in this segment were off-hire for scheduled dry dockings, and the Torben Spirit was idle for three days prior to its charter contract commencement, compared to three consolidated vessels in this segment being off-hire for repairs, and the Creole Spirit and Oak Spirit being idle for 12 days and 15 days, respectively, prior to their charter contract commencements in 2016. As a result, Teekay LNG's liquefied gas fleet utilization decreased to 98.6% in 2017, compared to 99.1% in 2016.

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Income from vessel operations increased to \$188.7 million in 2017 compared to \$174.6 million in 2016, primarily as a result of:

- an increase of \$26.6 million as a result of the deliveries of the Creole Spirit, Oak Spirit, Torben Spirit, Macoma, and Murex and the commencement of their charter contracts; and
  - an increase of \$6.9 million primarily related to additional revenue recognized relating to the accelerated dry docking of two LNG carriers and higher pass-through operating expenses due to timing of main engine maintenance; partially offset by
  - a decrease of \$4.8 million due to uncertainty of collection of hire receipts relating to Teekay LNG's six LPG carriers on charter to Skaugen in 2017;
  - a decrease of \$4.1 million due to higher dry-docking amortization due to recent dry dockings;
  - a decrease of \$3.0 million for two of Teekay LNG's LNG carriers as a result of timing of main engine maintenance;
  - a decrease of \$2.4 million relating to 35 days of unscheduled off-hire in the second quarter of 2017 due to repairs required for one of Teekay LNG's LNG carriers; and
  - a decrease of \$2.3 million as a result of the acquisition of the Sonoma Spirit in April 2017 and due to the redelivery of six LPG carriers from Skaugen during 2017, which were previously on bareboat charter contracts.
- Equity income related to Teekay LNG's liquefied gas carriers decreased to \$9.8 million in 2017 compared to \$62.3 million in 2016, as set forth in the table below:

(in thousands of U.S. Dollars) Year Ended December 31,

	Angola LNG Carriers	Exmar LNG Carriers	Exmar LPG Carriers	MALT LNG Carriers	RasGas LNG Carriers	Pan Union LNG Carriers	Other	Total Equity Income
2017	16,755	7,397	(7,863)	(16,547)	16,324	496	(6,773)	9,789
2016	15,713	9,038	13,674	4,503	19,817	(104)	(334)	62,307
Difference	1,042	(1,641)	(21,537)	(21,050)	(3,493)	600	(6,439)	(52,518)

The \$1.0 million increase in Teekay LNG's 33% investment in the four Angola LNG Carriers was primarily due to an increase in unrealized gains on non-designated derivative instruments due to mark-to-market changes. The mark-to-market changes resulted from changes in long-term LIBOR benchmark interest rates for interest rate swaps compared to 2016.

The \$1.6 million decrease in Teekay LNG's 50% investment in the Exmar LNG Carriers was primarily due to the Excalibur being off-hire in 2017 for a scheduled dry docking.

The \$21.5 million decrease in equity income from Teekay LNG's 50% ownership interest in Exmar LPG BVBA was primarily due to more vessels trading in the spot market at lower rates during 2017 compared to higher fixed rates earned in 2016, the scheduled dry dockings of the Eupen and Brussels in the second and third quarters of 2017, respectively, the write-downs of the Courcheville and Temse recorded in 2017, and the sale of the Brugge Venture in January 2017. These decreases were partially offset by income earned from five LPG carrier newbuildings that were delivered to the Exmar LPG Joint Venture between February 2016 and July 2017, and a write-down of the Brugge Venture recorded in 2016.

The \$21.1 million decrease in equity income from Teekay LNG's 52% investment in the MALT LNG Carriers was primarily due to a settlement payment awarded to the joint venture in 2016 for the disputed contract termination relating to the Magellan Spirit, of which Teekay LNG's proportionate share was \$20.3 million; a further deferral effective August 2016 of a portion of the charter payments for the Marib Spirit and Arwa Spirit that are chartered to service the YLNG plant in Yemen, which has been closed since 2015. These decreases were partially offset by higher



fleet utilization in the second half of 2017 due to commencements of short-term charter contracts for certain vessels which were previously trading in the spot market.

