CFA SOCIETY MALAYSIA'S WEBINAR ON OIL PRICE CRISIS

Oil Armageddon :

The BLACK GOLD is turning into RED INK?

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- *Information in this presentation is intended to provide only a general outline of the subject(s) covered.*

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Agenda

- Why did WTI Crash to Negative Territory on 20th Apr 2020?
- Why didn't Brent Crash When WTI Crashed?
- An overview of Demand Destruction and Storage Limitation
- Can US Shale Survive at Low Prices?
- Impact of Prolonged Low Crude Prices
- Impact to the Malaysian Economy
- Malaysia Oil & Gas Industry Structure
- Impact to the Malaysian Oil & Gas industry
- Crude Price Outlook
- Key Takeaways

Crude Benchmark

Top crude producers in the world: US (13.2%), Russia (13%), Saudi Arabi (12.6%), Iraq (5.6%), Canada (5.2%)

- Onshore/offshore oil production
- Heavy/ light crude
- High/low sulphur
- Transported through pipeline/ ship tankers

Brent Benchmark

- Seaborne and Global benchmark for crude oil
- Easy to transport to distant locations
- Light and sweet crude
- 2/3rd of crude contract traded in the world use the Brent crude for reference

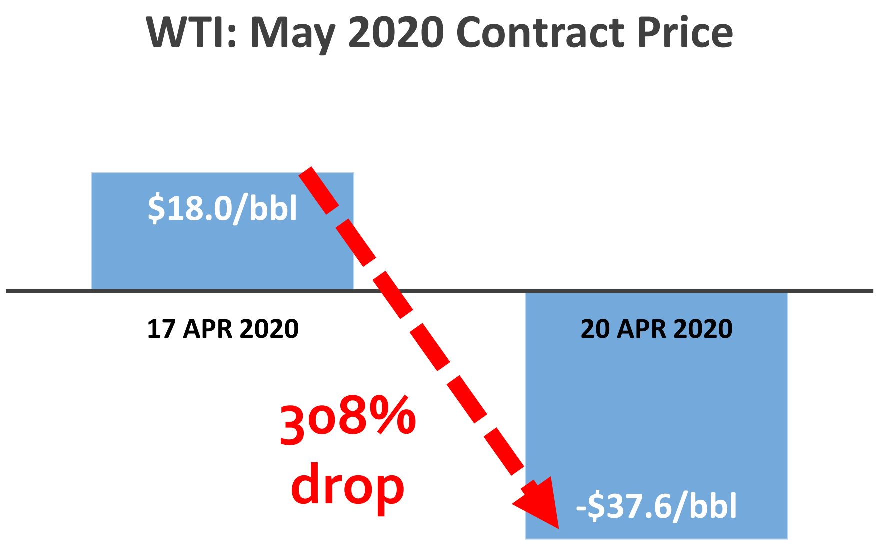
WTI (West Texas Intermediate)

- This oil is extracted from wells in US
- Extracted from land reserves and is transported through pipeline to Cushing, Oklahoma (sole delivery point)
- Supplies are land-locked, is one of the drawbacks as it is expensive to ship to certain parts of the globe
- Light and sweet crude

Dubai Crude

- The oil extracted from Arab countries
- Lower grade
- A "basket" product consisting of crude from Dubai, Oman or Abu Dhabi

Why did WTI crash to $-37.6/bbl on 20th Apr 2020?

