



The Commonwealth

Natural Resource Insights

A Special Focus on COVID-19 and the Commonwealth | 2020 / 01

COVID-19 Impact on the Oil and Gas Sector

Implications for Commonwealth Countries

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1. Introduction

The global health crisis caused by the COVID-19 pandemic has required extraordinary measures across the world and led to unprecedented disruption in global oil markets. As at the middle of April 2020, more than half of the world's population was under lockdown, the majority of borders were closed, and only essential businesses were operational. These measures led to a precipitous fall in all forms of transportation (land, air, marine) and significantly lowered demand for power (widespread shutdown of manufacturing and industrial activities) as economic activity in effect ground to a halt. This has resulted in demand for oil plunging at a scale and speed never witnessed before, which, combined with supply dynamics, has resulted in prices plummeting to a 21-year low and introduced significant uncertainties for market participants.

Today's global economy is predominantly fuelled by the oil and gas sector, which accounted for approximately 55 per cent of energy consumed in 2018.² All Commonwealth countries will therefore be impacted by the crisis, as oil and gas is inextricably linked to their economies. In particular there will be profound consequences for Commonwealth members where the oil and gas sector generates a large component of government revenue and foreign exchange earnings.

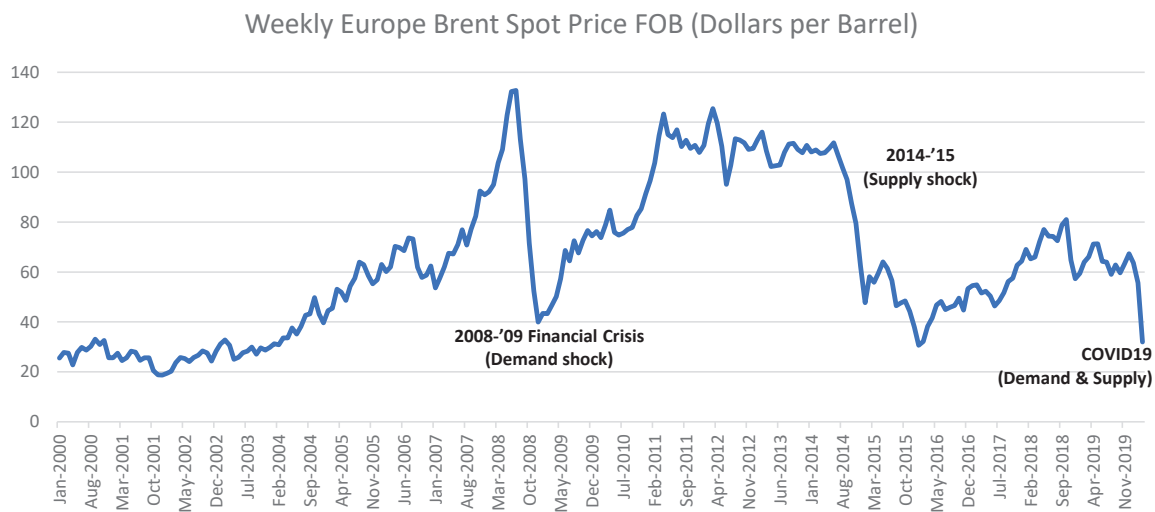
This policy brief gives an overview of the oil market price crash, the subsequent response by companies and how COVID-19 has impacted the outlook for oil and gas markets. It also provides a summary of the oil and gas sector in Commonwealth countries to highlight the member states that will be most affected by the current crisis. It ends with an overview of key issues for the oil and gas sector going forward and discusses the implications for Commonwealth countries.

2. A sector in crisis: oil price crash and market outlook

2.1 Unprecedented simultaneous demand and supply shocks

In 2019, the world consumed an average of 100 million (mm) barrels per day (bpd) of crude oil, over half of which was in the transportation sector. As countries imposed restrictions to halt the spread of COVID-19, there was a steep decline in transportation and economic activity. Subsequently, crude oil consumption fell by 11.4 mmbpd³ in March 2020 and the decrease is expected to be about 30 mmbpd⁴ for April 2020. This means that almost a third of global consumption was expunged in a matter of weeks. The reduction in global oil demand is equivalent to all of North America's oil consumption (US, Canada and Mexico) being removed from the oil market. Global oil demand has not been this low since the mid-1990s.

Figure 1: Brent spot prices (dollars per barrel)



As restrictions are eased in the second half of the year demand will increase, but is unlikely to return to pre-COVID levels in the short term. Forecasts of the impact on annual demand range from a decline of 5–9 mmbpd, which is in stark contrast to previously forecast growth of 1–2 mmbpd. While the actual impact on 2020 oil demand will depend on several factors, it is clear that COVID-19 will lead to the first contraction in global demand since the financial crisis of 2009, and possibly the largest contraction in history.⁵

This unprecedented fall in demand has also been coupled with increased supply. In early March, OPEC Plus failed to agree an extension to production cuts that had been in force since 2016.⁶ Instead of an anticipated further reduction in supply, Saudi Arabia and Russia announced unexpected production increases and price discounts.⁷ The dramatic change in strategy aimed at capturing market share, and resulted in the market being flooded with additional barrels of crude oil that further exacerbated the already existing glut in the oil market brought on by a mild winter. This supply response from key producers in the face of lower demand resulted in huge surpluses, with crude inventories rising to all-time highs.