The \$3.5 million decrease in equity income from Teekay LNG's 40% investment in the RasGas 3 LNG Carriers was primarily due to higher interest expense resulting from the completion of debt refinancing in December 2016.

The \$6.4 million decrease in Teekay LNG's other equity-accounted investments was primarily due to unrealized losses on interest rate swaps relating to Teekay LNG's 30% ownership interest in the Bahrain LNG Joint Venture in 2017, and higher crew training expenses for the Yamal LNG Joint Venture in preparation for its vessel deliveries commencing in 2018.

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## Teekay LNG – Conventional Tankers

As at December 31, 2017, Teekay LNG's conventional tanker fleet included four Suezmax-class double-hulled conventional crude oil tankers and one Handymax product tanker, three of which it owned (including the European Spirit and African Spirit, which were classified as held for sale as at December 31, 2017) and two of which it leased under capital leases. Three of Teekay LNG's five conventional tankers operated under fixed-rate charters. The European Spirit and African Spirit were trading in the spot market since August and November 2017, respectively, as Teekay LNG continued to market these vessels for sale. These vessels were subsequently sold during 2018. The number of calendar-ship-days for Teekay LNG's conventional tankers decreased to 1,904 days in 2017 from 2,439 days in 2016, primarily as a result of the sales of the Bermuda Spirit, Hamilton Spirit and Asian Spirit in April 2016, May 2016 and March 2017, respectively. During 2017, the Asian Spirit was idle for 34 days between the time its firm charter contract ended in January 2017 and the time the vessel was sold and the European Spirit was off-hire for two days for vessel maintenance, compared to no off-hire days during 2016. As a result, Teekay LNG's conventional tanker fleet utilization decreased to 98.1% in 2017 compared to 100.0% in 2016.

Loss from vessel operations was \$40.0 million during 2017 compared to \$21.4 million in 2016, primarily as a result of:

- a decrease of \$25.5 million due to the combined write-downs of the Teide Spirit and Toledo Spirit. In August 2017, the charterer of the Teide Spirit gave formal notification to Teekay LNG of its intention to terminate its charter contract subject to certain conditions being met and third-party approvals being received. In February 2018, the charterer sold the Teide Spirit and concurrently terminated its existing charter contract with Teekay LNG. The charterer's cancellation option for the Toledo Spirit was first exercisable in August 2018. In May 2018, the charterer of the Toledo Spirit gave formal notification to Teekay LNG of its intention to terminate its charter contract subject to certain conditions being met and the receipt of certain third-party approvals. Given Teekay LNG's prior experience with this charterer, Teekay LNG expected it would also cancel the charter contract and sell the Toledo Spirit to a third party in 2018. In January 2019, the charterer of the Toledo Spirit cancelled the contract and sold the vessel;
- a decrease of \$12.6 million due to the write-down of the European Spirit as Teekay LNG commenced marketing the vessel for sale upon receiving notification from the charterer of the vessel that it would redeliver the vessel to Teekay LNG upon completion of its charter contract in August 2017;
- a decrease of \$12.5 million due to the write-down of the African Spirit as Teekay LNG received notification from the charterer of the vessel in August 2017 that it would redeliver the vessel to Teekay LNG upon completion of its charter contract in November 2017; and
- a decrease of \$1.3 million due to lower revenues earned by the Toledo Spirit in 2017 relating to the profit-sharing agreement between Teekay LNG and CEPASA; partially offset by
- an increase of \$32.4 million due to the sales of the Bermuda Spirit and Hamilton Spirit in 2016 and Asian Spirit in the first quarter of 2017, comprised of a \$39.0 million loss on the sales of the vessels in 2016, partially offset by a resulting decrease in operating income in 2017.

## Teekay Tankers

## Operating Results – Teekay Tankers

The following table compares Teekay Tankers' operating results, equity income and number of calendar-ship-days for its vessels for 2017 and 2016.

(in thousands of U.S. dollars, except calendar-ship-days)	Year Ended	
	2017	2016
Revenues	431,178	550,543
Voyage expenses	(77,368 )	(53,604 )
Vessel operating expenses	(175,389)	(182,598)

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Time-charter hire expense	(30,661 )	(59,647 )
Depreciation and amortization	(100,481 )	(104,149 )
General and administrative expenses	(32,879 )	(33,199 )
Loss on sale of vessels	(12,984 )	(20,594 )
Income from vessel operations	1,416	96,752
Equity (loss) income	(25,370 )	7,680
Calendar-Ship-Days <sup>(1)</sup>		
Conventional Tankers	16,654	19,303

(1) Calendar-ship-days presented relate to owned and in-chartered consolidated vessels.

