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Oil Panic: The Collapse on Oil Prices and Its Effects on the Malaysian Economy

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Summary

Last week, OPEC and Russia had failed to agree on oil production cuts during their meeting in Vienna amid record low crude oil prices due to the recent coronavirus outbreak, thus ending the OPEC-Russia alliance. Russia instead balked at the idea of cutting oil production, sparking an all-out price war with the Saudis pledging to ramp up production to maximum capacity to 12 million barrels a day in a move to flood the market.

As demand is already falling to record lows, this had led to the largest single-day plunge in Brent crude oil prices in recent history, with oil prices falling to US$33 on 9th March 2020 from US$69 at the beginning of the year. The US benchmark West Texas Intermediate also plunged to US$27.71 per barrel.

Game theory analysis on the production cut failure

This is being interpreted as an attempt to demonstrate Saudi Arabia's dominance of global oil markets. Analysts say this is an attempt to pressure Russia to cut oil production by hurting their top line earnings, with the Saudis offering unprecedented low prices to foreign purchasers and laying out plans to further increase production. In game theory, this is known as the "tragedy of the commons" as seen in the payoff matrix below.

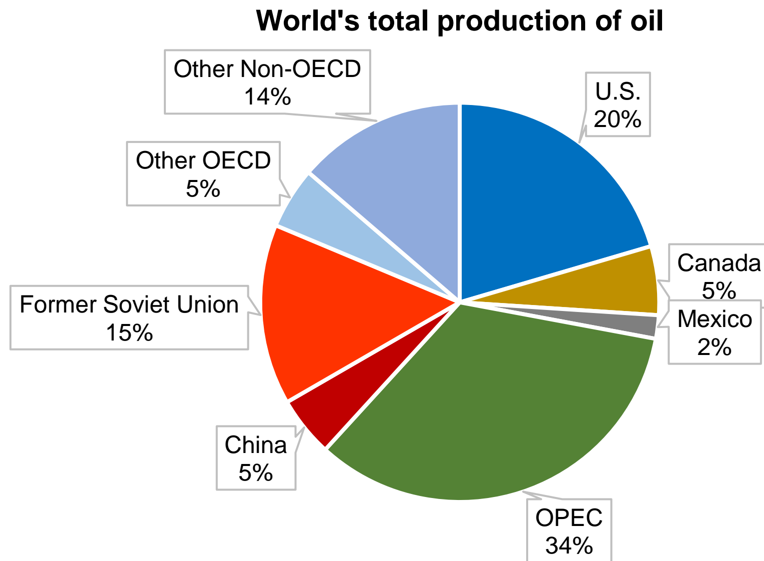
		Player 2 Russia	
Player 1 OPEC (Saudi Arabia)		Cut production	Do not cut production
	Cut production	1,1	-2,2
	Do not cut production	2, -2	-1, -1

Note: The payoff matrices are arbitrary estimates to best reflect the game scenario

In this game setting, both Russia and Saudi Arabia has a dominant strategy of not cutting production. As such, though the best outcome is for both Russia and Saudi Arabia to cut production and reap higher export prices, each player's dominant strategy would not allow for this to happen and instead the worst possible outcome is reached, hence the "tragedy of the commons" (Note that this outcome is not a nash equilibrium).

Russia claims it refuses to cut production because it is waiting to see what the full impact of the outbreak will be on oil demand, not wanting to be the first country to suffer the impact, resulting in a loss in revenue and market share. As Russia's estimated breakeven price reported to be US$42 per barrel, a sustained price war could potentially force Russia to return to the negotiating table with OPEC though this may not necessarily happen. The stage is now set for a game of attrition, with neither side willing to cut production.

Impact on the international oil market



It is worthwhile noting that among global oil producers, Saudi Arabia produces 10-12 million barrels of oil per day and is responsible for over 13% of all the world's total oil production and has an estimated 18% of the world's proven oil reserves. While Russia produces 12% of the world's oil and holds roughly 5% of the world's total oil reserves, the hardest hit nations among the price war will be the United States and Russia, as their breakeven costs are generally above Saudi Arabia who has the cheapest per barrel production cost among all oil producing nations rumoured to be at low as US$3-US$10 per barrel, giving them ample ammunition to continue the price war showdown.

