

2 March 2020

Energy | Regional Oil & Gas

## Regional Oil & Gas

## Overweight (Maintained)

### The Price Of Uncertainty

Stocks Covered 21  
 Ratings (Buy/Neutral/Sell): 13 / 7 / 1  
 Last 12m Earnings Revision Trend: Negative

- Maintain OVERWEIGHT; Top Picks: PTTGC, Keppel and Yinson.** Financial markets turned bearish, with the global spread of COVID-19. Our USD40.00/bbl scenario indicates further downside to stocks under our coverage. OPEC+ production cuts/extension to the agreement are in the works, but we believe there is little that can be done to boost crude oil prices significantly under the current environment of uncertainty. Signs of COVID-19 being contained should reverse the bear market. We do not see those signs yet.
- The price of uncertainty.** Global financial markets were in a tailspin last week, with the global spread of the COVID-19 outbreak. At the time of writing, total infections stood at 83,379, with 2,858 fatalities. The outbreak, which started in China in January, has since spread to 54 countries and there are no signs of containment. For our analysis, we expect a lower number of infections in the Western Hemisphere during summer, while a vaccine may come into the market in early 2021. Until then, markets could remain bearish. We provide the impact of a USD40.00/bbl (Brent) scenario on the stocks we cover.
- Further downside to share prices expected.** We believe Thailand's oil & gas sector (NEUTRAL) may see another 10-30% downside from current levels. This is because it comprises mostly upstream and downstream refineries and petrochemical companies, which are highly dependent on a robust global economy and strong demand for oil & gas commodities, in order to perform well. Malaysian players (OVERWEIGHT) may face earnings risk due to the slowdown in upstream activities, with the potential pullback in oil majors' spending. Share prices are likely to be under pressure amidst compressed valuations. Post adjustments, four counters will still offer 9-16% upside, while the seven remaining stocks imply 5-21% downside. For Singapore (OVERWEIGHT), the impact of valuations is most significant on Sembcorp Marine (SMM) as it is a pure operations and maintenance (O&M) play. Sembcorp Industries (SCI) is also affected due to SMM being its subsidiary – as well as weakness in the energy business due to soft global economic growth. Keppel is likely the least affected, as we forecast a smaller impact on its property segment.
- Current global demand expectations by major agencies are optimistic.** We expect further downward revisions in crude oil demand in the coming months. Demand growth for crude oil was cut by 0.23mbpd-0.365mbpd for 2020 as a result of the COVID-19 outbreak, as reported by Energy Information Administration (EIA), International Energy Agency (IEA), and OPEC. Total crude oil demand for 2020 stands at +/-100mbpd. These initial revisions seem relatively mild. Since then, the COVID-19 outbreak has spread globally.
- OPEC+ is under pressure to act** as the outbreak spreads globally, impacting crude oil and its derivative demand. Saudi Arabia seems to be the most active member trying to convince the alliance to further cut production, to stave off the crude oil price slide. Russia has been most reluctant to go along with the plan this time round. We believe that OPEC+ can provide support to the oil markets by remaining intact, providing a sense of unity in their message. Inaction or any signs of disunity can send crude oil prices into a freefall in this fragile market. That said, further production cuts/extension in agreement may support crude oil prices from sliding further. However, we believe such actions will do little to boost crude oil prices significantly, under this uncertain environment.

#### Top Picks

Top Picks	Target Price
PTTGC (PTTGC) – BUY	THB59.10
Keppel Corp (KEP SP) – BUY	SGD7.80
Yinson (YNS MK) – BUY	MYR8.22

#### Analysts

Kannika Siamwalla, CFA  
 +66 2088 9744  
[kannika.si@rhbgroupp.com](mailto:kannika.si@rhbgroupp.com)



Leng Seng Choon, CFA, PBM  
 +65 6232 3890  
[leng.seng.choon@rhbgroupp.com](mailto:leng.seng.choon@rhbgroupp.com)



Sean Lim Ooi Leong  
 +603 9280 8867  
[sean.lim@rhbgroupp.com](mailto:sean.lim@rhbgroupp.com)



#### COVID-19 has spread even further



Source: cdc.gov

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Company Name	Rating	TP	% Upside (Downside)	P/E (x) Dec-20F	P/BV (x) Dec-20F	Yield (%) Dec-20F
PTTGC	BUY	THB59.10	43.27	13.18	0.64	5.79
SPRC	BUY	THB10.70	35.44	8.32	0.81	5.95
Yinson	BUY	MYR8.22	14.97	20.14	2.04	0.56
Serba Dinamik	BUY	MYR2.82	28.18	11.58	2.39	2.73
Keppel	BUY	SGD7.80	23.03	11.12	0.98	4.42

Source: Bloomberg, RHB

## The Price Of Uncertainty

**The global financial markets are in a tailspin** as it appears that the COVID-19 outbreak is spreading globally. At the time of writing this report, total infections stood at 83,379, with 2,858 fatalities. The outbreak, which started in China in January, has since spread to 54 countries. China has closed factories and industries. Other countries have curbed travel to and from China and countries with high infection rates.

**Global land, air and sea transportation are most likely to take a hit**, as with the demand for crude oil. Fear of the unknown has impacted global trade and the financial markets. COVID-19 is a black swan event that is difficult to gauge with any certainty as to the extent of the global impact – be it social or economic. We believe that oil prices and financial markets will continue their slide until signs of the outbreak being contained emerge. We do not see those signs yet.

**The race to find a vaccine began in January**, when Chinese scientists found the genetic sequence of the new virus and published it online, on around 10 Jan. Since then, it has been reported that vaccines are currently being developed in record time. Wall Street Journal reported that drugmaker Moderna has shipped the first batch of its vaccines to US government researchers, who will launch the first human test of whether the experimental shot could help suppress the epidemic. The timeline is as follows:

- i. **End-April:** first human test is expected. The clinical trial on 20-25 healthy volunteers will be made, testing whether two doses of shots are safe and if they induce an immune response that is likely to protect against infection;
- ii. **Jul/Aug:** initial results of the test could become available. This does not guarantee success.

**Even if the first study is positive, it might not be available until next year** because further studies and regulatory clearances will be needed.

**Influenza, like many other respiratory diseases, thrives in cold and humid air.** If COVID-19 behaves the same way, the spread could lessen as summer comes along in the Western Hemisphere, before returning next winter – which makes the virus a seasonal factor, like the flu.