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Teekay Tankers – Conventional Tankers

As at December 31, 2017, Teekay Tankers owned 52 double-hulled conventional oil tankers, time-chartered in one Aframax tanker, had capital leases for four Suezmax tankers from third parties and owned a 50% interest in one VLCC, the results of which were included in equity (loss) income.

Teekay Tankers' calendar ship days decreased in 2017 compared to 2016 primarily due to the redeliveries of various in-charters to their owners at various times during 2016 and 2017 and the sale of two Suezmax product tankers, three Aframax tankers and two MR product tankers in 2016 and 2017, partially offset by the addition of 18 vessels that Teekay Tankers acquired as part of the TIL merger in November 2017 and three Aframax in-charters that were delivered to Teekay Tankers during 2016 and 2017.

Income from vessel operations decreased to \$1.4 million in 2017 compared to \$96.8 million in 2016, primarily as a result of:

- a decrease of \$66.5 million due to lower average realized rates earned by the Suezmax, Aframax and LR2 tankers trading in the spot tanker market in 2017 compared to 2016;
  - a net decrease of \$27.9 million due to the expiry of time-charter out contracts for various vessels, which subsequently traded on spot voyages at lower average realized rates and more vessels transitioned from voyage charter to full service lightering employment in 2017 compared to 2016;
  - a net decrease of \$7.2 million primarily due to the redeliveries of various in-charters to their owners at various times during 2016 and 2017 and the sale of two Suezmax product tankers, three Aframax tankers and two MR product tankers in 2016 and 2017, partially offset by the addition of 18 vessels that Teekay Tankers acquired as part of the TIL merger and three Aframax in-charters that were delivered to Teekay Tankers during 2016 and 2017; and
  - a decrease of \$1.2 million due to in-process revenue contract amortization that Teekay Tankers recognized in revenue in the first quarter of 2016;
- partially offset by
- a net increase of \$3.0 million due to the scope of repairs and planned maintenance activities in 2017 as compared to 2016;
  - an increase of \$2.9 million due to higher transition costs incurred in 2016 compared to 2017 directly relating to 12 Suezmax tankers which were acquired in the latter part of 2015; and
  - an increase of \$1.3 million due to higher corporate expenses incurred during 2016 primarily as a result of legal expenses related to the vessel construction and option agreements with STX Offshore & Shipbuilding Co. Ltd (or STX) of South Korea.

Equity (loss) income decreased to a loss of \$25.4 million in 2017 from income of \$7.7 million for 2016 primarily due to:

- a decrease of \$31.9 million primarily due to a \$26.7 million net write-down of Teekay Tankers' investment in TIL to its fair market value in June 2017 and prior to the TIL merger completion, and lower equity earnings from TIL resulting from overall lower realized average spot rates earned in 2017 compared to 2016; and
- a decrease of \$1.3 million due to lower equity earnings from the High-Q Investment Ltd (or High-Q) joint venture primarily resulting from profit share recognized in the second quarter of 2016 as VLCC rates averaged above certain thresholds, triggering a profit sharing with the customer.

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## Teekay Parent

## Operating Results – Teekay Parent

The following table compares Teekay Parent's operating results, equity income and number of calendar-ship-days for its vessels for 2017 and 2016.

