Singapore Company Focus

CSE Global

Bloomberg: CSE SP | Reuters: CSES.SI

Refer to important disclosures at the end of this report

DBS Group Research . Equity

6 Sep 2019

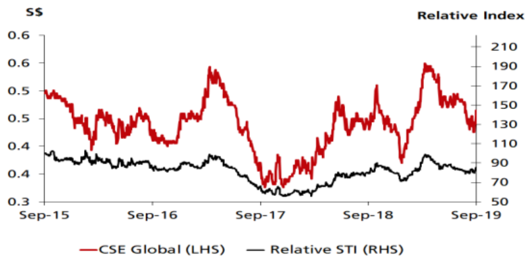
BUY

(Initiating Coverage)
Last Traded Price (5 Sep 2019): S$0.47 (**STI :** 3,146.83)
Price Target 12-mth: S$0.65 (39% upside)

Potential Catalyst: Contract wins, rising oil prices

Analyst
Lee Keng LING +65 6682 3703 leekeng@dbs.com
Singapore Research Team equityresearch@dbs.com..

Price Relative



Forecasts and Valuation

FY Dec (S$m)	2018A	2019F	2020F	2021F
Revenue	377	408	435	457
EBITDA	34.5	42.1	55.5	59.0
Pre-tax Profit	26.1	28.7	36.4	39.3
Net Profit	20.1	22.5	27.6	29.8
Net Pft (Pre Ex.)	20.1	22.5	27.6	29.8
EPS (S cts)	3.95	4.41	5.43	5.85
EPS Pre Ex. (S cts)	3.95	4.41	5.43	5.85
EPS Gth (%)	nm	12	23	8
EPS Gth Pre Ex (%)	nm	12	23	8
Diluted EPS (S cts)	3.95	4.41	5.43	5.85
Net DPS (S cts)	2.78	2.74	2.74	2.74
BV Per Share (S cts)	33.6	35.3	38.0	41.1
PE (X)	11.9	10.6	8.7	8.0
PE Pre Ex. (X)	11.9	10.6	8.7	8.0
P/Cash Flow (X)	5.0	8.4	6.0	5.6
EV/EBITDA (X)	5.9	6.4	4.5	3.8
Net Div Yield (%)	5.9	5.8	5.8	5.8
P/Book Value (X)	1.4	1.3	1.2	1.1
Net Debt/Equity (X)	CASH	0.2	0.1	CASH
ROAE (%)	11.6	12.8	14.8	14.8
Consensus EPS (S cts):		4.5	5.2	5.6
Other Broker Recs:		B: 4	S: 0	H: 0

ICB Industry: Technology
ICB Sector: Software & Computer Services
Principal Business: CSE Global is provides process control systems, telecommunication network, and security solutions in the oil and gas, infrastructure, and mining industries.

Source of all data on this page: Company, DBS Bank, Bloomberg Finance L.P.

Well-oiled for the upflow

- Initiate coverage with BUY and 39% potential upside to S$0.65 TP
- Earnings CAGR of 15% from FY19F-21F supported by stable, high recurring revenue; attractive yield
- Beneficiary of expected increase in capex of oil majors
- Riding on smart nation initiatives in Singapore; increasing infrastructure projects in Australia

Earnings growth supported by stable, high recurring revenue; attractive yield. We project FY19F-21F earnings CAGR of 15% for CSE, driven by the expected increase in capex of oil majors, and riding on the smart nation initiatives in Singapore and increasing infrastructure projects in Australia. About 90% of CSE's total revenue is generally recurring in nature. This stable stream of revenue, coupled with its high customer retention rate and strong operating cashflows should support a consistent DPS of 2.75Scts p.a, or attractive yield of c.6%.

Benefitting from expected increase in capex of oil majors; margins expansion from undertaking more profitable projects. With oil prices stabilizing above US$50/bbl in the past one year (breakeven for crude oil: c.US$40/bbl) and an optimistic outlook on the demand for oil in the long term, the collective capex of the four oil majors are expected to grow at a CAGR of c.11% from 2Q19 to FY21F. In addition, its focus on more profitable projects in U.S. and margins-accretive acquisition will lift earnings.

Riding on smart nation initiatives in Singapore; Increasing infrastructure projects in Australia. CSE will be pursuing more Singapore government projects to capitalize on the smart nation initiatives. In Australia, more infrastructure projects in fast-growing cities should lead to a growing demand for provision and installation of a variety of control systems as well as turnkey telecommunication network and security solutions, in which CSE specializes.

Valuation:

Initiate with BUY, TP of S$0.65 for 39% upside. Our TP is pegged to 5-year average PE of 12.0x on FY20F earnings.

Key Risks to Our View:

Steep drop in oil prices, global macroeconomic slowdown, lack of new order wins.

At A Glance

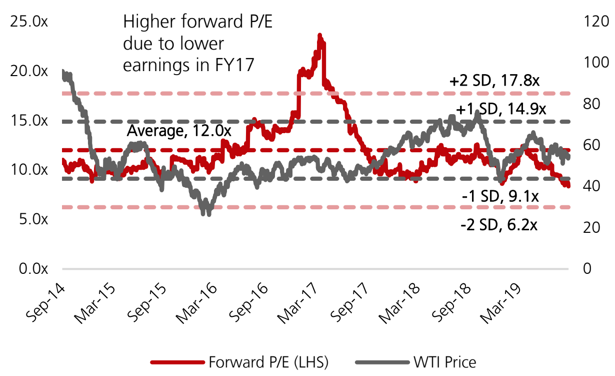
Issued Capital (m shrs)	508
Mkt. Cap (Sm/USm)	239 / 172
Major Shareholders (%)	
Serba Dinamik International	25.2
FMR LLC	10.1
Edgbaston Investment Partners	4.9
Free Float (%)	59.8
3m Avg. Daily Val (US$m)	0.20

Table of Contents

Investment Summary

Initiate with BUY, TP of S$0.65 for 39% upside. Our TP is based on a normalized, forward PE valuation multiple of 12.0x, which is the 5-year average forward PE. CSE currently trades at 8.7x its FY20F earnings, slightly below -1SD level, which we believe will re-rate towards the average given our expectations of the pick up in earnings growth of 12%/23%/8% in FY19F/20F/21F.

5-Year Historical Forward P/E (x) vs. WTI Price (US$/bbl)



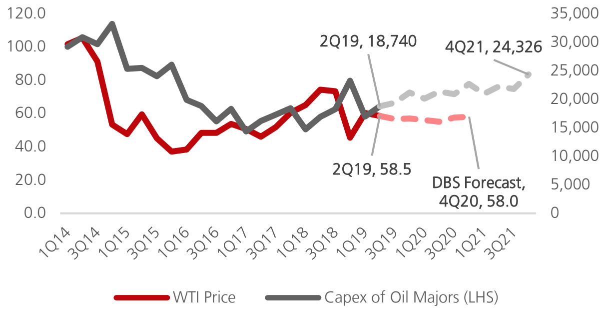
Source: Company, Bloomberg Finance L.P., DBS Bank

Benefitting from expected increase in capex for oil majors. Oil prices have stabilised above the US$50/bbl range in the last year, which is above the c.US$40/bbl breakeven point for crude oil, and even lower for shale oil, according to The Organisation of the Petroleum Exporting Countries (OPEC) estimates. For the bigger players like ExxonMobil, BP, Chevron, and Shell, the breakeven point can be lower, in the range of US$30-40/bbl, due to their economies of scale.

Coupled with oil majors remaining confident about the increase in oil demand in the longer term, the collective capex of the four oil majors is expected to grow at a CAGR of 11.0% from US$18.7bn in 2Q19 to US$24.3bn in 4Q21 based on estimates from Bloomberg. This bodes well for CSE in providing the support services such as process control systems, telecommunication network, and security solutions for the oil majors and related players.

Recent acquisition drives inorganic growth for its O&G segment. On 2 September 2019, CSE announced the acquisition of 100% interest in Volta and its properties, for S$58.4m, which we believe will be fully funded by debt given its current low level of net cash of S$8.6m. Specific synergies will be gained by sharing access to each company's customer list. This acquisition is expected to contribute c.15% to CSE's bottom-line from FY20F, propelling the Group to the next stage of growth.

Capex of Oil Majors (US$m) vs. WTI Price (US$/bbl)



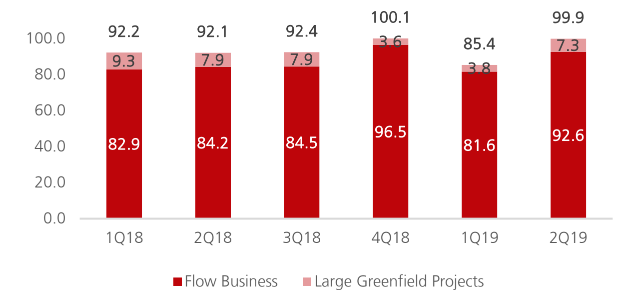
Source: OPEC, DBS Bank

Riding on smart nation initiatives in Singapore; increasing infrastructure projects in Australia. After securing S$85m-worth of infrastructure contracts from the Singapore government in 4Q18, which involves process control solutions and systems, telecommunication and security systems, as well as maintenance work, CSE will be pursuing more Singapore government projects to capitalise on the smart nation initiatives. CSE can capitalise on the growing demand for security-related products against the backdrop of an increasingly uncertain geopolitical environment.

In Australia, CSE is riding on the need for spending on infrastructure to relieve the congestion in certain cities due to population growth. With more infrastructure projects, there is a growing demand for the provision and installation of a variety of control systems as well as turnkey telecommunication network and security solutions, in which CSE specialises.

Stable, high recurring revenue from its flow business. CSE derives c.90% of its total revenue from its flow business, which is generally recurring in nature. Flow business revenue includes service and maintenance revenue and streams of smaller greenfield and brownfield projects that the group can predict with a high degree of certainty. We believe that this stable stream of revenue establishes a strong base for the group's revenue. The balance c.10% of the total revenue is derived from larger greenfield projects which tend to be lumpier in nature.