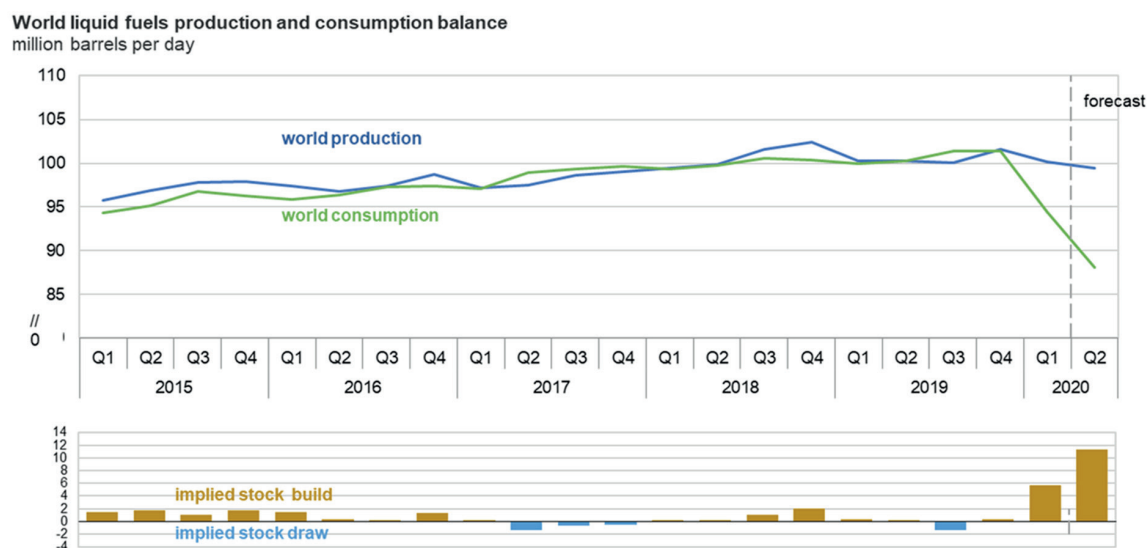
The combination of these factors has had a catastrophic effect on prices. At the beginning of April, Brent prices plunged by almost 80 per cent to below \$15 per barrel (\$14.85 vs \$67.77) when compared to January – levels that have not been seen since 1999, as shown in Figure 1.

Subsequently, on 12 April OPEC Plus announced unprecedented production⁸ cuts of roughly 10 per cent of global production.

Prices recovered slightly from this low point but remained around \$20 bbl⁹ – a third of January's average pricing.¹⁰ These cuts were not sufficient to rebalance the market given the 30 per cent reduction in demand and rising inventory levels. The US Energy Information Administration (EIA) estimates that in 2020, 1.6 billion barrels could be added to global inventories, which would fill them to or near their estimated full storage capacity levels (see Figure 2 for the demand and supply imbalance and resulting inventory build). It is worth noting that the futures market for the first time traded in negative prices,¹¹ meaning that sellers were paying buyers to take crude off their hands.

An added complication is that there are technical challenges associated with 'shutting in' production.¹² Depending on geological factors, fields that are shut in quickly and for an extended period of time may not be able to produce at previous levels and could result in reservoir damage and subsequent loss of recoverable reserves. In situations of supply outstripping demand, the preference is therefore to manage the imbalance through storage. However, the world's storage is nearing its capacity with some forecasting this will be reached as soon as the end of May. Without alleviation on the demand side, it is likely that fields will have to be shut in, with access to storage having a crucial role in determining where this takes place.

Figure 2: World liquid fuels production and consumption balance



Source: EIA Short-Term Energy Outlook, April 2020

2.2 Industry response

Oil and gas companies are dealing with significant loss of revenues as oil prices have crashed, and, like all companies dealing with the consequences of the COVID-19 pandemic, they are taking measures to preserve cash flows. However, this is especially challenging for oil and gas companies as it is the second dramatic decrease in prices in five years.

In 2015, oil prices halved from the five-year average¹³ of \$100 per barrel and reached a low of US\$26 in 2017. There was significant upheaval in the industry from such a steep drop in prices and the subsequent response from companies covered multiple areas – exploration and capital expenditure significantly cut, supply chain savings (renegotiating contracts etc.), efficiency gains (redesigned and standardised operations etc.) as well as several rounds of employee layoffs. After three years of sustained lower prices, the market was recovering but has now been routed by an even more severe price crash.

Companies that have not yet fully recovered from the financial trauma of the last price crash are again re-evaluating planned activity and taking measures such as reducing discretionary spending, dropping or delaying projects, working with suppliers to reduce costs and in some cases cutting dividends.¹⁴ Over \$85 billion¹⁵ of capital expenditure cuts have been announced and the International Energy Agency estimates that 2020 capital spending of \$335 billion will be the lowest it has been for 13 years.¹⁶

2.3 Sector outlook post COVID-19

The global economy, the bellwether of demand for crude oil, instead of growing 3 per cent in 2020, is now expected to make a complete turnaround, contracting by 3 per cent. How the demand for crude oil recovers from this huge reversal in 2021 and beyond is very uncertain.

If the global economy recovers quickly, oil demand would increase but it is unlikely to reach the same levels. Until a vaccine is deployed the post COVID-19 'new normal' includes maintaining some social distancing measures and limiting international travel, which will have a dampening effect on transportation – the main component of oil demand. COVID-19 may also change consumer behaviour, which can have an impact on oil demand. For example, a larger proportion of the global workforce may shift towards working from home (less transportation, less oil demand) or have an aversion to public transportation (increasing car journeys, higher demand) and travelling abroad (fewer flights, lower demand). There is also uncertainty about whether the longer-term economic impact will be a slow recovery or a 'great depression', and oil demand would naturally be significantly lower in the latter. There are also downside risks if COVID-19 continues to surge into 2021 and requires multiple periods of restrictions on movement and economic activity. It therefore seems highly unlikely that oil demand will return to 2019 levels of ~100 mm bbl in the near future. Against this backdrop, there is also the possibility

that COVID-19 has accelerated peak oil demand.¹⁷ Even in a situation where economic activity rebounds quickly, there are record-level inventories to unwind and production cuts would have to remain in force or possibly be increased to balance the markets.

As one considers the longer-term outlook for the sector, it is important to recognise that one of its defining characteristics is its volatile boom-bust cycles. During low pricing periods when companies face cash-flow constraints, investments are cut which generally leads to insufficient supply¹⁸ when demand recovers, and prices subsequently increase. With many companies cutting capital expenditure by 20–30 per cent, this phenomenon could easily repeat itself in the longer term when the current imbalance narrows.

