SembCorp Marine Limited

Poised to ride on oil & gas rebound

30 October 2018

Team Crazy But Not Yet Rich Asians

For the 2018-2019 GNAM Investment Competition

THE NUS MBA

NUS National University of Singapore

NUS BUSINESS SCHOOL

30 October 2018

BUY

SMM SP

Current Price: SGD 1.58
Target Price: SGD 2.89
Target Price Period: 6 months from date of this report

INVESTMENT HIGHLIGHTS

Sembcorp Marine Limited (SembMarine) (SGX: S51) is a firm headquartered in Singapore and majority-owned by parent conglomerate Sembcorp Industries Limited (SGX: U96). SembMarine operates in four main businesses – rig building, ship repairs & upgrades, offshore platform building, and specialized shipbuilding. The key drivers of Sembmarine's stock price are oil prices and the resultant orders for their rigs and platforms.

We initiate coverage of SembMarine with a **BUY** rating with a target price of **SGD 2.89** based on our DCF analysis, indicating an **82.9% upside.**

Our buy recommendation is based on the following:

1. **We expect oil prices to increase in the coming year to at least USD90/bbl.** We expect that a perfect storm of geopolitical issues will lead to a supply crunch, and that the market has overestimated the likelihood of Saudi Arabia and US shale production keeping global supply steady.

2. **We expect oil producers to ramp up CAPEX significantly in 2019, incentivized by higher oil prices.** Producers' CAPEX has seen severe cuts in since 2014. The increased CAPEX coming from increased oil prices is likely to kick off a multi-year bull run for the industry.

3. **SembMarine's is poised to take advantage of increased demand for its rigs and platforms when oil prices increase.** The firm has invested heavily in capital expenditure and strategic acquisitions in recent years to boost capacity to meet the impending uptick in demand.

4. **We consider SembMarine the likely winner of a major SGD 2b order this year.** Not only is SembMarine more cost-effective, but a recent stake transfer of the Rosebank project to an existing customer with an order still on the books could produce synergies making it more competitive.

5. **Strategic acquisitions to take advantage of increased demand for liquefied natural gas.** The firm has acquired firms with key intellectual property to give it an edge in the booming LNG market.

6. **IMO 2020 emissions regulations for ships set to increase revenue from retrofitting scrubbers.** SembMarine recently secured a contract for such a job, and we expect more on the back of a broader increase in demand for this service.

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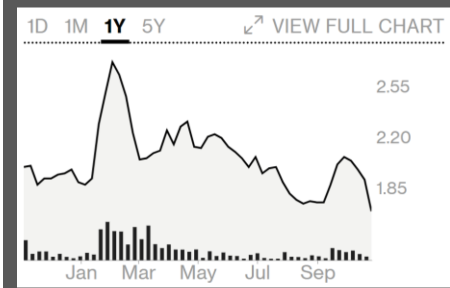
Price Performance



Market Overview

Exchange	STI
Sector	Energy
52wk Price Range	1.58 – 2.81
30d Avg Volume	6,616,847
Market Cap	SGD 3,300.0 M
Enterprise Value	SGD 6,598.8 M
Share Outstanding	2,088.6 M
P/E	N/A
EPS T12m	(0.05)

COMPANY OVERVIEW

Sembcorp Marine Limited (SMM SP) is a majority-owned subsidiary of Sembcorp Industries Limited (SCI SP), with the parent company holding 61% of the company, leaving the remaining 39% in the hands of public shareholders. Sembcorp Marine (hereinafter SembMarine) was first listed on the Singapore Exchange (SGX) in 1987.

SembMarine is a marine and offshore engineering company headquartered in Singapore that offers a full spectrum of solutions in four key segments: building of rigs and floaters, repairs and upgrades of marine vessels, building offshore platforms, and building specialised vessels. The bulk of its revenue has come from the rigs and floaters segment, which has made up 85.6% of its revenue (SGD 3.4b) in the first three quarters of 2018. Repairs and Upgrades make up the second ranking segment by revenue at 8.5% (SGD 336m), Offshore and Platforms at third with 4.3% (SGD 172m) and Specialized Shipbuilding last with 1.6% (SGD 65m). Revenue has grown more than three-fold over the same period in 2017, with 9M 2017 revenue just slightly over SGD 1b.

The firm operates globally, with subsidiaries in six countries – Singapore, the United Kingdom, the United States, Norway, Brazil and Indonesia. The majority of its shipyards are in Singapore – it operates five in Singapore alone, with its newest Tuas Boulevard yard frequently cited as a *megayard*, the largest of its kind in Southeast Asia at 120,000 sqm, and with deep enough waters off the yard to allow semi-submersible rigs to have their thrusters installed at the yard instead of having to be towed out to sea. This yard comes with its own steel fabrication workshop, affording SembMarine an on-site annual production capacity of 144,000 tonnes of steel components.

Ownership Structure

Business Segments

Rigs & Floaters

Provide turnkey solutions (oil & offshore platforms, oil rig) for E&P projects

Repairs & Upgrades

Offer repair solutions to all types of vessel projects

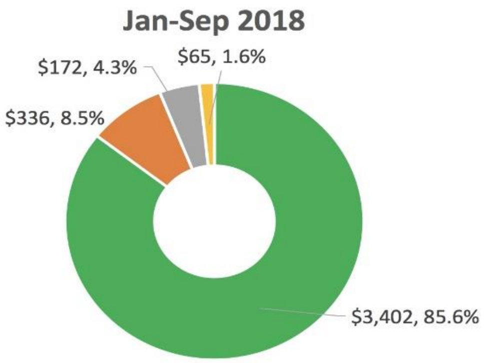
Offshore Platforms

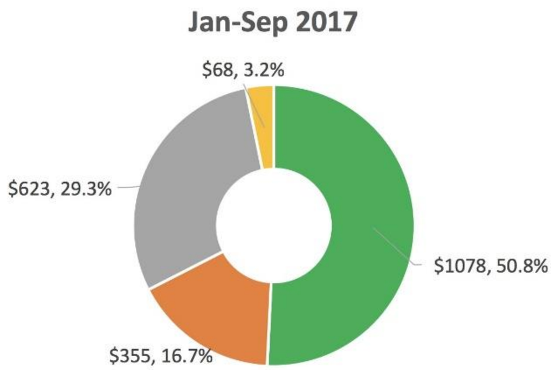
Design and build a wide range of offshore platforms to the highest technical specifications for a global clientele