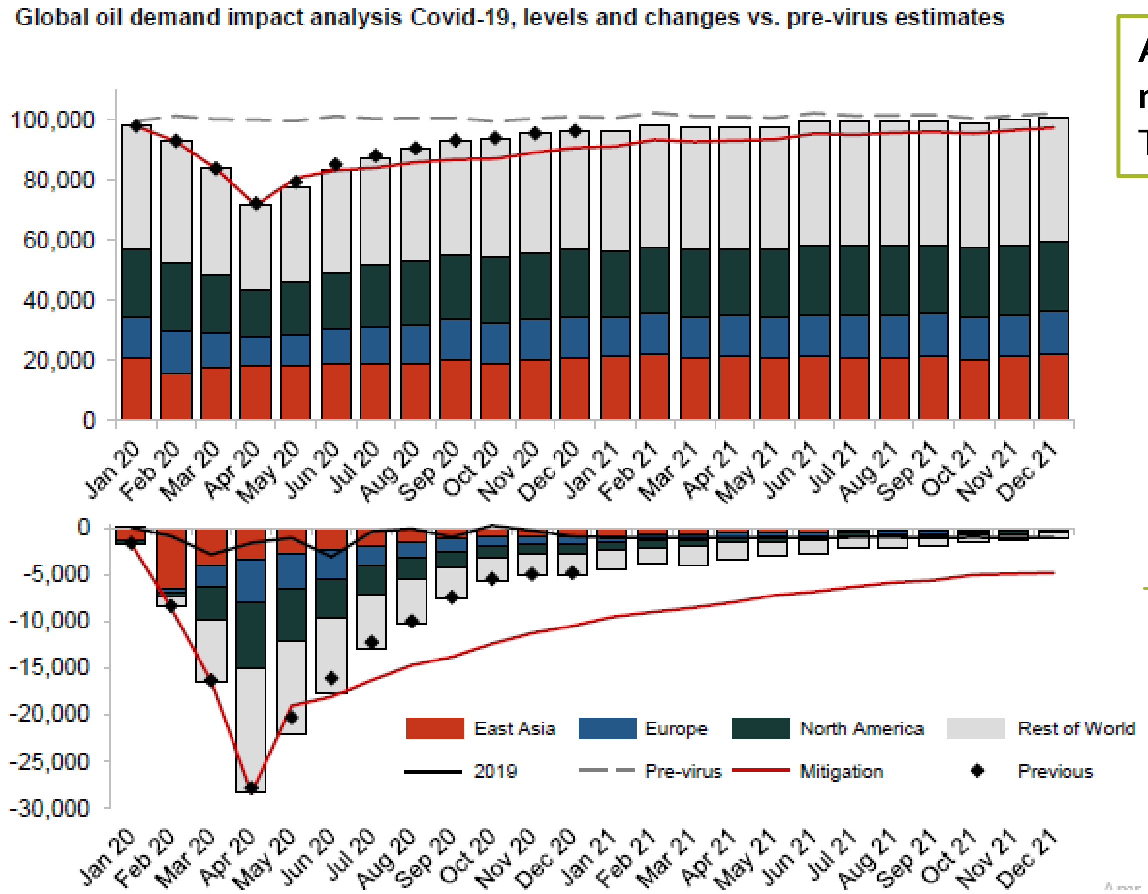


- Brent Futures are cash settled while WTI are physically settled.
- The anxiety over storage limitation was the main driver for WTI May futures contracts to drop to negative levels, as WTI requires physical delivery.
- According to Rystad Energy, globally, the market may run out of places to store crude oil by mid or late-May.
- Currently there is global demand destruction of roughly 28 mmbbl/day while supply shut-in is just 2mmbbl/day in addition to 9.7mmbbl/day cut by OPEC+.
- We are approaching an acute storage crisis where all available oil storage will be filled and global oil market will be severely hit.

Why didn't Brent crash when WTI crashed?

- Brent Futures are cash settled while WTI are physically settled.
- WTI has sole delivery point in Cushing, Oklahoma. Brent has multiple delivery points. Ship tankers are able to take crude and deliver at different locations in the world.
- Cushing is a major trading hub for WTI crude and a price settlement point for WTI on the New York Mercantile Exchange. Majority of oil storage facilities of US are housed here.
- If global storage worsens more quickly, Brent could chase WTI down to the bottom in near term.
- Rystad Energy believes that Brent should be more resilient than WTI – given it is made up of multiple crude grades and has natural egress to seaborne markets, and thus can chase global demand in a way that WTI cannot.

