



Oil and Gas and Then?


THIS DOCUMENT IS PREPARED BY THE OFFICE OF YB WONG CHEN, MEMBER OF PARLIAMENT FOR KELANA JAYA









Executive Summary

-  The oil and gas (O&G) sector contributes to the Malaysian government's revenue in three main streams: Petroleum Income Tax, PETRONAS dividend, and petroleum and gas royalty.

-  O&G contributions amounted to, on average, RM53.7bil or 31.6% of federal government revenue between 2005 and 2015.

-  We estimate that Malaysian oil and gas reserves will run out in 2050 and 2060 respectively. To prepare for the end of oil, the critical stage will be around 2028, which is halfway between peak production and eventual depletion.

-  As Malaysia approaches this critical stage, the government's revenue base must be restructured immediately to reduce its dependence on oil money. We propose five ways to take action:
 -  Save 50% of the O&G revenue into a heritage investment fund;
 -  Pursue policies for wage increases, such that at least 50% of the working population earn enough to qualify to contribute personal income tax;
 -  Widen the tax base by introducing inheritance and capital gains taxes;
 -  Eliminate corruption wastages and leakages in government expenditure; and
 -  Improve PETRONAS's position by making it answerable to Parliament, rather than to the Prime Minister; and by using its profit as a baseline for its dividend payouts to the government.

1.0 Introduction

- 1.1 The purpose of this paper is to highlight the fiscal challenges posed by the depletion of oil and gas (O&G) reserves and Malaysia's overreliance on it as a source of income.
- 1.2 We break this down into simpler questions to be answered in separate sections:
 - (a) What is the contribution of the O&G sector in the Malaysian economy, particularly on government revenue?
 - (b) How healthy is the O&G sector's performance?
 - (c) Being non-renewable resources, when will Malaysia's oil and natural gas reserves run out?
 - (d) What must be done to prepare for and mitigate the situation when O&G runs out?

2.0 O&G Revs Up Revenue

- 2.1 The O&G sector is a mainstay of the Malaysian economy, with the petroleum and natural gas mining industry contributing RM103.6bil or 10.2% to the national gross domestic product (GDP) in 2014.^{1,2} Petroleum products, liquefied natural gas (LNG), and crude petroleum cumulatively made up RM127.7bil or 16.4% of total exports in 2015, down 21.8% from RM166.83bil in 2014.³
- 2.2 Petroliaam Nasional Berhad (PETRONAS) is Malaysia's fully-integrated O&G multinational wholly-owned by the Malaysian government. Its operations span the entire hydrocarbon value chain, from exploration and production to trading and shipping.⁴
 - (a) As custodian of Malaysia's petroleum resources, PETRONAS monetises these resources through Production Sharing

¹ Department of Statistics Malaysia, *Press Release: Petroleum and Natural Gas Statistics 2015*, <https://www.statistics.gov.my/index.php?r=column/pdfPrev&id=Qno5cExBMpGaUQwazhTNUI1Y2MzQT09>, 2016.

² Ministry of Finance Malaysia, *Gross Domestic Product by Sector*, <http://www.treasury.gov.my/index.php/en/economy/economic-data.html>, 2015.

³ Malaysia External Trade Development Corporation, *Top 10 Major Export Products, 2015*, <http://www.matrade.gov.my/en/malaysia-exporters-section/33-trade-statistics/3816-top-10-major-export-products-2015>, 2016.

⁴ Petroliaam Nasional Berhad (PETRONAS), *Annual Report 2015*, <http://www.petronas.com.my/investor-relations/Documents/PETRONASAnnualReport2015.pdf>, 2015.

Contracts (PSCs) and Risk Sharing Contracts (RSCs) with other O&G companies. As at 2015, PETRONAS runs 198 producing fields and 355 offshore platforms in Malaysia through 101 active PSCs.

- (b) Three of its subsidiaries – PETRONAS Chemicals Group Bhd, PETRONAS Dagangan Bhd, and PETRONAS Gas Bhd – feature in the top 20 Bursa Malaysia-listed companies by market capitalisation, cumulatively accounting for RM121.1bil or 13.9% of the top 20 as at March 31, 2016.⁵
- (c) PETRONAS also runs operations in over 20 countries worldwide, in cooperation with host governments and other major oil companies—this ultimately contributes to the company's bottom-line and hence to the Government's coffers. However, do note that this paper focuses primarily on the O&G industry domestically, confining most of our analysis to only Malaysian waters.

2.3 PETRONAS averaged RM285.3bil in annual revenue between 2011 and 2015, peaking at RM329.1bil in 2014 before dropping to RM247.7bil in 2015.⁶

2.4 Based on the Group's average earnings before interest, tax, depreciation and amortisation (EBITDA) of RM110.5bil between 2011 and 2015, we estimate PETRONAS to be valued at approximately RM600bil.⁷

2.5 As shown in **Figure 1**, the O&G sector contributes to Federal Government revenue in three ways:⁸

- (a) Petroleum Income Tax (PITA)
- (b) PETRONAS dividend
- (c) Petroleum and gas royalty

The sum of these three components will hereinafter be referred to as O&G sector-related contributions to federal government revenue.

⁵ 'Members of The Edge Billion Ringgit Club 2016', *The Edge Malaysia*, August 22 2016.

⁶ Petroliaam Nasional Berhad (PETRONAS), *Annual Reports 2008-2015*, <http://www.petronas.com.my/investor-relations/Pages/AnnuualRepTimeline.aspx>, 2008-2015.

⁷ Based on an enterprise value to EBITDA (EV/EBITDA) multiple of 5.4, which is the average EV/EBITDA multiple for BP p.l.c., Exxon Mobil Corp., and Royal Dutch Shell p.l.c. between 2011 and 2015.