Specialised Shipbuilding

Design and build high-performance, specialised vessels

Revenue Breakdown (millions)





■ Rigs & Floaters ■ Repairs & Upgrades ■ Offshore & Platforms ■ Specialised Shipbuilding

Products

JACK-UP RIGS

SEMI-SUBMERSIBLE RIGS

FLOATERS

OFFSHORE PLATFORMS

SPECIALISED SHIPBUILDING

REPAIRS & UPGRADES

Locations

OIL PRICES EXPECTED TO RISE

Oil prices are largely a function of supply, and we expect that a confluence of geopolitical issues will lead to reduced supply.

US sanctions on Iran expected to lead to supply cut of up to 2 million bpd

US President Donald Trump first sparked expectations of higher oil prices when he reimposed sanctions on Iran previously lifted by former president Barack Obama as part of the Iran nuclear deal. Countries failing to reduce their oil purchases from Iran to zero could also be subject to secondary sanctions. At its peak in 2018, Iran exported 2.71 million barrels per day (bpd), making up 3% of daily global consumption. Analysts estimate that the actual drop in supply coming out of Iran at between 0.5 to 2 million bpd.

Venezuela's political and economic crisis has also led to major cuts in oil production

In addition, oil production out of Venezuela has been falling precipitously due to its domestic political and economic crisis. Chronic mismanagement and insufficient capital expenditure over the last two decades in addition to the current economic crisis have led to production falling from an average of 1.911 million bpd in 2017 to 1.235 million bpd in August 2018, representing a 35.4% drop in barely a year.

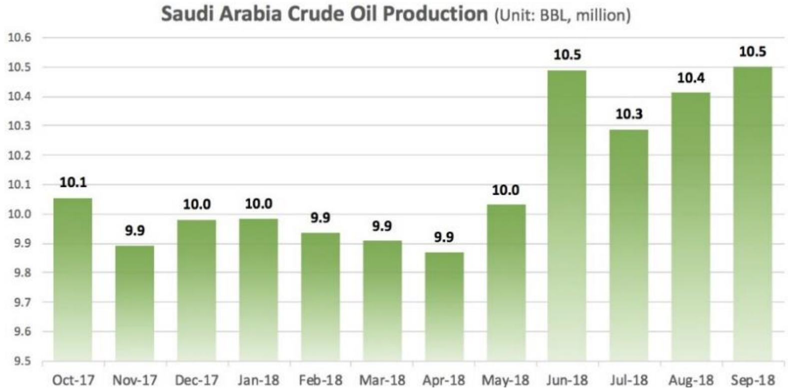
Expectations of a rise in prices were later tempered by Saudi Arabia's public commitment to cover for the reduction in supply from both Iran and Venezuela by boosting its own supply in order to keep prices stable.

Despite public commitments, Saudi Arabia may not be able to close supply gap left by Iran and Venezuela

The key question is whether or not Saudi Arabia is in fact able to do so, and whether it will even decide to do so. First, the Wall Street Journal (WSJ) reported that Saudi Arabia was running low of its most popular grade of crude oil – Arab light crude. Despite the public proclamations that the kingdom would easily increase supply to meet demand, the WSJ reported that Saudi Aramco (the Saudi state-owned oil producer) told its customers that it would not be able to close the supply gap left by Iran's forced departure from the market.

We believe that much of the pessimism about oil prices keeping it depressed is because the market is expecting that Saudi Arabia will easily increase supply. However, WSJ reported that its Saudi sources indicated that Saudi Arabia may not actually have the capacity to do so. Saudi officials previously indicated that they could bump supply up to 12.0 to 12.5 million bpd if required. However, the WSJ's sources said that even producing 11 million bpd was a stretch for the kingdom, even if it was for a few months. Given that Saudi Arabia was already producing 10.5 million bpd in September, this means that the spare capacity is significantly smaller than expected.

Saudi Arabia Crude Oil Production (Unit: BBL, million)



Saudi Arabia may weaponize oil prices in a political face-off against the US, should the latter threaten sanctions against it

Furthermore, regardless of Saudi Arabia's capability to keep oil prices down, political conflict between it and the United States has created the risk that it would weaponize oil prices to its political advantage. Jamal Khashoggi, a columnist for The Washington Post and frequent critic of the Saudi government was allegedly murdered by Saudi security personnel in the Saudi embassy in Turkey on 28 September.

The reporting since has suggested that the Saudi crown prince, Mohammed bin Salman could have personally ordered the killing. Thus far, the political mood in the United States has largely been critical of Saudi Arabia and sanctions against Saudi Arabia in terms of weapons sales or direct sanctions on individual members of the royal family are a distinct possibility.

The resultant risk then is that Saudi Arabia will retaliate to these sanctions by weaponizing one of its most effective levers of global power – its supply of oil. Indeed, in a statement published by the state-run Saudi Press Agency, the country warned of disproportionate retaliation to any US sanctions. The head of the state-owned news network Al Arabiya also threatened oil prices of up to $200 a barrel in the event of sanctions.