Demand Destruction Due to Covid-19 Results in Brent at $20/bbl



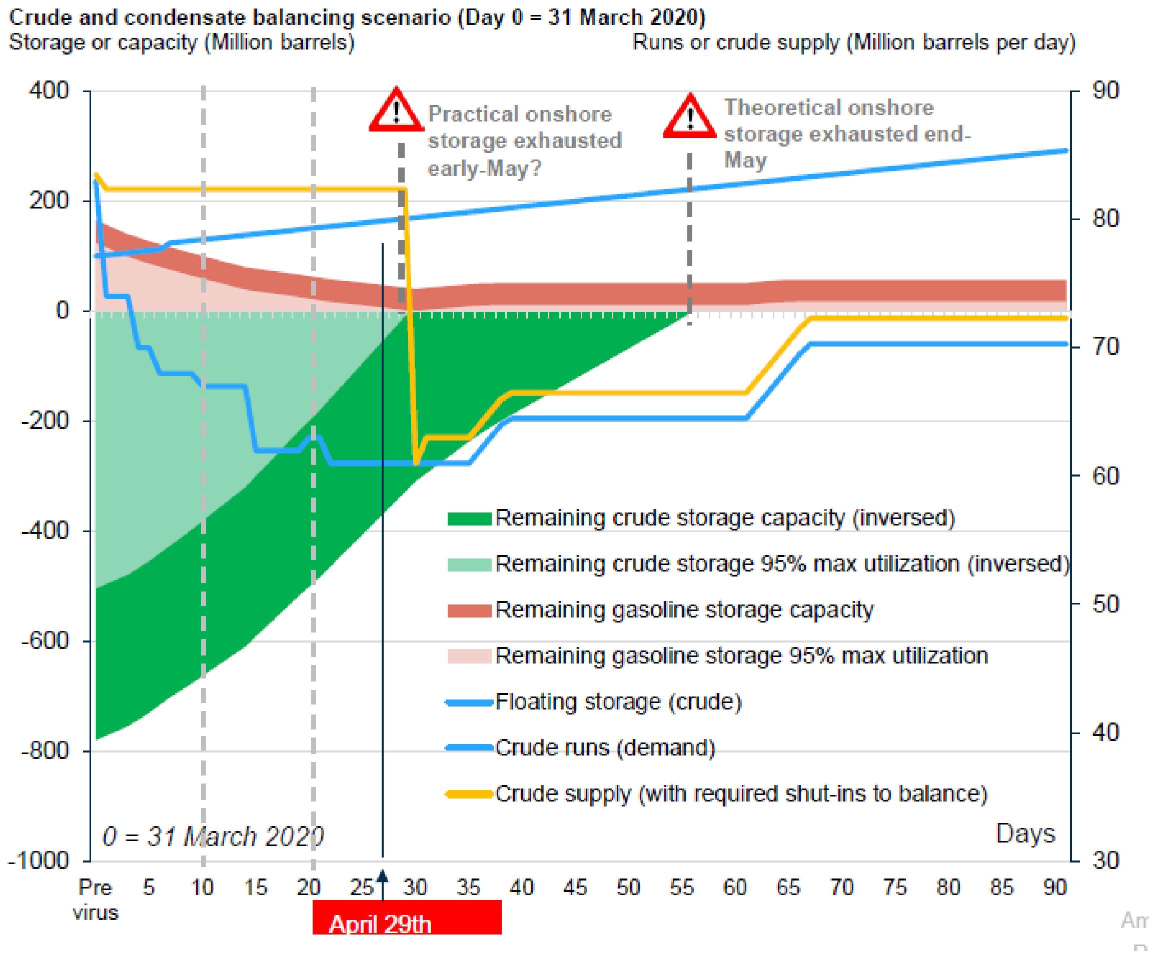
Source: Rystad Energy Report

Apr 2020: Oil demand in Apr 2020 bottoms at **72 mmbbl/day** (28% reduction from average in 2019). Total demand destruction of **28mmbbl/day**

- **Road Transportation:** Global demand for road fuel in Apr 2020 down by 33% (16 mmbbl/day). Road transportation contributes 50% of total oil demand
- **Global Aviation:** Average flights per day in Apr 2020 was 21,000 vs 100,000 flights per day in Apr 2019. Jet fuel demand in Apr 2020 down by 70% (5 mmbbl/day)
- **Other Fuels:** Demand for other fuels down by 14% (7 mmbbl/day)

2020: Average demand for oil in 2020 is expected to go down by 11% to 89 mmbbl/day

Global Storage Capacity Not Large Enough to Absorb Excess Crude Supply



Source: Rystad Energy Report

- Even with 9.7 mmbbl/day cut by OPEC+ from 1st May, the oil market could run out of physical onshore crude storage capacity by the end of May 2020 if we assume that all remaining onshore storage capacity can be filled to the maximum, barring additional production shut-ins on the upstream side
- On 20 April, the WTI futures contract for May 2020 delivery settled for the first time in negative territory at **minus $37/bbl**, signalling that the market is quickly realizing it is running out of practical storage capacity.