(in thousands of U.S. dollars, except calendar-ship-days)	Offshore Production		Conventional Tankers		Other and Corporate G&A		Teekay Parent Total	
	2017	2016	2017	2016	2017	2016	2017	2016
Revenues <sup>(1)</sup>	209,394	231,435	5,065	32,967	89,107	76,111	303,566	340,513
Voyage expenses	(186 )	(269 )	(81 )	(287 )	(1,426 )	(2,879 )	(1,693 )	(3,435 )
Vessel operating expenses <sup>(1)</sup>	(144,325)	(159,084)	(5,481 )	(10,468)	(53,179)	(26,576)	(202,985)	(196,128)
Time-charter hire expense	(38,346 )	(33,366 )	(12,461)	(23,166)	(47,847)	(48,452)	(98,654 )	(104,984)
Depreciation and amortization	(60,560 )	(70,855 )	—	(1,717 )	163	449	(60,397 )	(72,123 )
General and administrative expenses <sup>(2)</sup>	(16,966 )	(14,099 )	(432 )	(809 )	(5,251 )	(10,707)	(22,649 )	(25,615 )
Asset Impairments	(205,659)	—	—	—	—	—	(205,659)	—
Net loss on sale of vessels and equipment	—	(110 )	—	(12,487)	—	—	—	(12,597 )
Restructuring charges	(110 )	(1,962 )	—	—	(1,844 )	(20,165)	(1,954 )	(22,127 )
Loss from vessel operations	(256,758)	(48,310 )	(13,390)	(15,967)	(20,277)	(32,219)	(290,425)	(96,496 )
Equity (loss) income	(7,861 )	(575 )	(20,677)	132	(2,792 )	(1,838 )	(31,330 )	(2,281 )
Calendar-Ship-Days <sup>(3)</sup>								
FPSO Units	1,095	1,098	—	—	—	—	1,095	1,098
Conventional Tankers	—	—	587	1,278	—	—	587	1,278
Gas carriers	—	—	—	—	730	732	730	732
FSO Units	365	366	—	—	730	732	1,095	1,098
Shuttle Tankers	730	732	—	—	—	—	730	732
Bunker Barges	—	—	—	—	365	672	365	672

Revenues and vessel operating expenses for 2017 include \$17.8 million and \$16.1 million, respectively, related to intercompany transactions between Teekay Offshore and Teekay Parent, which as a result of the deconsolidation of (1) Teekay Offshore, are no longer eliminated upon consolidation. The intercompany transactions relate to services for ship management, crew training, commercial, technical, project management, strategic, business development and administrative services provided by Teekay Parent to Teekay Offshore.

Includes direct general and administrative expenses and indirect general and administrative expenses allocated to (2) offshore production, conventional tankers and other and corporate G&A based on estimated use of corporate resources.

Apart from three FPSO units and one conventional tanker, all remaining calendar-ship-days presented relate to (3) in-chartered days.

## Teekay Parent – Offshore Production

Offshore Production consists primarily of our FPSO units. As at December 31, 2017, we had a direct interest in three 100%-owned FPSO units, and we in-chartered two shuttle tankers and one FSO unit from Teekay Offshore.

Asset impairments for the year ended December 31, 2017, primarily relate to the impairments of the Petrojarl Banff and Petrojarl Foinaven FPSO units. Factors contributing to the impairments included changes to the estimated cash flows and carrying values of the asset groups as a result of the deconsolidation of Teekay Offshore on September 25, 2017, and a re-evaluation of the estimated future net cash flows of the units. Please read "Item 18 - Financial Statements: Note 18a - Asset Impairments".

Loss from vessel operations increased to \$256.8 million during 2017 compared to \$48.3 million in 2016, primarily as a result of:

an increase in loss of \$205.7 million from impairment charges in respect of the Petrojarl Banff and Petrojarl Foinaven FPSO units, described above;

an increase in loss of \$14.2 million related to the Hummingbird Spirit FPSO unit primarily due to the contract amendment described above under the heading “Recent Developments in Teekay Parent”, which took effect on July 1, 2016; and

an increase in loss of \$18.5 million related to the Petrojarl Foinaven FPSO unit primarily due to lower revenue earned and higher repairs and maintenance costs incurred during the shutdown of the unit in the third quarter for 2017, and insurance proceeds recognized in 2016;

partially offset by

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a decrease in loss of \$25.4 million related to the Petrojarl Banff FPSO unit primarily due to higher day rate and tariff earned in 2017 due to the contract amendment described above under the heading “Recent Developments in Teekay Parent”, and higher repairs and maintenance costs in 2016 due to the temporary loss of two mooring lines in the second quarter of 2016, partially offset by insurance proceeds received in 2016; and  
a decrease in loss of \$1.9 million for the year ended December 31, 2017 primarily due to reorganization of the FPSO business in 2016.