Given the strategic importance of oil, forecasting pricing is notoriously complex as it depends on a host of unpredictable geopolitical factors in addition to the traditional demand and supply dynamics. However, the near-term outlook for the market is challenging as the demand/supply imbalance is likely to exist for some time. This suggests a very bearish outlook on prices, with some forecasts of \$35 and \$42 per barrel in 2020 and 2021 respectively.¹⁹ Although it is difficult to predict pricing levels, it is clear that market volatility will remain a defining feature of the sector and most likely increase.

2.4 What about natural gas?

The demand for natural gas is spread across various sectors (power, heat, industry – e.g. petrochemicals, fertilisers) and, unlike oil, it is not a key transportation fuel. Because of this, the current impact of the pandemic on gas markets is not as dramatic when compared with oil – where roughly 57 per cent is consumed in transport. Nonetheless, gas demand will undoubtedly be impacted by the lower industrial and power demand resulting from the restrictions in place and general reduced economic activity. The IEA estimates that 2020 gas demand could decrease by 5 per cent, which would be 'the largest recorded year-on-year drop in consumption since natural gas demand developed at scale during the second half of the 20th century'.²⁰

Prior to the COVID-19 induced demand reduction, the global gas markets were already in a supply glut (because of a mild winter coupled with increasing liquefied natural gas (LNG) supply) that led to lower than average prices in the first quarter of 2020. Near-term demand and supply factors are likely to continue placing downward pressure on the pricing outlook. Investments in the natural gas market will also be significantly impacted as a result of the ramifications on companies' cash flows and balance sheet from low prices.

3. The oil and gas sector in Commonwealth countries

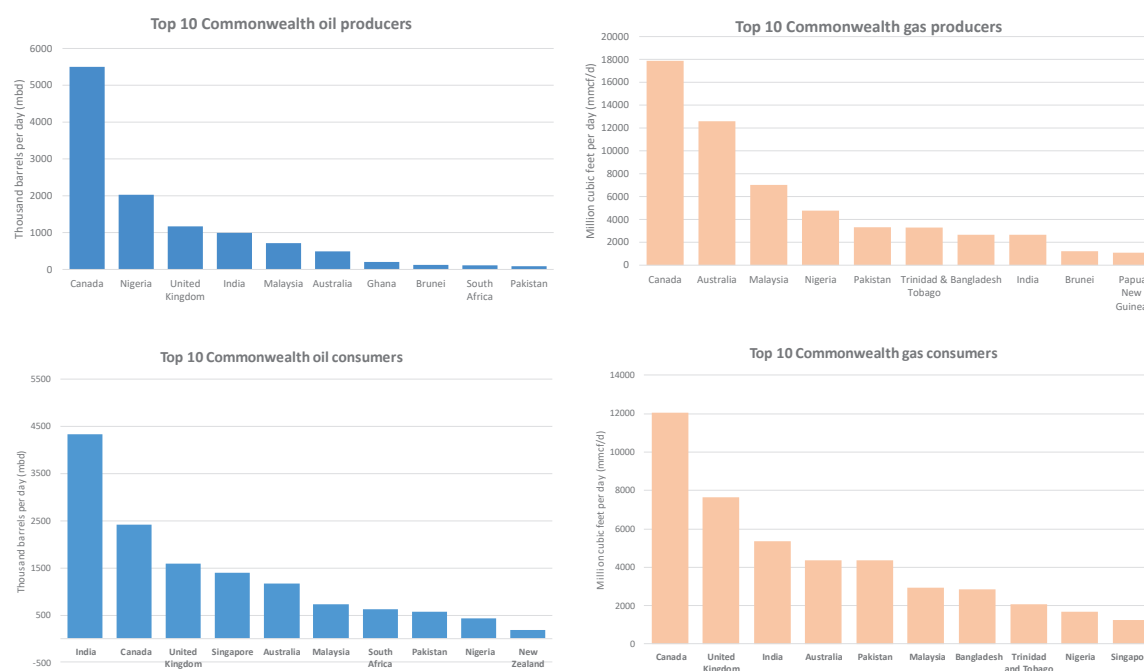
Commonwealth countries represent approximately 15 per cent of the world's oil and gas consumption and production, with the top ten contributors shown in Figure 3. Please see Appendix 1 for further details. In order to understand how the oil and gas crisis will impact Commonwealth countries it is useful to consider whether a country is a net importer or net producer of oil and gas as the implications will be very different.

3.1 Importing countries

The degree to which importing countries will benefit from lower prices depends on the amount imported and the oil intensity of their economies. Generally, importers should gain from a fall in oil and gas prices as a lower import bill frees up foreign exchange for alternative uses. In addition, if oil and gas represent a large proportion of total imports it may also lead to an improvement in the current account balance. A fall in prices should also result in lower fiscal burden where there are subsidies in place. How these 'savings' are channelled into the economy will depend on each country's unique circumstances.

It is well recognised that most small states, and small island developing states (SIDS) in particular, are heavily dependent on imported fossil fuels, mainly oil, for transport and electricity generation (inefficient diesel generators leading to higher electricity costs than other countries). This translates to a significant drain on government budgets and current accounts. For example, fuel imports in the Pacific region are worth on average around 10 per cent of gross domestic product (GDP)²¹ and can be significantly higher in some

Figure 3: Top ten Commonwealth oil and gas producers and consumers



countries (oil imports ~29% GDP in Cook Islands, 15% in Tonga²²). SIDS should therefore realise fiscal benefits from lower prices.