To avoid this unwanted scenario, significant production cuts are needed

Impact of Prolonged Low Crude Price

Survival Issues

- $20/bbl is not a price at which most oil companies can survive for any lengthy period of time
- Many companies are going to go bankrupt, these bankruptcies will not be limited to the US, but will also likely occur in Asia, Latin America and Europe
- Around 80 oil & gas companies had filed for bankruptcy in the 2015 sell-off, current situation is far worse than 2015. When companies go bankrupt, banks loan portfolio deteriorates

Production Cut: Natural Decline and Forced Decline

- Many oil companies will start "shut-in" production if their opex/bbl (unit operating cost) is much higher than current crude price. Production declines have already started
- With reduced Capex, less of new projects will come on stream, will lead to more natural decline. Global sanctioning of new oil field developments in 2020 will probably be at the lowest level since the 1950s

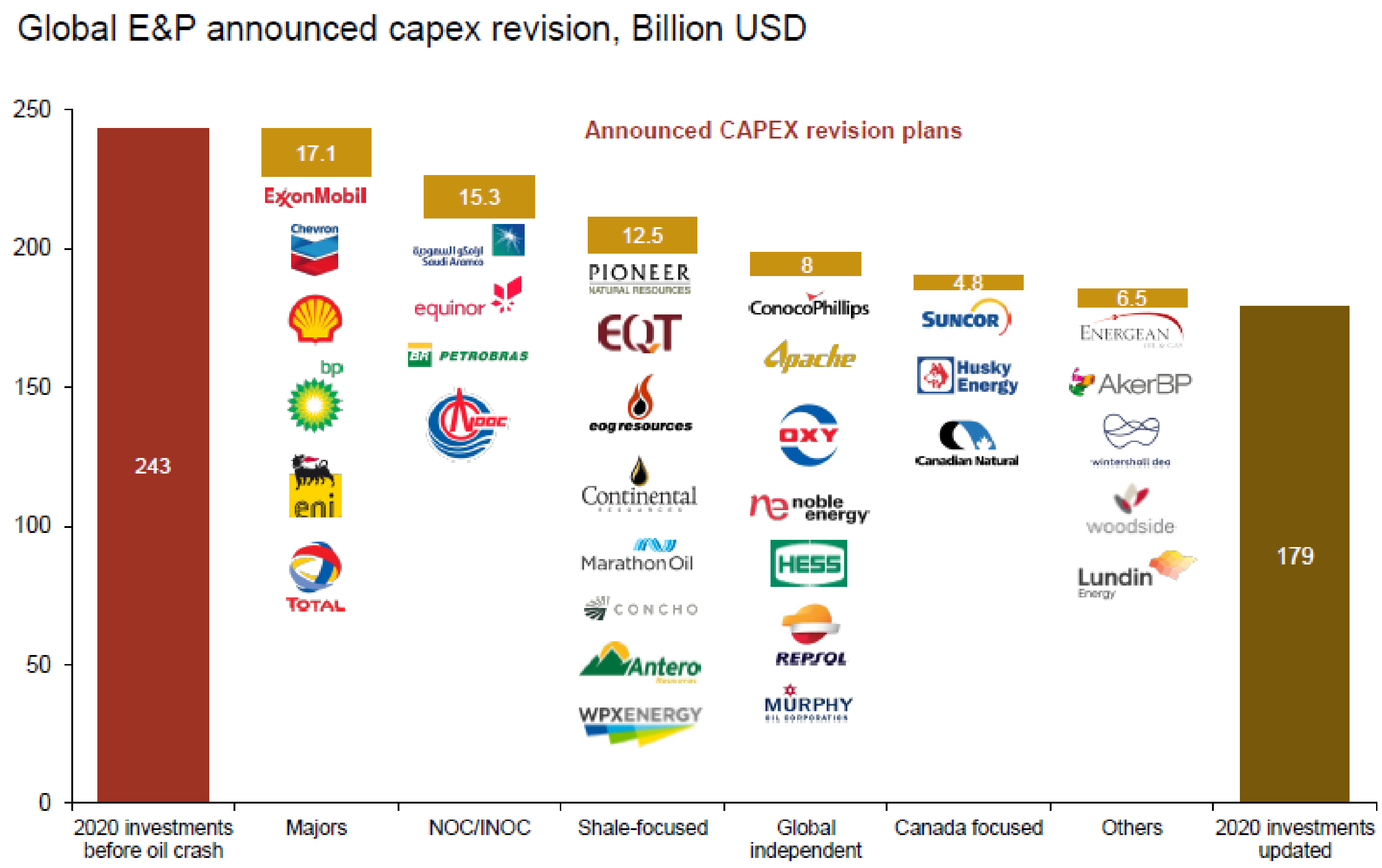
Shale production taking hit

- No of drilling rigs has reduced in US Shale. The lower oil price has forced many US onshore oil rigs to shut down, with the rig count falling by 35% since March 2020
- Shale production is expected to reduce by 2 mmbbl/day by Dec 2020