⁸ In addition, export duties are a relatively smaller contribution.

- 2.6 Between 2005 and 2015, O&G sector-related contributions amounted to, on average, RM53.7bil or 31.7% of federal government revenue. The percentage of government revenue derived from the O&G sector peaked at 39.1% in 2009, and dropped to 18.0% in 2015.⁹ Generally, PETRONAS's performance serves as a rough barometer for the O&G contributions to government revenue.
- 2.7 Therefore, any significant negative movement in oil prices affects the government's ability to fund its budget. Indeed, besides the sluggish global economy, the Prime Minister cited the slump in oil prices as necessitating the 2016 Budget Recalibration.¹⁰ Given this substantial impact of the O&G sector on government revenue, it is necessary to evaluate the sector's recent performance.

⁹ Ministry of Finance Malaysia, *Fiscal and Economic Data: 1.3 Federal Government Revenue*, <http://www.treasury.gov.my/index.php/en/economy/economic-data.html>, 2015.

¹⁰ Ministry of Finance Malaysia, *Perutusan Khas Perdana Menteri Tentang Pengubahsuaian Bajet 2016*, http://www.treasury.gov.my/pdf/ucapan/2016/Perutusan_Khas_Bajet2016.pdf, 2016.

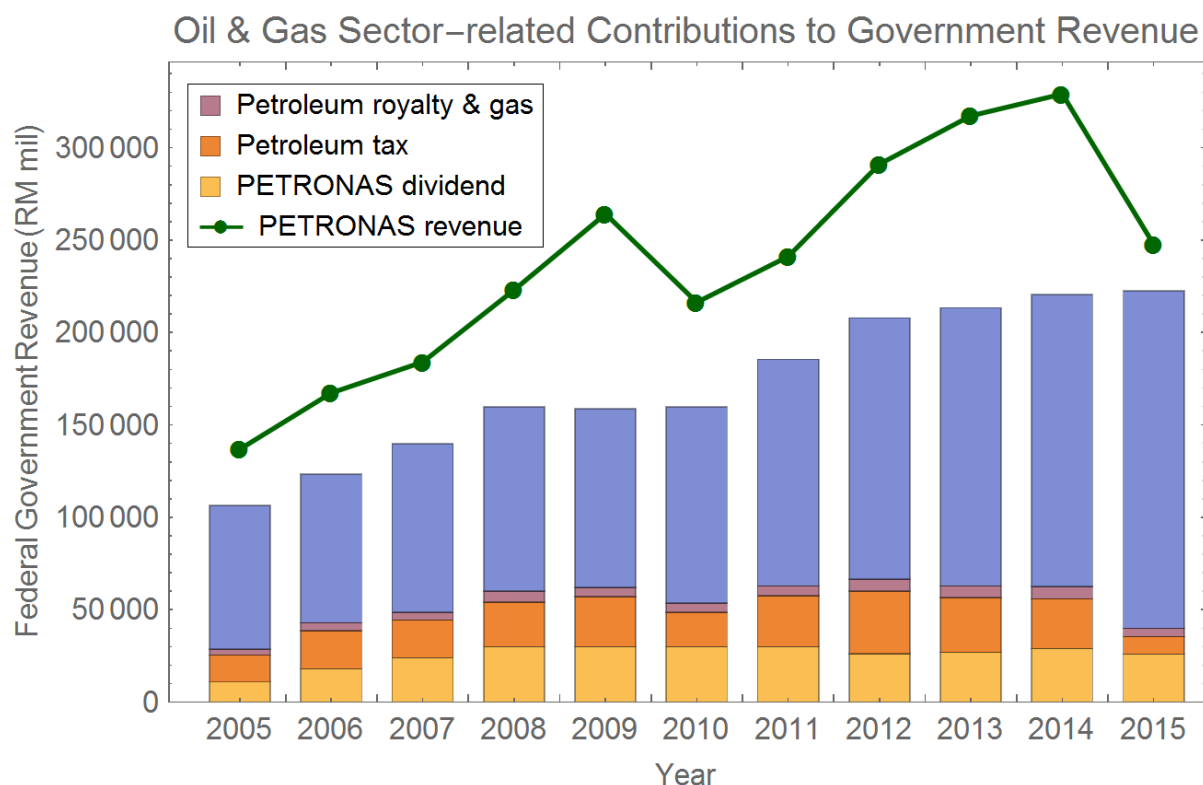


Figure 1: Malaysian federal government annual revenue between 2005 and 2015, and PETRONAS annual revenue for its respective financial years. Numbers sourced from the Ministry of Finance economic data on federal government revenue, and PETRONAS Annual Reports 2008-2015. Note the similar trend between O&G sector-related contributions and PETRONAS revenue.

(RM mil)	Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015*
Total government revenue		106,305	123,547	139,885	159,794	158,639	159,653	185,419	207,913	213,370	220,626	222,455
of which Petroleum income tax		14,566	20,674	20,453	24,191	27,231	18,713	27,748	33,934	29,753	26,956	9,529
PETRONAS dividend		11,000	18,000	24,000	30,000	30,000	30,000	30,000	26,260	27,000	29,000	26,000
O&G royalties		3,293	4,240	4,152	5,908	4,805	4,855	5,148	6,423	6,186	6,532	4,415
O&G sector contributions		28,859	42,914	48,605	60,099	62,036	53,568	62,896	66,617	62,939	62,488	39,944
		27.15%	34.73%	34.75%	37.61%	39.11%	33.55%	33.92%	32.04%	29.50%	28.32%	17.96%

Table 1: Oil and gas sector-related contributions to federal government revenue between 2005 and 2015. Data sourced from the Ministry of Finance economic data on federal government revenue.