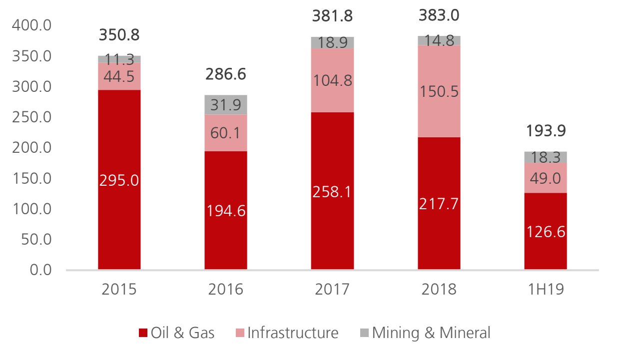
Revenue for Flow Business vs Large Greenfield Projects (S$m)



Source: Company, DBS Bank

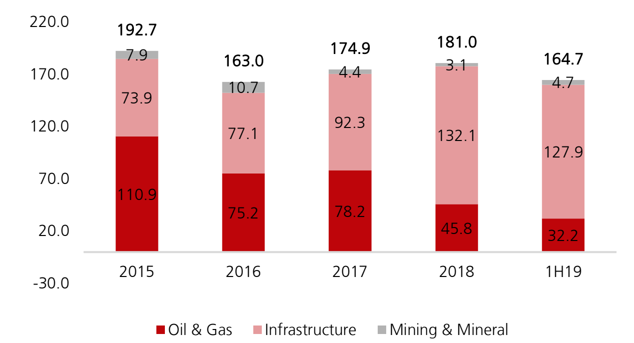
Growing project order book. CSE has maintained a constant flow of order intake or new orders over the last few years, at about S$380m per annum, except in FY16 when oil price crashed to a low of c.US$30/bbl. From 2015 to 1H19, CSE has been able to maintain a healthy order backlog in the range of S$160-200m, indicating the stability of its business. Going forward, we expect CSE to win more orders, both in the Oil & Gas (O&G) and Infrastructure segments, riding on the positive dynamics in both industries.

New Orders (S$m)



Source: Company, DBS Bank

Outstanding Orders (S$m)



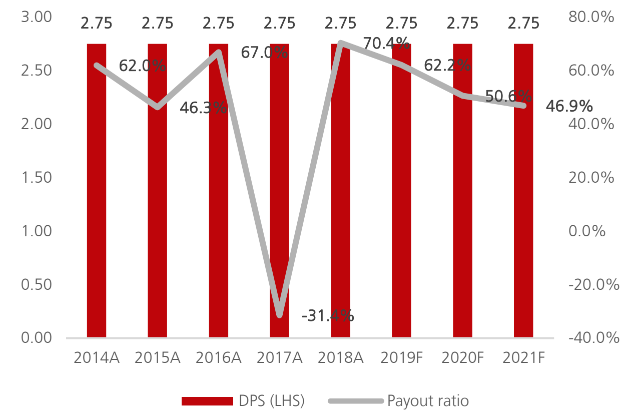
Source: Company, DBS Bank

Entry of substantial shareholder, Serba Dinamik presents opportunities. Serba Dinamik (Serba) became the major shareholder after acquiring a 25% stake in CSE from eight existing shareholders, including an 11.1% stake from founder Mr Tan Mok Koon, back in April 2018, for S$57.7m or S$0.45 per share. Serba provides engineering solutions to the O&G and power generation industries. Synergies can be derived from the two entities, and CSE can also leverage on Serba's key customers.

High customer retention. CSE provides process control systems to customers in high-integrity environments (O&G, power and nuclear). This, combined with a supplier's trustworthiness in quality which can be seen through long-lasting working relationships, result in high customer stickiness. More than 90% of CSE's flow business is from repeat customers.

Attractive dividend; implies c.6% yield. CSE continues its good track record of consistently paying dividends to shareholders. In each of the last five years, the group managed to pay a dividend of 2.75 Scts per share, averaging a dividend payout ratio of c.60%. We expect this trend to continue, given CSE's strong operating cash flows.

Dividend per Share (Scts/share) vs. Payout Ratio (%)



Source: Company, DBS Bank

Valuation and Earnings Forecasts

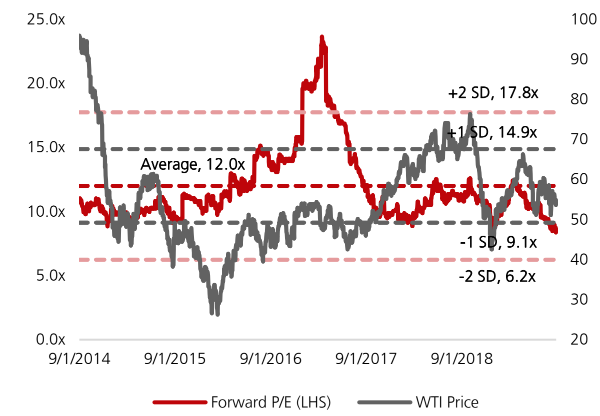
Valuation Methodology

Forward PE multiple. We chose a forward PE multiple as the valuation method as the market mainly price CSE according to the outlook of oil prices. High oil prices and a positive outlook would cause CSE's forward multiple to be re-rated upwards, and vice versa. There are not many direct listed peers, with the closer ones being Serba Dinamik listed on Bursa Malaysia, trading at 9x to 11x forward PE, and technology-related stocks which are trading at average forward PE of about 12x.

Forward Price-to-Earnings ratio of 12.0x indicates potential upside. We used the 5-year average forward PE of 12.0x and during this period, the average oil price was US$54, which is close to the current oil price. CSE is currently trading at 9.0x its FY20F earnings, which is c.-1SD below the 5-year average.

Using a forward PE multiple of 12.0x and FY20F's EPS at 5.43 Scts, the target price is S$0.65, implying an upside of 39%.

5-Year Historical Forward PE (x) vs. WTI Price (US$/bbl)

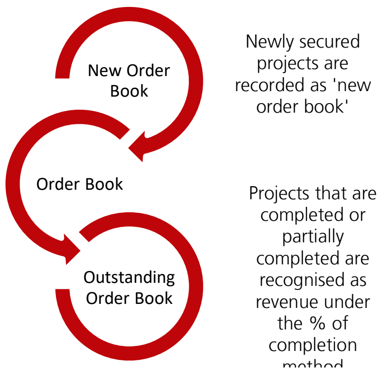


Source: Company, Bloomberg Finance L.P., DBS Bank

Order Book Projection

Newly secured projects from customers are first booked in as 'new order book'. Subsequently, when these projects begin, they will be recognised as revenue using the percentage of completion method. This amount recognised under revenue will then be taken out of the order book, and the remaining amount will be reported as outstanding order book. As such, our revenue forecasts are based on expectations of new order books and using the average percentage of drawdown of its order book in the last four quarters.

Order Book Flow

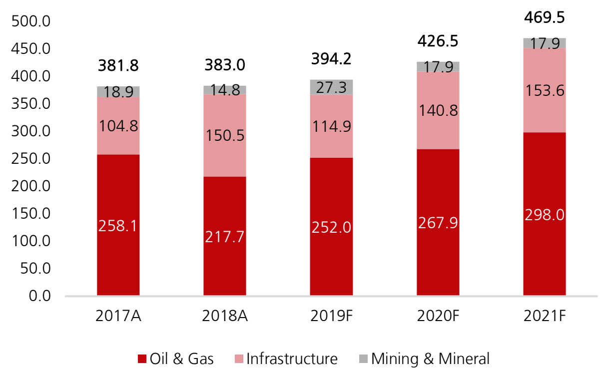


Source: DBS Bank

Conservative estimates of new order book. As large greenfield projects are lumpy and difficult to forecast, we relied on the more stable stream of flow business revenue to compute the growth rate. In the last few quarters, CSE's flow business revenue grew at an average rate of 2.2% per quarter, or c.9.3% per annum. As such, in forecasting our new order book for its O&G and Infrastructure business segments, we applied a conservative 2.9% p.a. growth rate to their new order book in FY19F due to the high-base effect from the Singapore government infrastructure project secured in 4Q18.

Growth rates of 8.2% p.a. and 10.1% p.a. were applied to their new order book values for FY20F and FY21F respectively, on the back of the expected increase in capex for oil majors and growing demand for security-related products. Our conservative estimate is against the backdrop of an increasingly uncertain geopolitical environment in the near term and an alleviation in the medium term.

New Order Win Projections (S$m)



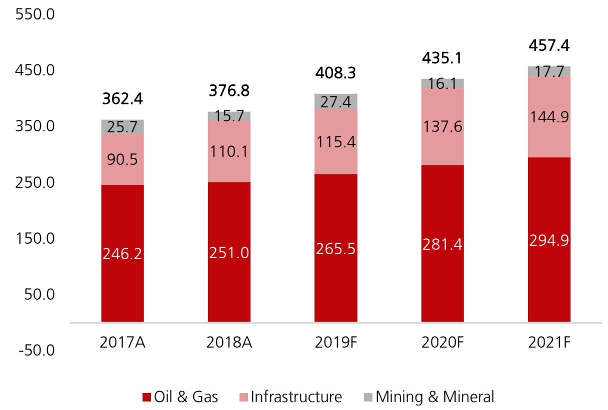
Source: Company, DBS Bank

Earnings Forecasts

66%/ 25%/ 9% revenue split for O&G/Infrastructure/Mining in 1H19. Together with the revenue derived from the new order book, which is typically the large greenfield projects, coupled with the bulk from the recurring revenue segment, we derived the total revenue for the group's various segments.

Historically, the O&G segment accounts for 66-68% of the total revenue while the Infrastructure accounts for 25-29% and the balance of 4-7% stems from the Mining division. We expect this trend to continue going forward.