**For our analysis**, we expect a lower number of infections during summer, and then a vaccine that could come into the market by or in early 2021. Until then, we take a look at where the stocks under our coverage may be, should the crude oil price hit USD40.00/bbl, and remain at such levels for the rest of the year.

### USD40.00/bbl scenario is coming

This is our worst-case scenario. This will happen when countries around the world close their borders, global trade slows down, and global travel is halted. This could also result in a severe global economic slowdown and/or global recession. For this report, we assume that this will happen for the duration of the COVID-19 virus still being active, and that governments cannot contain the virus from spreading globally. We assume normalcy returns by 2021, as a vaccine is found and is distributed globally.

Our analysis suggests that crude oil prices could decline to USD38.00-57.00 per bbl, depending on the severity of the outbreak.

- i. **Low case: USD57.60/bbl.** We assume a 10% decline in the price of crude oil – assuming that the situation does not result in a global recession – can be contained, and is not prolonged. We expect an average price of USD57.00/bbl for 2020F;
- ii. **Worst case: USD38.40/bbl.** We assume a 40% decline, which is of a similar magnitude to that of the Asian/global financial crises. We can expect the crude oil price to decline much further from where we are now – to USD38.40/bbl.

For more details, refer to our 5 Feb report, [Fear Of The Unknown; Still OVERWEIGHT.](#)

#### Figure 1: Possible crude oil price impact

	Crude oil price forecast (USD/bbl)	Impact % decline	Crude oil price (high and low case, USD/bbl)	Crude oil demand (mbpd)
Low case	64	-10%	57.6	c. -0.5
Worst case	64	-40%	38.4	c. -1.0

Source: RHB

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### Implications to stocks under our coverage

We are NEUTRAL on the Thai oil & gas sector, with Top Picks being PTT Global Chemical (PTTGC) and Star Petroleum Refining (SPRC). For Malaysia, we have an OVERWEIGHT rating, with Top Picks Yinson and Serba Dinamik. In Singapore, we rate the sector as OVERWEIGHT, as Keppel as our Top Pick.

We analyse the possible impact on share prices should the crude oil price stay at USD40.00/bbl for the rest of 2020F. We assume that the negative impact will be only for 2020, as we believe a vaccine will be developed and distributed globally in 2021. We expect 2021 to be a year where normalcy returns, and pent-up demand boosts commodity prices/spreads.

From our analysis, we believe that the Thai oil & gas sector may have another 10-30% downside from current levels. This is because it consists of mostly upstream and downstream refineries and petrochemicals companies, which are highly dependent on a robust global economy and the strong demand for oil & gas commodities, in order to have strong spreads and crude oil prices. Malaysian oil & gas companies may face earnings risk due to the slowdown in upstream activities, with the potential pullback in oil majors' spending. Share prices are likely to be under pressure amidst compressed valuations. Post adjustments, four counters' share prices will still see 9-16% upside, while the stock prices of remaining ones reflect 5-21% downside. For Singapore, the impact of valuations would be most significant on SMM, as its business is fully in the O&M space. On the other hand, Keppel and SCI have other businesses and their valuations are based on SOP, eg KEP has a property arm (41% of SOP value) and SCI has an energy business (56% of SOP value).

The risk to our worst-case scenario is that the crude oil price may not stay at USD40.00/bbl for too long. If prolonged, the low price level may result in higher-cost producers curtailing production – which would rebalance the oil market, and lead to an uptrend in the commodity's price. The worst-case scenario will also stem from a global economic recession, which could send oil and equities prices much lower than our current scenario.

### Thailand: NEUTRAL

Under the scenario that the crude oil price falls to USD40.00/bbl for the rest of this year (which would be another 20% decline from Friday's close), we can expect further declines in share prices. We expect to see another 10-30% drop in stock prices, from current levels.

For PTT Exploration & Production (PTTEP), where earnings are directly and indirectly linked to crude oil prices, we have assumed a crude oil price of USD40.00/bbl for 2020F. At this level, we can expect its share price to come close to THB90.00. Under the most extreme case, where the market expects the crude oil price to remain at USD40.00/bbl for the longer term, we expect its share price to hit THB59.00.

For the refineries and petrochemicals, where share prices have already been trading at depressed levels, we have applied a -3SD P/BV – valuations would range from around 0.4x to 0.55x. The refineries may see another 20-30% further decline from current price levels.

For PTT, we have assumed a 0.6x 2020 P/BV, which is near -3SD P/BV, and believe its share price could plunge by another 30% from current levels.

Figure 2: Thai oil & gas companies in the worst-case scenario

Company	Rating	Current price (THB)	Base case		Worst case	
			Target (THB)	%	Target (THB)	%
<b>Upstream Exploration &amp; Production</b>						
PTTEP	BUY	106.00	147.00	38.7	92.00	(13.2)
<b>Refineries and petrochemicals</b>						
BCP	NEUTRAL	24.00	30.00	25.0	17.08	(28.8)
IRPC	SELL	2.20	2.50	13.6	1.64	(25.5)
PTTGC	BUY	41.25	59.10	43.3	32.70	(20.7)
TOP	NEUTRAL	43.25	48.70	12.6	30.40	(29.7)
SPRC	BUY	7.90	10.70	35.4	5.34	(32.5)
<b>Integrated Oil &amp; Gas</b>						
PTT	NEUTRAL	39.00	43.30	11.0	27.30	(30.0)

Source RHB

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**Malaysia: OVERWEIGHT**

**Pullback in spending translates to lower activities.** If the price of crude oil hits USD40.00/bbl for a prolonged period, we expect Petronas and other oil majors to scale back their spending by about 5-10% this year. We should also anticipate a delay in contract awards and activities within the upstream space. Overall, we see downside earnings risk of 5-20% as a consequence of lower work demand, as compressed margins and the severity will depend on the sub-segments within the value chain. Production-related work, in our view, will be prioritised over exploratory activities, while brownfield projects may be more attention over greenfield projects. We may also expect the turnaround of OSV players to be delayed, with the likelihood of decline in vessel utilisation amidst flattish rates. FPSO players are likely to have relatively lesser earnings risks under fixed and firm long-term charter contracts, but new contract awards might be delayed. Overall, the spending in the oil and gas space should return to normalcy in 2021, as works will be pushed to the following year.

**Retracement in sector valuations.** Historically, share prices of the domestic oil & gas services companies are highly correlated to oil prices. Despite overall fundamentals being not severely affected, we believe that valuations will be under pressure across the sector if oil prices were to average at USD40.00/bbl in 2020, their near-term outlook would be clouded by uncertainties.