3.0 The Ailing Oil and Gas Sector

3.1 As shown in **Figure 2**, the Brent Spot Price peaked in July 2008 (USD143.95 per barrel) and again in March 2012 (USD128.14 per barrel). From June 2014 (USD115.19 per barrel), the price of oil started to drop, hitting a low of USD26.01 per barrel in January 2016. This drop reflects global market conditions whereby supply outstripped demand.

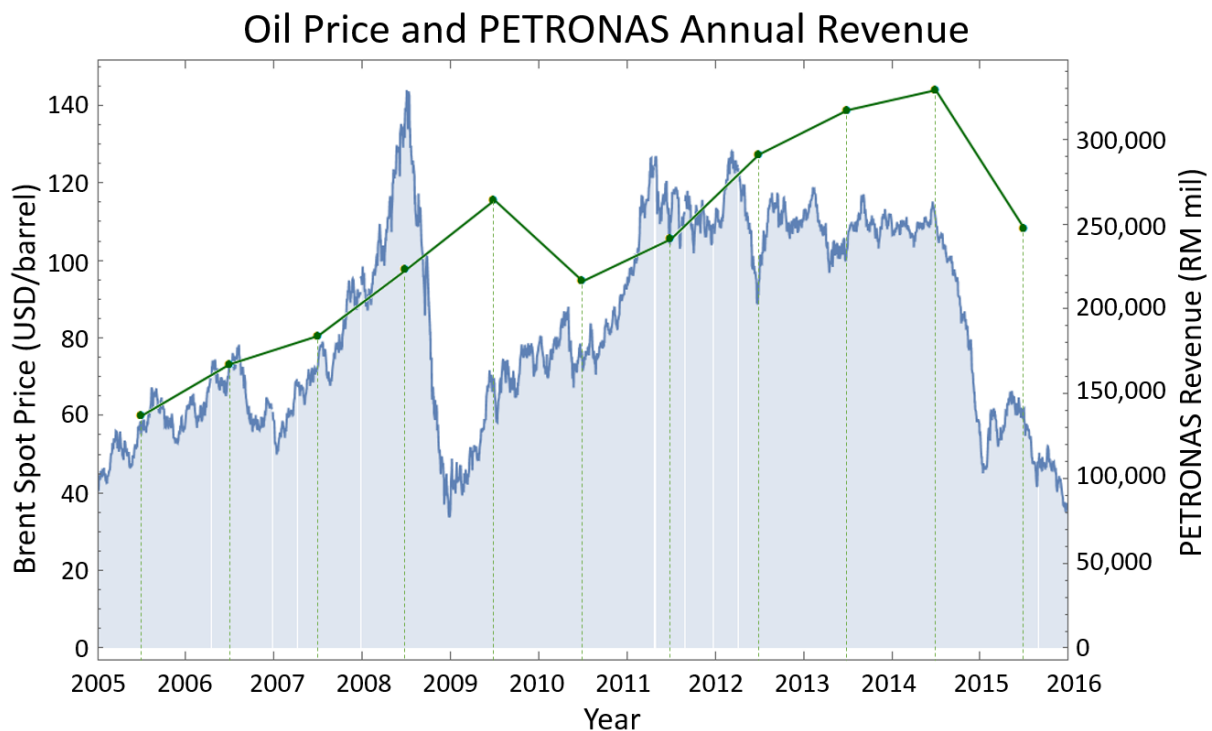


Figure 2: Crude oil price (blue) and PETRONAS annual revenue (green) between 2005 and 2015. Data sourced from the United State Energy Information Administraion (US EIA) and PETRONAS Annual Reports 2008-2015. PETRONAS annual revenue for a given financial year is plotted such that the x -coordinate is the middle of that calendar year. As would be expected, PETRONAS annual revenue follows a trend generally lagging behind that of oil price.

3.2 Hydraulic fracturing, more commonly known as “fracking,” is a threat to the traditional method of extracting oil. Coupled with this shale oil “revolution” in the United States (US), an unanticipated increase in non-US supply led to the collapse in oil prices in 2014.¹¹

3.3 We are also aware of the actions taken by the Organization of the Petroleum Exporting Countries (OPEC) to suppress oil prices, thereby preventing fracking from taking a bigger slice of the pie.

¹¹ Cristiana Belu Mănescu and Galo Nuño, 'Quantitative effects of the shale oil revolution', *Energy Policy*, vol. 86, 2015,

- 3.4 Oil prices have since rebounded slightly in early 2016. As **Table 2** depicts, World Bank and International Monetary Fund (IMF) forecasts predict a gradual increase in crude oil prices, averaging USD57 per barrel from 2017 to 2020. This is the expected new normal.

	2016	2017	2018	2019	2020
World Bank ¹²	43.0	53.2	59.9	62.7	65.6
IMF ¹³	43.0	50.6	53.1	54.4	56.3

Table 2: Crude oil price forecasts, 2016-2020. Values stated in USD per barrel.

- 3.5 Following the 2014-2016 downward trend of O&G benchmarks, PETRONAS Group's revenue and EBITDA for the first half of 2016 decreased by 23.5% and 20.1% year-on-year compared to 2015, mainly due to lower average realised prices across all products as well as lower sales volumes.¹⁴
- 3.6 Likewise, contributions to federal government revenue from the O&G sector correlate directly to the price of oil. **Figure 3** plots a simple linear model fit relating Brent Spot Price to such contributions. Based on this model, we estimate that at the 2017-2020 average forecast price of USD57 per barrel, the O&G sector would contribute RM46.24bil annually to government revenue. This estimate is a 16% increase from the 2015 value of RM39.94bil, but 31% lower than the 2012 peak of RM66.62bil.
- 3.7 Given the longer-term outlook for the O&G sector generally and oil prices specifically, oil money is no longer a sustainable income source.¹⁵ We must wean government revenue off an overreliance on the O&G sector's black milk. The days of the USD100 per barrel have ended for the foreseeable decade. Rather than sourcing a sizeable portion of revenue from the O&G sector alone, the government must commit to fiscal discipline. We synthesise viable solutions in Section 6.