Revenue Projections by Industry Segments (S$m)

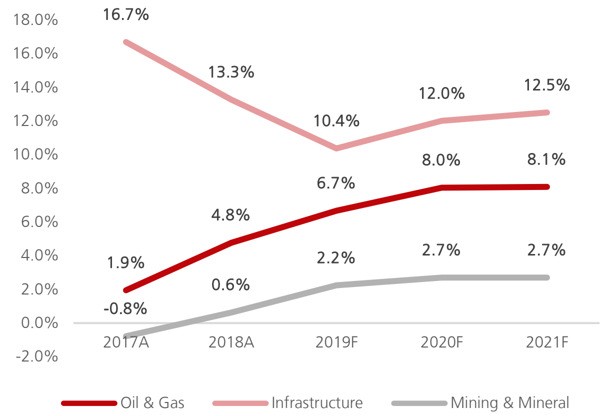


Source: Company, DBS Bank

Improvement in O&G margins from reduction in EMEA exposure and margin accretive acquisition of Volta. EBIT margins improved from 4.8% in 1H18 to 6.2% in 1H19 mainly due to the cessation of its O&G business operations in the unprofitable EMEA. CSE has been gradually reducing its exposure in EMEA from 2H18 onwards and the remaining O&G projects in EMEA are expected to end in 2H19. In addition, given the business Volta is operating in, we believe that the acquisition would be margin accretive. As such, we are projecting a one-time increase in its O&G EBIT margins from 4.8% in FY18 to 6.7% in FY19F. From FY20F-21F, we are expecting O&G EBIT margins to jump to c.8% due to the full-year effects of the Volta acquisition.

Infrastructure margins to normalise to 12.5% in FY21F. We expect EBIT margins for FY19F to be lower at c.10.4% as we believe higher costs were incurred in preparing for the large Singapore government project awarded end of last year that would contribute to revenue from 2H19. We anticipate Infrastructure EBIT margins to normalise progressively back to 12.5% in FY21F, which is a conservative estimate to its average EBIT margin of 15.0% in FY17 and FY18, after the ramp-up in its infrastructure business.

EBIT Margins Projections (%)



Source: Company, DBS Bank

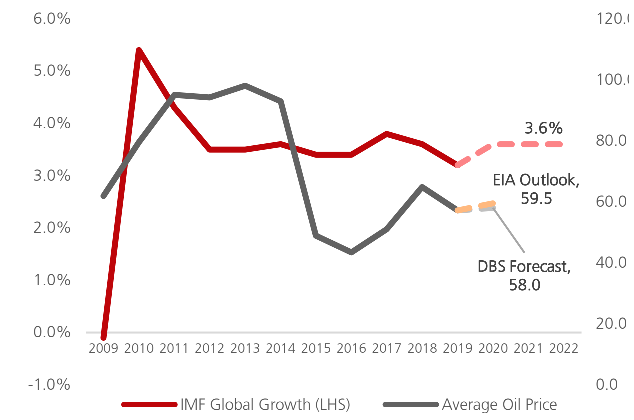
Overall, we are projecting earnings growth of 12%/ 23%/ 8% for FY19F/ FY20F/ FY21F, on the back of increasing capex for oil majors, earnings contribution from its Volta acquisition, and growing demand for IoT and security-related products. This is against the backdrop of a growing demand for oil, Singapore's Smart Nation Initiative and Australia's increased infrastructure spending.

Key Risks

Steep drop in oil prices. Oil price, which is a function of the demand-and-supply dynamics for oil, is a metric oil firms use for their capex projection. A steep drop in oil prices would lead to a cut in capex spending which could flow down to the supply chain, ultimately affecting oil & gas solution providers such as CSE.

Global macroeconomic slowdown. Major geo-political events (US-China Trade War, Brexit, Japan-Korea Trade Feud, Hong Kong Protests) have dragged on longer than anticipated, and have started to take a toll on global growth. The International Monetary Fund (IMF) has downgraded its projections of FY19's global growth from 3.9% in July last year to 3.2% last month. A further deterioration of the global macroeconomic slowdown could affect oil price, which tends to move in tandem with global GDP growth.

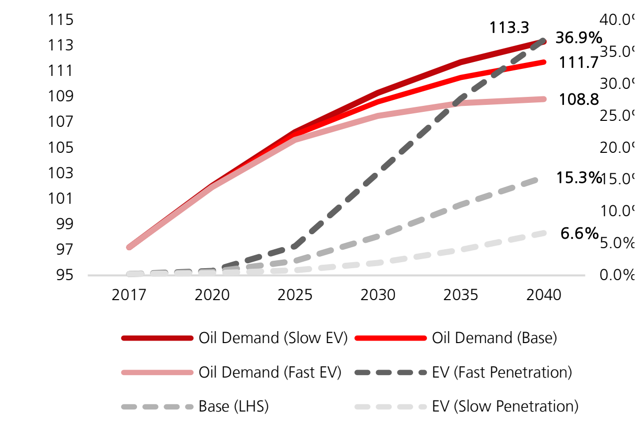
Global GDP Growth (%) vs. WTI Price (US$/bbl)



Source: Bloomberg Finance L.P., IMF, EIA, DBS Bank

Larger-than-expected shift towards renewable energy. A significant portion of the oil demand growth (29.0%) is expected to be contributed by road transportation from 2017-2040. The expansion of electric vehicles (EVs) is likely to negatively affect road transportation oil demand. OPEC currently anticipates total vehicle stock to increase by 1.1bn units during this period, of which 320m is expected to be EVs, accounting for 15.3% of the global vehicles. The implication of the bull and bear case illustrated is fairly limited (1 million barrels per day [mb/d]) over the next 10 years, but would start widening from 2030 to 2040 to 4mb/d level.

Electric Vehicle Penetration Rate (mb/d, %)



Source: OPEC, DBS Bank

Risk of litigation. A repeat of the lawsuit in 2017 with regards to payment in US$ for non-US goods and services to Iran could affect the group's bottom line.

CSE paid US$12.0m in 2017 to settle with the US Department of Treasury's Office of Foreign Assets Control (OFAC) on alleged violations of the International Emergency Economic Powers Act and the Iranian Transactions and Sanctions Regulations. The alleged violations, which occurred between June 2012 and March 2013, arose out of payments in US$ for non-US goods and services lawfully rendered by a subsidiary, directly or indirectly through non-US third party vendors, to Iran or persons located in Iran. Excluding the impairment charge recorded that year, the one-off settlement charge resulted in a net loss in FY17.

SWOT Analysis

Strengths	Weakness
• **Stable, high recurring revenue** from its flow business, which includes service and maintenance revenue and streams of smaller greenfield and brownfield projects that the group can predict with a high degree of certainty. • **High customer retention.** Process control systems are provided to customers in high-integrity environments (O&G, power and nuclear), resulting in high customer stickiness. • **Experienced management team** which is able to identify opportunities and execute the necessary strategic plays to capitalise on these trends. • **Attractive dividend yield.** CSE has been consistently paying DPS of 2.75 Scts per annum over the last few years, implying yield of c.6%.	• **Dependence on oil prices.** As c.60% of CSE's total revenue is derived from the O&G segment, a steep drop in oil prices could lead to lower capex for oil majors.
Opportunities	**Threats**
• **The increase in demand for oil and lower breakeven prices** incentivise production for oil firms in the US. • **Need for spending on infrastructure in Australia** to cater to the congestion in certain cities as a result of population growth. • **Singapore's Smart Nation Initiative** will drive spending for process control systems and security systems for the collection, monitoring and management of data. • **Leverage on major shareholder**, Serba, for more order wins or synergistic tie-ups.	• **A protracted US-China Trade War** might weigh on global growth, and thus the demand for oil and spending on upstream oil production.

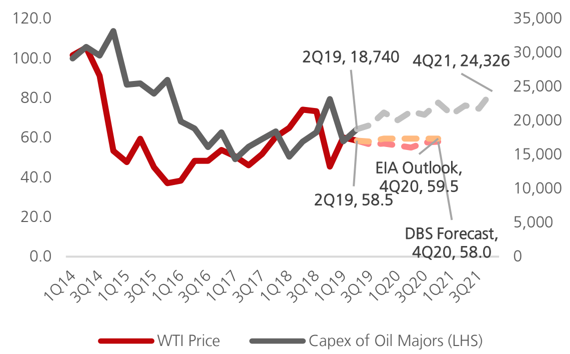
Source: DBS Bank

Critical Factors

Outlook on oil prices. Oil price is a key determinant for the capex spending of oil majors, which will in turn affect the demand for CSE's services. Stabilising or rising oil prices would encourage oil majors to increase their capex spending. Oil prices have largely recovered from the lows in 2016 (US$26/bbl), after the steep decline from their highs in 2014 (>US$100/bbl). A stabilising oil price above the US$50/bbl level, which is above the breakeven point for oil majors, is beneficial to CSE. We are expecting oil prices to trend towards the US$58/bbl mark by end-2020.

Capex of oil majors. CSE's order book for its O&G segment is dependent on the capex of oil majors, where oil price is a key determinant. With a lower breakeven point of c. US$40/bbl for crude oil and even lower breakeven point for shale oil, oil majors are beginning to increase their capex spending. Furthermore, oil majors remain confident about the increase in oil demand in the longer term. Thus, the collective capex by the four oil majors is expected to grow at a CAGR of 11.0% from US$18.7bn in 2Q19 to US$24.3bn in 4Q21, based on estimates from Bloomberg. This bodes well for CSE in providing the support services for the oil majors and related players.

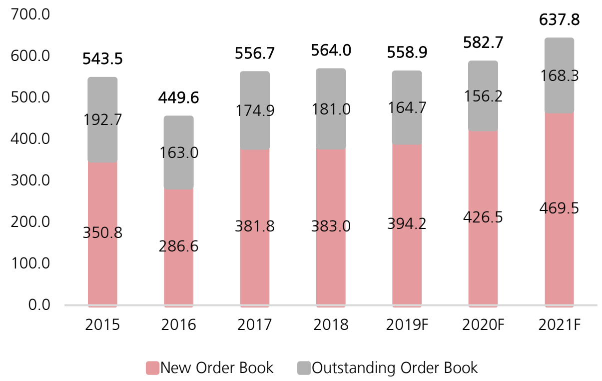
Capex of Oil Majors (US$m) vs. WTI Price (US$/bbl)



Source: OPEC, DBS Bank

Order win momentum. CSE has managed to maintain a constant flow of order intake or new orders over the last few years. Thus, order backlog has been healthy in the range of S$280-380m, and that helps sustain business activities. Going forward, we expect CSE to win more orders both in the Oil & Gas and Infrastructure segments, riding on the positive dynamics in both industries.