Credit Crunch

- Oil Traders face credit crunch (Hin Leong fiasco)
- Credit crunch for servicing companies (FPSO, Rig companies) and oil producers

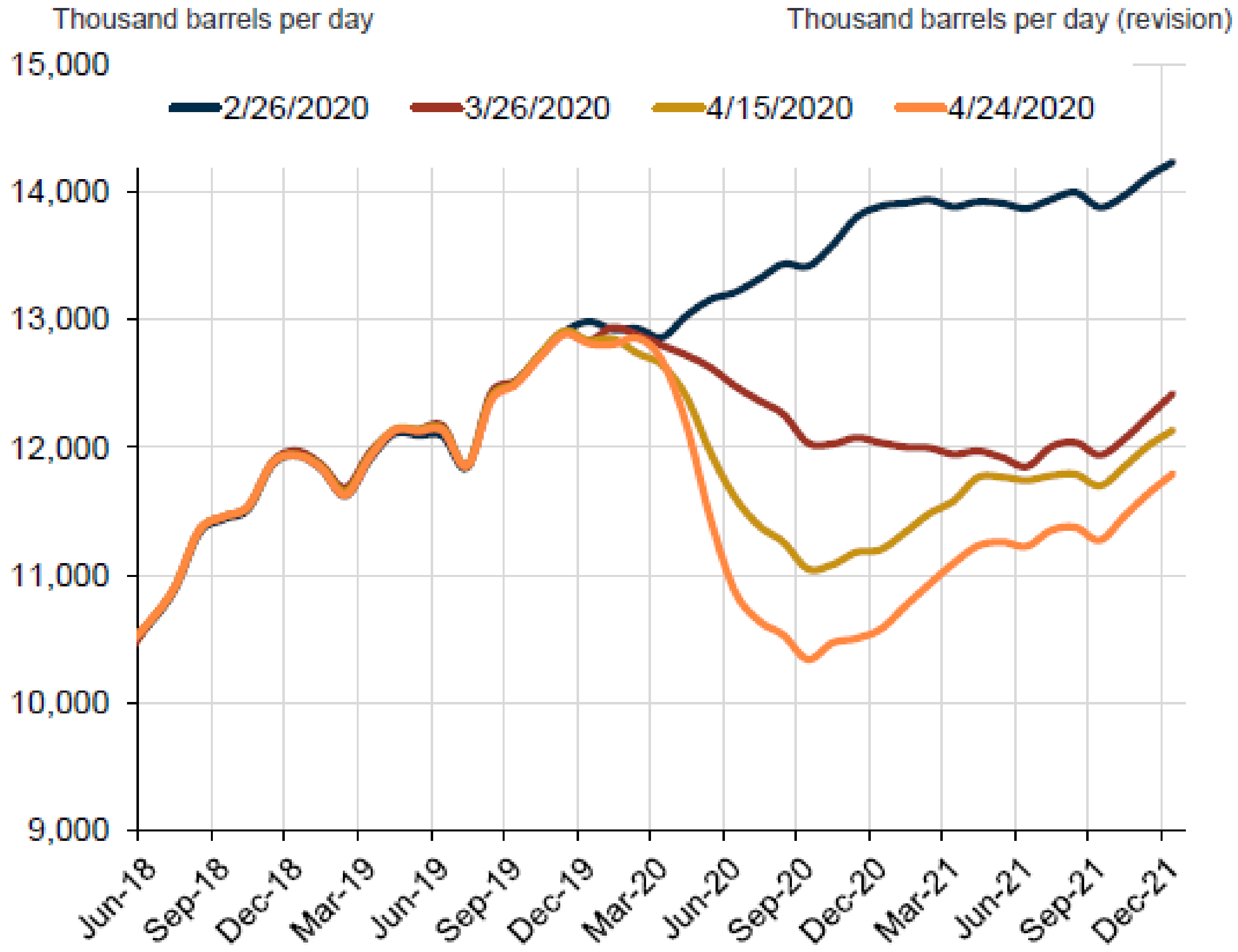
Impact of Oil Crash on Future Investments… 2



Source: Rystad Energy Report

- Super majors like Exxon, Shell, BP, Chevron, they are cutting capex for 2020 and 2021
- Exxon is trading at their lowest investment multiple, company has to borrow to cover dividend payments.

Can US Shale Survive at Low Prices?



