

Understanding Government Oil Revenues and Oil Sales in the Republic of Congo through Financial Modelling



RESOURCES for
DEVELOPMENT
CONSULTING

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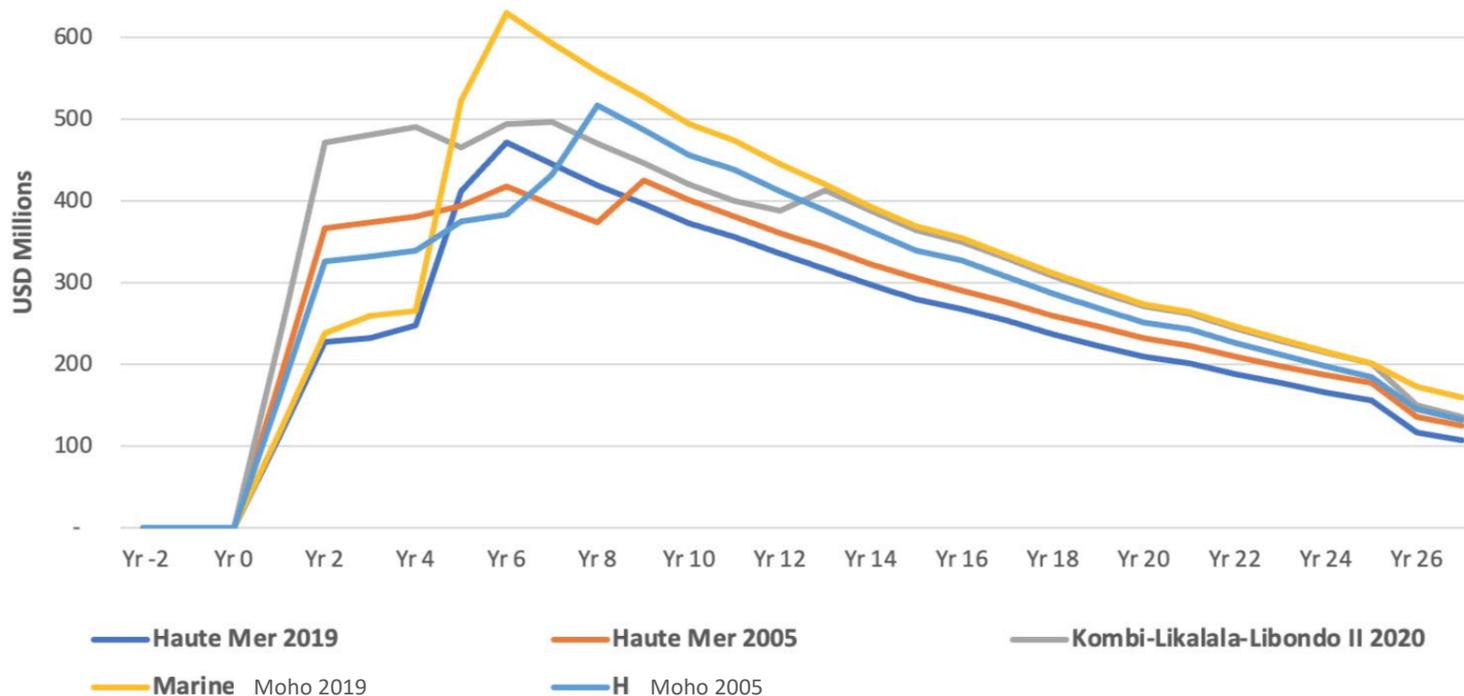
Terms of Reference

1. Is the fiscal regime fair: How do the fiscal terms compare with other petroleum producing countries?
2. Explaining Past Payments: Why has the government received the revenues that it has?
3. Forecasting Future Revenues: What revenues can the government expect based on financial modelling?
4. Benchmarking petroleum costs: How do Congolese costs compare with peer countries?
5. Benchmarking oil sale prices: How do the prices of oil sold by IOCs to affiliates compare with market prices?