**Expect stock sell-downs.** Assuming that sector valuations are rejigged in accordance to the USD40.00/bbl oil price scenario, our TPs would be cut by 3-48%, with Sapura Energy having the largest cut (-48%; prolonged losses and higher impairment risk on drilling and other oil & gas assets), followed by Bumi Armada (-39%; compressed valuations which correlates with oil prices, coupled with rising earnings risk from weaker OSV utilisation), and Malaysia Marine and Heavy Engineering (MMHE) (-27%; slower replenishments for the heavy engineering segment). As such, based on the new TPs, Sapura Energy, MMHE and Petron Malaysia will the high downside risk from current levels, at 21%, 19% and 11% respectively.

**Figure 3: Malaysia oil & gas companies in the worst-case scenario**

Company	Rating	Current price (MYR)	Base case		Worst case	
			Target (MYR)	%	Target (MYR)	%
<b>Upstream FPSO</b>						
Bumi Armada	BUY	0.32	0.57	78.1	0.35	9.4
Yinson	BUY	7.15	8.22	15.0	8.00	11.9
<b>Upstream Services</b>						
MMHE	SELL	0.75	0.83	10.7	0.61	(18.7)
Muhibbah Engineering	BUY	1.62	1.63	0.6	1.48	(8.6)
Sapura Energy	NEUTRAL	0.19	0.29	52.6	0.15	(21.1)
Serba Dinamik	BUY	2.20	2.82	28.2	2.54	15.5
<b>Midstream</b>						
MISC	BUY	7.59	9.14	20.4	7.20	(5.1)
<b>Downstream</b>						
Petron M'sia	BUY	4.59	5.43	18.3	4.08	(11.1)
Petronas Chemicals	NEUTRAL	5.40	6.20	14.8	4.96	(8.1)
Petronas Dagangan	NEUTRAL	22.84	22.59	(1.1)	21.46	(6.0)
<b>Integrated Oil &amp; Gas</b>						
Dialog	BUY	3.34	4.00	19.8	3.60	7.8

Source RHB

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**Singapore: OVERWEIGHT**

This segment analyses the impact of the following worst-case 2020 scenarios on the TPs of the listed Singapore oil & gas stocks we cover:

- i. Brent crude at USD40/bbl; and
- ii. Singapore GDP contraction of 0.5%; and
- iii. Global GDP growth of 1%.

**The impact of valuations is most significant on SMM as it is a pure O&M play.** SCI is also affected due to SMM being its subsidiary – as well as weakness in the energy business stemming from global economic softness. Keppel is the least likely company to be affected as we forecast a smaller impact on its property segment.

**Our current SGD7.80 TP valuation for Keppel is based on a SOP valuation,** as it has a diversified asset structure with huge value-unlocking potential. Our TP is based on the O&M segment, which is valued at 1.42x FY20F P/BV – at a discount to the 5-year average 1.56x P/BV of Sembcorp Marine (SMM SP, BUY, TP: SGD1.45). Its infrastructure segment is valued conservatively at 10x FY20F P/E, while its property arm is valued at a 40% discount to RNAV – close to the average discount to RNAV applied for China-listed property developers.

**The three prongs of the worst-case scenario can lower Keppel's TP to SGD7.30.** A weak Brent crude price will hurt its O&M segment – which accounts for a quarter of its SOP valuation. We apply a worst-case 1.28x P/BV for the O&M segment. In addition, weak global economic growth will hurt KEP's property business across the region, which lowers the property segment's value (41% share of our base-case SOP valuation).

**SMM's TP may fall to SGD1.19 (from a base case of SGD1.45) if the price of Brent falls to USD40.00/bbl.** As SMM is expected to incur losses in FY20, we used P/BV to derive our TP of SGD1.45, pegged to 1.43x FY20F P/BV (0.3SD below 1.56x 5-year mean). We assume improving contract wins going forward. Any sharp fall in the Brent crude oil price may worsen SMM's FY20 loss. We believe the worst case for SMM's TP would be its P/BV being 1SD below the historical average – this would mean a hypothetical TP of SGD1.19.

**Our base-case TP for SCI is SGD2.33, based on a SOP valuation** – with the bulk of the value derived from the energy business (56% share), and subsidiary SMM taking another significant 34% share. A 25% conglomerate discount is also factored in.

**SCI's SOP valuation can fall by 13% in the bear scenario.** In the worst-case scenario, SCI would be affected by:

- i. Weakness in its energy division, due to global GDP softness (SCI's energy business extends across China, India, the UK and Singapore);
- ii. A decline in our TP for SMM. We estimate SCI's worst-case TP at SGD2.02, with half the impact stemming from the decrease in in our TOP for SMM, and the other half from its energy segment.

**Figure 4: Singapore oil & gas companies in the worst-case scenario**

Company	Rating	Current price (SGD)	Base case		Worst case	
			Target (SGD)	%	Target (SGD)	%
Keppel	BUY	6.34	7.80	23.0	7.30	15.1
SCI	BUY	1.83	2.33	27.3	2.02	10.4
SMM	BUY	1.08	1.45	34.3	1.19	10.2

Source RHB



## The Oil Fundamentals

### Optimistic demand forecasts

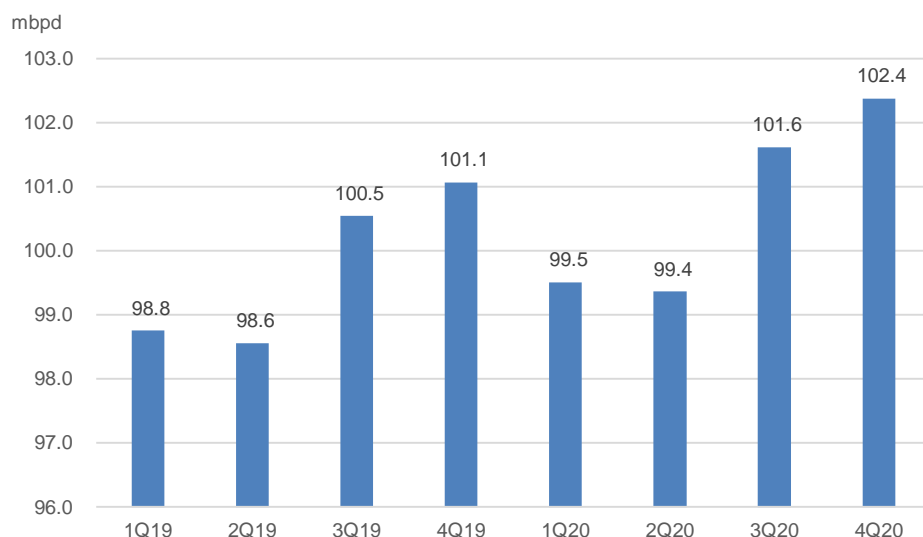
We believe current global demand expectations by major agencies are optimistic. We expect further downwards revisions in crude oil demand in the coming months, as more data becomes available. Demand growth for crude oil was cut by 0.23-0.365mbpd for 2020 as a result of the COVID-19 outbreak as of February data from EIA, IEA and OPEC. Total crude oil demand for 2020 stands at +/-100mbpd. These initial revisions seem relatively mild. Since then, the outbreak has spread even further around the world.