However, it should be noted that while Saudi Arabia enjoys a low price per barrel cost, its budgetary fiscal requirements are estimated at around US$80 per barrel, while Russia is about half that. Oil makes up roughly 87% of Saudi Arabia's budget revenues, and 90% of export earnings, accounting for 42% of its GDP in 2019. This is the reason why Crown Prince Salman has sought to shift Saudi Arabia's oil dependence towards services, education and new technologies such as AI.

A recession in the US economy is probable, impacting US shale oil output as crude oil prices collapse as US producers suffer through lower market return on investments. As US shale oil producers continue to pump at a net loss per barrel, with the breakeven price estimated to be about US$42-US$45 per barrel.

Currently the US is the world's largest oil producer, at 21 million barrels per day with two thirds coming from shale. This has the potential to throw the oil market into disarray, given that the oil market prior to the price war was in a relatively balanced position. Shares of shale producers plummeted on Monday, with fears of acute financial stress and declining margins in a low-price environment.

The impact on the USA will nonetheless be tremendous, being the world's largest oil and gas producer, it has the most to lose in a state of depressed oil prices, resulting in sustained losses for oil suppliers in the near-term and a drastic reduction in medium-term capital expenditures, potentially resulting in a pullback of 2020 economic growth projections.

It is likely that the price war will be sustained for the foreseeable future, as neither side is willing to budge with Crown Price Salman is determined to pursue its scorched earth policy and the Russians determined to undermine US shale oil production. Given the situation,

according to Kenanga Research, the price of oil in 2020 is estimated to stay within the range of US$40 per barrel from US$60 per barrel previously. They anticipate a slight rebalancing in 2H2020 with 2Q2020 to see Brent crude oil process hover around the US$30-barrel mark.

A geopolitical reaction to US energy dominance?

It is also worthwhile noting the geopolitical scenario at play. Russia has recently been quite open about the fact it sees the United States ambition for global energy dominance as harmful to its national interests and calls by OPEC to cut production merely results in the shifting of market share from Russia to US producers.

Russia's rejection of a Saudi push for additional production cuts may have prompted the Saudis to undercut the Russians but it is also a strategic decision stemming from Russia's longstanding frustration with a rapidly growing US shale oil industry, resisting the push towards US energy dominance.

The scorched earth policy by the Saudis may have inadvertently been helpful to Russia's geopolitical interests to stem the growth of US shale oil at a steep cost to their national oil industries. In this regard, Russia seems intent on keeping the oil price low to push out US shale oil producers and effectively kill the industry in the short and medium term. Basically, Russia is betting that it can outwait their US and Saudi competitors in this attrition war.

Impact on Malaysia's domestic economy

The impact on Malaysia's domestic economy is expected to be severe, with a fall of this scale negatively impacting Malaysia's fiscal balance as oil-related income is crucial to the federal government's revenue. This event could not have come at a worse time as escalating fears of COVID-19 and the abrupt change in government are hammering down on an already fragile economy. The fiscal balance is likely to weaken as will prices of other commodities as global demand slows down, culminating in a weaker Ringgit.

Industry sectors likely to be impacted are in the oil and gas as well as oil palm plantation stocks. Banks are also particularly prone to downside risks following the recent cut in interest rates and the level of loan delinquencies rise. For reference, in terms of the total market capitalization, banks make up almost 30% of total market capitalization volume.

The 2020 budget deficit could widen to 4.3% from 3.4% if Brent oil averages US$40 this year as petroleum contribution to the federal government in the form of Petronas dividends where the normal dividend payment is RM24bil a year. Petroleum income taxes as well as petroleum royalties and petroleum export duties also provide a large portion of the federal government's revenue budget. In 2018, they contributed up to 20% of total revenues by some estimates.

According to Kenanga Research, every US$10 fall in the oil price will result in a reduction of federal government revenue by RM7bil. As budget 2020 was based on an average oil price of US$60 per barrel, by factoring in a drop of US$20 from US$60, they estimate an impact of RM14bil from the government in 2020.