Total Order Book (S$m)



Source: Company, DBS Bank

Major Contract Wins in the Last Five Years

Date	Contract Size (S$m)	Project Details
Jan 19	84.8	Singapore government infrastructure – process control solutions and systems, telecommunication and security systems, maintenance work
Mar 17	42.0	Two offshore projects for integrated control systems in the Gulf of Mexico, from 1Q17-4Q18
Apr 15	40.0	Two contracts: 1. Telecommunication system and maintenance work in Abu Dhabi; 2. Three-year maintenance contract for O&G services in Mexico
Apr 15	45.3	Process control systems for O&G in Americas
Nov 14	22.0	Two contracts for an offshore project in the Gulf of Mexico from 4Q14-4Q15

Source: Company; DBS Bank

Infrastructure spending in Singapore and Australia
Singapore's Smart Nation Initiative will drive spending for process control systems and security systems for the collection, monitoring and management of data. CSE is well positioned to ride on the growing demand for security-related products against the backdrop of an increasingly uncertain geopolitical environment.

In Australia, the growing need for spending on infrastructure to relieve the congestion in certain cities due to population growth bodes well for CSE. With more infrastructure projects, there is a growing demand for provision and installation of a variety of control systems as well as turnkey telecommunication network and security solutions, in which CSE specialises.

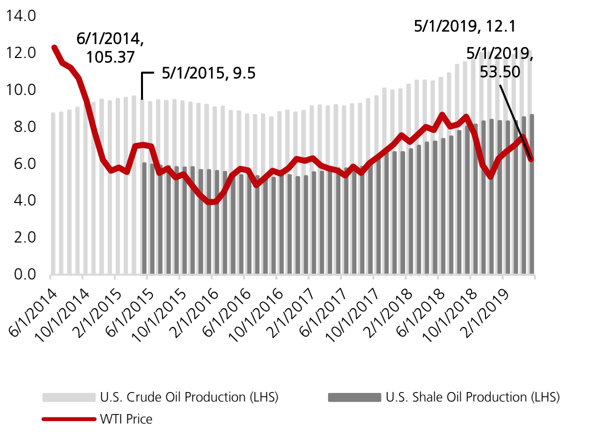
Strategy

Oil & Gas - Leveraging on the increasing capex spending of oil majors

Oil price trending towards US$60 level. Oil majors are increasing their capex spending as oil prices have recovered from their lows of US$30/bbl in the beginning of 2016. Based on EIA's estimates and our house view, oil prices are expected to rise toward US$59-60/bbl in FY20F. This bodes well for CSE in providing the support services for the oil majors and related players. CSE will be building a steady pipeline of small greenfield and brownfield projects.

Lower breakeven point leading to oil production boom in the US, with the bulk from shale oil. Through continued innovation in production efficiency, the average breakeven price of oil production in the Permian Basin has fallen from US$75/bbl in 2014 to US$40/bbl today. As such, although crude oil prices have declined from their high of US$100/bbl in 2014, US oil production has boomed in recent years. Of the 2.64 million barrels increase from the period May 2014-May 2019, 2.60 million barrels (or 98.5%) were attributable to shale oil production. In 1H19, US shale oil accounted for approximately 70.5% of total US oil production.

US Crude Oil Production (mb/d) vs. WTI Price (US$/bbl)

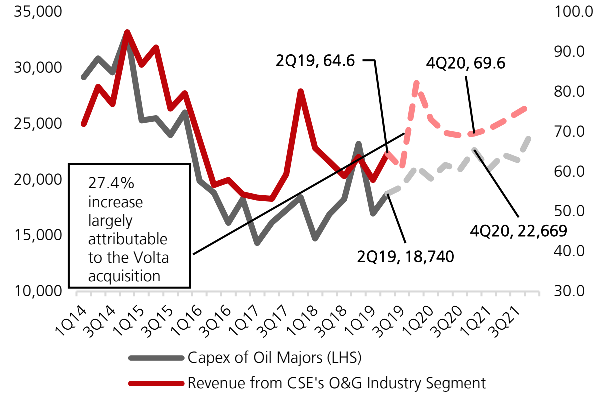


Source: Bloomberg Finance L.P., DBS Bank

In the medium term, Organisation of the Petroleum Exporting Countries (OPEC) is projecting an increase of 7.3mb/d in crude oil demand by 2023 (from 97.2mb/d in 2017). The demand is mainly driven by an expanding middle class, high population growth rates, and stronger economic growth potential in developing countries.

Oil demand and efficiency in production catalyses US oil production. Due to their economies of scale, the oil majors (ExxonMobil, BP, Chevron, and Shell) have achieved even lower breakeven prices in the range of US$30-40/bbl. They have outlined plans to increase production to meet the growing oil demand by 2040, and should continue to do so as long as oil prices remain above US$50/bbl. This gives us confidence that the oil majors would continue to renew CSE's existing maintenance services, and present the group with new project opportunities.

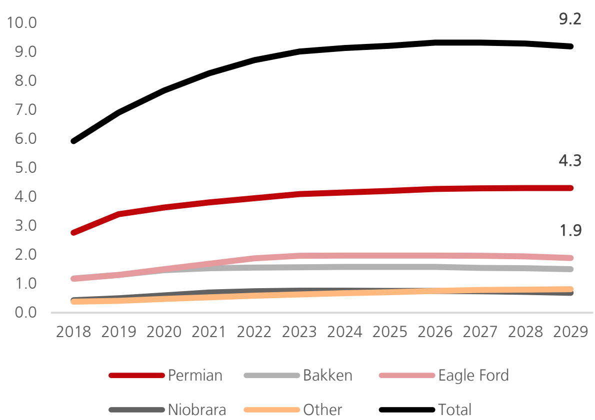
Capex of Oil Majors (US$m) vs. O&G Revenue (S$m)



Source: Bloomberg Finance L.P., DBS Bank

CSE strategically located near two key basins. OPEC projects in the Permian Basin and Eagle Ford are expected to have the highest oil production by 2029. Collectively, the oil production in these two basins is expected to increase by 57.5% from 3.9mb/d in 2018 to 6.2mb/d in 2029, accounting for 67.4% of US shale oil production. We note that most of CSE's offices in the US are situated near these two key basins and the management has also highlighted that it will be pursuing shale projects in these two areas. As such, we believe that CSE is set to capitalise on the US shale oil trend.

US Shale Oil Production by Basin (mb/d)



Source: OPEC, DBS Bank

Infrastructure - Capitalising on the smart nation initiatives in Singapore; infrastructure projects in Australia

CSE has outlined two key focus areas, which are Singapore government projects, and its radio communication projects in Australia.

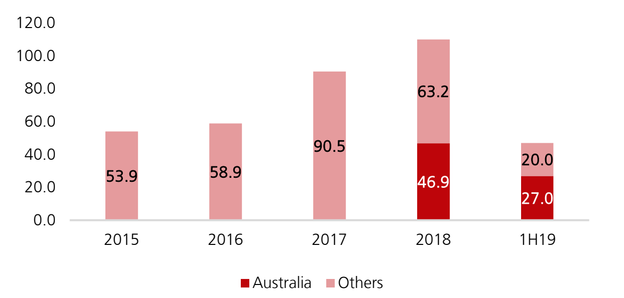
Placing emphasis on Singapore government projects. Since the launch of the Smart Nation Initiative in November 2014, the Singapore government has been increasing spending on digital initiatives to improve efficiency. In 2018, the government handed out S$2.6bn worth of contracts to information and communications technology (ICT) players as it plans to digitalise its economy.

In 4Q18, the group's new order book for infrastructure jumped from an average of S$21.7m in the previous four quarters to a record-high of S$84.8m as CSE secured government infrastructure projects in Singapore. These projects are expected to contribute to revenue from 2H19.

The Singapore government has outlined plans till 2022 and these efforts to collect, store and allow the seamless transition of data would mean that the government would have to spend to ensure that the flow of sensitive information is managed carefully. Projects requiring the installation of process control systems and security systems will be handed out, which would bode well for CSE moving forward.

Capitalising on Australia's infrastructure expansion plans. Since 2015, more than A$123bn worth of construction work has commenced, with over A$200bn committed in the forward pipeline. From 2015-2017, CSE spent S$11.4m on five acquisitions to grow its infrastructure business in Australia. In March this year, CSE entered into an agreement to acquire RCS Telecommunications for A$11.6m in cash, adding to the capacity of its radio communications business in Australia. With its recent acquisitions, CSE is thus well positioned to capitalise on the infrastructure project opportunities in Australia.

Revenue from Infrastructure Industry Segment (S$m)



Source: Company, DBS Bank

Focusing on Americas and APAC, winding down operations in EMEA

The group is winding down its operations in EMEA as profitability remains challenging in the O&G sector in that region. The group's remaining projects in this region are anticipated to end by 2H19. Moving forward, management has guided that it will only take up profitable projects in that region. CSE will instead be focusing on expanding its O&G and telecommunications businesses in its two key regions, Americas and APAC.

Earnings growth through strategic acquisitions

In recent years, management has been making strategic acquisitions that are in line with its focus on more profitable O&G markets in the US, as well as its infrastructure business in Australia. Their successful execution has enabled CSE to increase its EBIT contribution from the above-mentioned businesses.