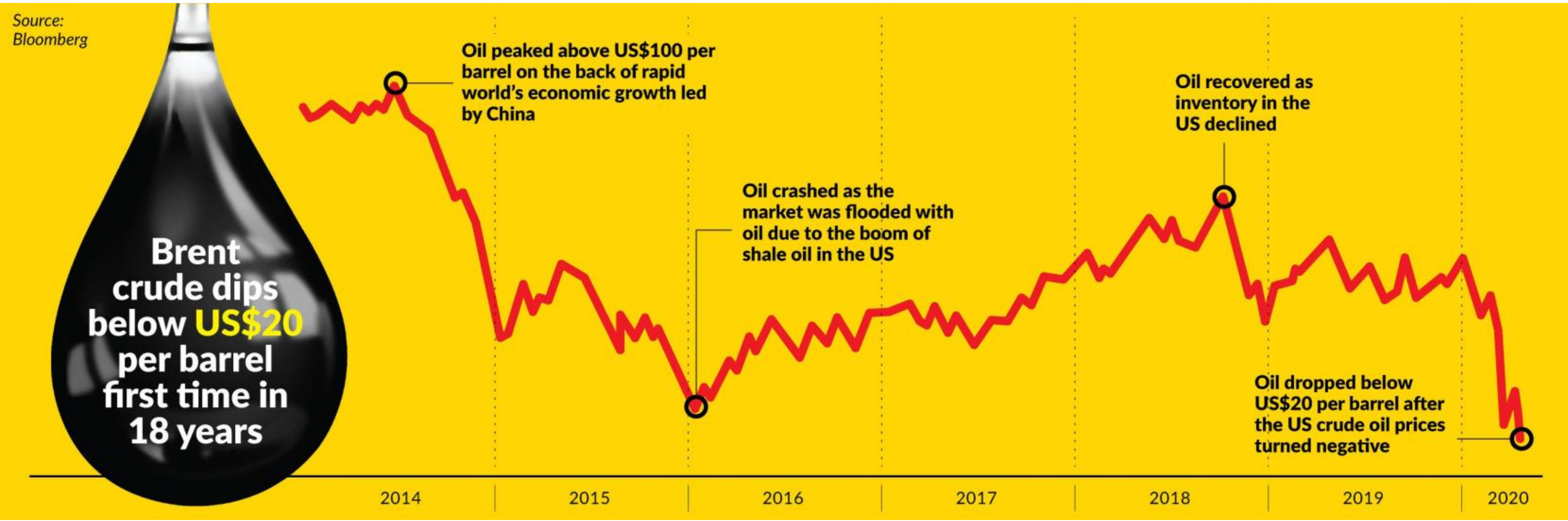
Source: Rystad Energy Report

Shale US oil production now set to decline from 12.8 to 10.5 million bpd throughout 2020. Key reasons:

- Production shut-in as crude price is lower than unit production costs
- Lower number of drilling rig deployed in 2020 means lower drilling activities and much lower new production in 2020 and 2021 to offset the natural decline

Impact of Low Crude Prices On the Malaysian Economy… 1

- Malaysia heavily dependent on the oil and gas sector
- Contributes 20% of the government's revenue (40% to Sabah and Sarawak revenue)
- Budget of Malaysia and fiscal deficit/GDP target of 3.4% was prepared based on average $62/bbl crude price assumption for 2020
- If average price for 2020 goes down to $30/bbl, oil revenue to government is expected to reduce by RM 10 billion, from RM 50 billion to RM 40 billion
- **US$1/bbl drop in oil price will reduce the oil related tax revenue by RM300 million**
- Reduction in oil prices will result in to widening of fiscal deficit to 4.5%



Impact of Low Crude Prices On the Malaysian Economy… 2

- A significant weakness in China's economy – Malaysia's largest trading partner – will add to the downside risk.
- Worst-hit sectors: Airline, Tourism, Oil & Gas, Automobile, Resort & Hotels and Property
- Job losses, fall in household income would lead to lunge in consumer spending
- Property prices may drop between 10% and 40% depending on the location; Rental rates my drop by 10% to 30%
- On the flip side, select sectors are benefitting from the virus outbreak- Rubber Glove Manufacturers
- Malaysia is likely to fall into recession this year, with the GDP estimated to be between 0.5% and -2%.
- Ringgit is expected to depreciate further as ringgit moves in tandem with crude oil prices
- Necessary fiscal stimulus & coordinated monetary plans, structural reforms and better diversification in the economy are required to develop the nation’s economic resilience