Gas prices are a political hot-button in the US, making Saudi control over oil prices a potent lever of power against US elected officials

The Saudi Arabian Minister of Energy, Industry and Mineral Resources and Saudi Aramco chairman has stated that the country has no intention to impose an oil embargo like the one in 1973. However, given that political fortunes in the United States rise and fall with the prices of gasoline (which is itself a function of oil prices), it remains a particularly attractive method by which to apply pressure on the United States. This is reflected in President Trump's repeated calls for oil producers to keep global supply and oil prices steady ahead of the November 2018 midterm elections.

A Democratic retaking of the House creates added risk of sanctions against Saudi Arabia

President Donald Trump has been relatively muted to the notion of sanctions against Saudi Arabia. However, his hand may ultimately be forced by Congress in January 2019 should the Democratic Party retake the House of Representatives, as most analysts are currently predicting. Although the outrage against Saudi Arabia is currently bipartisan, with senior members of both parties speaking out strongly against the kingdom, we believe that a Democratic House would have a stronger impetus to act than the current Republican one. Current GOP House members have tended to toe Trump's line, with some even going as far as to smear Khashoggi with conspiracy theories as reported by the Washington Post. We expect that the risk of sanctions against Saudi Arabia will increase should the predicted "blue wave" come to pass, and possibly be harsher than under a Republican House.

Saudi Arabia's hand will be forced in using oil prices to protect its interests

We expect that Saudi Arabia will be forced to flex its economic muscle to protect the Saudi crown prince and the rest of the royal family once the spectre of sanctions become more corporeal in the coming months.

Shale oil production growth will be insufficient to cover declining conventional oil production

There is hope among analysts that the feverish growth of US shale production could plug any supply gap from declining conventional oil production. The International Energy Agency (IEA) in 2017 said that production from traditional oil fields has been declining at a rate of roughly 4 per cent per annum, requiring new field discoveries to produce an additional 2.5 million bpd just to keep output flat. Because of weak capex investment in recent years, and because it takes three to six years for traditional fields to move from project approval to production coming onstream, the supply gap in the short- to medium-term will need to come from shale. However, OPEC and IEA have indicated expected shale growth at between 1.22 million bpd and 1.3 million bpd, which may not be sufficient to plug the supply gap just from expected declines in conventional production – much less the supply shocks coming out of Iran, Venezuela and possibly Saudi Arabia. Further, infrastructural limitations in the US, such as pipeline capacity, could limit any significant growth of output.

We project oil prices crossing the US$90/bbl mark in 2019

Thus, with our prediction of this chain of events, we expect oil prices to increase in the coming months, with these effects stretching well into 2019. Based on the analyst forecasts in the next section, we estimate oil prices to reach at least USD90 per barrel, which we consider a middle-of-the-road forecast considering the issues stated above.

ANALYSTS' FORECAST OF 2019 OIL PRICES

Reports indicate Saudi Arabia will not be able to plug the supply gap

Since our expectation is that the supply gap will not be plugged by Saudi Arabia or US Shale Oil, we will look back at projections earlier in the year when OPEC was still signalling that it would not boost output. That was the point that we expect that analysts were accurately predicting 2019 oil prices, as opposed to what we deem to be a misjudgment of Saudi intentions and US Shale capacities.

New shipping regulations expected to increase demand that cannot be met by shale oil

According to Morgan Stanley, IMO2020 international shipping regulations stipulating the use of cleaner fuels is also expected to trigger an increased demand for middle distillates such as diesel and marine gas oil – and this increased demand cannot be met by US shale oil production as the crude pumped there is too light to produce the middle distillates required by international shipping industry. With this in mind, Morgan Stanley projected oil prices creeping up to US$90 by 2020.

Based on the analyst forecasts below, which consider at least some of the key risks we have specified above, we forecast prices of Brent crude oil to hit at least USD 90 per barrel in 2019.

Analysts	Brent Crude (USD per bbl)
Credit Suisse	$70
US EIA	$75.06
Goldman Sachs	$82.50
JP Morgan	$85 - $90
Morgan Stanley	$90
Bank of America Merrill Lynch	$90 - $100
Again Capital	$95 - $100
Trafigura	$90 - $100
Andurand Capital	$150
Westbeck Capital	$150

PRODUCERS EXPECTED TO RE-ENTER MARKET

Increased oil prices will lure producers back into the market

With the increase in oil prices, we expect that oil producers will find it hard to resist re-entering the market, and begin ramping up capex and consequently the number of orders for the vessels, rigs and platforms produced by SembMarine.

Capex in the oil and gas industry has been severely cut since 2014, and we expect it to increase in the coming year with the increase in oil prices, possibly kicking off a multi-year bull run for the industry.

Global oil production capex is set to rise between 6 to 16 per cent until 2021

A 2016 McKinsey Energy Insights report predicted that global oil production capex would grow by 16 per cent between 2016 and 2021, in line with expectations that drilling activity would rebound to 2014 levels by 2021. A PWC report forecasted a 6 per cent year-on-year increase in capex in the medium term, also driven by increasing oil rig activity.

BMI Research oil and gas analysts project the bulk of this increase in capex to come from Asia in particular. This is driven by the fact that the region remains a net importer of oil, and there is movement toward boosting regional oil production to cut import costs. SembMarine's geographical proximity to the region gives it a comparative advantage.

SembMarine's share price has the highest correlation with oil prices of SGX peers

KGI Securities Research notes that SembMarine's share price has seen strong correlation with oil prices in recent years – in fact the highest correlation among its offshore and marine peers listed on the SGX. This makes SembMarine's stock likely to see the largest rise with a recovery in oil prices.