Recent Major Acquisitions (2016-2019)

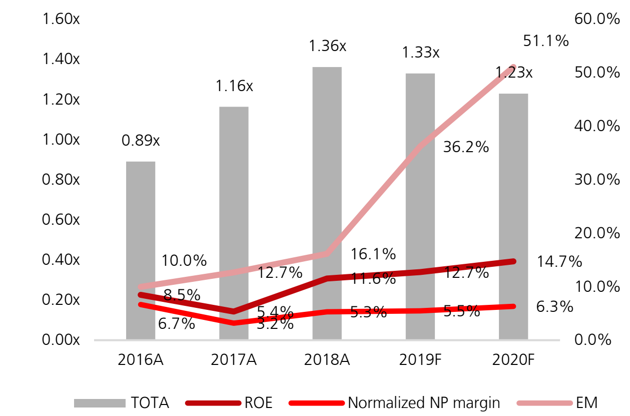
Announcement Date, Name	Industry, Region	Consideration (S$m)	Operations
02 Sep 19, Volta	O&G, Americas	58.4 (34.8 + 23.6)	Designing and fabrication of large-scale electrical equipment centers
22 Mar 19, RCS Telecoms	Infrastructure, Australia	11.3	Communications networking and 2-way radio systems design & implementation
10 Jan 19, Blackstar Services	O&G, Americas	3.3	Design and disposal technology for O&G markets
12 Jan 17, Gulf Coast Power & Control of Louisiana	O&G, Americas	7.0	Provision of equipment and services for mid and downstream O&G
19 Jan 16, Certain assets of CC American Group	O&G, Americas	8.7	Manufacturing and repairing of pressure vessels for wellhead O&G production, and other production equipment
Total		88.7	

Source: Company; DBS Bank

Financials

Improvements in operating efficiencies. Based on the DuPont analysis, the rise in return on equity (ROE) from 12.7% to 16.1% in FY18 can be attributed to the slight increase in leverage (12.7% to 16.1%), increase in utilisation of assets (1.16x to 1.36x), and the increase in profitability (3.2% to 5.3%) as the group made efforts to implement cost-cutting measures, expand its operations, as well as to pursue more profitable projects.

DuPont Analysis

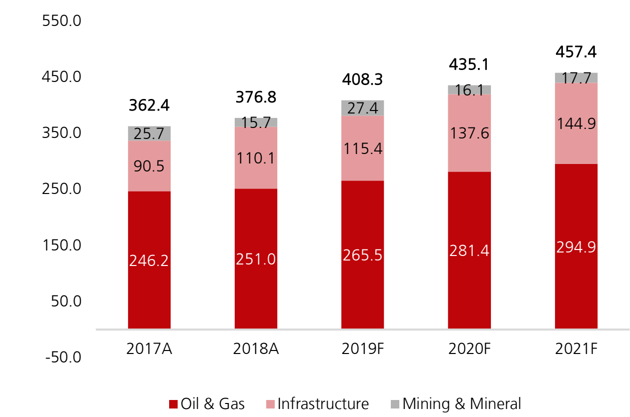


Source: Company, DBS Bank

Income Statement

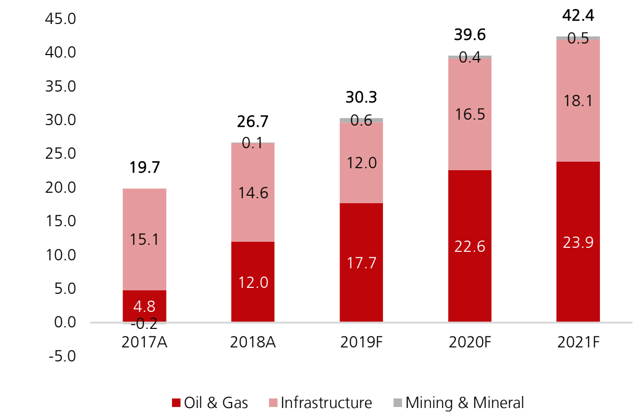
Lower O&G margins, higher revenue and EBIT. As most of the growth stems from the onshore O&G market in the US, we expect the proportion of CSE's onshore O&G revenue to increase. While this will reduce margins for its O&G industry segment, we believe that it is still an overall benefit to CSE.

Revenue Contributions by Industry Segment (S$m)



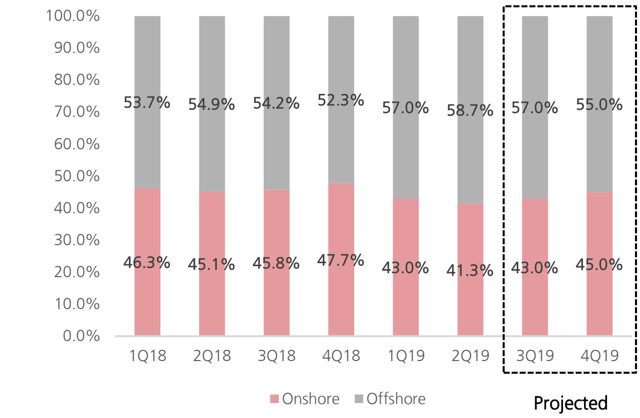
Source: Company, DBS Bank

EBIT Contribution by Industry Segment (S$m)



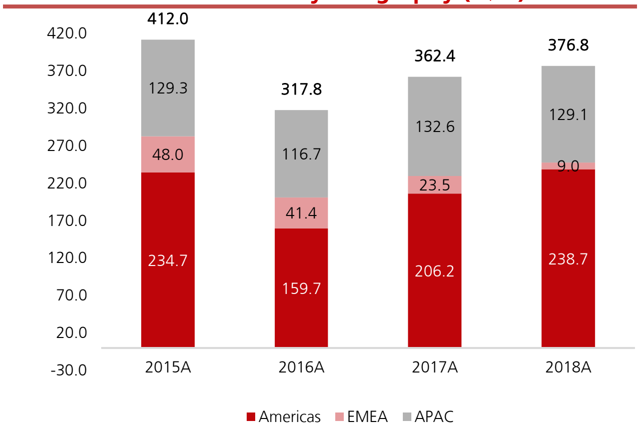
Source: Company, DBS Bank

O&G Revenue Contributions by Type (S$m)



Source: Company, DBS Bank

Revenue Contributions by Geography (S$m)



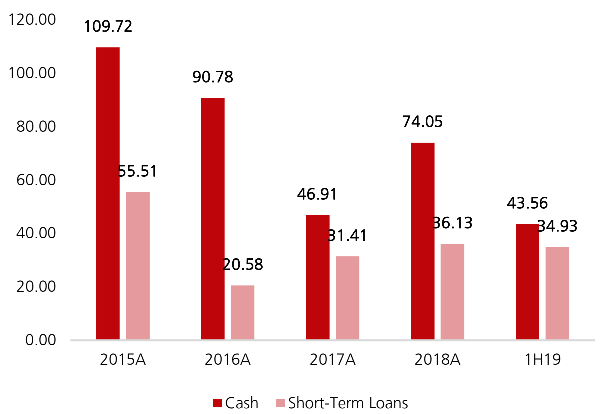
Source: Company, DBS Bank

Balance Sheet

In net cash financial position as at 1H19; net debt with recent acquisition. CSE mainly relies on short-term loans to fund its operations. The unsecured short-term loans are denominated in SGD, USD, and AUD, where the group has operations in, and bear an interest rate of between 2.65% and 3.07% in FY18. As at 1H19, the group continued to maintain its net cash position by holding S$43.6m in cash and having short-term loans of S$34.9m.

However, with the proposed acquisition of a US company, Volta and its properties, CSE would move to a net debt position. We expect the Group to be in a net cash position again in FY20F. Volta develops, designs, manufactures, and services custom-engineered electrical equipment centres.

Cash vs. Short-Term Loans (S$m)

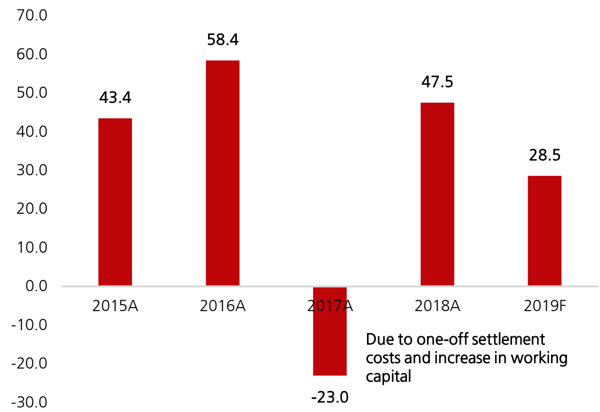


Source: Company, DBS Bank

Cash Flow

High-quality operating cash flows. CSE has been able to generate healthy positive cash flows from its operations (excluding exceptional items). With flow or recurring revenue accounting for c.90% of the total revenue, we expect the group to continue generating strong cash flows from operations, barring the occurrence of exceptional items. The negative cash flow in FY17 was attributable to the one-off settlement costs for the litigation suit and increase in working capital.

Cash Flows from Operations (S$m)



Source: Company, DBS Bank

Key Assumptions

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
New Order Book Growth	-18.3	33.2	0.3	10.2	15.2	10.2
EBIT Margins (%)	8.7	5.4	7.1	7.2	8.1	8.1

New order book to grow from its high base in 2018A due to Volta acquisition

EBIT margins to improve from a focus on more profitable projects

Segmental Breakdown

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Revenues (S$m)						
Oil & Gas	237	246	251	265	281	295
Infrastructure	58.9	90.5	110	115	138	145
Mining & Minerals	22.0	25.7	15.7	27.4	16.1	17.7
Total	318	362	377	408	435	457
EBIT (S$m)						
Oil & Gas	17.3	4.80	12.0	17.7	22.6	23.9
Infrastructure	8.40	15.1	14.6	12.0	16.5	18.1
Mining & Minerals	1.90	(0.2)	0.10	0.61	0.44	0.48
Total	27.6	19.7	26.7	30.3	39.6	42.4
EBIT Margins (%)						
Oil & Gas	7.3	1.9	4.8	6.7	8.0	8.1
Infrastructure	14.3	16.7	13.3	10.4	12.0	12.5
Mining & Minerals	8.6	(0.8)	0.6	2.2	2.7	2.7
Total	8.7	5.4	7.1	7.4	9.1	9.3

Larger increase from the full year contribution from Volta

Larger increase from the full year contribution of the Singapore government project

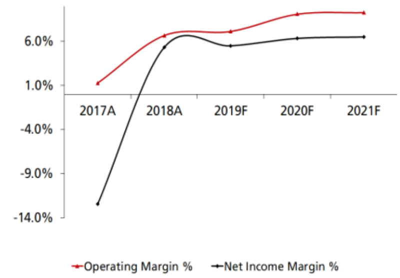
Source: Company, DBS Bank

Income Statement (S$m)