This will cause a widening of the budget deficit (post-stimulus) from RM55.3bil to RM69.1bil, raising the deficit as a percentage of GDP from 3.4% to 4.3% - a level not seen since 2012

during which time, the federal government debt stood at 51% of GDP versus 53% today. If government guarantees were included, the total debt to GDP ratio is realistically closer to 72%.

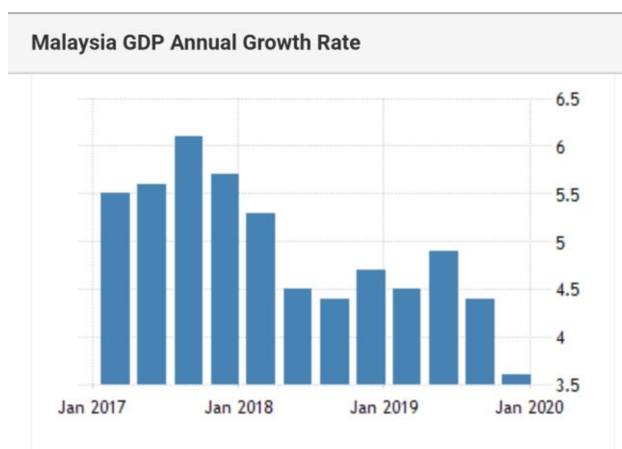
Therefore, to maintain a deficit closer to 3.5% to 4%, Petronas may be forced to pay another round of special dividends as it had done in 2018. As Petronas is in a net cash position of RM82bil. It would not be out of the ordinary if there was a repeat of the special dividend.

Malaysia's Federal Budget Estimates for 2020

			MOF Estimates		Revised estimates on US$40 per barrel	
	2019 E	**%YoY**	**2020 F**	**%YoY**	**2020F**	**%YoY**
RM ('Bil)						
Revenue	263.3	13.1%	244.5	-7.1%	227.1	-13.8
Total Expenditure	316.0	10.1%	297.0	-6.0%	297.2	-5.9%
Operating Expenditure	262.3	13.6%	241.0	-8.1%	242.2	-7.66%
Gross Development Expenditure	53.7	-4.3%	56.0	4.3%	55.0	2.4%
Allowance for Loan Recovery	-0.9		-0.8		-1.0	
Overall Balance	**-51.8**		**-51.7**		**-69.1**	
Deficit % of GDP	**-3.4%**		**-3.2%**		**-4.3%**	

Source: MOF

Impact on Malaysia's GDP



Source: Tradingeconomics.com

The oil price staying at US$40 per barrel carries massive risks to Malaysia's GDP estimates. It is possible for GDP growth for 2020 to be slowed down even further, potentially being cut down to 3.0% from the YoY GDP growth forecast of 3.2% to 4.2% from the post stimulus package growth estimate. The trimming to 3.0% reflects the heightened risk of lower Oil and Gas investments and activities, as well as potentially lower output from the plantation and palm oil sector on weaker prices.

We should expect that the fallout from a depressed US economy coupled with China's coronavirus will trigger a major crisis for our export position with Malaysia exporting RM95.8bil worth of goods to the USA comprising 9.7% of total exports and RM139.6bil to China comprising 14.2% of total exports, further hurting Malaysia's GDP growth trajectory.

Stock market reactions

Reactions on the local stock market had been severe, with the FBMKLCI falling sharply to close at 1424.1 on 9th March 2020. Most vulnerable stocks were companies in the Oil and Gas market, with Oil and Gas earnings downgraded. The four main O&G component companies in the KLCI comprising DIALOG, PETDAG, PCHEM and MISC together constitute 11% of the market and 8% by earnings.

Plantation stocks have earnings cut based on assumed lower average selling prices, with Crude Palm Oil (CPO) price projection to reduce by 7.5% from a projected price of RM2,700. Companies most affected by the sharp decrease in price are IOI and Sime Darby, their profitability being highly correlated to the futures CPO market.

In conclusion, the Malaysian economy is set to suffer in both the short and medium term, seeing that there is no window of escape from the current price war and a continual suppression of oil prices will weigh down on an already fragile economy.

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