**EIA cut demand growth by 0.3mbpd for 2020.** EIA has cut 1Q20 demand by 0.9mbpd from its previous forecast, to 100.3mbpd. This takes into account the impact of the COVID-19 outbreak, and the warmer-than-usual January temperatures across the Northern Hemisphere. For 2020, demand growth is expected to increase by 1mbpd, down from 1.3mbpd from the previous month's forecast.

**IEA cut demand growth by 365kbpd for 2020.** IEA expects demand to contract by 435kbpd in 1Q20, marking the first decline in more than 10years. 2020 crude oil demand was cut by 365kbpd to average 825kbpd for 2020 – the lowest crude oil demand growth since 2011.

**OPEC cut demand growth by 0.23mbpd for 2020 to 0.99mbpd.** This is to take into consideration the COVID-19 outbreak, and the impact on transportation and industrial fuels in China and other regions.

**Figure 5: Quarterly world crude oil demand forecasts seem optimistic**



Source: OPEC Monthly Oil Report (February), RHB

## The Supply Quandary

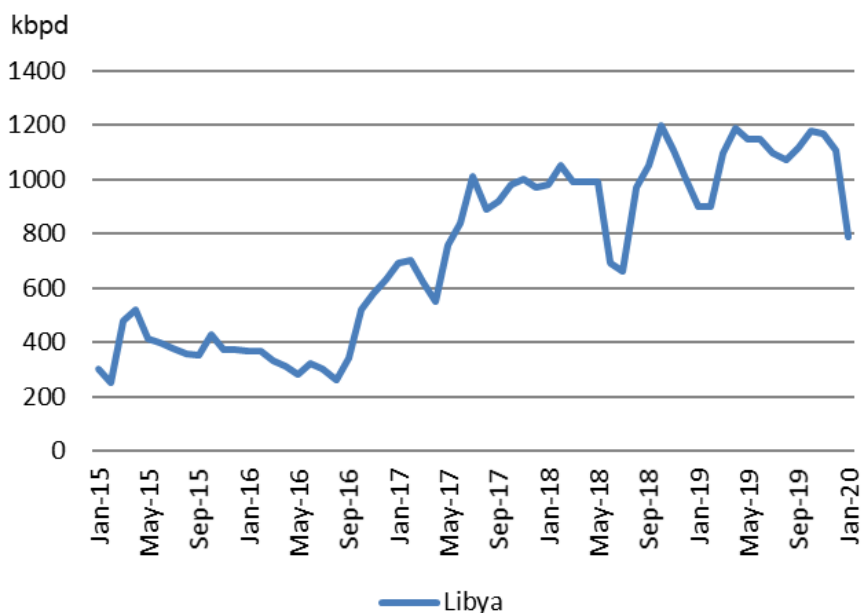
OPEC+ plus is under pressure to act, as the outbreak spreads – globally hitting crude oil and transportation fuel demand. Saudi Arabia seems to be the most active member trying to convince its alliance to further cut production levels, to bring the oil markets back to a balance and stave off the crude oil price slide. Russia has been most reluctant to go along with Saudi Arabia, this time round. The reason that Russia gave was that demand for Russia's crude oil has not slipped. We also note that, at current crude oil price levels, US crude oil production may decelerate more than expected this year. Finally, Libya's crude oil production has plummeted – which should help alleviate the much lower demand. Several factors to consider before deciding on whether or not to further cut crude oil production are as follows:

**OPEC meeting on 5-6 Mar.** The OPEC meeting is scheduled for 5-6 Mar, although OPEC Secretary General Mohammed Barkindo said that it is monitoring the spread of the COVID-19 outbreak, as a school in central Vienna was evacuated after a teacher was suspected of having been infected. The school is about 2km from OPEC's secretariat. As of now, the schedule for the meeting has not been changed.

**Russia's stance: demand has not declined for Russian crude oil.** Russia needs more time to assess the impact of the COVID-19 outbreak on oil demand before agreeing to deeper cuts. According to TASS, Russian Energy Minister Alexander Novak said that, "We do not fully understand the situation and clear forecasts for the development of events in connection with COVID-19. To do this, more time is needed to see how the situation will develop, what the impact will be on the world markets for oil". Novak further added that a 150k-200k decline in oil demand was "insignificant" and noted that there is "no data, no information" to suggest that China would limit purchases from Russia.

**Libya crude oil production plummets by 839kbpd.** Libya's crude oil production has plummeted from 1.13mbpd as of Dec to less than 300kbpd, due to closure of oil fields and ports, as of end-January or early February. The drop in crude oil production is a result of political unrest, with pipeline blockades in the east and west of the country, which has hindered oil production.

**Figure 6: Libya's oil production has plummeted from unrest, to less than 300kbpd**



- ◆ Libya's production plunged to less than 300kbpd towards the end of January and through February
- ◆ The unrest in Libya: General Khalifa Haftar in Apr 2019 launched an offensive to take control of Tripoli, killing 2,000 people in the process. The crisis escalated in Jan 2020, after blockades of ports and oil fields, and has declared *force majeure* on oil supplies. The country has no crude oil storage facilities, so its export market has been halted. The national oil company has since been told that it will not receive a budget to expand oil production
- ◆ Crude oil production reached a peak of 1.2mbpd last year – the highest level in six years – before the current decline

Source: Bloomberg, RHB

**US shale oil production: breakeven cost average is USD43.90/bbl.** EIA currently estimates US crude oil production to average 13.2mbpd (+1mbpd YoY), with much deceleration in 2021 at 13.6mbpd (+0.4mbpd YoY). Much of this production will come from the Permian region of Texas and New Mexico. The EIA forecasts the WTI crude oil price to average USD55.71/bbl in 2020 and USD62.03/bbl in 2021. We note that the major shale oil producers expect shale oil production to be much lower than EIA, with growth estimated to range c.400kbpd-700kbpd in 2020.