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Revenue	318	362	377	408	435	457
Cost of Goods Sold	(217)	(268)	(272)	(294)	(313)	(329)
Gross Profit	101	94.1	105	114	122	128
Other Opng (Exp)/Inc	(73.7)	(89.6)	(80.0)	(84.8)	(82.2)	(85.6)
Operating Profit	27.0	4.53	25.1	29.1	39.6	42.4
Other Non Opg (Exp)/Inc	0.59	3.35	1.51	1.17	0.0	0.0
Associates & JV Inc	0.0	0.0	0.0	0.0	0.0	0.0
Net Interest (Exp)/Inc	0.18	(0.3)	(0.6)	(1.5)	(3.2)	(3.2)
Exceptional Gain/(Loss)	0.0	(45.0)	0.0	0.0	0.0	0.0
Pre-tax Profit	27.7	(37.4)	26.1	28.7	36.4	39.3
Tax	(6.5)	(9.5)	(6.6)	(6.7)	(8.8)	(9.5)
Minority Interest	0.0	1.75	0.66	0.38	0.0	0.0
Preference Dividend	0.0	0.0	0.0	0.0	0.0	0.0
Net Profit	21.2	(45.1)	20.1	22.5	27.6	29.8
Net Profit before Except.	21.2	(0.2)	20.1	22.5	27.6	29.8
EBITDA	34.7	15.2	34.5	42.1	55.5	59.0
Growth						
Revenue Gth (%)	(22.9)	14.0	4.0	8.4	6.6	5.1
EBITDA Gth (%)	(24.6)	(56.1)	126.5	22.1	31.8	6.2
Opg Profit Gth (%)	(32.6)	(83.2)	454.6	15.9	36.0	7.2
Net Profit Gth (Pre-ex) (%)	(30.9)	nm	nm	11.7	22.9	7.9
Margins & Ratio						
Gross Margins (%)	31.7	26.0	27.9	27.9	28.0	28.0
Opg Profit Margin (%)	8.5	1.3	6.7	7.1	9.1	9.3
Net Profit Margin (%)	6.7	(12.5)	5.3	5.5	6.3	6.5
ROAE (%)	8.6	(21.2)	11.6	12.8	14.8	14.8
ROA (%)	5.9	(14.5)	7.3	7.3	7.8	8.0
ROCE (%)	7.2	(0.2)	9.3	8.6	8.7	9.0
Div Payout Ratio (%)	67.0	N/A	70.4	62.2	50.6	46.9
Net Interest Cover (x)	NM	14.2	45.1	19.0	12.5	13.4

Source: Company, DBS Bank

Margins Trend



Higher interest expenses due to the undertaking of additional debt to fund the Volta acquisition

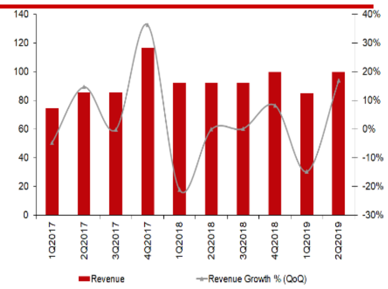
Impairment of goodwill and receivables, and litigation costs

Quarterly / Interim Income Statement (S$m)

FY Dec	1Q2018	2Q2018	3Q2018	4Q2018	1Q2019	2Q2019
Revenue	92.2	92.1	92.4	100	85.4	99.9
Cost of Goods Sold	(67.5)	(67.3)	(67.0)	(69.9)	(61.7)	(72.1)
Gross Profit	**24.7**	**24.8**	**25.4**	**30.2**	**23.7**	**27.8**
Other Oper. (Exp)/Inc	(18.4)	(19.8)	(18.9)	(23.0)	(17.9)	(21.6)
Operating Profit	**6.34**	**5.05**	**6.50**	**7.29**	**5.77**	**6.23**
Other Non Opg (Exp)/Inc	1.49	0.18	(0.1)	(0.1)	1.27	(0.1)
Associates & JV Inc	0.0	0.0	0.0	0.0	0.0	0.0
Net Interest (Exp)/Inc	(0.1)	(0.3)	(0.1)	(0.1)	(0.3)	(0.2)
Exceptional Gain/(Loss)	0.0	0.0	0.0	0.0	0.0	0.0
Pre-tax Profit	**7.70**	**4.97**	**6.29**	**7.12**	**6.71**	**5.92**
Tax	(2.2)	(0.8)	(1.4)	(2.2)	(1.2)	(1.6)
Minority Interest	0.16	0.15	0.16	0.19	0.17	0.21
Net Profit	**5.70**	**4.32**	**5.02**	**5.06**	**5.73**	**4.49**
Net profit bef Except.	5.70	4.32	5.02	5.06	5.73	4.49
EBITDA	9.75	7.07	8.49	9.18	9.65	8.87
Growth						
Revenue Gth (%)	(21.0)	0.0	0.3	8.4	(14.7)	17.0
EBITDA Gth (%)	10.8	(27.5)	20.0	8.2	5.1	(8.1)
Opg Profit Gth (%)	(246.6)	(20.3)	28.8	12.1	(20.8)	8.0
Net Profit Gth (Pre-ex) (%)	91.1	(24.2)	16.1	0.9	13.1	(21.6)
Margins						
Gross Margins (%)	26.8	26.9	27.5	30.2	27.7	27.8
Opg Profit Margins (%)	6.9	5.5	7.0	7.3	6.8	6.2
Net Profit Margins (%)	6.2	4.7	5.4	5.1	6.7	4.5

Source: Company, DBS Bank

Revenue Trend



Balance Sheet (S$m)

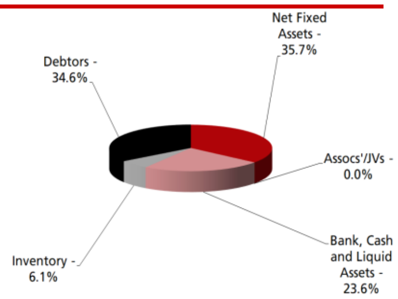
FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Net Fixed Assets	26.5	28.0	28.2	99.5	91.8	83.5
Invts in Associates & JVs	0.0	0.0	0.11	0.11	0.11	0.11
Other LT Assets	72.4	31.8	30.3	28.6	26.8	25.1
Cash & ST Invts	90.8	46.9	74.1	65.6	84.8	107
Inventory	14.7	14.6	16.5	16.9	17.9	18.9
Debtors	88.7	96.3	81.8	96.5	103	108
Other Current Assets	45.5	66.3	38.1	38.1	38.1	38.1
Total Assets	**339**	**284**	**269**	**345**	**362**	**381**
ST Debt	20.6	31.4	36.1	36.1	36.1	36.1
Creditor	37.1	55.4	44.5	54.2	57.6	60.6
Other Current Liab	16.5	18.0	15.3	15.3	15.3	15.3
LT Debt	0.0	0.0	0.0	58.4	58.4	58.4
Other LT Liabilities	9.69	3.37	0.83	0.83	0.83	0.83
Shareholder's Equity	251	174	171	180	193	209
Minority Interests	3.50	1.80	1.10	0.71	0.71	0.71
Total Cap. & Liab.	**339**	**284**	**269**	**345**	**362**	**381**
Non-Cash Wkg. Capital	95.4	104	76.6	82.0	85.9	89.2
Net Cash/(Debt)	70.2	15.5	37.9	(28.9)	(9.7)	12.9
Debtors Turn (avg days)	112.5	93.1	86.3	79.7	83.6	84.2
Creditors Turn (avg days)	76.2	64.7	69.1	63.7	68.6	69.0
Inventory Turn (avg days)	23.1	20.5	21.5	21.5	21.4	21.5
Asset Turnover (x)	0.9	1.2	1.4	1.3	1.2	1.2
Current Ratio (x)	3.2	2.1	2.2	2.1	2.2	2.4
Quick Ratio (x)	2.4	1.4	1.6	1.5	1.7	1.9
Net Debt/Equity (X)	CASH	CASH	CASH	0.2	0.1	CASH
Net Debt/Equity ex MI (X)	CASH	CASH	CASH	0.2	0.1	CASH
Capex to Debt (%)	32.1	24.7	16.9	86.1	6.9	6.9

Increase due to the acquisition of Volta

Increase in debt to fund the acquisition of Volta

Source: Company, DBS Bank

Asset Breakdown

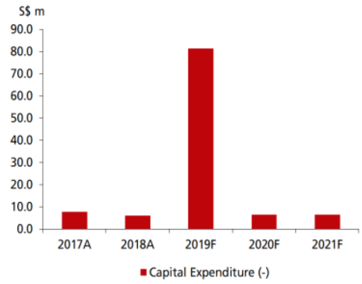


Cash Flow Statement (S$m)

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Pre-Tax Profit	27.7	(37.4)	26.1	28.7	36.4	39.3
Dep. & Amort.	7.10	7.34	7.85	11.8	16.0	16.6
Tax Paid	(3.7)	(4.5)	(8.5)	(6.7)	(8.8)	(9.5)
Assoc. & JV Inc/(loss)	0.0	0.0	0.0	0.0	0.0	0.0
Chg in Wkg.Cap.	25.2	(32.9)	19.7	(5.4)	(3.9)	(3.3)
Other Operating CF	2.04	44.4	2.38	0.0	0.0	0.0
Net Operating CF	**58.4**	**(23.0)**	**47.5**	**28.5**	**39.6**	**43.1**
Capital Exp.(net)	(6.6)	(7.8)	(6.1)	(81.4)	(6.5)	(6.5)
Other Invts.(net)	(7.2)	5.99	0.0	0.0	0.0	0.0
Invts in Assoc. & JV	0.0	0.0	0.0	0.0	0.0	0.0
Div from Assoc & JV	0.0	0.0	0.0	0.0	0.0	0.0
Other Investing CF	(14.6)	(8.7)	(1.3)	0.0	0.0	0.0
Net Investing CF	**(28.3)**	**(10.5)**	**(7.5)**	**(81.4)**	**(6.5)**	**(6.5)**
Div Paid	(14.2)	(14.2)	(14.2)	(14.0)	(14.0)	(14.0)
Chg in Gross Debt	(34.9)	10.4	4.71	58.4	0.0	0.0
Capital Issues	0.0	0.0	(3.3)	0.0	0.0	0.0
Other Financing CF	(0.1)	0.0	0.0	0.0	0.0	0.0
Net Financing CF	**(49.2)**	**(3.8)**	**(12.8)**	**44.4**	**(14.0)**	**(14.0)**
Currency Adjustments	0.20	(6.6)	(0.1)	0.0	0.0	0.0
Chg in Cash	(18.9)	(43.9)	27.1	(8.4)	19.2	22.6
Opg CFPS (S cts)	6.43	1.90	5.46	6.67	8.56	9.11
Free CFPS (S cts)	10.0	(6.0)	8.13	(10.4)	6.51	7.19

Source: Company, DBS Bank

Capital Expenditure



Increase in capex due to acquisition of Volta

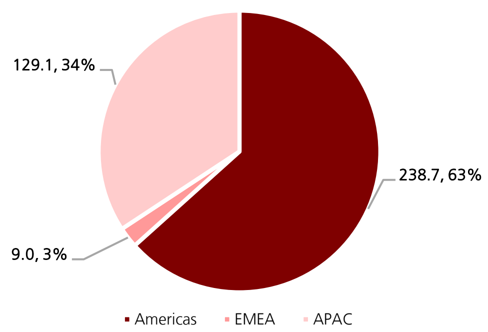
Company Background

Company history. CSE began operations in 1985 as the engineering project division of Singapore Technologies (ST) Group. Following a management buyout in 1997, CSE was listed on the main board of the Singapore Exchange in 1999.