3.2 Exporting countries

Over 20 Commonwealth countries currently produce oil and gas, of which 12 were net exporters as at the end of 2019 – Australia, Barbados, Belize, Brunei Darussalam, Cameroon, Canada, Ghana, Malaysia, Mozambique, Nigeria, Papua New Guinea, and Trinidad and Tobago. A further 6 Commonwealth countries are expected to become significant exporters within the next 5-10 years given significant recent discoveries. The emerging petroleum exporters are:

- Cyprus** is emerging as a new gas province following several discoveries (2011 Aphrodite 4.54 trillion cubic feet (TCF); 2017, 2019 Glaucus 5-8 TCF) with additional drilling planned for 2020. Cyprus is heavily reliant on fuel oil and diesel imports for electricity (~8% of GDP) and is poised to become a key player in the East Mediterranean region. A final investment decision for the Aphrodite development is anticipated in 2022.
- Guyana** is set to become a major offshore oil producer following prolific exploration success. More than 15 large discoveries have been made in the last 5 years (the first in 2015 - Liza), with estimated resources of over 8 billion barrels. First production began at the end of 2019 from Liza and with several developments planned, production is expected to increase to 750 thousand barrels of oil equivalent per day (mboed) within the next 5 years.²³
- Kenya.** The first oil discovery was made in 2012 and with subsequent discoveries is estimated to hold over 4 billion barrels of crude oil, of which around 750 mmbbl²⁴ is recoverable. Monetisation depends on the development of an export pipeline from oil fields in Turkana County to the port of Lamu. Final investment decision (FID) on the \$3 billion Turkana oil development was anticipated in 2020.
- Mozambique** is set to become one of the world's largest LNG exporters following significant offshore natural gas discoveries in 2010 (~150 TCF) and development investment of almost \$60 billion. Two projects have been sanctioned – Area 1 Mozambique LNG Area 4 and Coral Sul Floating LNG (the

Table 1: Existing and emerging Commonwealth oil and gas exporters

Existing Exporters		Emerging Exporters: Discoveries & Exploration					Exploration Activity (Please see Appendix 1)
	2016 mboed	Recent Exploration success: Development Projects	Resources mmbbls / TCF	Capex USD	Final Investment Decision (FID)	Production Start-up	
Australia	379	Cyprus (gas)					Licensing Rounds <i>(Planned or in progress)</i> Australia Nigeria Bangladesh Trinidad & Tobago Barbados Pakistan Canada Sierra Leone Ghana Uganda India UK Malaysia
Barbados	0	Aphrodite	4.1 TCF	\$3.5bn	2022	800mmcf	
Belize	1	Guyana (oil)					
Brunei	90	Liza Ph1	450 mmbbls	\$4.4bn	Jun-17	120mbd	
Cameroon	15	Liza 2	600 mmbbls	\$4.4bn	May-19	220mbd	
Canada	1029	Payara	500 mmbbls	\$6bn	2020	220mbd	
Ghana	20	Kenya (oil)	750 mmbbls	\$3bn	2020	60-100mbd	
Malaysia	286	Mozambique (gas)					
Mozambique	25	Coral FLNG	~16TCF	\$8bn	Jun-17	3.4mt/yr	
Nigeria	770	Mozambique LNG	~65TCF	\$20bn	Jun-19	12.9mt/yr	
PNG	68	Rovumba LNG	~85TCF	\$30bn	2020	15.1mt/yr	
T&T	94	Tanzania LNG Project	20TCF	\$30bn		10mt/yr	
		Uganda (oil)	1400-2200 mmbbls	20bn	2020	230mbd	Direct Applications <i>(Selected examples)</i> Bahamas Namibia Jamaica Malawi

mboed: thousand barrels of oil equivalent per day
 mmbbls: million barrels of oil TCF: trillion cubic feet

Source: EIA, Petroleum Economist, company releases and websites

first FLNG in Africa and the third globally). The third project (Area 4 Rovuma LNG Project) was expected to be sanctioned in 2020. The first LNG exports are expected in 2022.

- **Tanzania** has also emerged as a prolific gas province with significant offshore gas discoveries since 2010 and estimated resources of almost 60 TCF. Proposals for a \$30 billion LNG plant have been under consideration since 2011 with construction expected to start in 2022. Tanzania's Central Bank has said that 'just starting work on the plant would add another two percentage points to annual economic growth'.²⁵
- **Uganda** is now an established petroleum province after 21 discoveries (first material discovery in 2006) with estimated resources of 6 billion barrels of oil and recoverable resources of at least 1.4 billion barrels.²⁶ As a land-locked country, development of these resources requires complex cross-country agreements for the development of an export pipeline from oil fields in the Lake Albert region. FID to monetise these resources was expected in 2020 (\$20 billion covering the Tilenga and Kingfisher oil fields as well as the construction of the East African Crude Oil Pipeline from Uganda to Tanzania along with the development of a refinery in Uganda).

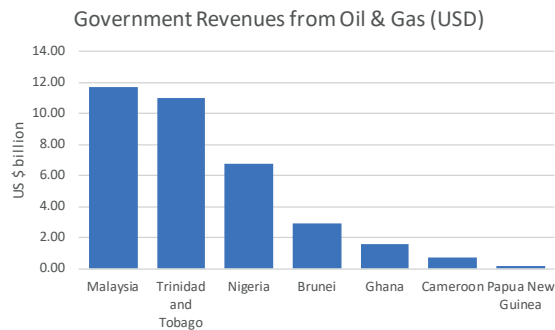
For these emerging producers the petroleum sector is seen as an important catalyst for industrialisation and broader socio-economic development and is a result of successful exploration campaigns over the last decade or more. However, monetisation of these resources requires billions of dollars of capital investments and relies heavily on foreign direct investment. Selected examples are highlighted in Table 1.

It is worth noting that several other Commonwealth countries have ambitions to replicate the success of these emerging producers and are actively embarking on new oil and gas exploration, through either direct applications or licensing rounds, as they seek to grow their economies and build energy security by developing domestic resources. Many existing producing countries are naturally also engaged in exploration activity to maintain or increase production levels. A selection of countries with exploration activity are shown in Table 1.