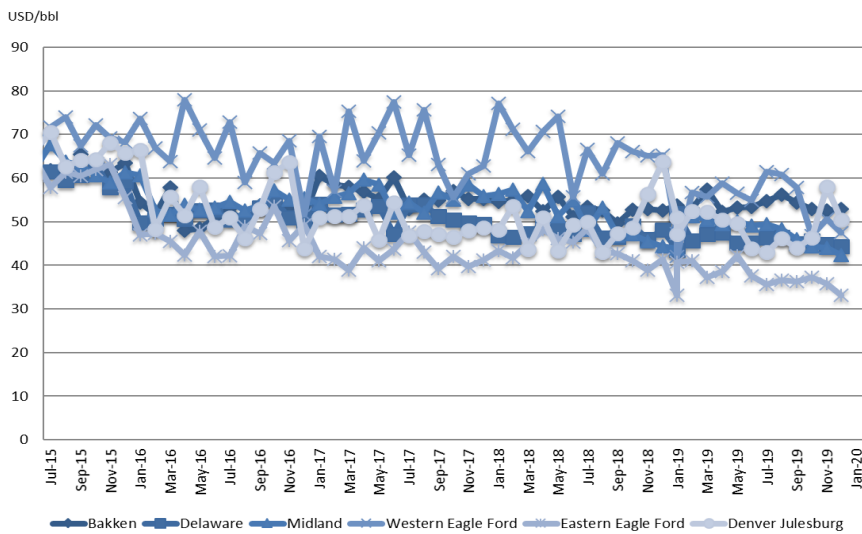
With US shale oil producers' breakeven price being at USD45.38/bbl as of January and the WTI currently trading at USD46.40/bbl, we believe that it is possible that a sustained low crude oil price level will result in much lower US shale oil production and, as such, a lower US crude oil output for the year.

Note that the highest-cost basins are the Bakken Formation (USD53.74/bbl) and Denver Julesburg (USD50/bbl). The Bakken Formation produces 1.4mbpd and Denver Julesburg produces 814kbpd.

The largest producing basin is the Permian basin, at 5.3mbpd – its average breakeven cost is c. USD43.50-43.80 per barrel.

The lowest-cost producers are in the Eastern Eagle Ford basin, with a breakeven cost of USD33.14/bbl. The Eagle Ford basin currently produces 1.4mbpd of shale oil.

**Figure 7: US shale oil producers' costs averaged USD45.38/bbl as of Jan 2020**



- ◆ As of Jan 2020, the average breakeven cost for US shale oil producers was USD45.38/bbl
- ◆ The Bakken Formation and Denver Julesburg basin's breakeven points are among the highest, at more than USD50.00/bbl, while the Eastern Eagle Ford Basin has one of the lowest: c.USD33.14.00/bbl
- ◆ The Permian basin's average breakeven points is at c.USD43.50-44.00/bbl

Source: Bloomberg, RHB

**OPEC's spare capacity stands at 3.36mbpd.** OPEC's current spare capacity stands at 3.36mbpd. As such, any major supply disruptions in the oil market can be replaced by an increase in production by OPEC members. Saudi Arabia has cut its crude oil production to c.9.8mbpd, with its total capacity of 12mbpd – the country alone can increase production by 2.2mbpd within 90days. Such a crude oil supply buffer will limit any major upside swing in crude oil prices.



## To Cut Or Not To Cut?

We believe that OPEC and its alliance can provide support to the oil markets by remaining intact, providing a sense of unity in their message. Inaction or any signs of disunity can send crude oil prices into a freefall at this point in time. That said, further production cuts/extension of production cut agreements may support crude oil prices from sliding downwards further, but we believe the production cut will do little to boost crude oil prices significantly under current environment of uncertainty.

**Uncertainty ensues.** COVID-19's impact on the global economy/oil demand remain quite uncertain. IEA, EIA and OPEC have already revised down their 2020F global demand growth by 365kbpd, 300kbpd and 250kbpd. Global demand growth for 2020 is now expected at 825kbpd, 1mbpd and 990kbpd for IEA, EIA and OPEC– the slowest since 2011.

**Under current demand and supply forecasts,** we expect a weak 1H20, with additional demand at 0.76mbpd and 0.80mbpd for 1Q20-2Q20. We expect a rebound in additional demand at 1mbpd and 1.3mbpd for 3Q20-4Q20.

**A stronger 2H20 anticipated.** Assuming OPEC keeps its production at the current rate of 28.37mbpd, we expect a shortfall of 600kbpd and a slight oversupply of 0.1mbpd for 1Q20-2Q20 respectively. With much stronger demand expected in 2H20, we should see a shortfall of 1.7mbpd and 1.5mbpd for 3Q20-4Q20. For 2020F, we should see a shortfall of 0.9mbpd.

**Our crude oil price assumptions reflect the subdued 1H20F,** with a rebound in demand anticipated in 2H20. Our crude oil price forecast is maintained at USD62.30/bbl for 2020, and stays at USD64.00/bbl for 2021F-2022F. Our longer-term crude oil price forecast is maintained at USD60.00/bbl.

**Our assumption is that the oil markets will remain challenging for the forecasted period,** while OPEC+ should stay intact – this is to monitor and provide support for the oil markets. OPEC+ is currently looking at a further production cut of 600kbpd due to the impact of oil demand slowdown from the COVID-19 outbreak, and/or production cut extensions.