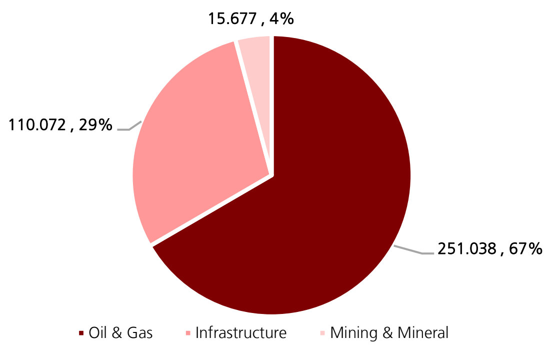
Operating geography. CSE generated more than 90% of its FY18 revenue outside Singapore, and has operations in the Americas, Asia Pacific, Europe, Middle East, and Africa regions.

Business operations. The group is involved in providing process control systems, telecommunication network, and security solutions in the O&G (onshore and offshore), infrastructure (transportation, power utilities, and water/waste utilities), and mining (commodities and minerals) industries.

FY18 Revenue by Geography (S$m)



FY18 Revenue by Industry (S$m)



Source: Company, DBS Bank

Process control systems. Process control systems collect real-time data of a manufacturing process by placing equipment (sensors, measuring devices, etc.) along the production line. This allows companies to monitor and test their production process and react to a potential fault.

CSE utilises supervisory control and data acquisition systems (SCADA), distributed control systems (DCS), programmable logic controllers (PLCs), motors, drives and plant transducers to deliver process control solutions. These systems are used mainly in the implementation of larger systems at the supervisory and control level.

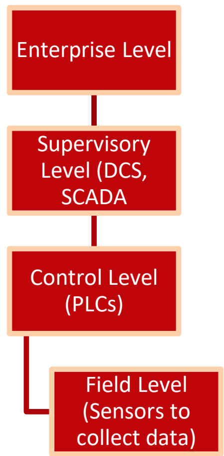
The **SCADA** and **DCS** facilitate the control and adjustment functions at the Supervisory Level. They monitor various parameters, set production targets, store historical data, and set machine start and shutdown.

- **SCADA** is a control system design that uses computers, networked data communications and graphical user interfaces for high-level process supervisory management. The operator's interface is (monitoring and issuing of process commands) handled through SCADA.
- **DCS** is a digital processor control system for a process of plant, where controller functions and field connection modules are distributed throughout the system.

At the Control Level, **PLCs** deliver automatic control functions based on sensor inputs. It allows the technician to program control functions of strategies to carry out automatic operations.

- **PLCs** range from small modular devices with tens of inputs and outputs in a housing integral with the processor, to large rack-mounted modular devices with thousands of inputs and outputs, and which are often networked to other PLCs and SCADA systems.

Functional Manufacturing Control Levels



Source: DBS Bank

Communication & security. Designs, installs, and maintains two-way radio communications for both permanent and temporary locations. CSE offers turnkey packaged solutions, rental, and managed systems, that allow its users to communicate and monitor the safety of their employees.

Management

Experienced Board of Directors. There are currently eight members on the Board of Directors following the retirement of Mr Philip Lee Soo Hoon in April this year. The Board members have an average age of 62 and offer years of experience in both the telecommunications and O&G industries.

Both Mr Lim Ming Seong (Chairman) and Lim Boon Kheng (Group MD, CEO) were with the Singapore Technologies (ST) Group during the early part of their careers. Mr Eddie Foo (Group CFO) was the Group CFO of ECS Holdings before joining CSE.

Key Management Team

Name	Background & Experiences
Lim Ming Seong, 71 *Chairman*	**Chairman, Non-Executive, Independent Director.** Mr Lim was appointed on 17 January 1997 and holds a Bachelor of Applied Science (Honours) with a major in Mechanical Engineering from the University of Toronto and a Diploma in Business Administration from the former University of Singapore. He has also participated in Advanced Management Programmes at INSEAD and the Harvard Business School. Mr Lim is also currently the Chairman of First Resources Limited (a leading palm oil producer in the region), and sits on the board of Starhub Limited and several other private companies. Prior to this, he held various senior positions within the ST Group from 1986-2002, where he left as Group Director. Before joining ST Group, he served as the Deputy Secretary within the Ministry of Defence, Singapore.
Lim Boon Kheng, 52 *Group Managing Director/ Chief Executive Officer*	**Group Managing Director/ Chief Executive Officer.** Mr Lim was appointed on 13 August 2013 and holds a Bachelor of Accountancy from the National University of Singapore. Mr Lim joined CSE in 1999 as the Group Financial Controller after working his way up in ST Pte. Ltd. from 1991 as an accountant. Prior to that, he began his career in 1990 as an accountant with ULC Systems (FE) Pte. Ltd.
Eddie Foo, 47 *Group Chief Financial Officer*	**Group Chief Financial Officer.** Mr Foo holds a Bachelor of Accountancy from Nanyang Technological University and is both an Australian registered Certified Public Accountant and a Chartered Accountant registered with the Institute of Chartered Accountants in Singapore. Mr Foo has several years of experience in financial management, corporate finance, and merger and acquisitions in listed and multinational companies. Before joining CSE, he was the Group CFO of ECS Holdings Limited.

Source: Company, DBS Bank

Report contributed by: CHUNG Wei Le

DBS Bank recommendations are based on Absolute Total Return* Rating system, defined as follows:
STRONG BUY (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)
BUY (>15% total return over the next 12 months for small caps, >10% for large caps)
HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)
FULLY VALUED (negative total return, i.e., > -10% over the next 12 months)
SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

**Share price appreciation + dividends*

Completed Date: 6 Sep 2019 07:20:25 (SGT)
Dissemination Date: 6 Sep 2019 08:39:22 (SGT)

Sources for all charts and tables are DBS Bank unless otherwise specified.

GENERAL DISCLOSURE/DISCLAIMER

This report is prepared by DBS Bank Ltd. This report is solely intended for the clients of DBS Bank Ltd, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS Bank Ltd.

The research set out in this report is based on information obtained from sources believed to be reliable, but we (which collectively refers to DBS Bank Ltd, its respective connected and associated corporations, affiliates and their respective directors, officers, employees and agents (collectively, the "**DBS Group**") have not conducted due diligence on any of the companies, verified any information or sources or taken into account any other factors which we may consider to be relevant or appropriate in preparing the research. Accordingly, we do not make any representation or warranty as to the accuracy, completeness or correctness of the research set out in this report. Opinions expressed are subject to change without notice. This research is prepared for general circulation. Any recommendation contained in this document does not have regard to the specific investment objectives, financial situation and the particular needs of any specific addressee. This document is for the information of addressees only and is not to be taken in substitution for the exercise of judgement by addressees, who should obtain separate independent legal or financial advice. The DBS Group accepts no liability whatsoever for any direct, indirect and/or consequential loss (including any claims for loss of profit) arising from any use of and/or reliance upon this document and/or further communication given in relation to this document. This document is not to be construed as an offer or a solicitation of an offer to buy or sell any securities. The DBS Group, along with its affiliates and/or persons associated with any of them may from time to time have interests in the securities mentioned in this document. The DBS Group, may have positions in, and may effect transactions in securities mentioned herein and may also perform or seek to perform broking, investment banking and other banking services for these companies.

Any valuations, opinions, estimates, forecasts, ratings or risk assessments herein constitutes a judgment as of the date of this report, and there can be no assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments. The information in this document is subject to change without notice, its accuracy is not guaranteed, it may be incomplete or condensed, it may not contain all material information concerning the company (or companies) referred to in this report and the DBS Group is under no obligation to update the information in this report.

This publication has not been reviewed or authorized by any regulatory authority in Singapore, Hong Kong or elsewhere. There is no planned schedule or frequency for updating research publication relating to any issuer.

The valuations, opinions, estimates, forecasts, ratings or risk assessments described in this report were based upon a number of estimates and assumptions and are inherently subject to significant uncertainties and contingencies. It can be expected that one or more of the estimates on which the valuations, opinions, estimates, forecasts, ratings or risk assessments were based will not materialize or will vary significantly from actual results. Therefore, the inclusion of the valuations, opinions, estimates, forecasts, ratings or risk assessments described herein IS NOT TO BE RELIED UPON as a representation and/or warranty by the DBS Group (and/or any persons associated with the aforesaid entities), that:

(a) such valuations, opinions, estimates, forecasts, ratings or risk assessments or their underlying assumptions will be achieved, and
(b) there is any assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments stated therein.

Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets.

Any assumptions made in this report that refers to commodities, are for the purposes of making forecasts for the company (or companies) mentioned herein. They are not to be construed as recommendations to trade in the physical commodity or in the futures contract relating to the commodity referred to in this report.

DBSVUSA, a US-registered broker-dealer, does not have its own investment banking or research department, has not participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months and does not engage in market-making.