SEMBMARINE POISED WITH CAPACITY TO MEET DEMAND

Source: https://www.sembmarine.com/

SembMarine has placed itself strategically to take advantage of the impending upswing in demand.

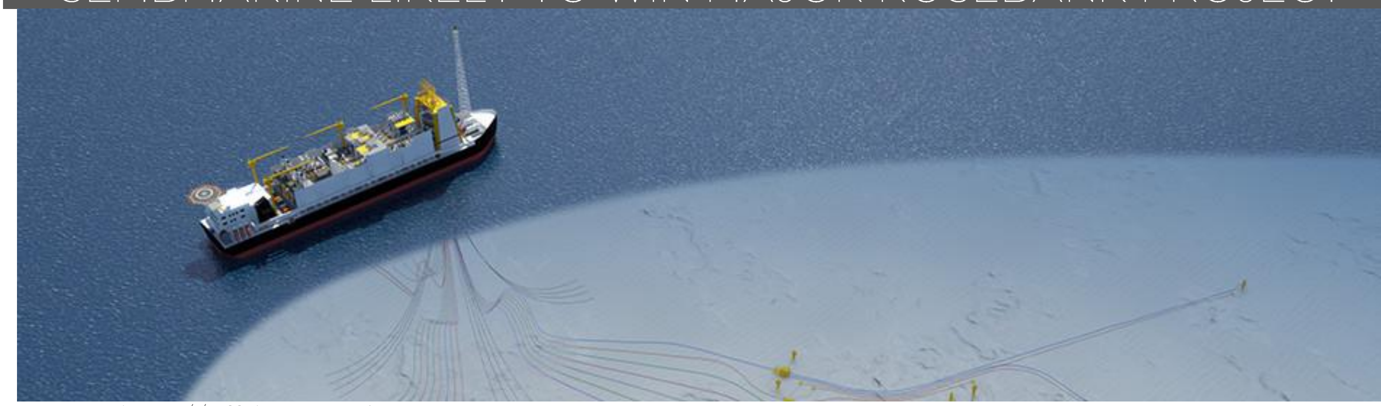
SembMarine's new megayard in conjunction with its existing assets make it ready to capitalize on an increase in demand

The firm's Tuas Boulevard megayard came online in January 2017 and the vast majority of the capital expenditure for this new yard has already been incurred in the past years. This new yard, in addition to a new steel fabrication facility that entered operation in 2015, makes SembMarine a one-stop shop that makes it more efficient in terms of production and cost, and shortens delivery times.

In addition, SembMarine fully acquired PPL Shipyard in 2016, which made it a major player in the design and construction of jack-up and semi-submersible oil rigs.

This gives SembMarine a total of 8 yards worldwide. Although the market remains relatively weak at the moment, SembMarine's strategic decisions to invest and expand its capacity in the past years has made it exceptionally well-placed to meet the expected demand arising out of an increase in oil prices.

SEMBMARINE LIKELY TO WIN MAJOR ROSEBANK PROJECT



Source: http://offshore.worleyparsons.com

SembMarine was shortlisted for a SGD2b project

SembMarine was shortlisted by Chevron Corporation (NYSE: CVX) along with Korean shipbuilder Daewoo Shipbuilding & Marine Engineering (DSME) to build a Floating Production Storage and Offloading vessel (FPSO) with a contract value of SGD 1.9-2 billion.

SembMarine is more cost-efficient and can price lower

SembMarine's existing customer with a project underway is purchasing a key stake in the Rosebank project, making synergies possible

We believe that SembMarine has a high chance of winning this major contract because:

- CGS-CIMB Research believes that SembMarine has a cost advantage over DSME and would thus be able to price more competitively. The Singapore company's labour cost structure is 15-20% lower than in South Korea.

- Further, Equinor ASA (NYSE: EQNR) has announced its purchase of Chevron's 40% share in the Rosebank project. The transfer is expected to be completed in 2019. According to ABN AMRO, this increases the likelihood of SembMarine winning the project – SembMarine secured a similar FPSO project with Equinor in 2017. Given that Equinor already has another project underway at SembMarine, it may be able to extract synergies from awarding the Rosebank project to SembMarine and further push the price of the project down.

STRATEGIC ACQUISITIONS IN LNG

SembMarine has also expanded to LNG work

SembMarine is also poised to take advantage of the projected increase in demand for liquefied natural gas (LNG) in 2019 and beyond.

Acquisition of two Norwegian firms has given it new capabilities in the LNG space

SembMarine first bought a 12% stake in Gravifloat AS in 2014, and later increased its stake to 56% in March 2016. This gave SembMarine a new capability to offer cost-effective solutions that facilitate the treatment, storage, liquefaction, re-gasification and offloading of LNG. The Gravifloat technology is considered to be innovative, as it is modularized and redeployable near-shore, making it a strong alternative to the existing onshore and floating facilities.

SembMarine also acquired a 50% stake in Aragon AS, a process design and engineering group, along with a 100% stake in LMG Marin AS. These two Norwegian firms are expected to give SembMarine an advantage in the LNG space. LMG Marin came with 70 years of experience in designing vessels and platforms key to the LNG industry. In addition, it holds design patents which SembMarine can leverage for its own production. Ultimately, SembMarine believes these two acquisitions will deepen its own capabilities in proprietary design and engineering.

China's coal-to-LNG programme expected to drive LNG demand

China is leading this increased demand with a massive programme to switch over to LNG from coal, which started in April 2017. This led LNG demand from China to skyrocket by 45 per cent in 2017, and a further 50 per cent in the first half of 2018 alone.