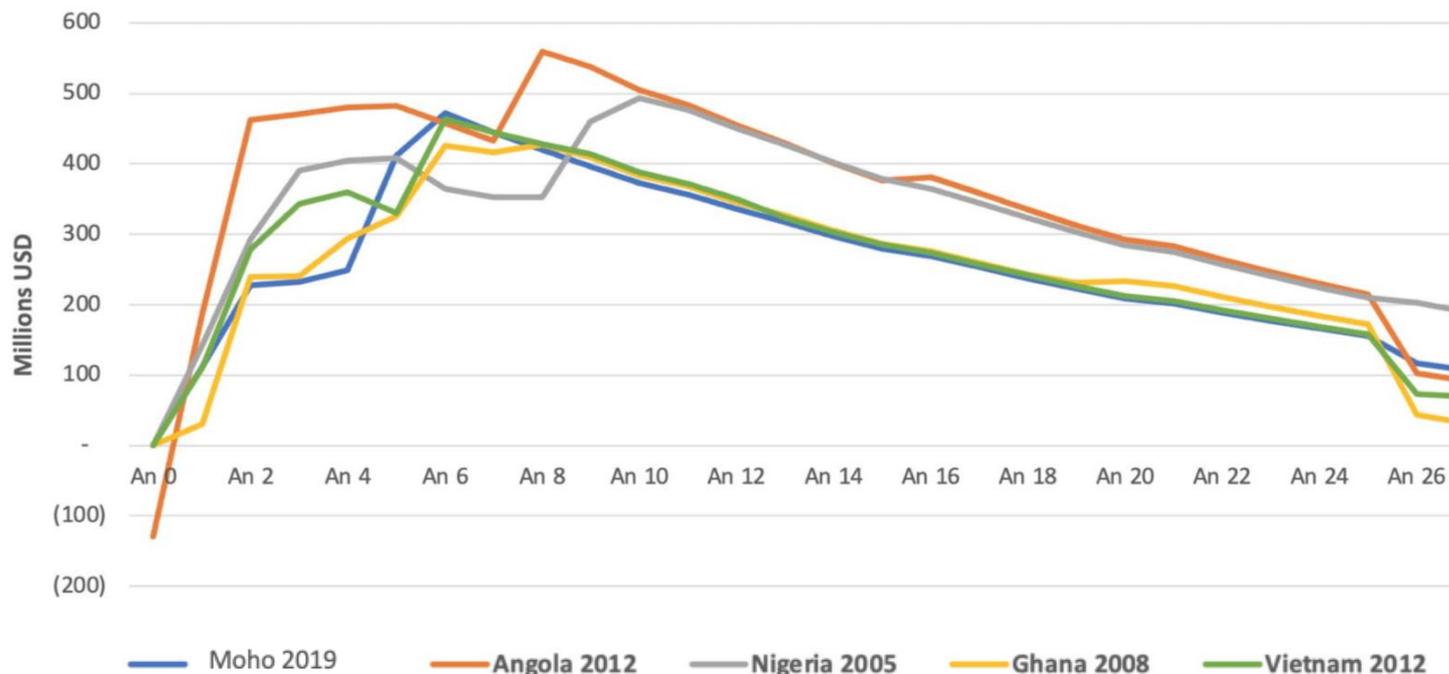
National Benchmarking

- Differences in the high price and provisions designed to minimize its impact result in very different outcomes for the government
- Among the five sets of fiscal terms analyzed, government take is expected to be lowest for the most important license
- Government revenues are expected to come later in the project life-cycle for the most important licenses