¹² The World Bank Group, *World Bank Commodities Price Forecast*, <http://pubdocs.worldbank.org/en/764161469470731154/CMO-2016-July-forecasts.pdf>, 2016.

¹³ International Monetary Fund, *IMF Primary Commodity Prices*, <http://www.imf.org/external/np/res/commod/index.aspx>, 2016.

¹⁴ Petroliaam Nasional Berhad (PETRONAS), *PETRONAS Group Interim Financial Report For Second Quarter 2016*, [http://www.petronas.com.my/investor-relations/Documents/financial-results/Financial%20Report%20Second%20Quarter%20Ended%2030%20June%202016%20\(FY2016\).pdf](http://www.petronas.com.my/investor-relations/Documents/financial-results/Financial%20Report%20Second%20Quarter%20Ended%2030%20June%202016%20(FY2016).pdf), 2016.

¹⁵ Sue-Ann Chua, *Two reminders from Petronas' tough 1Q2016*, in *The Edge Malaysia*, edited, 23 May 2016 edn, Selangor, The Edge Media Group, 2016, p. 8.

Relationship between Oil Price and O&G-related Contributions to Fed. Gov't Annual Revenue

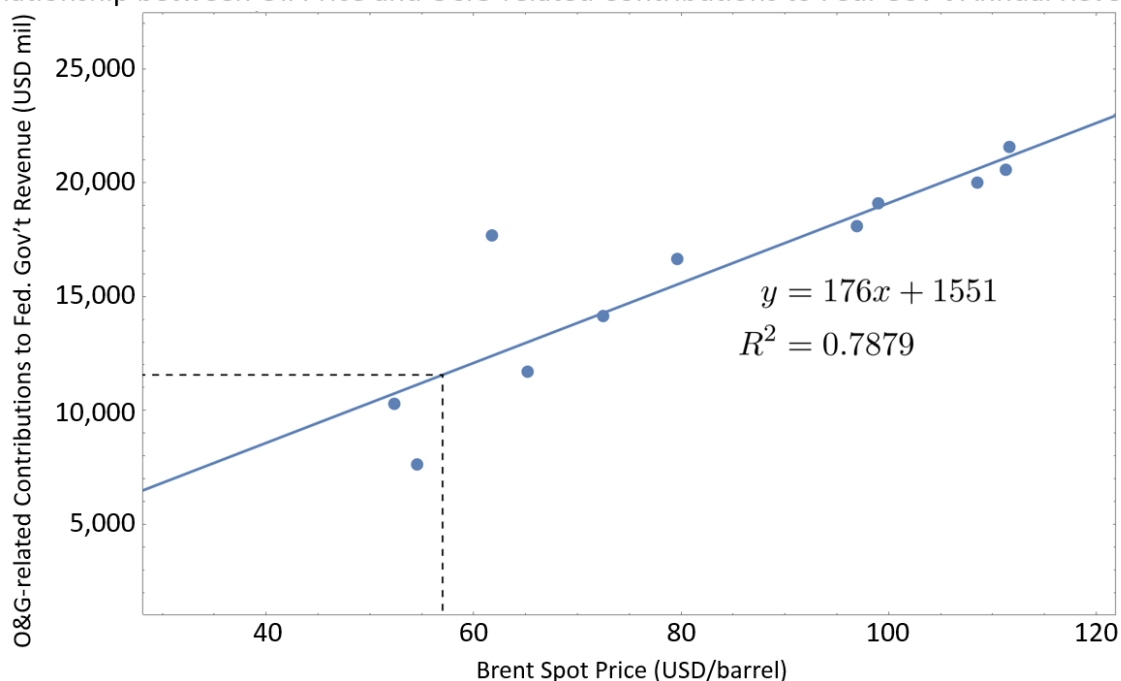


Figure 3: Relationship between Brent Spot Price and O&G sector-related contributions to Government revenue. Dots indicate data points between 2005 and 2015. Government revenue values have been converted to USD according to the respective year's average exchange rate. Brent Spot Price value is the average over the respective year. The line of best fit shows a clear positive correlation between oil price and contributions to Government revenue. At a Brent Spot Price of USD57 per barrel (dashed line), we estimate a contribution of USD11.56bil, that is, RM46.24bil at an exchange rate of RM4 per USD.

4.0 Eventual Depletion

- 4.1 Not unlike fossils, fossil fuels including oil and natural gas have been lying under pressure for much longer than we are able to dig them up. Since extraction rates far outstrip formation rates, these non-renewable resources will inevitably deplete.
- 4.2 Here we present two O&G depletion forecasts for Malaysia: one from the Government, and one based on data from the BP Statistical Review of World Energy 2016.¹⁶
- 4.3 Local oil reserves have declined slightly over the past few years, with **Figure 4** displaying Malaysia's proved reserves from 2010 to 2015

¹⁶ BP p.l.c., *Statistical Review of World Energy*, <http://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>, 2016.

according to the BP data. As of end 2015, oil and natural gas reserves are at 3.6bil barrels of oil (bbl) and 7.7bil barrels of oil equivalent (BOE) respectively.

- 4.4 Minister in the Prime Minister's Department Dato' Sri Abdul Wahid B. Omar, in reply to a Parliamentary question, cited Malaysia's oil and natural gas reserves at 5.9bil stock tank barrels and 16.7bil BOE respectively as of 1 January 2016.¹⁷ These are notably higher than the BP figures, and were stated with no data source provided.

