

Methodology & Assumptions Adopted for the Valuation P 22 Equity Value of Aramco (Upstream plus Downstream plus other assets) P 43

November 2019

Saudi Aramco Valuation



Research Highlights:

A Case of abundant oil reserves, low extraction cost of oil compared globally, and strong profitability ratios but partially offset by high royalty, and income taxes and sensitive location in a region with political volatility

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Marmore MENA Intelligence provides research-based consulting solutions to help understand current market conditions, identify growth opportunities, assess supply/ demand dynamics, and make informed business decisions.

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- » Consistent track record of quality, in-depth research offerings;
- Skilled team with extensive experience in advanced quantitative and qualitative analysis techniques; »
- Deep understanding of MENA market and access to wide-ranging database »
- » Delivers high quality, client specific, insightful research reports; highlighting key client issues and uncovering key answers/opportunities for the clients.



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Qualifications to the Valuation Estimate

- 1. The Income and Expenses projections used in this valuation of Saudi Aramco are done on inflation adjusted basis. They are not done product-wise or plant-wise as the required data is not available and hence are carried out for groups of products namely Upstream Products and Downstream Products. Further, they are based on the basis of estimated production quantities, sales prices, production costs, gross margins, investment requirements, and working capital requirements derived directly or through approximations from the data available from the Company's financial statements for 2018 and information provided in the previous Bond Prospectus issued by the Company in early 2019.
- 2. For forecasting crude oil revenues, we based them on historical cyclical crude oil prices (adjusted for inflation) for Saudi Arabian crude sales and assumed the historical cycle of crude oil prices to be repeated in the future. There is no guarantee that crude oil cycle will be repeated in the future. The long-term inflation rate is not known and therefore it is based on IMF World Economic Outlook (WEO) data up to 2023 and expected to remain at those levels thereafter.
- 3. The Company's financials were available for only two years thereby limiting the scope for detailed analysis for identification of trends in revenues and costs. The results of first 9 months of 2019 and the announcements made by the Company regarding its Capex Plans are not considered in this valuation as the full details for the year are not available, the higher output level with higher Capex are not known and Company has stated the Capex plan depends on the Oil Prices that will be attained in the future
- 4. No discussion with the Company has been undertaken nor are we aware of the Company's Business Plan and strategy for the future which if known can have an impact on the valuation. The projections however take into some guidance provided in the bond prospectus.
- 5. The Cost of Equity is worked out based on data of Equity Risk Premiums in GCC, thirty-year US government bond yields, betas of some oil companies listed on New York Stock Exchange and adding an estimated Country Risk premium.
- 6. The 30-year US Government Bond Yield is taken for the valuation, as the Valuation estimated is carried out assuming a long-term investment. If the US 10-year government bond yield is taken the results can be different. On the other hand US inflation of 1.55% per annum is considered and the oil prices are expected to grow at this inflation to compensate for the loss in purchasing power of the US Dollar consequent to inflation, if this does not happen the Valuation result will be different.
- 7. No assessment of the prospects for company's joint venture investments and the value of these investments is taken at their book value.
- 8. The company invested in a controlling stake in SABIC in 2019. Since the stake was acquired at market value and it was done recently, no change in the SABIC stake is expected. That is from a valuation standpoint the difference between Assets (SABIC share stake value) and Liabilities (Borrowings undertaken and deferred payments due to Public Investment Fund from whom the stake was bought) will be zero. Hence SABIC Stake is not included in the valuation and even if it is included there will be offsetting assets and liabilities. Thus, the SABIC stake acquisition is therefore assumed to be valuation neutral.

Executive Summary

Saudi Aramco (Aramco) the largest oil producer in the world, accounting for more than 10% of world oil production, has Upstream and Downstream activities with the former accounting for bulk of the profits generated. Upstream division has high gross margins of about 77% compared to 5.8% for the Downstream Division. Upstream activities comprise both crude oil as well as natural gas and its associated products, though much of the production comes from crude oil. Aramco supplies its oil partly to meet the consumption needs of the domestic economy, but main revenues are from exports. It supplies to the domestic economy that are at subsidized rates are compensated by the government for the subsidies provided through price equalization mechanism. Aramco has one of the lowest oil production cost among all the countries due to advantageous geological formation of oil reserves.

Aramco is expected to issue an IPO anytime soon. Media is abuzz with different opinions on Aramco's valuation, which is expectedly to range between USD 1.5 trillion and USD 2.0 trillion. Marmore in its attempt to value Aramco has used Discounted Free Cash Flows (DFCF) method, which is explained and presented in this report. Valuation comparison based on peer multiples is also discussed.

The Company's value is expected to be mainly contributed by the Upstream Division as it accounts for bulk of the Company's profits and value. The Company also processes about 30% of its oil in its downstream division to produce refined petroleum products and downstream chemical products and this division accounts for most of the remaining profits and value of the Company. However, the downstream division is of great strategic importance for the company as it provides a stable and easily accessible demand for its oil or upstream production. Aramco is moving in the direction of increasing its capacity for downstream products directly and indirectly in order to sustain stable demand for its oil and benefit from the higher value added that downstream activities provide. The Company is targeting at equity stakes in downstream producers in India and in China as part of this strategy.

The company's accounts for 2018 provide a combined picture for the Company with some disclosures as to the segment wise numbers. Based on these numbers, separation of the income and cost between the two segments namely Upstream and Downstream segment has been made assuming market prices and other assumptions related to the segmental transfers. Oil Prices are cyclic, and the cycle extends over a long period, which is the reason behind selecting a ten -year explicit projection for the valuation. Prices forecast exist for



short term, but long view price expectations are uncertain. The valuation in the report relies on repetition of the oil cycle across the future period. Oil being central to economic growth its demand is expected to remain stable and growing though at low rates, in the future.

Its low cost of production compared to global producers which gives high margins and profits, results in an attractive valuation for the Company. The current low cost of equity and the risk-free rate being currently very low, provides an advantageous proposition for investors considering investing in the company's shares. The low cost of equity as well as the low cost of debt of the company gives an upward bias to the Company's market value in the DCF valuation presented in the report. The implicit valuation ratios for Aramco based on this valuation compare well with the ratios for other Oil Majors such as Exxon Mobil, British Petroleum, Royal Dutch, Chevron and Total, considering the much higher size of proven oil reserves for Aramco as well as its much higher Return on Equity (ROE), compared to these international peers. The Valuation result presented in the report shows that the net value available to shareholders from the Company's proven reserves at about USD 6.09 per barrel in present value terms is attractive and moderate as well. The report discusses and provides various upside and downside scenarios for the Valuation, in addition to valuation outcomes in case of extreme changes in some factors.

All in all, Aramco maybe poised for an attractive valuation and IPO if the potential investors can be convinced of the inherent comparative merits of its business, are undeterred by cyclic variations and have deep pockets to invest in it as a long-term play.

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