**Figure 8: Russia and Saudi Arabia needs to provide a united front**



*Note: (L-R) Russian Energy Minister, Alexander Novak and Saudi Arabian Energy Minister Prince Abdulaziz bin Salman Al Saud  
Source: MiddleEastOnline*

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Figure 9: OPEC demand/supply and crude oil prices

(mbpd)	2016	2017	2018	1Q19	2Q19	3Q19	4Q19	2019	1Q20	2Q20	3Q20	4Q20	2020
<b>Crude oil price (ave Brent)</b>	<b>44.1</b>	<b>54.4</b>	<b>71.2</b>	<b>63.1</b>	<b>68.5</b>	<b>61.9</b>	<b>62.5</b>	<b>64</b>	<b>59.0</b>	<b>60.0</b>	<b>64.0</b>	<b>66.0</b>	<b>62.3</b>
<i>(Actual/RHB forecasts)</i>													
<b>World demand</b>													
OECD	47.1	47.6	48.0	47.7	47.2	48.5	48.5	48.0	47.7	47.1	48.5	48.6	48.0
Americas	24.9	25.1	25.6	25.1	25.3	26.1	26.1	25.7	25.3	25.5	26.2	26.3	25.8
Europe	14.0	14.4	14.3	14.1	14.3	14.8	14.3	14.3	14.0	14.2	14.7	14.2	14.3
Asia Pacific	8.1	8.2	8.1	8.5	7.6	7.7	8.1	8.0	8.3	7.4	7.6	8.1	7.9
DCs	31.6	32.1	32.6	33.0	32.8	33.4	33.2	33.1	33.5	33.4	34.1	33.9	33.7
FSU	4.6	4.6	4.8	4.7	4.7	5.0	5.0	4.8	4.8	4.8	5.1	5.2	5.0
Other Europe	0.7	0.7	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.8	0.9	0.8
China	11.8	12.3	12.7	12.6	13.2	13.0	13.5	13.1	12.8	13.4	13.2	13.8	13.3
<b>(a) Total world demand</b>	<b>95.7</b>	<b>97.4</b>	<b>98.8</b>	<b>98.8</b>	<b>98.6</b>	<b>100.6</b>	<b>101.1</b>	<b>99.7</b>	<b>99.5</b>	<b>99.4</b>	<b>101.6</b>	<b>102.4</b>	<b>100.7</b>
<b>World demand growth (YoY)</b>								<b>0.9</b>	<b>0.8</b>	<b>0.8</b>	<b>1.1</b>	<b>1.3</b>	<b>1.0</b>
<b>Non-OPEC liquids production</b>													
OECD	24.9	25.7	28.3	29.3	29.6	29.7	30.9	29.9	31.1	31.2	31.9	32.3	31.6
Americas	20.6	21.5	24.1	25.1	25.6	25.7	26.5	25.7	26.5	26.8	27.3	27.6	27.0
Europe	3.9	3.8	3.8	3.8	3.6	3.6	3.9	3.7	4.1	3.9	4.0	4.2	4.0
Asia Pacific	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.5	0.6	0.5	0.6	0.6	0.6
DCs	13.5	13.4	13.5	13.4	13.4	13.6	13.8	13.6	13.9	14.0	14.0	14.1	14.0
FSU	13.9	14.1	14.3	14.6	14.2	14.3	14.4	14.4	14.2	14.5	14.4	14.7	14.4
Other Europe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	4.1	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Processing gains	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
<b>Total non-OPEC</b>	<b>58.7</b>	<b>59.5</b>	<b>62.5</b>	<b>63.8</b>	<b>63.8</b>	<b>64.2</b>	<b>65.7</b>	<b>64.4</b>	<b>65.8</b>	<b>66.2</b>	<b>66.8</b>	<b>67.7</b>	<b>66.6</b>
<b>Non-OPEC growth (YoY)</b>								<b>1.9</b>	<b>2.0</b>	<b>2.5</b>	<b>2.6</b>	<b>2.0</b>	<b>2.2</b>
OPEC NGLs +	4.6	4.6	4.8	4.8	4.8	4.7	4.9	4.8	4.8	4.8	4.8	4.8	4.8
<b>(b) Total non-OPEC+OPEC NGLs</b>	<b>63.3</b>	<b>64.1</b>	<b>67.2</b>	<b>68.6</b>	<b>68.6</b>	<b>68.9</b>	<b>70.5</b>	<b>69.2</b>	<b>70.6</b>	<b>71.1</b>	<b>71.6</b>	<b>72.5</b>	<b>71.4</b>
<b>(c) OPEC crude oil production</b>	<b>32.2</b>	<b>32.0</b>	<b>31.9</b>	<b>30.5</b>	<b>30.0</b>	<b>29.4</b>	<b>29.6</b>	<b>29.9</b>	<b>28.4</b>	<b>28.4</b>	<b>28.4</b>	<b>28.4</b>	<b>28.4</b>
<b>Total supply</b>	<b>95.5</b>	<b>96.1</b>	<b>99.1</b>	<b>99.1</b>	<b>98.6</b>	<b>98.3</b>	<b>100.1</b>	<b>99.0</b>					
<b>Balance</b>	<b>(0.2)</b>	<b>(1.3)</b>	<b>0.3</b>	<b>0.3</b>	<b>(0.0)</b>	<b>(2.3)</b>	<b>(1.0)</b>	<b>(0.7)</b>					
(d) Call on OPEC (a-b)	32.4	33.3	31.6	30.2	30.0	31.7	30.5	30.6	28.9	28.3	30.0	29.9	29.3
<b>Oversupply/shortfall (c-d)</b>	<b>(0.2)</b>	<b>(1.3)</b>	<b>0.3</b>	<b>0.3</b>	<b>(0.0)</b>	<b>(2.3)</b>	<b>(1.0)</b>	<b>(0.7)</b>	<b>(0.6)</b>	<b>0.1</b>	<b>(1.7)</b>	<b>(1.5)</b>	<b>(0.9)</b>
<b>OECD closing stock levels, mb</b>													
Commercial	3,007	2,860	2,873	2,877	2,939	2,945	2,918	2,918					
SPR	1,601	1,569	1,552	1,557	1,549	1,544	1,538	1,538					
<b>Total</b>	<b>4,608</b>	<b>4,428</b>	<b>4,425</b>	<b>4,434</b>	<b>4,488</b>	<b>4,489</b>	<b>4,456</b>	<b>4,456</b>					
<b>Oil-on-water</b>	<b>1,102</b>	<b>1,025</b>	<b>1,058</b>	<b>1,013</b>	<b>995</b>	<b>1,012</b>	<b>1,007</b>	<b>1,007</b>					

Source: OPEC, Bloomberg, RHB

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#### **KUALA LUMPUR**

**RHB Investment Bank Bhd**  
Level 3A, Tower One, RHB Centre  
Jalan Tun Razak  
Kuala Lumpur 50400  
Malaysia  
Tel : +603 9280 8888  
Fax : +603 9200 2216