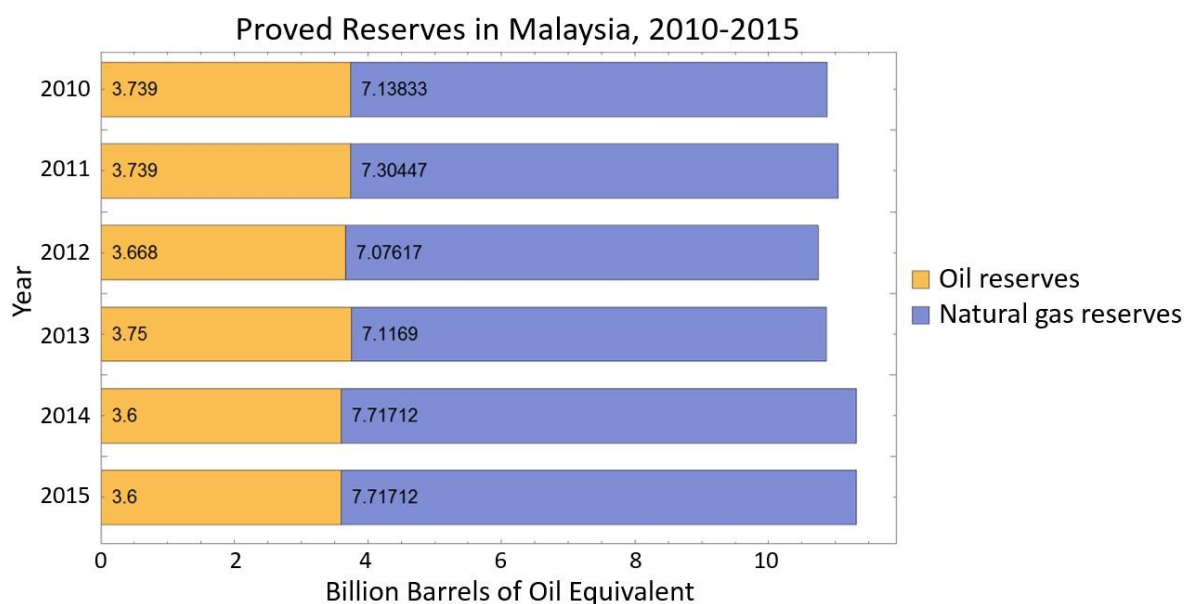


Figure 4: Volume of oil and natural gas reserves in Malaysia. Data are as of year-end, and sourced from the BP Statistical Review of World Energy 2016.

- 4.5 The Government, based on a quoted production rate of 654,000 barrels per day in 2015, projects oil and natural gas to last for the next 25 years and 45 years respectively.¹⁸ In other words, if we keep pumping at our present rate, our current oil reserves will run out by 2040, whereas natural gas will last until 2061.

¹⁷ Sinar Project, 'Parliamentary Documents', *Pemberitahuan Pertanyaan bagi Jawapan Lisan Mesyuarat Kedua, Penggal Keempat, Parlimen Ketiga Belas, Majlis Mesyuarat Dewan Rakyat: Soalan 71*, <http://pardocs.sinarproject.org/documents/2016-may-parliamentary-session/oral-questions-soalan-lisan/2016-05-24-parliamentary-replies/soalan-71.pdf/view>, 2016.

¹⁸ Ibid.

- 4.6 While assuming a constant production rate gives us an idea of the timeframe involved, we obviously do not extract oil at a constant rate until it simply runs out. Rather, we can model the production of non-renewable resources using the Hubbert peak theory, whereby production rate follows a bell-shaped curve.
- 4.7 Production rates in Malaysia for the past 51 years are shown in **Figure 4**. Besides these historical data, our model takes into account that proved reserves can and will increase with time as new reservoirs are discovered and new extraction technologies adopted.
- 4.8 We estimate that half of Malaysia's proved reserves remain unaccounted for. In this case, using the BP data, our oil and natural gas reserves would stand at 7.2bil bbl and 15.4bil BOE respectively. Adding this to what has already been extracted, Malaysia's total resources available are approximately 15.86bil bbl of oil and 24.19bil BOE of natural gas, assuming ultimate recovery.