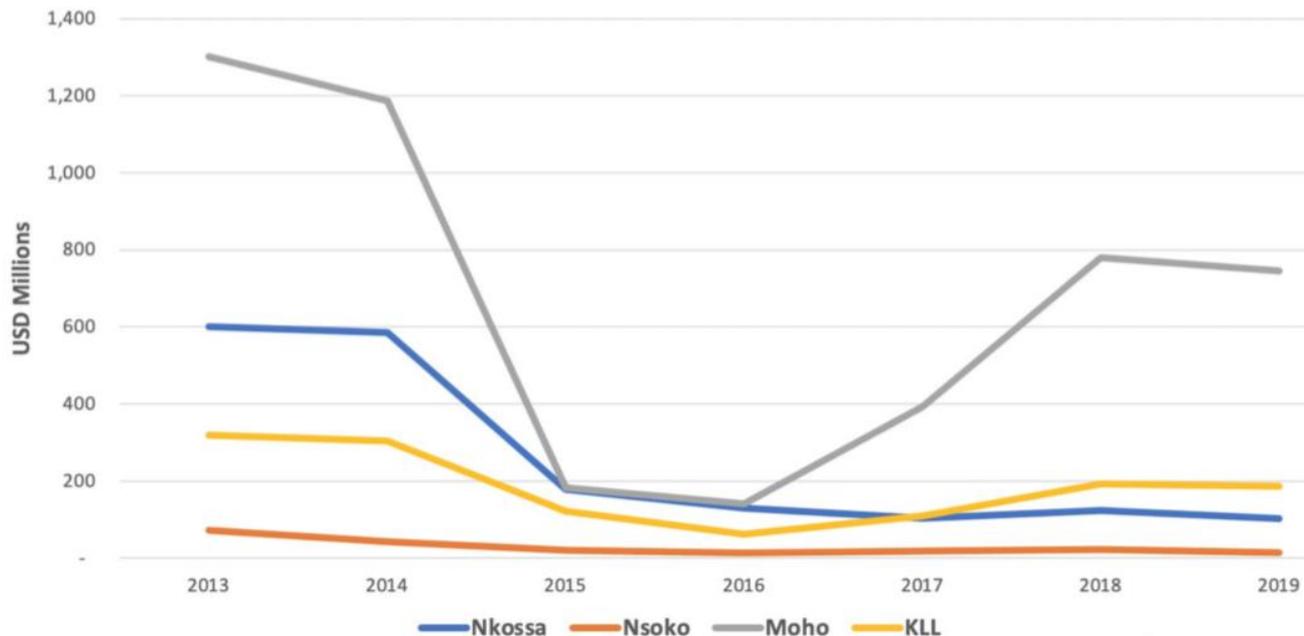
International Benchmarking

- Congolese terms compared with four peer countries: Angola, Ghana, Nigeria and Vietnam
- On government take and timing Congo is like Ghana, with terms more generous to the contractors than Angola, Nigeria and Vietnam
- The terms in Angola, Ghana and Nigeria, generate more progressivity.



Past Payments from 2013–2019

- Combined government revenues fell from \$2.1 billion (2013), to \$350 million (2016) and up to \$1 billion (2019)
- Oil price fell from \$100 to \$40 but then recovered to more than \$60
- Combined oil production doubled by 2019 to nearly 200 kbbl/d
- Increased production offset the decline in oil price
- Combined project revenue was \$1 billion higher in 2019 than 2013



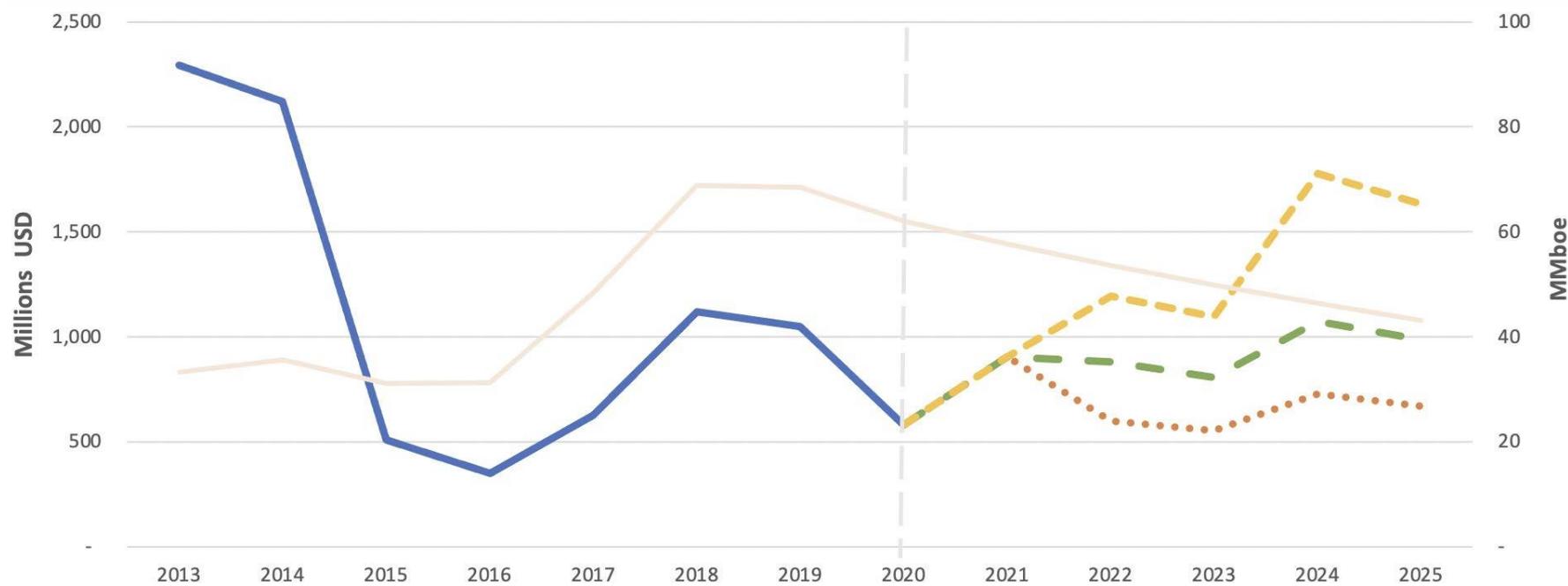
Why did the State share decline?