#### **JAKARTA**

**PT RHB Sekuritas Indonesia**  
Revenue Tower, 11th Floor, District 8  
- SCBD  
Jl. Jendral Sudirman Kav 52-53  
Jakarta 12190  
Indonesia  
Tel : +6221 509 39 888  
Fax : +6221 509 39 777

#### **HONG KONG**

**RHB Securities Hong Kong Ltd.**  
12<sup>th</sup> Floor, World-Wide House  
19 Des Voeux Road  
Central  
Hong Kong  
Tel : +852 2525 1118  
Fax : +852 2810 0908

#### **BANGKOK**

**RHB Securities (Thailand) PCL**  
10th Floor, Sathorn Square Office  
Tower  
98, North Sathorn Road, Silom  
Bangrak, Bangkok 10500  
Thailand  
Tel: +66 2088 9999  
Fax :+66 2088 9799

#### **SINGAPORE**

**RHB Securities Singapore  
Pte Ltd.**  
10 Collyer Quay  
#09-08 Ocean Financial Centre  
Singapore 049315  
Tel : +65 6533 1818  
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ผลสำรวจการกำกับดูแลกิจการบริษัทจดทะเบียนที่แสดงไว้นี้ เป็นผลที่ได้จากการสำรวจและประเมินข้อมูลของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย และตลาดหลักทรัพย์ เอ็ม เอ ไอ (“บริษัทจดทะเบียน”) เปิดเผยต่อสาธารณะและเป็นข้อมูลให้ผู้ลงทุนทั่วไปสามารถเข้าถึงได้ ผลสำรวจดังกล่าวจึงเป็นการนำเสนอข้อมูลในมุมมองของบุคคลภายนอกต่อมาตรฐานการกำกับดูแลกิจการของบริษัทจดทะเบียน โดยไม่ได้เป็นการประเมินผลการปฏิบัติงานหรือการดำเนินการของบริษัทจดทะเบียนอื่นทั้งมิได้ใช้ข้อมูลภายในของบริษัทจดทะเบียนในการประเมิน ดังนั้นผลสำรวจที่แสดงนี้จึงไม่ได้เป็นการรับรองถึงผลการปฏิบัติงานหรือการดำเนินการของบริษัทจดทะเบียนและไม่ถือเป็นการให้คำแนะนำในการลงทุนในหลักทรัพย์ของบริษัทจดทะเบียนหรือคำแนะนำใดๆ ผู้ใช้ข้อมูลจึงควรใช้วิจารณญาณของตนเองในการวิเคราะห์และตัดสินใจในการใช้ข้อมูลใดๆ ที่เกี่ยวกับบริษัทจดทะเบียนที่แสดงในผลสำรวจนี้

ทั้งนี้บริษัทหลักทรัพย์ อาร์เอชบี (ประเทศไทย) จำกัด (มหาชน) มิได้ยืนยันหรือรับรองถึงความครบถ้วนและถูกต้องของผลสำรวจดังกล่าวแต่อย่างใด

ข้อมูล Anti-Corruption Progress Indicator 2560

ประกาศเจตนาธรรม CAC

A	ASK	CHG	FC	GREEN	JUTHA	MATCH	NINE	PIMO	RWI	SPPT	TFI	TU	VNT
AI	AU	CHOTI	FER	GSTEL	KASET	MATI	NMG	PK	SANKO	SPRC	THE	TVD	WAVE
AIE	BCH	CHOW	FPI	GUNKUL	KBS	MBAX	NNCL	PL	SAUCE	SR	TICON	TVO	WHA
AIRA	BJC	CIG	FSMART	HARN	KCAR	MC	NTV	PLANB	SC	SRICHA	TIP	TVT	WICE
AJ	BJCHI	COL	GEL	IFS	KTECH	MFEC	NUSA	POST	SCCC	SST	TKN	TWPC	WIJK
ALUCON	BLAND	COM7	GFPT	ILINK	KWC	MIDA	NWR	PRINC	SCN	STA	TLUXE	U	TRUE
AMATAV	BR	CPALL	GGC	INET	KYE	MILL	OGC	PRO	SEAOIL	SUPER	TMILL	UPA	
AOT	BROCK	CPF	GIFT	IRC	L&E	ML	PACE	PSTC	SE-ED	SUSCO	TMT	UREKA	
APCO	BRR	CPR	GJS	J	LEE	MTLS	PAF	PYLON	SENA	SWC	TNP	UWC	
AQUA	CEN	CSC	GLOBAL	JMART	LIT	NBC	PAP	QTC	SIRI	SYMC	TPA	VGI	
ARROW	CGH	EKH	GOLD	JMT	LVT	NCL	PATO	ROH	SMART	TAKUNI	TSE	VIBHA	
ASIA	CHEWA	EPCO	GPSC	JUBILE	MAKRO	NEP	PCSGH	ROJNA	SPACK	TBSP	TTI	VIH	

ได้รับการรับรอง CAC

ADVANC	BKI	CPN	FE	INTUCH	LANNA	MSC	PLAT	PTT	SAT	SNP	TCMC	TMD	UOBKH
AKP	BLA	CSL	FNS	IRPC	LHBANK	MTI	PM	PTTEP	SCB	SORKON	TFG	TNITY	WACOAL
AMANAH	BROOK	DCC	FSS	IVL	LHK	NKI	PPP	PTTGC	SCC	SPC	TGCI	TNL	
AP	BTS	DEMCO	GBX	K	LPN	NSI	PPS	Q-CON	SCG	SPI	THANI	TOG	
ASP	BWG	DIMET	GCAP	KBANK	MBK	OCC	PRANDA	QH	SGP	SSF	THCOM	TOP	
AYUD	CENTEL	DRT	GLOW	KCE	MBKET	OCEAN	PREB	QLT	SINGER	SSI	THRE	TPCORP	
BAFS	CFRESH	DTAC	HANA	KGI	MCOT	PB	PRG	RATCH	SIS	SSSC	THREL	TRU	
BANPU	CIMBT	DTC	HMPRO	KKP	MFC	PDI	PSH	RML	SITHAI	SVI	TIPCO	TSC	
BAY	CM	EASTW	HTC	KSL	MINT	PE	PSL	ROBINS	SMIT	SYNTEC	TISCO	TSSTH	
BBL	CNS	ECL	ICC	KTB	MONO	PG	PT	S & J	SMPC	TAE	TKT	TTCL	
BCP	CPI	EGCO	IFEC	KTC	MOONG	PHOL	PTG	SABINA	SNC	TCAP	TMB	TVI	