LNG demand rising due to environmental concerns

South Korea, Taiwan and many European countries are also leaning toward the relatively cleaner-burning LNG due to concerns about nuclear power and pollution in general. Europe alone is expected to more than double its LNG imports by 2025. Pakistan and Bangladesh are also expected to import more LNG to make up for their own decline in domestic production.

IMO 2020 REGULATIONS SET TO DRIVE REVENUES

New shipping regulations aimed at reducing greenhouse emissions coming online in 2020

IMO2020 regulations are aimed at making the shipping industry more environmentally friendly by reducing greenhouse gas emissions. The two primary means to achieve this are for shippers to switch to using low-sulfur fuel oil, or to retrofit their ships with fuel-scrubbers to reduce sulfur emissions.

Wide spread between clean and dirty fuels makes switching to clean fuels too expensive

The shipping industry has been resistant to switching away from heavy fuel oil despite it being one of the world's dirtiest and toxic fuels because of the more than US$200/ton price spread between it and low-sulfur fuel oils. Fuel costs make up 25-30% of a ship's operating costs. These factors create a strong disincentive for the industry to shift toward cleaner fuels, absent the new regulations which will kick in on 1 January 2020.

SembMarine's service to retrofit ships with scrubbers may be a more economically-sound option

Scrubbers are economically sounder for middle- to large-size vessels, with expected payback periods of 12-24 months, simply because these larger vessels consume a significantly higher volume of fuel to operate. Goldman Sachs indicates that 15% of ships globally account for half of the world's bunker fuel consumption. Goldman thus forecasts 3,125 scrubber installations in 2020, which is three times the number of vessels already currently equipped with scrubbers or scheduled to have scrubbers installed. This work is expected to come through in 2019 in order for ships to comply with the 2020 deadline.

SembMarine has proven its ability to compete in this new market

Proving its ability to compete in this market, SembMarine was able to secure a contract in September 2018 to retrofit 13 vessels belonging to Maran Tankers with these scrubbers.

FINANCIAL FORECAST

SembMarine exhibited robust financial performance prior to 2014 oil price shock

Based on the aforementioned relationship between SembMarine's business activities and oil prices, we project the financial performance of SembMarine to trend with our expectation of increasing oil prices. As evidenced from the years 2010 to 2014, SembMarine exhibited robust financial performance consistently before the oil price shock in the second half of 2014. Oil prices reached its lowest around January 2016 and began to steadily rebound, driving the revenue growth of SembMarine to pick up again in the first half of 2018.

Our financial projections are in line with a return to pre-2014 results

The 5-year financial projection has been prepared in accordance with the turnaround of oil prices leading SembMarine to gradually achieve the financial results resembling those prior to the oil price shock in 2014. All financial information is acquired from publicly available financial statements on SembMarine's website.

REVENUE

Revenues recovered with oil prices after 2008

After the subprime mortgage crisis in 2008, oil prices began to recover from around $34/bbl to approximately $110/bbl in 2014, the period prior to another oil price shock. The table below displays Sembmarine's historical revenue information.

Historical performance (SGD million)	2010	2011	2012	2013	2014	2015	2016	2017	3Q2018
Revenue	4,554.9	3,960.2	4,430.1	5,525.9	5,832.6	4,968.1	3,544.8	2,387.4	3,974.7
% revenue growth		(13.1%)	11.9%	24.7%	5.6%	(14.8%)	(28.6%)	(32.7%)	66.5%

We project revenue growth of 4.0% p.a. based on US$100/bbl forecast for 2023

SembMarine's revenue reached its peak at SGD 5,832.6 million in 2014 when oil prices were approximately $110/bbl. According to forecasts, oil prices are expected to recover from the current price of around $80/bbl at the CAGR of 4.6% of to hit $100/bbl in 2023. SembMarine's revenue is projected to grow in tandem at the rate of 4.0% per annum to SGD 5,373.1 million as illustrated in the table below.

Forecasted performance (SGD million)	2018F	2019F	2020F	2021F	2022F	2023F
Revenue	4,416.3	4,593.0	4,776.7	4,967.8	5,166.5	5,373.1
% revenue growth	85.0%	4.0%	4.0%	4.0%	4.0%	4.0%

GROSS PROFIT MARGIN

SembMarine enjoyed robust gross profit margins since 2010

According to historical performance, SembMarine succeeded in maintaining a robust average gross profit margin of 18.8% from 2010 to 2013.

Historical performance (SGD million)	2010	2011	2012	2013	2014	2015	2016	2017	3Q2018
Gross profit margin	24.8%	21.9%	15.7%	12.8%	14.5%	2.6%	8.3%	2.5%	-0.4%

We project gross profit margin steadily rising to 18.8% in the 5-year time horizon as illustrated below, along with the expected rebound of oil prices.

Forecasted performance (SGD million)	2018F	2019F	2020F	2021F	2022F	2023F
Gross profit margin	0.0%	4.0%	8.0%	12.0%	16.0%	18.8%

SG&A AND OTHER OPERATING INCOME/EXPENSES

We use an average expense rate of 2.9% of revenue

Expenses as a percentage of revenue was between 1.2% and 5.7% from 2010 to 2017. The average expense rate of 2.9% is applied in our calculations throughout the projected period.

Historical performance (SGD million)	2010	2011	2012	2013	2014	2015	2016	2017
SG&A and other operating income/expense	(186.23)	(128.98)	(140.28)	(63.55)	(136.65)	(280.88)	(67.45)	(40.05)
Percentage to revenue	4.1%	3.3%	3.2%	1.2%	2.3%	5.7%	1.9%	1.7%

DEPRECIATION AND CAPITAL EXPENDITURE

Based on historical information, the useful life of SembMarine's property, plant, and equipment ("PPE") has been approximately 20 years. As a result, we assume that the useful life of existing PPE and new investments in the projected period to be 20 years. Capital expenditure is assumed to be invested at a rate in line with depreciation, taking into account projected revenue growth.