Teekay Parent – Conventional Tankers

As at December 31, 2017, Teekay Parent had no conventional tankers remaining in the fleet. The average fleet size (including in-chartered vessels), as measured by calendar-ship-days, decreased in 2017 compared with 2016 due to the redeliveries of two Aframax in-chartered vessels to their owners, one Aframax in-chartered vessel to Teekay Offshore and two Aframax in-chartered vessels to Teekay Tankers, and due to the sale of one VLCC during 2016. The collective impact from the noted fleet changes are referred to below as the Net Fleet Reductions.

Loss from vessel operations for Teekay Parent’s Conventional Tankers was \$13.4 million in 2017 compared to \$16.0 million in 2016, primarily as a result of:

a decrease in loss of \$12.5 million due to the write-down of the VLCC to its agreed sales price in the second quarter of 2016; and

a decrease in loss of \$2.4 million due to a cancellation fee paid by Teekay Parent to Teekay Offshore in the first quarter of 2016 related to the termination of a time-charter contract, partially offset by a cancellation fee paid to the owners in the fourth quarter of 2017 related to the termination of two bareboat charter-in contracts; partially offset by

an increase in loss of \$6.2 million due to the Net Fleet Reductions;

an increase in loss of \$5.1 million due to lower average realized TCE rates earned in 2017 compared to 2016; and

an increase in loss of \$2.0 million due to a distribution received from Gemini Pool L.L.C. in the first quarter of 2016.

Teekay Parent – Other and Corporate G&A

As at December 31, 2017, Teekay Parent had two chartered-in LNG carriers owned by Teekay LNG, two chartered-in FSO units owned by Teekay Offshore and one chartered-in bunker barge owned by a third party.

Loss from vessel operations was \$20.3 million for the year ended December 31, 2017, compared to \$32.2 million for the year ended December 31, 2016, primarily as a result of:

a decrease in loss of \$14.5 million from Teekay Parent's in-chartered LNG carriers primarily due to the start of a one-year charter contract for the Polar Spirit LNG carrier in the second quarter of 2017 and the start of a seven-month charter contract for the Arctic Spirit LNG carrier in the third quarter of 2017; partially offset by

an increase in loss of \$1.8 million in 2017, due to transaction fees received from TIL in 2016 for our arrangement of the sale of the Voss Spirit and Hemsedal Spirit by TIL; and

an increase in loss of \$1.7 million relating to the Suksan Salamander FSO unit from amortization of the off-market in-charter contract subsequent to the deconsolidation of Teekay Offshore and contract amendments during 2017.

Teekay Parent – Equity Loss

Equity loss was \$31.3 million in 2017 compared to \$2.3 million in 2016, primarily due to a \$20.5 million write-down of Teekay Parent's investment in TIL in June 2017 and lower equity earnings from lower average realized spot rates earned by TIL in 2017 and losses from Magnora.





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## Teekay Offshore

## Operating Results – Teekay Offshore

The following table compares Teekay Offshore's operating results, equity income and number of calendar-ship-days for its vessels for 2017 and 2016. Following the Brookfield Transaction in September 2017, Teekay deconsolidated Teekay Offshore on September 25, 2017. After September 25, 2017, Teekay accounts for its investment in Teekay Offshore using the equity method.

	Year ended December 31,	
(in thousands of U.S. dollars, except calendar-ship-days)	2017 <sup>(1)</sup>	2016
Revenues	796,711	1,152,390
Voyage expenses	(68,802 )	(80,750 )
Vessel operating expenses	(249,805)	(364,441 )
Time-charter hire expense	(60,592 )	(75,485 )
Depreciation and amortization	(219,406)	(300,011 )
General and administrative expenses	(46,399 )	(56,122 )
Asset impairments and gain on sale of vessels <sup>(2)</sup>	(1,500 )	(40,079 )
Restructuring charges	(3,147 )	(4,649 )
Income from vessel operations	147,060	230,853
Equity income <sup>(3)</sup>	12,028	17,933
Calendar-Ship-Days <sup>(4)</sup>		
FPSO units	1,602	2,196
Shuttle Tankers	8,378	11,913
FSO units	1,869	2,562
UMS	267	366
Towage vessels	2,018	2,307
Conventional Tankers	534	732

On September 25, 2017, we deconsolidated Teekay Offshore (please read "Item 18 - Financial Statements: Note 3 - (1) Deconsolidation of Teekay Offshore"). Figures represent Teekay Offshore's results for the period up to September 25, 2017.