3.3 Vulnerability to falling prices

The direct contribution of the petroleum sector to the country comes from the investment and employment associated with exploration and production activity, the level of exports generated and the revenue streams to the government – which may be in the form of royalty, taxes, a share of production or a combination of these along with remittances from national oil companies. While COVID-19 will have a negative impact on

Figure 4: Projected revenues from oil and gas in 2020



all Commonwealth countries from a public health perspective and because of the looming economic difficulties, the bleak outlook for the petroleum sector will serve as a compounding blow for countries where it forms a key part of the economy.

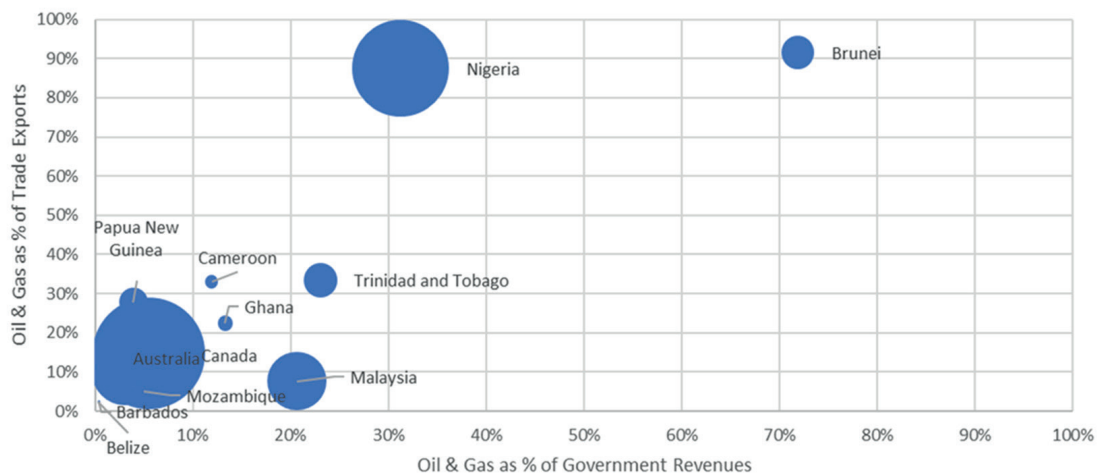
Many countries' 2020 budgets were based on an oil price assumption of \$60 per barrel, which is now expected to range just above \$30 instead. It is therefore plausible that budgeted government revenues from the sector could be 50 per cent lower than expected in 2020 (see Figure 4 for selected countries' projected revenues in 2020 budgets). Facing such a serious reduction in revenues, several countries have already recalibrated budgets and in some instances benefited from the financial buffers provided by sovereign wealth funds (SWFs). In addition to the immediate loss of revenues from lower prices, there are further risks related to lower foreign direct investments (as capital spending on exploration and developments from companies

falls), currency devaluation (if there is a significant adverse balance of payments), increasing debt levels and deteriorating credit ratings.

While all oil-exporting countries will be facing a serious reduction in government revenues, the degree to which they are affected will depend on how reliant the economy is on the oil and gas sector. Countries in which the sector contributes significantly to total government revenues and exports indicate a less diversified economy and therefore higher vulnerability to current market turmoil.

For example, Canada is the largest Commonwealth exporter by volume at over 1 million barrel of oil equivalent per day, which accounts for about 15 per cent of total exports and 5 per cent of government revenue. Brunei Darussalam exports under 100,000 barrels of oil equivalent a day but it represents more than 90 per cent of total exports and 70 per cent of government revenue. The role of the sector is dramatically different in these two economies. Figure 5 illustrates for each exporting Commonwealth country the volume of oil and gas exports (depicted by the size of the bubble) along with the proportion of revenues and exports that oil and gas represent. This highlights that the sector accounts for a significant share of government revenue and/or exports in Brunei Darussalam, Cameroon, Ghana, Malaysia, Nigeria, Papua New Guinea and Trinidad and Tobago.

Figure 5: Oil and gas as proportion of government revenues and exports



Bubble size represents volume of exports

4. Implications and considerations for Commonwealth countries

Energy markets are very complex because, in addition to grappling with global trends and issues, each country is faced with managing its unique set of circumstances which include its development strategy, macro-economic framework, resource endowments, the specifics of the industry in a national context, and public expectations as well as ever-present political pressures.

COVID-19 has injected even more uncertainty to this situation and the following section highlights some key issues for the oil and gas sector and areas for Commonwealth countries to consider.

1. Logistical challenges and risks to production and project approvals

The oil and gas industry is heavily reliant on global supply chains and movement of people to carry out its activity. The industry (recognised as one of the essential services) has thus far continued to operate safely, but the longer the situation persists the more difficult it will become to maintain. The enormous effort to sustain operations and the logistical challenges with equipment and the movement of people will require increased co-ordination and collaboration between government agencies and companies. For producing countries, this will play an important role in the efficient execution of projects and will be critical for maintaining production and cost competitiveness. For importing countries, it will be vital to ensuring continued flow to help fuel the economy.

2. Increased uncertainty about government revenues

The timing and amount of government revenues from the oil and gas sector is extremely unpredictable as it depends on several factors (e.g. pricing, production, capital expenditure, operating costs and foreign exchange) which can be subject to significant and unpredictable changes. Governments' revenue streams from the sector are therefore extremely volatile and uncertain. Under 'normal' circumstances this makes budgeting and fiscal management difficult and with increased volatility post COVID-19 it will become even more challenging.

It is therefore critical that government agencies (e.g. Petroleum Department, Ministry of Finance, Planning) have the expertise to understand and forecast the variability in revenue streams to effectively inform a prudent macro-economic framework. Fit-for-purpose sovereign wealth funds (stabilisation funds) can be an effective mechanism to deal with volatility and help insulate the economy from sharp drops in revenues - whether from price or other factors. Scenario planning, a common tool used by companies to understand the risks to financial performance, should likewise be a cornerstone for any government projections for the sector.