WORKING CAPITAL

Based on historical information, components of working capital fluctuate less than the revenue and cost of the company, resulting in the significant fluctuation of days outstanding of working capital components as illustrated below.

Historical information (SGD million)	2010	2011	2012	2013	2014	2015	2016	2017	3Q2018
Trade and other receivables	153.4	420.8	468.3	422.4	468.5	589.7	492.0	566.9	648.6
Inventories	750.7	926.2	1,731.2	2,083.6	3,005.4	3,833.1	3,066.9	2,775.8	1,707.1
Trade and other payables	1,453.8	1,777.1	1,687.3	1,781.1	1,825.7	2,518.7	2,120.4	2,061.4	1,557.6
Net working capital	**(549.7)**	**(430.0)**	**512.2**	**724.9**	**1,648.3**	**1,904.1**	**1,438.4**	**1,281.3**	**798.0**
Days sales outstanding	12.3	38.8	38.7	27.9	29.3	43.3	50.8	86.7	
Days Inventory Outstanding	80.0	109.3	169.6	157.8	219.9	289.2	345.2	435.4	
Days Payable Outstanding	116.5	163.8	139.4	117.6	114.2	185.0	218.9	315.2	

According to the table below, net working capital has been projected to steadily escalate in line with the trend of increasing revenue.

Forecasted information (SGD million)	2018F	2019F	2020F	2021F	2022F	2023F
Trade and other receivables	726.0	755.0	783.1	816.6	849.3	883.3
Inventories	1,814.6	1,812.0	1,801.0	1,796.6	1,783.5	1,793.0
Trade and other payables	1,572.6	1,570.4	1,560.9	1,557.0	1,545.7	1,553.9
Net working capital	**967.9**	**996.6**	**1,023.2**	**1,056.2**	**1,087.1**	**1,122.3**
Change in working capital		(28.7)	(26.6)	(33.0)	(30.9)	(35.2)

Incorporating all the financial inputs thus far, the profit and loss statement including projections up till 2023 is illustrated below.

Profit and Loss Statements											
FY: December	**Actual**				**Projected**						
SGD million	**1-Jan-15 31-Dec-15**	**1-Jan-16 31-Dec-16**	**1-Jan-17 31-Dec-17**	**1-Jan-18 30-Sep-18**	**1-Oct-18 31-Dec-18**	**1-Jan-18 31-Dec-18**	**1-Jan-19 31-Dec-19**	**1-Jan-20 31-Dec-20**	**1-Jan-21 31-Dec-21**	**1-Jan-22 31-Dec-22**	**1-Jan-23 31-Dec-23**
Revenue	4,968.1	3,544.8	2,387.4	3,974.7	441.6	4,416.3	4,593.0	4,776.7	4,967.8	5,166.5	5,373.1
% growth		*(28.6%)*	*(32.7%)*			*85.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*
Cost of sales	(4,837.2)	(3,252.1)	(2,326.8)	(3,991.5)	(424.0)	(4,415.4)	(4,409.3)	(4,394.6)	(4,371.6)	(4,339.8)	(4,363.0)
Gross profit	**130.9**	**292.8**	**60.5**	**(16.8)**	**17.7**	**0.9**	**183.7**	**382.1**	**596.1**	**826.6**	**1,010.1**
% GPM	*2.6%*	*8.3%*	*2.5%*	*(0.4%)*	*4.0%*	*0.0%*	*4.0%*	*8.0%*	*12.0%*	*16.0%*	*18.8%*
SG&A and others	(280.9)	(67.4)	(40.1)	(37.6)	(12.8)	(50.4)	(133.4)	(138.8)	(144.3)	(150.1)	(156.1)
Operating profit	**(150.0)**	**225.3**	**20.5**	**(54.4)**	**4.8**	**(49.5)**	**50.3**	**243.4**	**451.8**	**676.6**	**854.1**
% operating margin	*(3.0%)*	*6.4%*	*0.9%*	*(1.4%)*	*1.1%*	*(1.1%)*	*1.1%*	*5.1%*	*9.1%*	*13.1%*	*15.9%*
Add: D&A	131.7	158.9	192.9	136.3	67.8	204.1	214.8	226.1	238.1	250.8	264.2
EBITDA	**(18.3)**	**384.3**	**213.4**	**82.0**	**72.6**	**154.6**	**265.1**	**469.5**	**689.9**	**927.3**	**1,118.3**
% EBITDA margin	*(0.4%)*	*10.8%*	*8.9%*	*2.1%*	*16.4%*	*3.5%*	*5.8%*	*9.8%*	*13.9%*	*17.9%*	*20.8%*

VALUATION INPUTS

VALUATION DATE

30 September 2018 is assumed to be the valuation date. Financial information is considered based on the publicly announced third-quarter financial statement as at 25 October 2018.

TAX RATE

The Singapore corporate tax rate of 17.0% is applied throughout the projected period.

DISCOUNT PERIOD

Mid-period discounting is applied as shown in the table below:

	4Q2018	2019F	2020F	2021F	2022F	2023F
Discount period	0.13	0.75	1.75	2.75	3.75	4.75

TERMINAL GROWTH

The terminal growth rate is assumed to be 3.0% throughout the projected period given the long-term GDP growth prospects of the country.

	2010	2011	2012	2013	2014	2015	2016	2017
Singapore's GDP annual growth rate	15.2%	6.4%	4.1%	5.1%	3.9%	2.2%	2.4%	3.6%

DISCOUNT RATE

The weighted average cost of capital (“WACC”) has been determined to be 8.7%. Details of our WACC calculation can be found in the Comparative Analysis section on the next page.