Commencing on September 25, 2017, Teekay accounts for its investment in Teekay Offshore using the equity method, and recognized an equity loss of \$2.5 million for the year ended December 31, 2017. In the period after (2) deconsolidation of Teekay Offshore to September 30, 2017, Teekay Offshore incurred impairment charges of \$316.7 million which did not impact the equity loss recognized by Teekay as Teekay recognized its equity-accounted investment in Teekay Offshore at fair value on September 25, 2017.

<sup>(3)</sup> These amounts represent equity income from Teekay Offshore's equity interests in OOG-TK Libra GmbH & Co KG and OOG-TKP FPSO GmbH & Co KG.

<sup>(4)</sup> Calendar-ship-days presented relate to owned and in-chartered consolidated vessels.

As at December 31, 2017, Teekay Offshore's FPSO fleet consisted of the Petrojarl Knarr, the Petrojarl Varg, the Ostras, the Piranema Spirit, the Voyageur Spirit, and the Petrojarl I FPSO units, all of which Teekay Offshore owned 100%, and the Itajai and the Libra FPSO units, of which Teekay Offshore owned 50%. One equity-accounted FPSO unit, the Libra FPSO unit owned through Teekay Offshore's 50/50 joint venture with Ocyan, achieved first oil and commenced its 12-year charter contract in late-November 2017. The Petrojarl I FPSO unit completed its upgrades and arrived on the Atlanta field in offshore Brazil in early-January 2018 and commenced its five-year charter contract with QGEP in May 2018. One FPSO unit, the Petrojarl Varg, was in lay-up as at December 31, 2017.

In late-2015, Teekay Offshore received a termination notice for the Petrojarl Varg FPSO charter contract from Repsol S.A. (or Repsol), based on a termination right that was specific to the Petrojarl Varg FPSO contract. In accordance

with the termination provision of the charter contract, the charterer ceased paying the capital component of the charter hire six months prior to the July 2016 redelivery date.

As at December 31, 2017, Teekay Offshore's shuttle tanker fleet consisted of 30 vessels that operate under fixed-rate contracts of affreightment, time charters and bareboat charters, one shuttle commenced operations under a fixed-rate contract of affreightment, in the East Coast of Canada in January 2018, five shuttle tanker newbuildings (one of which was delivered in March 2018) and the HiLoad DP unit (which was in lay-up as at December 31, 2017). Of these 37 shuttle tankers, six were owned through 50%-owned subsidiaries and three were chartered-in. The remaining vessels were owned 100% by Teekay Offshore.

As at December 31, 2017, Teekay Offshore's FSO fleet consisted of six units that operated under fixed-rate time charters or fixed-rate bareboat charters, for which Teekay Offshore's ownership interests ranged from 89% to 100%. The Randgrid completed its conversion from a shuttle tanker to an FSO unit in June 2017 and commenced operations in early-October 2017 at the Gina Krog oil and gas field located in the North Sea, under a three-year time-charter contract, which includes 12 additional one-year extension options. The Navion Saga FSO unit was sold in October 2017.

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As at December 31, 2017, Teekay Offshore's UMS fleet consisted of one unit, the Arendal Spirit, in which Teekay Offshore owned a 100% interest. The Arendal Spirit was off-hire from mid-April 2016 until early-July 2016 due to damage suffered to the gangway of the unit. No revenue was recognized for this unit since November 2016, for the reasons described above.

As at December 31, 2017, Teekay Offshore's towage vessel fleet consisted of nine long-distance towing and offshore installation vessels and one long-distance towing and offshore installation vessel newbuilding which was delivered in February 2018. Two of the vessels were in lay-up as at December 31, 2017. Teekay Offshore owned a 100% interest in each of the vessels in Teekay Offshore's towage fleet. Long-distance towing and offshore installation vessels are used for the towage, station-keeping, installation and decommissioning of large floating objects, such as exploration, production and storage units, including FPSO units, FLNG and floating drill rigs.