N/A

2S	ARIP	BSM	CSS	FMT	INOX	LTX	NPK	RCL	SFP	SUC	TITLE	TSR	VPO
AAV	AS	BTC	CTW	FN	INSURE	M	NPP	RICH	SGF	SUN	TIW	TSTE	VTE
ABICO	ASAP	BTNC	CWT	FOCUS	IRCP	MACO	NVD	RICHY	SHANG	SUTHA	TK	TTA	WG
ACAP	ASEFA	BTW	D	FORTH	IT	MAJOR	NYT	RJH	SIAM	SVH	TKS	TTL	WHAUP
ACC	ASIAN	BUI	DCON	FTE	ITD	MALEE	OHTL	ROCK	SIMAT	SVOA	TM	TTTM	WIN
ADAM	ASIMAR	CBG	DCORP	FVC	ITEL	MANRIN	OISHI	RP	SKE	SYNEX	TMC	TTW	WINNER
ADB	ASN	CCET	DDD	GC	JAS	MAX	ORI	RPC	SKN	T	TMI	TUCC	WORK
AEC	ATP30	CCP	DELTA	GENCO	JCT	M-CHAI	OTO	RPH	SKR	TACC	TMW	TWP	WORLD
AEONTS	AUCT	CGD	DIGI	GL	JKN	MCS	PAE	RS	SKY	TAPAC	TNDT	TWZ	WP
AF	BA	CHARAN	DNA	GLAND	JSP	MDX	PDG	RSP	SLP	TASCO	TNH	TYCN	WPH
AFC	BAT-3K	CHO	DTCI	GPI	JTS	MEGA	PERM	S	SMK	TC	TNPC	UAC	WR
AGE	BCPG	CHUO	EA	GRAMMY	JWD	METCO	PF	S11	SMM	TCB	TNR	UBIS	XO
AH	BDMS	CI	EARTH	GRAND	KAMART	MGT	PICO	SAFARI	SMT	TCC	TOA	UEC	YCI
AHC	BEAUTY	CITY	EASON	GTB	KC	MJD	PJW	SALEE	SOLAR	TCCC	TOPP	UKEM	YNP
AIT	BEC	CK	ECF	GULF	KCM	MK	PLANET	SAM	SPA	TCJ	TPAC	UMI	YUASA
AJA	BEM	CKP	EE	GYT	KDH	MM	PLE	SAMART	SPALI	TCOAT	TPBI	UMS	ZIGA
AKR	BFIT	CMO	EFORL	HFT	KIAT	MODERN	PMTA	SAMCO	SPCG	TEAM	TPCH	UNIQU	ZMICO
ALLA	BGRIM	CMR	EIC	HOTPOT	KKC	MPG	POLAR	SAMTEL	SPG	TFD	TIPL	UP	
ALT	BGT	CNT	EMC	HPT	KOOL	MPIC	POMPUI	SAPPE	SPORT	TFMAMA	TIPIP	UPF	
AMA	BH	COLOR	EPG	HTECH	KTIS	NC	PORT	SAWAD	SPVI	TGPRO	TPOLY	UPOIC	
AMARIN	BIG	COMAN	ERW	HUMAN	KWG	NCH	PPM	SAWANG	SQ	TH	TPP	UT	
AMATA	BIZ	CPH	ESSO	HYDRO	LALIN	NDR	PRAKIT	SCI	SSC	THAI	TR	UTP	
AMC	BKD	CPL	ESTAR	ICHI	LDC	NETBAY	PRECHA	SCP	SSP	THANA	TRC	UV	
ANAN	BLISS	CPT	ETE	ICN	LH	NEW	PRIN	SDC	STANLY	THG	TRITN	UVAN	
APCS	BM	CRANE	EVER	IEC	LOXLEY	NEWS	PRM	SE	STAR	THIP	TRT	VARO	
APEX	BOL	CRD	F&D	IHL	LPH	NFC	PTL	SEAFCO	STEC	THL	TRUBB	VCOM	
APURE	BPP	CSP	FANCY	III	LRH	NOBLE	RAM	SELIC	STHAI	THMUI	TSF	VI	
AQ	BSBM	CSR	FLOYD	INGRS	LST	NOK	RCI	SF	STPI	TIC	TSI	VNG	

Source: Thai Institute of Directors

ข้อมูลบริษัทที่เข้าร่วมโครงการแนวร่วมปฏิบัติของภาคเอกชนไทยในการต่อต้านทุจริต (Thai CAC) ของสมาคมส่งเสริมสถาบันกรรมการบริษัทไทย (ข้อมูล ณ วันที่ 17 ต.ค.)

- ได้ประกาศเจตนาธรรมนี้เข้าร่วม CAC
- ได้รับการรับรอง CAC

การเปิดเผยการประเมินดัชนีชี้วัดความคืบหน้าการป้องกันกรมีส่วนเกี่ยวข้องกับการทุจริตคอร์รัปชัน (Anti-Corruption Progress Indicators) ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทยที่จัดทำโดยสถาบันที่เกี่ยวข้องซึ่งมีการเปิดเผยโดยสำนักงานคณะกรรมการกำกับหลักทรัพย์และตลาดหลักทรัพย์นี้เป็นการดำเนินการตามนโยบายและตามแผนพัฒนาความยั่งยืนสำหรับบริษัทจดทะเบียนโดยผลการประเมินดังกล่าว สถาบันที่เกี่ยวข้องอาศัยข้อมูลที่ได้รับจากบริษัทจดทะเบียนตามที่บริษัทจดทะเบียนได้ระบุในแบบแสดงข้อมูลเพื่อการประเมิน Anti-Corruption ซึ่งอ้างอิงข้อมูลมาจากแบบแสดงรายงานข้อมูลประจำปี แบบ (56-1) รายงานประจำปีแบบ (56-2) หรือในเอกสารหรือรายงานอื่นที่เกี่ยวข้องซึ่งเป็นบุคคลภายนอก โดยมีได้เป็นการประเมินการปฏิบัติของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทยและมิได้ใช้ข้อมูลภายในเพื่อการประเมิน เนื่องจากผลการประเมินดังกล่าวเป็นเพียงผลการประเมิน ณ วันที่ ปรากฏในผลการประเมินเท่านั้น ดังนั้นผลการประเมินจึงอาจเปลี่ยนแปลงได้ภายหลังวันดังกล่าว หรือรับรองความถูกต้องครบถ้วนของผลประเมินดังกล่าวได้อย่างใด