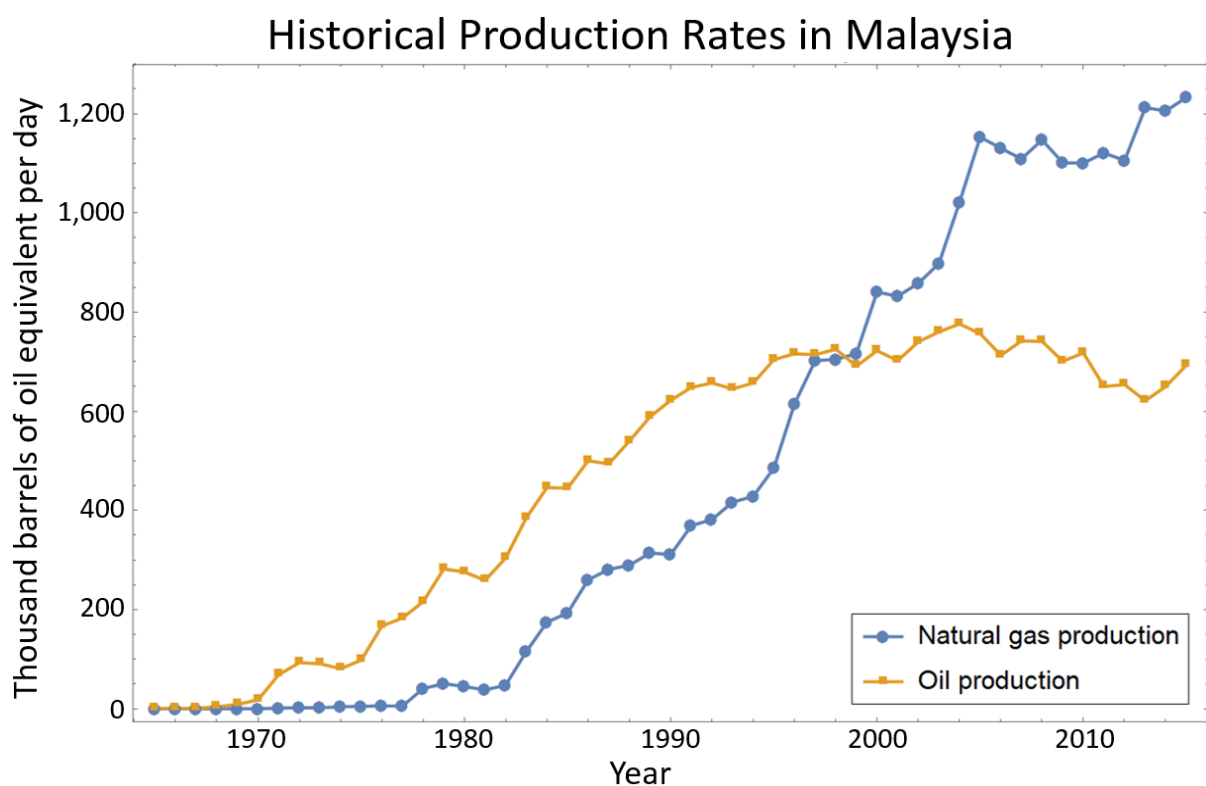


Figure 5: Production rates of oil and natural gas in Malaysia. Data sourced from the BP Statistical Review of World Energy 2016. Oil production exceeded 700,000 bbl per day between 2000 and 2010. Subsequently, the years 2011 to 2015 recorded lower rates of oil production, with a five-year average of 653,600 bbl per day. Natural gas production has generally climbed upwards, reaching a rate of 1,233 thousand BOE per day in 2015.

- 4.9 Given our historical production rates and total resources available, we model production using Hubbert's peak theory in **Figure 6**. Based on this model, the oil production rate would have peaked in 2008, after which the rate is in decline. Natural gas production would likely peak in 2020.
- 4.10 However, Hubbert's model has its limitations as it does not account for market and political forces.¹⁹ For instance, the slight oil production surge over the past two years can be attributed to the collapse in benchmark prices.
- 4.11 As Hubbert's peak theory assumes constant reserves throughout, it does not consider improvements in exploration and extraction technologies that occur throughout the oilfields' lifespan. We note that most oilfield discoveries in Malaysia have been in shallow water (i.e. in less than 150 metres of water), while deep water exploration is in its infancy.
- 4.12 To partially offset this limitation, we have estimated total reserves to be two times' the current proved reserves. Ultimately, the worst-case scenario is using the majority of oil money to support government expenditure; rather than reinvesting it into O&G activities such as conducting seismic surveys in unexplored areas, formulating or employing new technologies for better mapping and extraction to enhance recovery, as well as preventive and corrective maintenance to sustain or prolong production with existing assets.

¹⁹ Alfred J Cavallo, 'Hubbert's petroleum production model: an evaluation and implications for world oil production forecasts', *Natural Resources Research*, vol. 13, no. 4, 2004.

- 4.13 Nevertheless, our production model provides a useful guide to better understand and prepare for the end-of-oil scenario. While we suspect the Minister has used simple division to calculate when oil will run out based on the current production rate, we must recognise that post-peak production rates will taper as reserves inevitably diminish. The O&G industry has to restructure itself for this taper and make adjustments for eventual depletion.