The increasing uncertainty about government revenues going forward also underscores the importance of diversification. Increasing the breadth of economic activity, exports, and revenues in other sectors would increase the resilience of heavily dependent oil economies and help them prepare for the coming decades. COVID-19 recovery stimulus packages should be considered as a vehicle to contribute towards achieving this.

3. Increased market volatility and risks to fiscal stability

Where the oil and gas sector is a large component of governments budgets, whether as import bill or inflows to the treasury, if prudent fiscal rules and strategies are not adopted to deal with the volatility it could jeopardise long-term fiscal sustainability. While this holds true at any point in time, COVID-19 will lead to increased fiscal deficits and debt levels, so prudent policies to deal with price fluctuations are even more important.

During the last oil price crash, several countries removed or reduced subsidies on petroleum and petroleum products. This may be an opportune time to revisit remaining subsidies. For highly dependent oil-importing countries, the current relief on import bills may not be sustained, and fiscal rules should be explored on how to capitalise on short-term benefits, e.g. strategic storage.

For producing countries, macro-economic frameworks should be adjusted to reflect lower prices to avoid unsustainable fiscal deficits. Fit-for-purpose sovereign wealth funds (stabilisation, savings, investment

funds) can be an effective mechanism for revenue management, stabilising budgets and balancing a country's immediate needs with the needs of future generations. Extreme caution should be exercised over optimistic assumptions for a quick recovery, as well as structuring debt on volatile oil and gas revenue streams.

4. Potential acceleration of energy transition

The energy transition refers to the transformation of the global energy sector from fossil-based (coal, oil and gas) to renewable and low carbon sources of energy (e.g. wind, solar, biofuels). COVID-19's impact on the energy transition, and thus implications for the oil and gas sector, is not straightforward and will only be discerned with the passage of time. On one hand, lower oil and gas prices may delay the transition as it reduces the economic incentive to switch to alternatives (e.g. electric vehicles, renewables in power). On the other hand, if COVID-19 economic stimulus packages include new policy interventions and investments in efficiency and clean energy (e.g. wind, solar, electrification of transportation systems), especially in large energy consuming nations, it may accelerate the energy transition. There is also the unknown element of possible changes in consumers' attitudes to public transportation and air travel, which may affect the demand for oil. The appetite and ability of governments to progress the energy transition will also be shaped by how disruptive the pandemic has been to the economy and its future prospects. Despite these near-term COVID-19 related uncertainties, the longer-term trend remains unchanged given international commitments to decarbonisation of the global energy system and the increasing competitiveness of renewable energy. While the move to a lower carbon economy is a common goal, the decarbonisation pathway will differ across countries depending on myriad factors such as resource endowments, financing, energy security, access and affordability.

Commonwealth countries should seek to link recovery plans with the creation of resilient and sustainable energy systems. While lower prices may serve as a potential disincentive to alter the energy mix given other

pressing national priorities (e.g. the health care system), the opportunity to bring about structural transformations (different types of employment and businesses) should not be overlooked. Developing countries that face particular challenges in financing the energy transition should also focus efforts on mobilising projects to access the pledged \$100 billion a year climate finance commitment by developed countries.

Commonwealth countries that are heavily reliant on the oil and gas sector will have the added complexities of factoring in impacts to existing revenues, jobs and businesses. The current upheaval in the oil and gas sector could be a glimpse into the future and measures should be put in place to reduce dependence on the sector.

Under the 2015 Paris Agreement, countries are expected to submit updated nationally determined contributions (NDCs) and publish long-term decarbonisation strategies by 2020, which were to be reviewed at COP26 (Conference of the Parties) in November 2020. Although COP26 has been postponed until 2021, global momentum remains on this trajectory and it is critical for countries to adopt integrated energy planning. Commonwealth countries should ensure that there is policy coherence on the oil and gas sector, and it is appropriately reflected in revised NDCs.

5. Increased uncertainty on industry returns

After recent oil price crashes, company strategies have been based on 'value not volume' (in contrast to previously targeted production levels and production growth), a pricing environment that would be 'lower for longer', as well as the company's views on the speed and nature of the energy transition. The way that COVID-19 has changed these assumptions will vary across individual companies, but it has increased the uncertainty about fundamental aspects of the industry and reduced the industry attractiveness in financial markets (equity and debt). Higher risks from pricing volatility, economic growth, oil demand, supply and geo-politics (e.g. trade disruptions) will pose a challenge to sector returns, which were already underperforming in recent times.²⁷

To increase their long-term value proposition, companies will focus on projects with low break-even prices and high returns. Projects with uncompetitive cost structures will be redesigned, divested or dropped. It is worth noting that some of these adjustments may prove difficult for some national oil companies (NOCs), given typically concentrated portfolios which will influence their funding requirements and dividend stream to national coffers. Smaller or distressed companies which are unable to realign portfolios and secure funding may either become takeover targets or go bankrupt. Overall the industry is likely to witness increased level of transactions (e.g. farm-downs, transfers) and countries should consider whether the regulatory framework enables efficient execution and effective oversight on different types of deals, e.g. approval process, due diligence, decommissioning liabilities, treatment of gains from transfers. Countries should also ensure that the regulatory framework appropriately treats with risks from bankruptcies e.g. performance bonds, orphan wells and decommissioning liabilities.

Historically, shocks in the industry that resulted in low pricing environments have been met by some governments maintaining the fiscal terms while others have made revisions - either increasing fiscal take (to increase revenues) or lowering fiscal take (to attract and maintain investment and activity). It is likely that during this downturn countries will be similarly contemplating fiscal changes. These should be carefully considered to balance dealing with the immediate near-term disruption from COVID-19 while ensuring that citizens benefit from the development of these finite resources given the poorer outlook for value creation in the sector. It should be noted that countries with well-designed progressive fiscal regimes would not require adjustments as the fiscal burden would automatically change with profitability levels to reflect predetermined sharing of benefits between the investor and the state in a low return scenario.