- Decline in government revenues not because of project revenues but because the State share fell from 60% (2013) to 30% (2019)
 - Largely caused by increases in the high price, particularly in Moho and Nkossa
1. Increase in the high price removed limits on the effective cost stop increasing oil allocated to cost recovery: less than 20% of project revenue went to costs in 2013 but nearly 70% from 2016 onwards
 2. Increase in the high price meant that almost no super profit oil was paid



Government Revenues through 2025

- Historic revenues through 2020, forecast from 2021 through 2025
- Base case revenues rising to just over \$1 billion in 2024 based on crossing of production threshold for Moho Bilondo
- High case could generate more than \$1.5 billion, but revenues not expected to return to the levels seen in 2013 and 2014

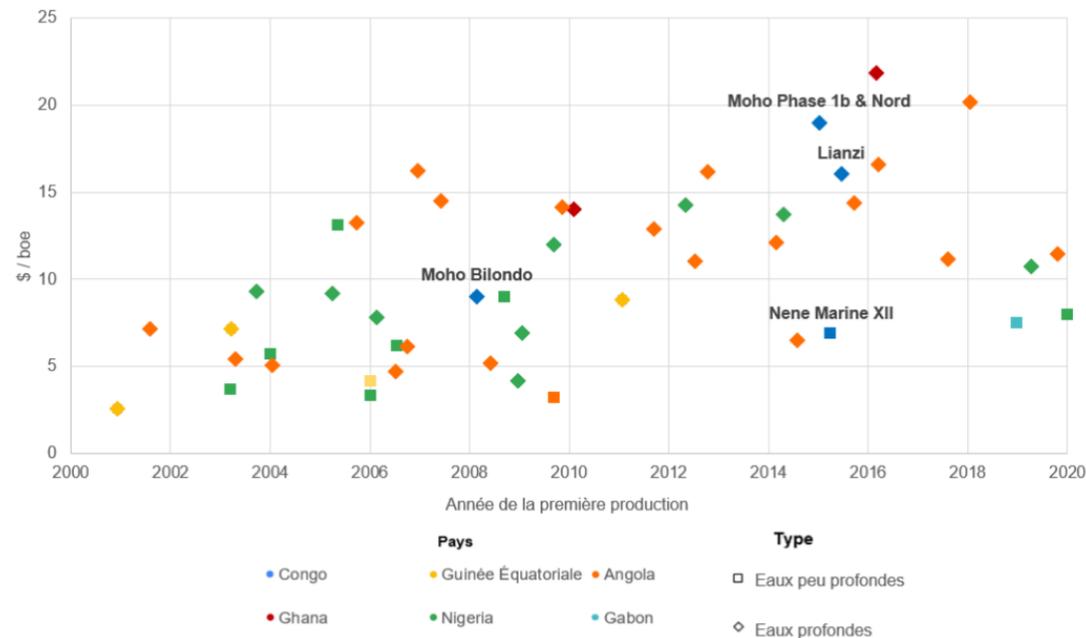


— Revenus Etat déclarés
— Projection revenus Etat @ \$70/bbl
— Volumes de production

••••• Projection revenus Etat @ \$50/bbl
- - - - - Projection revenus Etat @ \$90/bbl