Malaysia Oil & Gas Industry Structure

Upstream

- Exploration
- Appraisal
- Development
- Production

Midstream

- Transportation

Downstream

- Refining and Processing
- Distribution

UPSTREAM OIL AND GAS SUPPORTING SERVICES

- Platform and rig operations
- Accommodation and catering
- Geological and reservoir related services
- Maintenance services
- Marine transportation and support services
- Safety applications and systems
- Information technology and communications
- Engineering, design and architectural
- Drilling services
- Offshore construction activities
- Underwater services
- Others

Impact to Malaysian Oil & Gas Industry

Capex and Maintenance Cut by Upstream players will severely impact Service Companies

- Lower drilling and maintenance activities will impact services companies
- Job losses

Company Operations in the Crisis

- Offshore production to continue even where realised price is below opex/bbl. Default position is to continue production, shutting in production costs money

Liquidity

- Focus preserving on preserving liquidity; Cancellation and/or cutting of dividends

M&A

- With many processes cancelled or "paused" where continuing
- Distress asset might come to market
- Current oil price backdrop likely to negatively impact valuation of

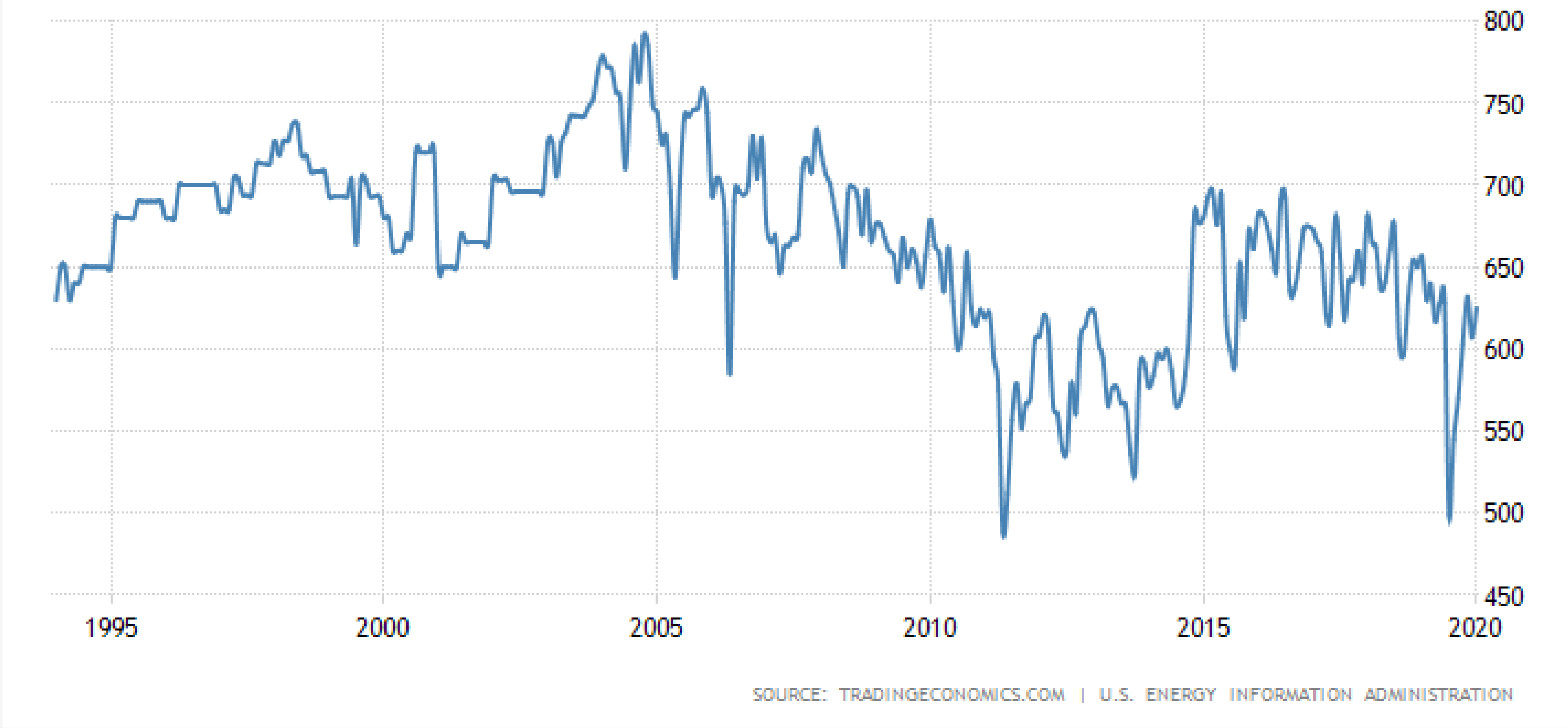
Asset Impairment

- Going concern issues; Issues to get accounts signed off
- Asset impairment (fair value of asset being lower than value in book)