Countries should also carefully consider the changing risk-reward profile of the industry and what the implications are given its specific circumstances. While the risks were already

present, COVID-19 has accentuated them and perhaps provided a glimpse into the future. As with other actors in the industry, governments should be re-evaluating assumptions (e.g. long-term pricing, investment cycles, project economics, access to financing, energy transition, stranded assets) and adjusting strategies (e.g. role of NOC, local content, exploration policy) to ensure that the country realises value from the sector.

6. Importance of robust policy and effective institutions.

The areas discussed above are already well-documented risks in the oil and gas sector, but COVID-19 has amplified these risks and the potential for the 'resource curse'. This refers to the phenomenon, also called the 'paradox of plenty', where countries with significant natural resources (particularly oil, gas and minerals) have lower economic growth, higher levels of corruption, conflict, social inequity and environmental problems when compared to non-resource-rich countries.

This underscores the need for countries operating or hoping to operate in an industry characterised as capital intensive, technology driven, cyclical and with long investment horizons to have a clear long-term strategy (good policies) and rules (laws, regulations and contracts) which provide transparent guidelines to companies on how the resources are to be developed, as well as agencies to oversee these activities (institutions). These factors are usually described under the umbrella of 'above-ground factors' and good governance in these areas is essential for avoiding the resource curse. They assume even greater importance in a post COVID-19 world where traditional sources of financing for the sector are dwindling (associated with strong governance requirements) and the risks for value creation increase. The risk-reward profile of a project is heavily determined by 'above-ground factors', and ensuring that there is good governance and strong institutions should be viewed as a key mechanism for realising the benefits and managing the risks from the sector for both investors and citizens.

Annex 1

The oil and gas sector in Commonwealth countries

	Oil & Gas	Oil & Gas	Exporter		Reserves		Exploration
	Consumer	Producer	Oil	Gas	Oil (bnbbbls)	Gas (TCF)	Activity
Antigua and Barbuda	●						
Australia	●	●		●	4.0	84.4	●
Bangladesh	●	●				5.7	●
Barbados	●	●	●		0.00	0.01	●
Belize	●	●	●		0.01		●
Botswana	●						
Brunei Darussalam	●	●	●	●	1.1	9.5	●
Cameroon	●	●	●		0.2	4.8	●
Canada	●	●	●	●	167.8	65.4	●
Cyprus	●			○			●
Dominica	●						
Eswatini	●						
Fiji	●						
Gambia, The	●						
Ghana	●	●	●		0.7	0.8	●
Grenada	●						
Guyana	●	●	○				●
India	●	●			4.5	45.5	●
Jamaica	●						●
Kenya	●	●	○				●
Kiribati	●						
Lesotho	●						
Malawi	●						●
Malaysia	●	●	●	●	3.0	84.5	●
Maldives	●						
Malta	●						
Mauritius	●						●
Mozambique	●	●		●		100	●
Namibia	●					2.2	●
Nauru	●						
New Zealand	●	●			0.1	1.0	●
Nigeria	●	●	●	●	37.5	188.8	●
Pakistan	●	●			0.3	12.9	●
Papua New Guinea	●	●		●	0.2	6.4	●
Rwanda	●						
Saint Kitts and Nevis	●						
Saint Lucia	●						
Saint Vincent/Grenadines	●						
Samoa	●						
Seychelles	●						●
Sierra Leone	●						●
Singapore	●						
Solomon Islands	●						
South Africa	●	●					●
Sri Lanka	●						
Tanzania	●	●		○	0.0		●
The Bahamas	●						●
Tonga	●						
Trinidad and Tobago	●	●	●	●	0.2	10.9	●
Tuvalu	●						
Uganda	●		○		2.5	0.5	●
United Kingdom	●	●	●		2.5	6.6	●
Vanuatu	●						●
Zambia	●						

Source: BP Statistical review, U.S Energy Information Agency

Annex 2

Snapshot of top Commonwealth oil and gas producing countries

1. **Canada:** 3rd largest oil reserves, ~10% of the world's total oil reserves (171 billion barrels, of which 165 billion are oil sands). In 2018 accounted for ~5% of global oil and gas production. Canada is the fourth largest producer of both crude oil production (after the US, Saudi Arabia and Russia) and natural gas production (after the US, Russia and Iran). Accounts for ~5.6% GDP (\$158 billion) and 0.9% total employment (169,358 direct jobs).²⁸
2. **Nigeria:** Largest oil producer and third-largest gas producer (after Algeria and Egypt) in Africa. Reserves of ~38 billion barrels of oil, and ~189 TCF of gas account for roughly a third of the region's total. Sixth-largest liquefied natural gas (LNG) exporter in the world. The oil and gas sector accounts for ~10 per cent of GDP.
3. **Australia:** ~4 billion barrels of proven oil reserves and 84.4 TCF of natural gas reserves. With gas production tripling in the last decade, it has emerged as one of the world's leading LNG exporters (second in 2019 after Qatar) with significant new LNG projects in the pipeline.
4. **United Kingdom:** In 2018 the second-largest producer of oil and natural gas in OECD Europe (after Norway) and predominantly offshore. Domestic production peaked in the late 1990s and the UK became a net importer in the mid-2000s. Provides more than 75% of the UK's total primary energy and over 300,000 jobs (direct, indirect and induced). In 2018 accounted for 1.2% of GDP (£24 billion).²⁹
5. **Malaysia:** 3 billion barrels of proven oil reserves and 84.5 TCF of natural gas reserves. The world's third-largest LNG exporter. Sector has accounted for nearly 20% of the country's total GDP in recent years. Employment of ~55,000.
6. **India:** 4.5 billion barrels of proven oil reserves and 45.5 TCF of natural gas reserves at the end of 2018. Domestic production is not sufficient to meet growing energy demand and India is a net importer of both oil and gas (was self-sufficient in natural gas until 2004). The petroleum sector inclusive of refining, transportation and marketing, contributes ~15% to India's GDP.
7. **Pakistan:** 12.6 TCF gas reserves and ~340 million barrels of oil (EIA). In 2015, the country produced 95,000 barrels per day (b/d) of total petroleum and other liquids, up from below 70,000 b/d before 2011. Several natural gas fields have been discovered in Pakistan since mid-2015 and are being further examined for viability, with no production timeline scheduled yet. Exploration projects are ongoing and are expected to sustain production levels in the short term.
8. **Trinidad and Tobago:** 10 TCF of natural gas reserves and 240 million barrels of proven oil reserves. Moved from an oil-dominant sector to a mostly natural gas-based one in the 1990s. Oil and gas typically account for about 40% of GDP and 80% of exports but less than 5% of employment. In 2019 was the eighth-largest LNG exporter and is among the world's largest exporters of ammonia and methanol.
9. **Bangladesh:** 6 TCF of natural gas reserves and 3 million barrels of proven oil reserves. Consumption exceeds domestic production and plans are underway for additional exploration activity.
10. **Brunei Darussalam:** 1.1 billion barrels of proven oil reserves and 9.5 TCF of natural gas reserves. Brunei relies on hydrocarbon revenues for about 60% of its gross domestic product and about 90% of its merchandise exports and government revenues.