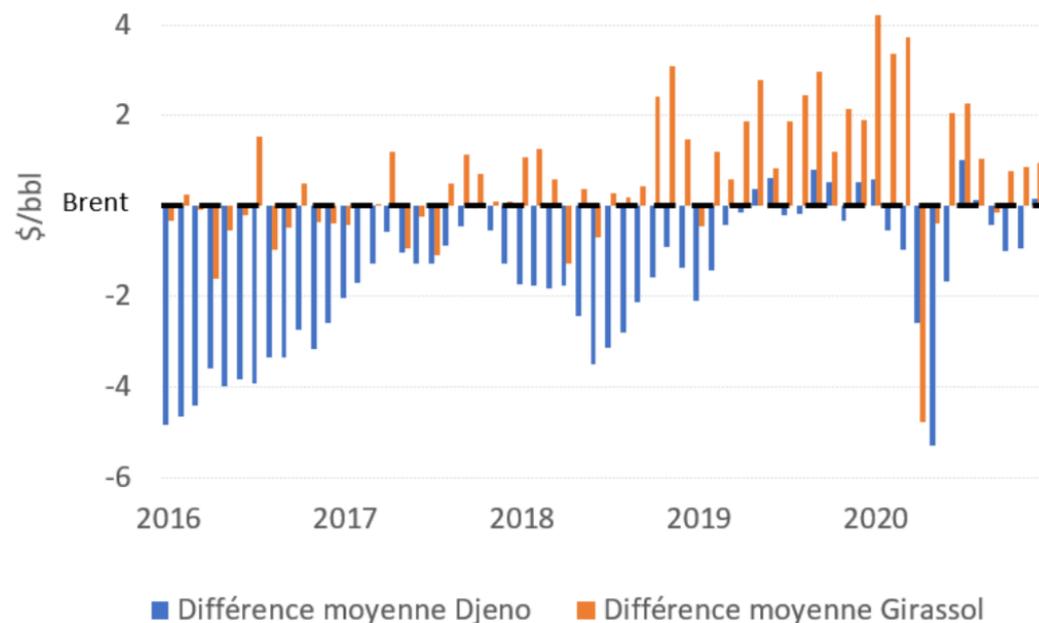
Development Cost Benchmarking

- Development costs can be compared across projects using metrics such as development cost per barrel of reserves
- Reliability depends on high quality data and on comparing independent developments with similar water depth, reserve size
- Four Congolese developments (Moho, Moho Phase 1 bis and Nord, Lianzi and Néné Marine) were compared with 44 offshore projects in west and central Africa
- Findings are that some Congolese projects, particularly Moho Phase 1 bis and Nord, are among the most expensive in the region



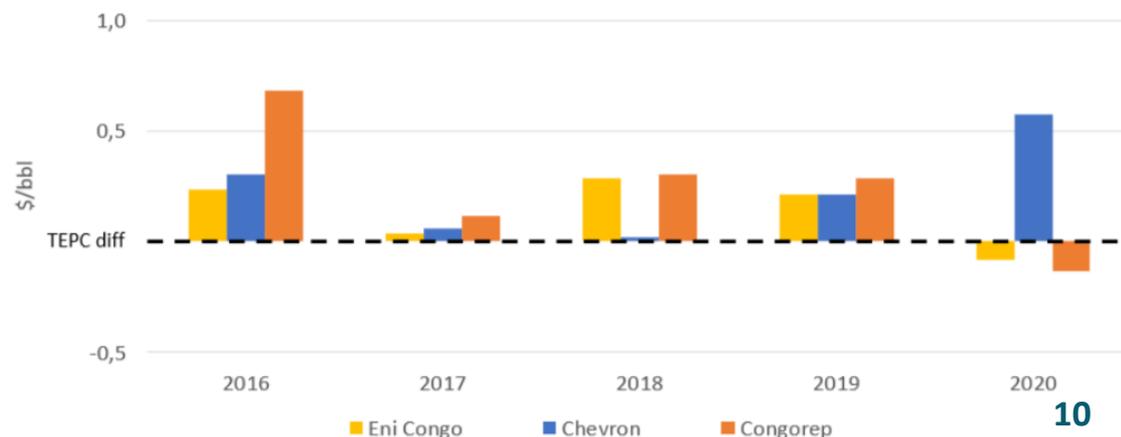
Analysis of Realized Sale Price

- Realized sale prices are based on an average Brent price less a differential
- Comparisons with regional crudes suggest that Djeno and Nkossa sell below regional crudes with similar quality and shipping costs
- Chart shows monthly average differentials to Brent for Djeno and Girassol blend from Angola
- It appears that Congolese crude sells for less than crudes of similar quality coming from the region



Establishment of the Fiscal Price

- The fiscal price is used to calculate the number of barrels allocated for cost oil with a lower fiscal price resulting in more barrels
- Valuation normally depends on the type of transactions with independent benchmarks used if most trades are with affiliates
- The fiscal price is based on the weighted average realized price for all private sales, even though nearly 90% of Djeno sales, and 99% of Nkossa sales are to affiliated companies
- The data show that Eni's reported sale price more commonly pushes the fiscal price upwards while TEPC's reported sale price pushes it down
- Procedures should be strengthened to ensure that all sales reflect arms length market prices



Conclusions

- Annual cash flow modelling is the most appropriate tool for integrating disparate data into a coherent revenue analysis
- Modelling can help to answer key questions including
 - Why did companies pay what they did? Backcasting
 - How much might they pay in the future? Forecasting
 - Are the fiscal terms fair? Benchmarking in theory
 - Are the payments fair? Benchmarking actuals
- Different data requirements to answer different questions. Project-level reliable time series data is essential.