COMPARATIVE ANALYSIS

The Singapore Exchange ("SGX") has launched a series of thematic stock indices, including the iEdge SG Oil & Gas Index. The index, consisting of 15 companies with exposure to oil and gas ("O&G"), is a free-float, market capitalisation-weighted index that measures the performance of listed O&G companies in Singapore. The constituents in the index have been determined to be comparable companies of SembMarine given the similar market impact from the fluctuation in the oil price.

Multiples analysis

#	Company name In Local million	Market capital	Average 60-day price (in SGD)	Enterprise value	EBIT	EBITDA	Net Income	EV/EBITDA		P/E		P/BV	
1	Rex International Holding Ltd	63.7	0.05	41.4	(14.6)	(13.6)	(10.8)	(3.0)		(5.9)		0.5	✓
2	KrisEnergy Ltd	146.7	0.10	497.8	(112.9)	(72.2)	(164.4)	(6.9)		(0.9)		1.4	✓
3	Falcon Energy Group Ltd	30.1	0.03	176.6	(77.0)	(46.6)	(76.4)	(3.8)		(0.4)		0.3	✓
4	China Aviation Oil Singapore Corp Ltd	1,377.0	1.59	1,170.6	19.8	20.7	91.7	56.5	✓	15.0	✓	1.9	✓
5	AusGroup Ltd	68.0	0.05	152.4	24.4	35.3	13.5	4.3	✓	5.0	✓	1.6	✓
6	Mermaid Maritime PCL	190.7	0.13	194.4	(5.8)	13.8	(2.7)	14.0	✓	(70.1)		0.6	✓
7	SHS Holdings Ltd	154.7	0.23	133.6	(21.1)	(16.4)	(18.1)	(8.1)		(8.6)		0.8	✓
8	Nordic Group Ltd	209.1	0.53	211.4	18.5	21.4	16.5	9.9	✓	12.7	✓	2.6	✓
9	Kim Heng Offshore & Marine Holdings Lt	65.2	0.09	97.5	(16.5)	(9.4)	(18.6)	(10.4)		(3.5)		0.9	✓
10	New Silkroutes Group Ltd	49.8	0.30	35.3	(1.2)	(0.8)	(3.1)	(41.9)		(15.9)		1.2	✓
11	Jasper Investments Ltd	44.8	0.01	44.3	(0.4)	N/A	(0.2)	N/A		(195.7)		64.5	
12	GSS Energy Ltd	75.0	0.15	68.5	7.0	8.8	2.7	7.7	✓	27.5	✓	1.7	✓
13	Interra Resources Ltd	32.4	0.06	27.1	1.1	1.7	0.9	16.3	✓	35.3	✓	1.2	✓
14	Vallianz Holdings Ltd	198.2	0.01	435.0	34.0	47.2	16.6	9.2	✓	11.9	✓	0.8	✓
15	CWX Global Ltd	28.5	0.01	N/A	N/A	N/A	N/A						
	Mean							**16.9**		**17.9**		**1.2**	

Source: Bloomberg, based on financial statements as at 30 June 2018

According to the comparative information in the table above, a market approach is not considered to be a feasible valuation method given the low performance of the oil price reliant group in the recent period. In addition, a valuation using price-to-book value ratio of 1.2 times yields the indicative share value of SGD 1.34 which is generally assumed to be the floor value of the company's share price. As a result, an earnings-based approach by DCF is the preferred method to account for the future recovery of oil prices.

This set of comparable companies is applied in the calculation of WACC for SembMarine. The assumptions regarding WACC are based on the market participant perspective, including capital structure and equity at fair value. Please see the table below for information on the adjusted beta, unlevered beta, and capital structure of the comparable companies.

Comparable companies

#	Company name In local currency million	Beta 2-year weekly	Unlevered-beta (Market cap)	Interest-bearing liabilities	Equity	Market capital	Debt/ Equity	Debt/ MKTcap	Tax Rate
1	Rex International Holding Ltd	2.09	1.68	18.9	120.5	63.7	0.16	0.30	*17.0%*
2	KrisEnergy Ltd	1.45	0.42	440.6	108.5	146.7	4.06	3.00	*17.0%*
3	Falcon Energy Group Ltd	1.45	0.28	151.1	97.0	30.1	1.56	5.03	*17.0%*
4	China Aviation Oil Singapore Corp Ltd	0.88	0.88	-	740.3	1,377.0	0.00	0.00	*17.0%*
5	AusGroup Ltd	2.47	1.00	120.9	41.7	68.0	2.90	1.78	*17.0%*
6	Mermaid Maritime PCL	1.88	1.42	76.8	336.0	190.7	0.23	0.40	*20.0%*
7	SHS Holdings Ltd	0.40	0.35	22.8	201.0	154.7	0.11	0.15	*17.0%*
8	Nordic Group Ltd	0.81	0.70	42.8	80.9	209.1	0.53	0.20	*17.0%*
9	Kim Heng Offshore & Marine Holdings L	0.40	0.27	38.8	73.5	65.2	0.53	0.59	*17.0%*
10	New Silkroutes Group Ltd	1.25	0.96	18.4	42.4	49.8	0.43	0.37	*17.0%*
11	Jasper Investments Ltd	(0.11)	(0.11)	-	0.7	44.8	0.00	0.00	*17.0%*
12	GSS Energy Ltd	0.38	0.36	4.2	43.9	75.0	0.10	0.06	*17.0%*
13	Interra Resources Ltd	1.34	1.24	3.0	28.1	32.4	0.11	0.09	*17.0%*
14	Vallianz Holdings Ltd	1.63	0.75	275.7	238.7	198.2	1.16	1.39	*17.0%*
15	CWX Global Ltd	1.55	N/A	N/A	N/A	28.5	N/A	N/A	*17.0%*
	Median	**1.26**	**0.73**						