Debt Restructuring

- Highly levered companies will have very challenging time to meet debt covenants

Oil Production in Malaysia



- Jan 2020 Oil production: 625,000 bbl/day
- Net exporting country
- Malaysia has to cut production by 136,000 bbl as part of OPEC+ deal from May 2020

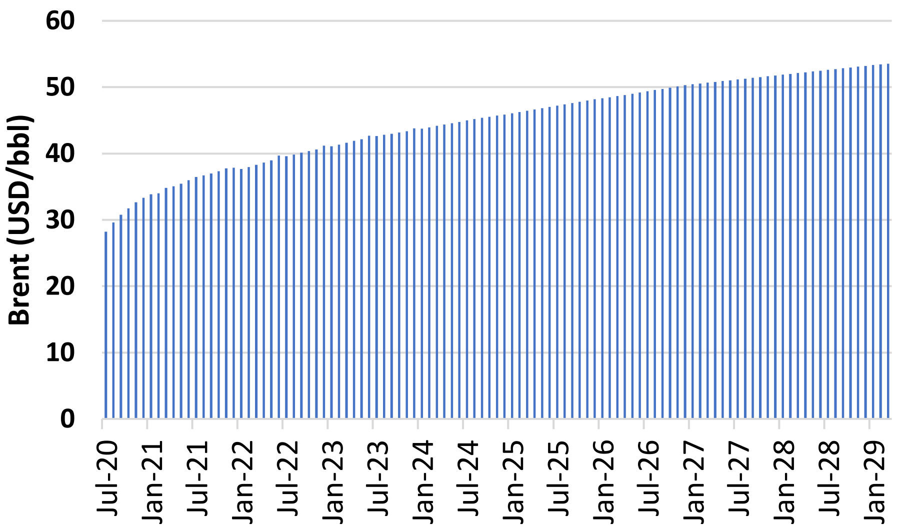
Crude Price Outlook

- Brokers anticipate Brent price to stabilize at $40/bbl in 2020 and $50/bbl in 2021
- Forward curve trading in contango

Analysts' consensus Brent forecast (USD/bbl)

Broker	Date	2020	2021	2022
RBC Capital Markets	26-Apr-2020	39	46	53
TD Securities	24-Apr-2020	35	49	49
HSBC	23-Apr-2020	37	50	60
Jefferies	20-Apr-2020	38	48	55
Canaccord Genuity	19-Apr-2020	39	43	43
DBS	13-Apr-2020	41	57	58
Deustche Bank	5-Apr-2020	36	50	51
Barclays	1-Apr-2020	40	50	55
BMO Capital Markets	1-Apr-2020	42	53	60
Average		40	50	54

Brent Futures- 5th May 2020



What Should Companies Do This Year?

- Focus should be to survive and to have the business continuity plans to mitigate the business risk posed by Covid-19
- Focus should be to maintain the positive cash flows
- Defer the non-critical activities and manage G&A
- Preserve cash as cash is king
- Collaborate with other companies if that helps to keep the business running

What should we do:

Read books, learn new skills and spend quality time with families

Key Takeaways

- The anxiety over storage limitation was the main driver for WTI May futures contracts to drop to negative levels, as WTI requires physical delivery
- Brent is expected to be more resilient than WTI
- According to Rystad Energy, globally, the market may run out of places to store crude oil by mid or late-May 2020
- Oil prices continue to remain weak due to substantial demand destruction, Brokers anticipate Brent price to stabilize at $40/bbl in 2020 and $50/bbl in 2021
- $20/bbl is not a price at which most oil companies can survive for any lengthy period of time
- Super majors like Exxon, Shell, BP, Chevron are cutting capex for 2020 and 2021
- Malaysia being heavily dependent on the oil and gas sector, with crude price crash, oil revenue to government is expected to reduce by RM 10bn, widening of fiscal deficit to 4.5%
- Malaysia is likely to fall into recession this year, with the GDP estimated to be between 0.5% and -2%.

Thank you

Keep Learning