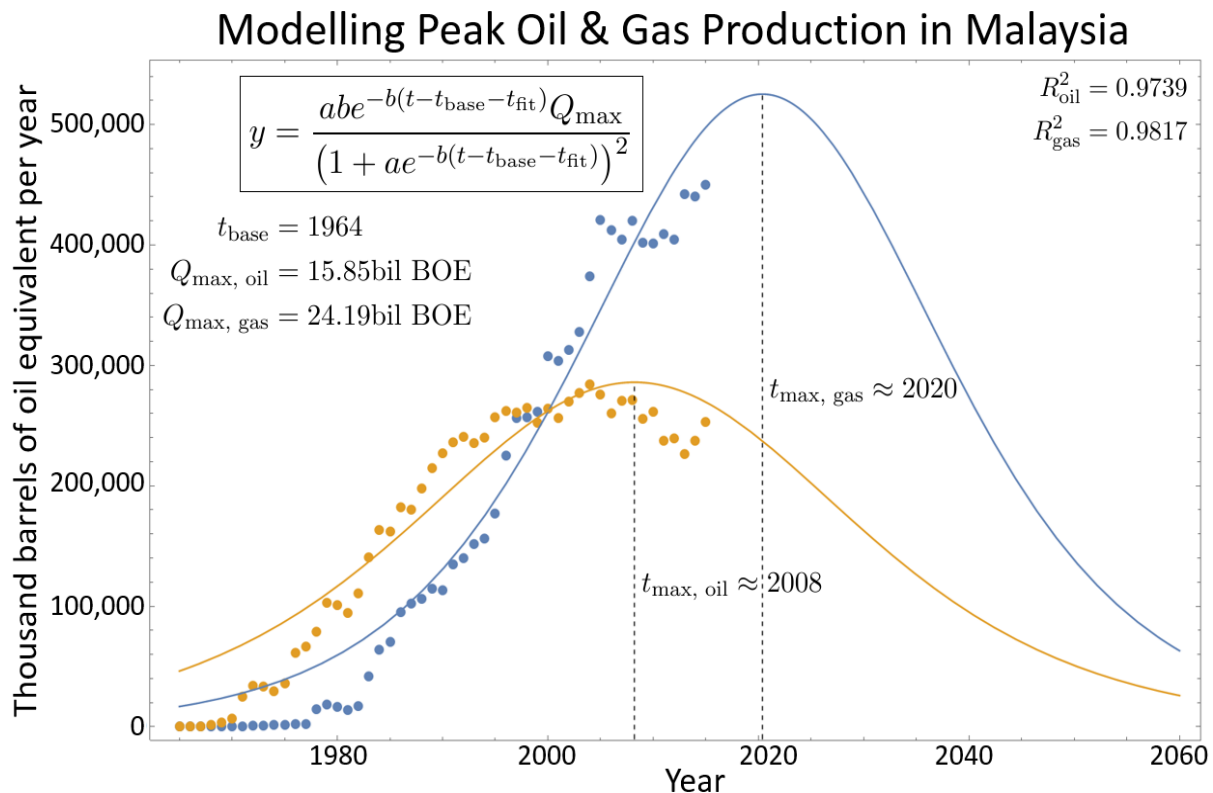


Figure 6: Using the Hubbert peak theory to model Malaysia's oil (in orange) and gas (in blue) production rates. Dots represent actual data points sourced from BP. The base year is 1964. Q_{max} is the total resource available, which we set to 15.85bil BOE and 24.19bil BOE for ultimate recovery of oil and gas respectively. We then obtain the bell-shaped production rates by fitting historical data to the Hubbert curve equation. From the fit parameters a and b , we deduce that oil and gas production rates peak in 2008 and 2020 respectively.

4.14 Finally, it is worth noting that since 2011, the domestic oil consumption rate has overtaken the domestic oil production rate in Malaysia.²⁰ Historical rates are plotted in **Figure 7**. Moreover, the Government has admitted that since 2014, Malaysia has been a net importer of crude oil and petroleum products, with a deficit of RM1.2bil between January and November 2014.²¹

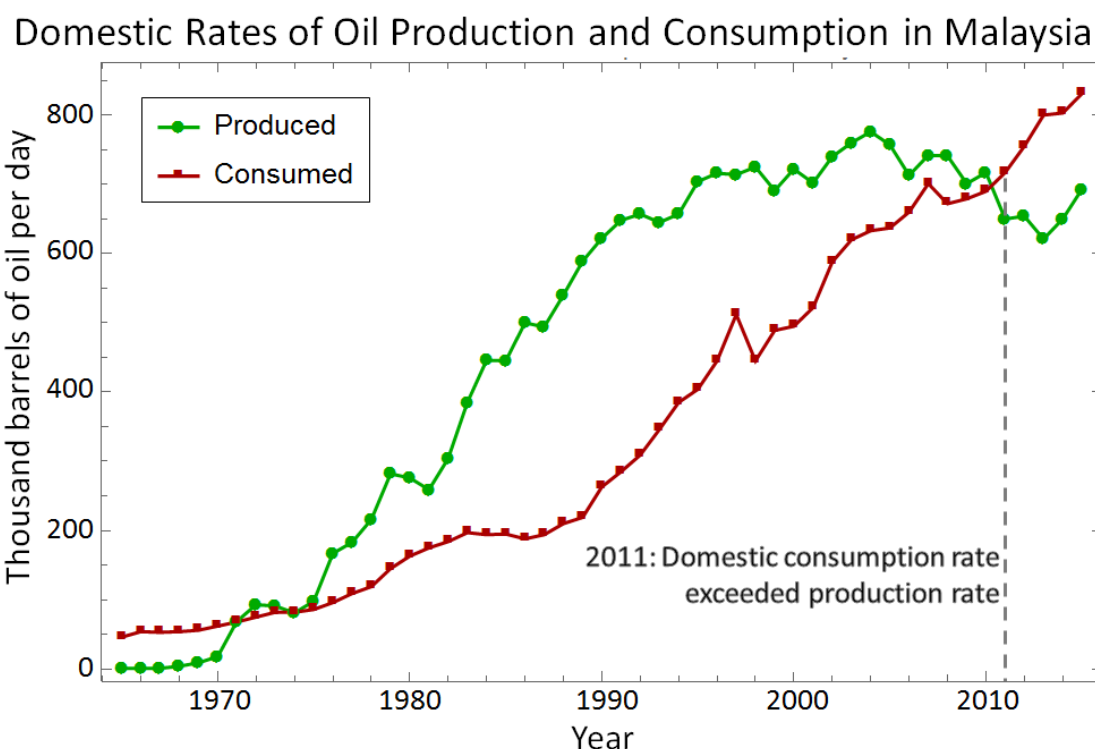


Figure 7: Plot of domestic oil consumption and production rates in Malaysia, 1965–2015. Data sourced from BP. In 2015, the domestic oil consumption rate was at 831 thousand barrels daily, exceeding the domestic production rate of 693 thousand barrels daily by almost 20%.

²⁰ BP p.l.c.

²¹ Cecilia Kok, *Govt reveals M'sia net importer of crude oil, petroleum products since 2014*, <http://www.thestar.com.my/business/business-news/2015/01/21/clearing-the-air-treasury-sec-gen-malaysia-net-importer-of-crude-oil-petroleum-products-since-2014/>, *The Star Online*, 2015.