Source: Bloomberg, based on financial statements as at 30 June 2018

Sector's WACC	
Cost of debt	
Cost of debt (Kd)	*5.3%*
Tax rate	*17.0%*
After tax cost of debt	***4.42%***
Cost of equity	
Beta (B)	1.28
Risk free rate of return (Rf)	*2.9%*
Market return (Rm)	*10.4%*
Equity risk premium (Rm-Rf)	*7.6%*
Cost of equity	***12.56%***
Capital structure	
Debt	0.48
Equity	0.52
Total assets	*100.0%*
WACC	***8.7%***

Sector's relevered beta	
Sector's unlevered Beta	0.73
Sector's debt/MKTcap	0.93
Tax rate	*17.0%*
Beta	**1.28**

COST OF DEBT

Based on the prime lending rate as at 30 September 2018 from the Monetary Authority of Singapore.

RISK FREE RATE OF RETURN

Based on the 30-year government bond yield as at 30 September 2018 from the Monetary Authority of Singapore.

MARKET RETURN

The forward-looking expected market return as at 30 September 2018 from Bloomberg.

CAPITAL STRUCTURE OF SEMBMARINE

The average debt/market capitalization of SembMarine as at 30 September 2018 is considered a proxy for the target capital structure applied in the calculation.

VALUATION ANALYSIS

Based on our 5-year financial projections, the derived equity value of SembMarine is SGD 9,305.2 million as of the valuation date, applying **WACC of 8.7%** and terminal growth of **3.0% p.a**.

To calculate the equity value of SembMarine, the enterprise value is adjusted by cash and interest-bearing debt as at the valuation date. Other potential debt-like items have been excluded from net debt adjustment due to their limited impact on equity value.

The derived equity value is SGD 6,044.2 million, resulting in a price per share of **SGD 2.89**. In our sensitivity analysis, WACC is used as a primary variable for sensitizing the equity value of SembMarine.

Discounted Cashflows (DCF)

FY: December		**Projected**							**Terminal value**
SGD million		**1-Oct-18**	**1-Jan-18**	**1-Jan-19**	**1-Jan-20**	**1-Jan-21**	**1-Jan-22**	**1-Jan-23**	
		31-Dec-18	**31-Dec-18**	**31-Dec-19**	**31-Dec-20**	**31-Dec-21**	**31-Dec-22**	**31-Dec-23**	
Operating profit		4.8	(49.5)	50.3	243.4	451.8	676.6	854.1	
Less: Income tax		(0.8)	8.4	(8.6)	(41.4)	(76.8)	(115.0)	(145.2)	
NOPAT		**4.0**	**(41.1)**	**41.7**	**202.0**	**375.0**	**561.5**	**708.9**	
Non-cash adjustment									
Depreciation and amortization		67.8	204.1	214.8	226.1	238.1	250.8	264.2	
Net operating cash after tax		**71.8**	**163.0**	**256.5**	**428.1**	**613.1**	**812.3**	**973.1**	
Change in working capital		(169.9)	313.4	(28.7)	(26.6)	(33.0)	(30.9)	(35.2)	
CAPEX		(87.3)	(349.2)	(213.3)	(226.1)	(239.7)	(254.1)	(269.3)	
Free cashflow to firm		**(185.4)**	**127.1**	**14.5**	**175.4**	**340.4**	**527.3**	**668.5**	**668.5**
Add: terminal value									12,186.1
Discount period		0.13	0.00	0.75	1.75	2.75	3.75	4.75	4.75
Discount factor at 8.7%		0.99	1.00	0.94	0.86	0.80	0.73	0.67	0.67
Present value of free cashflow		**(183.5)**	**127.1**	**13.6**	**151.6**	**270.9**	**386.2**	**450.7**	**8,215.5**
Enterprise value as at 30 September 2018	**9,305.2**								

Equity value

SGD million		
Enterprise value as at 30 September 2018		**9,305.2**
Add:		
Cash and cash equivalents	683.1	
Less:		
Interest-bearing borrowings	(3,944.0)	
Total net debt adjustment		(3,260.9)
Equity value as at 30 September 2018		**6,044.2**
Number of shares outstanding		2,089.8
Share price (in SGD)		**2.89**

Sensitivity analysis

Terminal growth	**WACC**				
	8.1%	**8.6%**	**9.1%**	**9.6%**	**10.1%**
1.0%	2.09	1.81	1.57	1.35	1.16
2.0%	2.63	2.27	1.96	1.70	1.46
3.0%	3.38	2.90	2.49	2.14	1.84
4.0%	4.50	3.79	3.22	2.75	2.35
5.0%	6.33	5.17	4.30	3.61	3.06

RISK FACTORS

FOREIGN CURRENCY RISK

SMM operates globally and therefore is exposed to currency risk on sales, purchases and borrowings that are in a currency other than the respective functional currencies of SMM. Primary currencies of SMM include SGD, USD, EUR, GBP and BRL. This risk can be either hedged through forward foreign exchange contracts or naturally hedged.

ACCOUNTING RISK

SMM's shipyard assets are subject to impairment test assessments, due to the continuing difficult market conditions impacting the offshore and marine sector. If the net carrying amount of the assets is greater than the fair value, an impairment loss will be recognized in the financial statements.

OPERATIONAL AND POLITICAL RISK

SMM is subject to operational and political risks in some countries it operates such as the United Kingdom, the United States, Norway, Brazil and Indonesia. These risks could give rise to litigation, claims and other contingencies which could have a significant financial impact.

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