As at December 31, 2017, Teekay Offshore's conventional tanker fleet consisted of two in-chartered conventional tankers. Both vessels were trading in the spot conventional tanker market as at December 31, 2017.

Income from vessel operations for Teekay Offshore decreased to \$147.1 million for the period up to September 25, 2017 compared to \$230.9 million for the year ended December 31, 2016, primarily a result of:

### FPSO Fleet

a decrease of \$13.7 million for the nine months ended September 30, 2017 for the Petrojarl Varg due to no longer receiving the capital portion of the charter hire for the Petrojarl Varg FPSO since February 1, 2016 and the unit being in lay-up since August 1, 2016 subsequent to the termination of the charter contract by Repsol and net revenue received for offshore field studies in 2016;

a decrease of \$4.2 million for the nine months ended September 30, 2017 for the Voyageur Spirit FPSO, primarily due to a decrease in incentive compensation;

a decrease of \$2.6 million for the nine months ended September 30, 2017 for the Piranema Spirit, primarily due to the timing of repair and maintenance costs; and

- a decrease of \$1.0 million for the nine months ended September 30, 2017 for the Petrojarl I FPSO, primarily due to higher pre-operational costs incurred as the unit continues upgrades and is undergoing installation before commencing operations during the second quarter of 2018;

partially offset by

an increase of \$6.5 million for the nine months ended September 30, 2017 for the Petrojarl Knarr FPSO, primarily due to a one-time performance bonus earned during the third quarter of 2017 and crew and repair and maintenance costs in 2016 relating to the unit preparing for its final performance test, which was completed during the third quarter of 2016; and

an increase of \$4.2 million for the nine months ended September 30, 2017 for the Petrojarl Varg, primarily due to lower costs from the unit being in lay-up since August 1, 2016.

### Shuttle Tanker Fleet

an increase of \$11.3 million for the nine months ended September 30, 2017 due to an increase in project revenues, as a result of providing offloading services to Statoil for the Gina Krog field as an interim measure pending the start-up

of the recently converted Randgrid FSO unit in October 2017;

an increase of \$9.2 million for the nine months ended September 30, 2017 primarily due to an increase in revenues in Teekay Offshore's contract of affreightment fleet mainly due to higher fleet utilization and higher average rates; and

- an increase of \$2.7 million for the nine months ended September 30, 2017, due to cost savings as a result of the sale of one vessel in November 2016;

partially offset by

a decrease of \$13.1 million for the nine months ended September 30, 2017 due to the in-chartering of one vessel from September 2016.

#### FSO Fleet

a decrease of \$10.3 million for the nine months ended September 30, 2017 due to the redelivery to Teekay Offshore of the Navion Saga in October 2016 and the write-down of the Falcon Spirit as a result of a decrease in the estimated residual value of the unit.

#### UMS Fleet

an increase of \$11.4 million for the nine months ended September 30, 2017 primarily due to the termination of the Arendal Spirit UMS charter contract in April 2017, partially offset by the write-down relating to the cancellation of two UMS newbuilding contracts in June 2016.

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## Towage Fleet

a decrease of \$8.8 million for the nine months ended September 30, 2017 mainly due to lower utilization for the towage fleet as a result of lower demand in the offshore market, and increased costs associated with the delivery of the ALP Striker and ALP Defender in September 2016 and June 2017, respectively, partially offset by an increase in the owned and chartered-in fleet size.

## Conventional Tanker Fleet

a decrease of \$7.6 million for the nine months ended September 30, 2017 primarily due to a \$4.0 million termination fee received from Teekay Parent for the early termination of the time-charter-out contract of the Kilimanjaro Spirit in March 2016, and the in-chartering of the Blue Pride and the Blue Power conventional tankers from March 2016, partially offset by lower costs as a result of the sale of two conventional tankers in March 2016.

## General and administrative expenses

General and administrative expenses increased by \$4.4 million for the nine months ended September 30, 2017, mainly due to costs associated with the Brookfield Transaction and higher business development fees relating to its FPSO segment, partially offset by lower management fees relating to the FPSO and shuttle tanker segments primarily from its cost saving initiatives and lower expenses as a result of the redelivery and lay-up of the Petrojarl Varg FPSO unit in August 2016.