5.0 A Call to Action: Save for the Oil-less Day

- 5.1 Even if our current proved reserves represent half what we actually have left, the oil production peak has passed. Since a historical high in 2003, oil production has generally been slowing. Based on this downward taper, we are expected to be producing less and less oil.
- 5.2 Therefore, structural adjustments to our revenue base need to begin immediately as we are living on borrowed time. Otherwise, we will reach a critical phase around 2028, which is the midpoint from peak production (historical: 2003; modelled: 2008) to a 2050 oil depletion. We do expect natural gas reserves to hold out for longer: we estimate a critical phase around 2040, which is the midpoint from the modelled peak production in 2020, before depletion in 2060.
- 5.3 Based on our numbers, 12 years from now is the final period before we enter a fiscal death spiral as the end of oil approaches. Difficult fiscal decisions need to be made. We cannot live on a model where in 2040, the O&G industry falls off a cliff. We need to create a model to adjust to oil depletion so that it is not completely disruptive to the economy, and we need some time to save some of the oil and gas money into a heritage fund. All these options are no longer available come 2028, when we will enter the point of no return.
- 5.4 As the *Barisan Nasional* Government has proven unable to exert any fiscal discipline, it is important to have a change in government as soon as possible. An immediate change of government would afford us these critical twelve years to take much-needed action and chart a softer landing.
- 5.5 We must immediately save 50% of the O&G revenue into a heritage investment fund. If we do so, we can easily build a heritage fund of RM270bil if we save 50% for the next 12 years.²² This entails saving RM23bil a year. With conservative management, this fund could enjoy a return of 5% per annum, and therefore would grow to a significant RM384bil after the 12-year period.

²² Using our estimate of RM46.24bil in annual contributions to government revenue from the O&G sector, at the 2017-2020 forecast price of USD57 per barrel. Of course, oil prices may well increase beyond 2020.

- 5.6 Upon setting up a heritage fund, the RM23bil annual shortfall saved into a heritage fund will pose a fiscal challenge to any government. Therefore, while the government moves to save money into the heritage fund, it needs to restructure its fiscal policy by revamping the revenue base and controlling its expenditure.

6.0 Restructuring Our Money Flows as Oil-flows Dry Up

- 6.1 In terms of revenue, the lowest-hanging fruit is the personal income tax contribution. Taxpayers in Malaysia represent a mere 15% of the working population. Conversely, 85% of working people are so underpaid that they do not qualify to pay any tax. The fact that personal income tax contributes just 13%²³ to the revenue of the government, is absolutely shocking. This percentage contribution must be doubled to about 25%, on par with most developed countries. In real terms, this means that in the next 12 years, we need to ramp up pay to enable us to collect an additional RM30bil in personal income tax.
- 6.2 If wages do not rise until at least half of the working population become taxpayers, we can never advance to become a high-income nation. Pursuing policies for wage increases, or paying higher for talent, would simultaneously plug the brain drain. We expect corporate earnings to pick up as more talented workers are involved to create and complete a virtuous economic cycle.
- 6.3 In the next very critical 12 years, we must also widen the tax base to include inheritance tax and capital gains tax. Everyone, more so the rich, must pull their weight to prepare for the end of oil, which means the adoption of taxes that are existing norms in developed non-oil-producing countries.
- 6.4 As for the matter of expenditure, our nation's administration must lead by example. Cutting out corruption, inefficiency, and wastage across the board should reduce annual government expenditure by RM25bil.

²³ Individual income tax made up 12.7% of federal government revenue in 2015 (revised estimate), with a ten-year average of 10.3% over 2006-2015.

- 6.5 As PETRONAS is an undoubtedly vital national asset, it must be afforded greater independence to continue “thriving in tough times” (as per the title of its Annual Report 2015). Transparency International-Malaysia (TI-M) has lauded PETRONAS’s organisational transparency via its publicly-available annual reports.
- 6.6 However, the Petroleum Development Act 1974 (Act 144) gives the Prime Minister sole control and direction over PETRONAS. Malaysia can ill afford allowing the Prime Minister to decide the company’s direction and management at his personal discretion. We thus echo TI-M’s call for PETRONAS to be made answerable to Parliament.²⁴ We further propose that an oversight committee—comprising members from the Government and the Opposition, similar to the current Public Accounts Committee—be formed to govern PETRONAS’s direction and investment strategies.
- 6.7 PETRONAS’s dividend payout should correspond to its profit, rather than being a fixed or “forced” amount decreed by the Government. This will enable the company to reinvest in O&G activities of exploration and production, and will provide funding to acquire and tap into overseas reserves.

7.0 Conclusion

- 7.1 We have noted the heavy reliance of Malaysian government revenue on the O&G sector. Coupled with the recent supply glut and certain depletion to come, this makes an urgent case for immediate restructuring of government revenue base.
- 7.2 We have proposed several ways to take action:
- (a) Save 50% of the O&G revenue into a heritage investment fund;
 - (b) Pursue policies for wage increases, such that at least 50% of the working population earn enough to qualify to contribute personal income tax;
 - (c) Widen the tax base by introducing inheritance and capital

²⁴ Transparency International Malaysia, *TI-M lauds PETRONAS for its organizational transparency*, <http://transparency.org.my/media-and-publications/ti-m-lauds-petronas-for-its-organizational-transparency/>, 2013.

- gains taxes;
- (d) Eliminate corruption wastages and leakages in government expenditure; and
- (e) Improve PETRONAS's position by making it answerable to Parliament, rather than to the Prime Minister; and by using its profit as a baseline for its dividend payouts to the government.

While not an exhaustive list, these are concrete ways to take action now in preparation for O&G depletion.

- 7.3 The good ol' oil days have passed, and we are entering a phase of tapering. Rather than a knee-jerk reaction as per the 2016 Budget Recalibration, we call for more prudent and farsighted preparation to deal with the inevitable, that oil and gas will run out. The next 11 years leading up to 2028 will be the most critical period in Malaysian fiscal history.

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