ANALYST CERTIFICATION

The research analyst(s) primarily responsible for the content of this research report, in part or in whole, certifies that the views about the companies and their securities expressed in this report accurately reflect his/her personal views. The analyst(s) also certifies that no part of his/her compensation was, is, or will be, directly or indirectly, related to specific recommendations or views expressed in the report. The research analyst (s) primarily responsible for the content of this research report, in part or in whole, certifies that he or his associate[1] does not serve as an officer of the issuer or the new listing applicant (which includes in the case of a real estate investment trust, an officer of the management company of the real estate investment trust; and in the case of any other entity, an officer or its equivalent counterparty of the entity who is responsible for the management of the issuer or the new listing applicant) and the research analyst(s) primarily responsible for the content of this research report or his associate does not have financial interests[2] in relation to an issuer or a new listing applicant that the analyst reviews. DBS Group has procedures in place to eliminate, avoid and manage any potential conflicts of interests that may arise in connection with the production of research reports. The research analyst(s) responsible for this report operates as part of a separate and independent team to the investment banking function of the DBS Group and procedures are in place to ensure that confidential information held by either the research or investment banking function is handled appropriately. There is no direct link of DBS Group's compensation to any specific investment banking function of the DBS Group.

COMPANY-SPECIFIC / REGULATORY DISCLOSURES

1. DBS Bank Ltd, DBS HK, DBS Vickers Securities (Singapore) Pte Ltd (''DBSVS'') or their subsidiaries and/or other affiliates do not have a proprietary position in the securities recommended in this report as of 31 Jul 2019
2. Neither DBS Bank Ltd nor DBS HK market makes in equity securities of the issuer(s) or company(ies) mentioned in this Research Report.

Compensation for investment banking services:

3. DBSVUSA does not have its own investment banking or research department, nor has it participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months. Any US persons wishing to obtain further information, including any clarification on disclosures in this disclaimer, or to effect a transaction in any security discussed in this document should contact DBSVUSA exclusively.

[1] An associate is defined as (i) the spouse, or any minor child (natural or adopted) or minor step-child, of the analyst; (ii) the trustee of a trust of which the analyst, his spouse, minor child (natural or adopted) or minor step-child, is a beneficiary or discretionary object; or (iii) another person accustomed or obliged to act in accordance with the directions or instructions of the analyst.

[2] Financial interest is defined as interests that are commonly known financial interest, such as investment in the securities in respect of an issuer or a new listing applicant, or financial accommodation arrangement between the issuer or the new listing applicant and the firm or analysis. This term does not include commercial lending conducted at arm's length, or investments in any collective investment scheme other than an issuer or new listing applicant notwithstanding the fact that the scheme has investments in securities in respect of an issuer or a new listing applicant.

Disclosure of previous investment recommendation produced:

4. DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd (''DBSVS''), their subsidiaries and/or other affiliates may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed in the first page of this report to view previous investment recommendations published by DBS Bank Ltd, DBS Vickers Securities (Singapore) Pte Ltd (''DBSVS''), their subsidiaries and/or other affiliates in the preceding 12 months.

RESTRICTIONS ON DISTRIBUTION

General	This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation.
Australia	This report is being distributed in Australia by DBS Bank Ltd, DBSVS or DBSV HK. DBS Bank Ltd holds Australian Financial Services Licence no. 475946. DBSVS and DBSV HK are exempted from the requirement to hold an Australian Financial Services Licence under the Corporation Act 2001 (“CA”) in respect of financial services provided to the recipients. Both DBS Bank Ltd and DBSVS are regulated by the Monetary Authority of Singapore under the laws of Singapore, and DBSV HK is regulated by the Hong Kong Securities and Futures Commission under the laws of Hong Kong, which differ from Australian laws. Distribution of this report is intended only for “wholesale investors” within the meaning of the CA.
Hong Kong	This report has been prepared by a person(s) who is not licensed by the Hong Kong Securities and Futures Commission to carry on the regulated activity of advising on securities in Hong Kong pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong). This report is being distributed in Hong Kong and is attributable to DBS Bank (Hong Kong) Limited, a registered institution registered with the Hong Kong Securities and Futures Commission to carry on the regulated activity of advising on securities pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong). For any query regarding the materials herein, please contact Carol Wu (Reg No. AH8283) at dbsvhk@dbs.com
Indonesia	This report is being distributed in Indonesia by PT DBS Vickers Sekuritas Indonesia.
Malaysia	This report is distributed in Malaysia by AllianceDBS Research Sdn Bhd ("ADBSR"). Recipients of this report, received from ADBSR are to contact the undersigned at 603-2604 3333 in respect of any matters arising from or in connection with this report. In addition to the General Disclosure/Disclaimer found at the preceding page, recipients of this report are advised that ADBSR (the preparer of this report), its holding company Alliance Investment Bank Berhad, their respective connected and associated corporations, affiliates, their directors, officers, employees, agents and parties related or associated with any of them may have positions in, and may effect transactions in the securities mentioned herein and may also perform or seek to perform broking, investment banking/corporate advisory and other services for the subject companies. They may also have received compensation and/or seek to obtain compensation for broking, investment banking/corporate advisory and other services from the subject companies. Wong Ming Tek, Executive Director, ADBSR

Singapore	This report is distributed in Singapore by DBS Bank Ltd (Company Regn. No. 196800306E) or DBSVS (Company Regn No. 198600294G), both of which are Exempt Financial Advisers as defined in the Financial Advisers Act and regulated by the Monetary Authority of Singapore. DBS Bank Ltd and/or DBSVS, may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Where the report is distributed in Singapore to a person who is not an Accredited Investor, Expert Investor or an Institutional Investor, DBS Bank Ltd accepts legal responsibility for the contents of the report to such persons only to the extent required by law. Singapore recipients should contact DBS Bank Ltd at 6327 2288 for matters arising from, or in connection with the report.
Thailand	This report is being distributed in Thailand by DBS Vickers Securities (Thailand) Co Ltd.
United Kingdom	This report is produced by DBS Bank Ltd which is regulated by the Monetary Authority of Singapore. This report is disseminated in the United Kingdom by DBS Vickers Securities (UK) Ltd, ("DBSVUK"). DBSVUK is authorised and regulated by the Financial Conduct Authority in the United Kingdom. In respect of the United Kingdom, this report is solely intended for the clients of DBSVUK, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBSVUK. This communication is directed at persons having professional experience in matters relating to investments. Any investment activity following from this communication will only be engaged in with such persons. Persons who do not have professional experience in matters relating to investments should not rely on this communication.
Dubai International Financial Centre	This research report is being distributed by DBS Bank Ltd., (DIFC Branch) having its office at units 608 - 610, 6th Floor, Gate Precinct Building 5, PO Box 506538, DIFC, Dubai, United Arab Emirates. DBS Bank Ltd., (DIFC Branch) is regulated by The Dubai Financial Services Authority. This research report is intended only for professional clients (as defined in the DFSA rulebook) and no other person may act upon it.
United Arab Emirates	This report is provided by DBS Bank Ltd (Company Regn. No. 196800306E) which is an Exempt Financial Adviser as defined in the Financial Advisers Act and regulated by the Monetary Authority of Singapore. This report is for information purposes only and should not be relied upon or acted on by the recipient or considered as a solicitation or inducement to buy or sell any financial product. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situation, or needs of individual clients. You should contact your relationship manager or investment adviser if you need advice on the merits of buying, selling or holding a particular investment. You should note that the information in this report may be out of date and it is not represented or warranted to be accurate, timely or complete. This report or any portion thereof may not be reprinted, sold or redistributed without our written consent.
United States	This report was prepared by DBS Bank Ltd. DBSVUSA did not participate in its preparation. The research analyst(s) named on this report are not registered as research analysts with FINRA and are not associated persons of DBSVUSA. The research analyst(s) are not subject to FINRA Rule 2241 restrictions on analyst compensation, communications with a subject company, public appearances and trading securities held by a research analyst. This report is being distributed in the United States by DBSVUSA, which accepts responsibility for its contents. This report may only be distributed to Major U.S. Institutional Investors (as defined in SEC Rule 15a-6) and to such other institutional investors and qualified persons as DBSVUSA may authorize. Any U.S. person receiving this report who wishes to effect transactions in any securities referred to herein should contact DBSVUSA directly and not its affiliate.
Other jurisdictions	In any other jurisdictions, except if otherwise restricted by laws or regulations, this report is intended only for qualified, professional, institutional or sophisticated investors as defined in the laws and regulations of such jurisdictions.

DBS Regional Research Offices

HONG KONG
DBS (Hong Kong) Ltd
Contact: Carol Wu
13th Floor One Island East,
18 Westlands Road,
Quarry Bay, Hong Kong
Tel: 852 3668 4181
Fax: 852 2521 1812
e-mail: dbsvhk@dbs.com

MALAYSIA
AllianceDBS Research Sdn Bhd
Contact: Wong Ming Tek (128540 U)
19th Floor, Menara Multi-Purpose,
Capital Square,
8 Jalan Munshi Abdullah 50100
Kuala Lumpur, Malaysia.
Tel.: 603 2604 3333
Fax: 603 2604 3921
e-mail: general@alliancedbs.com

SINGAPORE
DBS Bank Ltd
Contact: Janice Chua
12 Marina Boulevard,
Marina Bay Financial Centre Tower 3
Singapore 018982
Tel: 65 6878 8888
Fax: 65 65353 418
e-mail: equityresearch@dbs.com
Company Regn. No. 196800306E

THAILAND
DBS Vickers Securities (Thailand) Co Ltd
Contact: Chanpen Sirithanarattanakul
989 Siam Piwat Tower Building,
9th, 14th-15th Floor
Rama 1 Road, Pathumwan,
Bangkok Thailand 10330
Tel. 66 2 857 7831
Fax: 66 2 658 1269
e-mail: research@th.dbs.com
Company Regn. No 0105539127012
Securities and Exchange Commission, Thailand

INDONESIA
PT DBS Vickers Sekuritas (Indonesia)
Contact: Maynard Priajaya Arif
DBS Bank Tower
Ciputra World 1, 32/F
Jl. Prof. Dr. Satrio Kav. 3-5
Jakarta 12940, Indonesia
Tel: 62 21 3003 4900
Fax: 6221 3003 4943
e-mail: indonesiaresearch@dbs.com