11. **Ghana:** ~700 million barrels of proven oil reserves and 0.8 TCF of natural gas reserves (EIA). Began production in 2010 (discovery made in 2007, developed in less than 3.5 years), reaching first oil in December 2010. With subsequent discoveries and developments over the last decade, Ghana has emerged as a new producer.
12. **Papua New Guinea:** 7.1 TCF gas reserves and ~170 million barrels of oil (EIA). Exporting crude oil since the early 1990s and began exporting LNG in 2014 following construction of a \$19 billion project. In 2019 was the eleventh-largest LNG exporter and if proposed liquefaction projects come online, will emerge as a key LNG player. The combined contribution of oil and LNG will potentially comprise around 60% of the nation's export revenues in the near term.
13. **South Africa:** Holds 15 million barrels of proven oil reserves located offshore. Crude oil production is very small in comparison to domestic consumption requirements. Significant deepwater gas condensate discovery in 2019 with further exploration activity planned.

Endnotes

- 1 Naadira Ogeer is Economic Adviser in the Oceans and Natural Resources Section, Commonwealth Secretariat, London
- 2 Oil 31%, Gas 23%, Coal 27%, Bioenergy 10%, Nuclear 5%, Renewables 5%. <https://www.iea.org/data-and-statistics/charts/global-primary-energy-electricity-generation-final-consumption-and-co2-emissions-by-fuel-2018>
- 3 <https://www.eia.gov/outlooks/steo/marketreview/crude.php>
- 4 IEA: 29mmbpd, Rystad 27mmbpd
- 5 1 mmbpd in 2009 and 2.65 mmbpd registered in 1980, when the world economy crashed after the second oil crisis
- 6 2016 OPEC+ agreement to lower production by almost 2% of global production or ~1.8 million bpd (1.2 mmbpd from OPEC, 558,000 bpd from key non-OPEC producers - of which Russia accounted for 300,000bpd) was to ease a global oversupply after more than two years of sustained low prices (\$114 in 2014 to \$26 in 2016).
- 7 Instead of expected cuts of at least 1.5 mmbpd (OPEC 1 mmbpd, non-OPEC 0.5 mmbpd), Saudi Arabia and Russia recorded increases of 2.6 mmbpd and 300 mbd respectively. Saudi Arabia also offered price discounts of up to \$8 a barrel.
- 8 Production cuts of 9.7 mmbpd in May-June, 8 mmbpd July-Dec 2020, 6 mmbpd for Jan 2021 to April 2022
- 9 Prices did not move significantly after the announcement. Increased in May to \$30/bbl (Brent)
- 10 \$64/bbl according to EIA
- 11 May WTI (West Texas Intermediate) contract closed at a discount of \$37.63.
- 12 Stopping the flow of oil and gas from wells in producing fields.
- 13 Brent prices US\$ per barrel: 2011-2014 average of US\$102, 2015 \$52, 2016 \$44, 2017 \$54, 2018 \$71, 2019 \$64
- 14 Occidental Petroleum Corporation (March 2020), Shell (April 2020 – first time since 1940s).
- 15 GlobalData Oil and Gas Intelligence Centre. Data as of 17 April for over 100 tracked companies.
- 16 <https://www.iea.org/reports/oil-market-report-april-2020>
- 17 There is a wide range of forecasts for peak demand e.g. 2025, 2035, 2040.
- 18 Every field's production naturally declines, and maintaining existing production rates requires ongoing significant investment, without which production falls year on year.
- 19 Forecasts of Brent price/barrel for 2020 & 2021. US Energy Information Administration: \$33.04/45.62, World Bank: \$35/\$42, IMF: \$36.9/\$39.5
- 20 Global Energy Review 2020 – April 2020

- 21 <https://energysustainsoc.biomedcentral.com/articles/10.1186/s13705-019-0194-3#ref-CR2>
- 22 <https://news.trust.org/item/?map=small-island-states-seek-to-end-dependence-on-imported-oil>
- 23 <https://www.worldoil.com/magazine/2019/september-2019/features/guyana-to-become-a-major-oil-producer>
- 24 <https://nationaloil.co.ke/upstream/>
- 25 <https://uk.reuters.com/article/tanzania-lng/update-1-tanzania-says-construction-of-lng-plant-to-start-in-2022-idUKL8N23459P>.
- 26 https://pau.go.ug/site/assets/files/1116/uganda_oil_and_gas_sector_brochure-_april_2019.pdf
- 27 https://www2.deloitte.com/content/dam/insights/us/articles/4542_Upstream-diversification/DI_The-portfolio-predicament.pdf
- 28 <https://www.nrcan.gc.ca/science-data/data-analysis/energy-data-analysis/energy-facts/energy-and-economy/20062>
- 29 <https://oilandgasuk.co.uk/economic-contribution/>



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