## Impact of deconsolidation of Teekay Offshore

a decrease of \$59.1 million in 2017, including \$56.5 million of income from vessel operations of Teekay Offshore for the fourth quarter of 2016 and \$2.6 million of income from vessel operations of Teekay Offshore for the five days subsequent to its deconsolidation on September 25, 2017, of which our 14% share was recognized in equity loss, and which is not included in the above results (please read "Item 18 - Financial Statements: Note 3 - Deconsolidation of Teekay Offshore"). The Company recognized an equity loss of \$2.5 million from September 25, 2017 to December 31, 2017.

## Other Consolidated Operating Results

The following table compares our other consolidated operating results for 2017 and 2016:

(in thousands of U.S. dollars, except percentages)	Year Ended		
	December 31,		
	2017	2016	% Change
Interest expense	(268,400)	(282,966)	(5.1 )
Interest income	6,290	4,821	30.5
Realized and unrealized loss on non-designated derivative instruments	(38,854 )	(35,091 )	10.7
Foreign exchange loss	(26,463 )	(6,548 )	304.1
Loss on deconsolidation of Teekay Offshore	(104,788)	—	100.0
Other loss	(53,981 )	(39,013 )	38.4
Income tax expense	(12,232 )	(24,468 )	(50.0 )

Interest expense. Interest expense decreased to \$268.4 million in 2017, compared to \$283.0 million in 2016, primarily due to:

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a decrease of \$5.2 million primarily due to a termination fee and write-off in 2016 of deferred loan costs due to the cancellation of a portion of Teekay Parent's equity margin loan in 2016;

a decrease of \$4.8 million due to interest expense incurred relating to costs associated with the delay in the delivery of a UMS newbuilding in the first and second quarters of 2016 up until its construction contract cancellation by subsidiaries of Teekay Offshore in late-June 2016;

a decrease of \$4.1 million due to increases in capitalized interest relating to additional advances and capital contributions to the Yamal LNG Joint Venture and Bahrain LNG Joint Venture for newbuilding installments and construction costs;

a decrease of \$3.0 million due to decreases in Teekay Offshore's average debt balance;

a decrease of \$1.5 million due to the repayment of the bridge loan relating to the Shoshone Spirit upon its sale by Teekay Parent in 2016; and

a decrease of \$0.9 million due to the partial repayment of Teekay Parent's revolving credit facility in 2017; partially offset by

an increase of \$16.3 million primarily relating to interest incurred on the obligations related to capital leases for the Creole Spirit, Oak Spirit, Torben Spirit, Murex, and Macoma commencing upon their deliveries in 2016 and 2017;

an increase of \$7.9 million due to an increase in the weighted-average interest rates on Teekay Offshore's long-term debt;

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an increase of \$4.6 million as a result of Teekay LNG's issuances of NOK bonds in October 2016 and January 2017, net of NOK bond repurchases in October 2016 and the maturity of certain of the NOK bonds in May 2017;

an increase of \$4.1 million as a result of interest expense accretion on the Pan Union Joint Venture crew training and site supervision obligation, and higher LIBOR rates net of debt principal repayments;

an increase of \$2.3 million due to the ineffective portion of the unrealized loss, and the reclassification of the realized loss from accumulated other comprehensive loss to interest expense, on interest rate swaps designated as cash flow hedges relating to Teekay Offshore's towage segment; and

an increase of \$1.5 million primarily due to additional interest incurred related to the sale and leaseback of four Suezmax tankers and the completion of the TIL merger in November 2017, partially offset by higher expenses incurred in 2016 due to the refinancing of Teekay Tankers' debt facilities in the first quarter of 2016.

On September 25, 2017, we deconsolidated Teekay Offshore (please read "Item 18 - Financial Statements: Note 3 - Deconsolidation of Teekay Offshore"). As a result, consolidated interest expense decreased by \$30.0 million for the year ended December 31, 2017, compared to the same period of the prior year.

Realized and unrealized (losses) gains on non-designated derivative instruments. Realized and unrealized (losses) gains related to derivative instruments that are not designated as hedges for accounting purposes are included as a separate line item in the consolidated statements of (loss) income. Net realized and unrealized losses on non-designated derivatives were \$38.9 million for 2017, compared to \$35.1 million for 2016, as detailed in the table below: