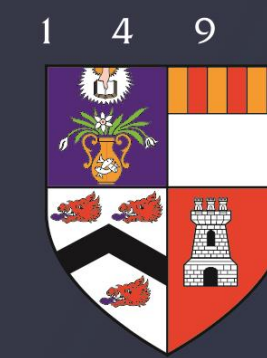


Title: Flexibility in Production Sharing Agreements in Deepwater Tanzania

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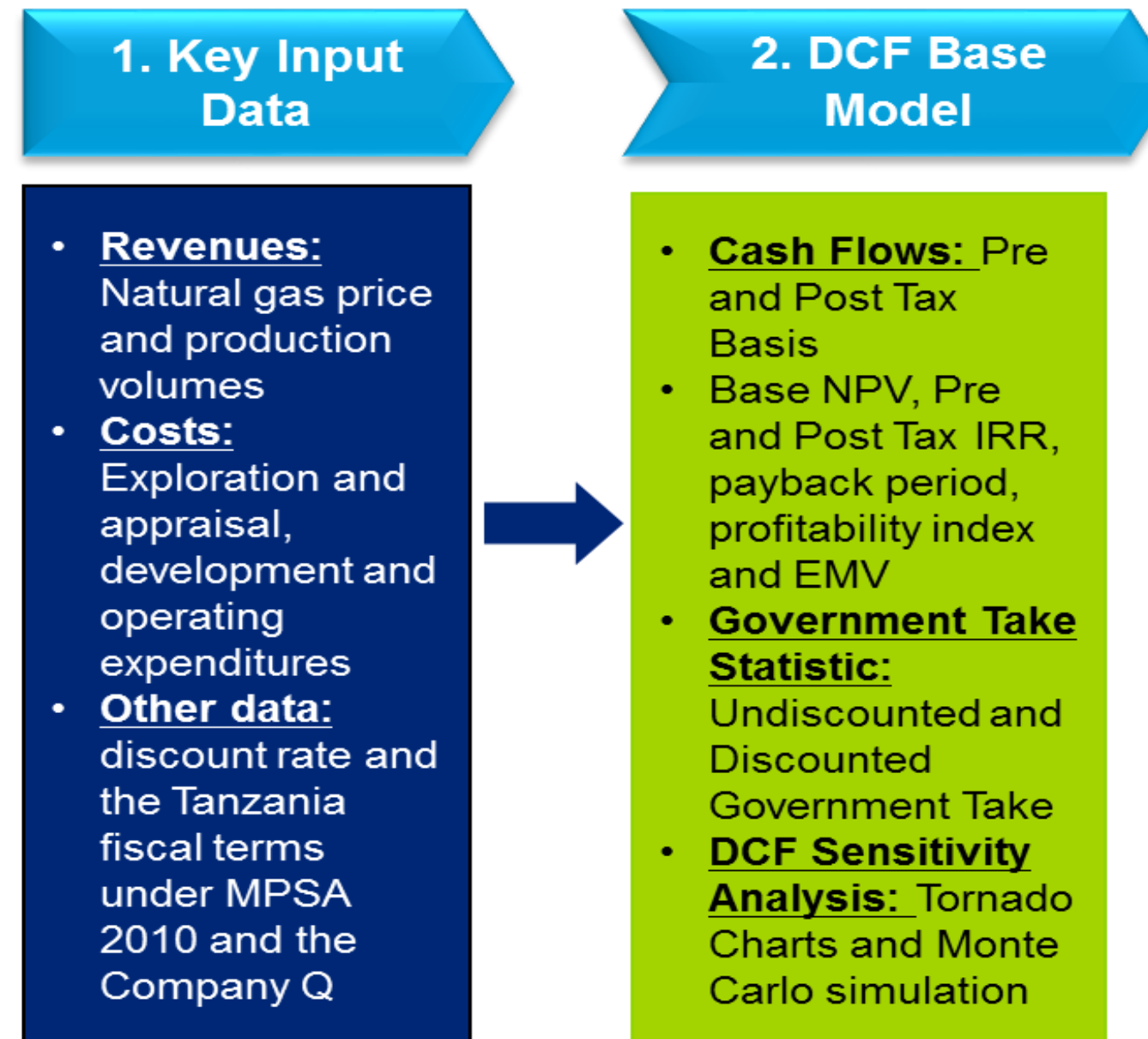
UNIVERSITY OF ABERDEEN

1. ABSTRACT AND BACKGROUND

- Tanzania has recently become one of the frontiers in the oil and gas industry following its huge discoveries of hydrocarbons (estimated at 55 Trillion Cubic Feet (TCF)) in Deepwater Tanzania.
- This has resulted into considerable expectations from the Host Government (HG), the general public and the International Oil Companies (IOCs).
- Lack of knowledge among the public contributes to exceeding expectations and speculations that the signed PSAs do not provide maximum returns to the HG.
- This thesis incorporates Production Sharing Agreement (PSA) provisions into a decision making model of production in Deepwater Tanzania.
- It further provided a roadmap for carrying out economic analysis of PSAs in Tanzania and illustrate the yardsticks used by the IOCs in making investment decisions, and how the HG economic rent is determined.
- We demonstrate that a higher Government take is not necessarily a primary focus for the HGs and discuss the HG's flexibility using MPSA Addendum of natural gas 2010 and Company Q PSA terms.

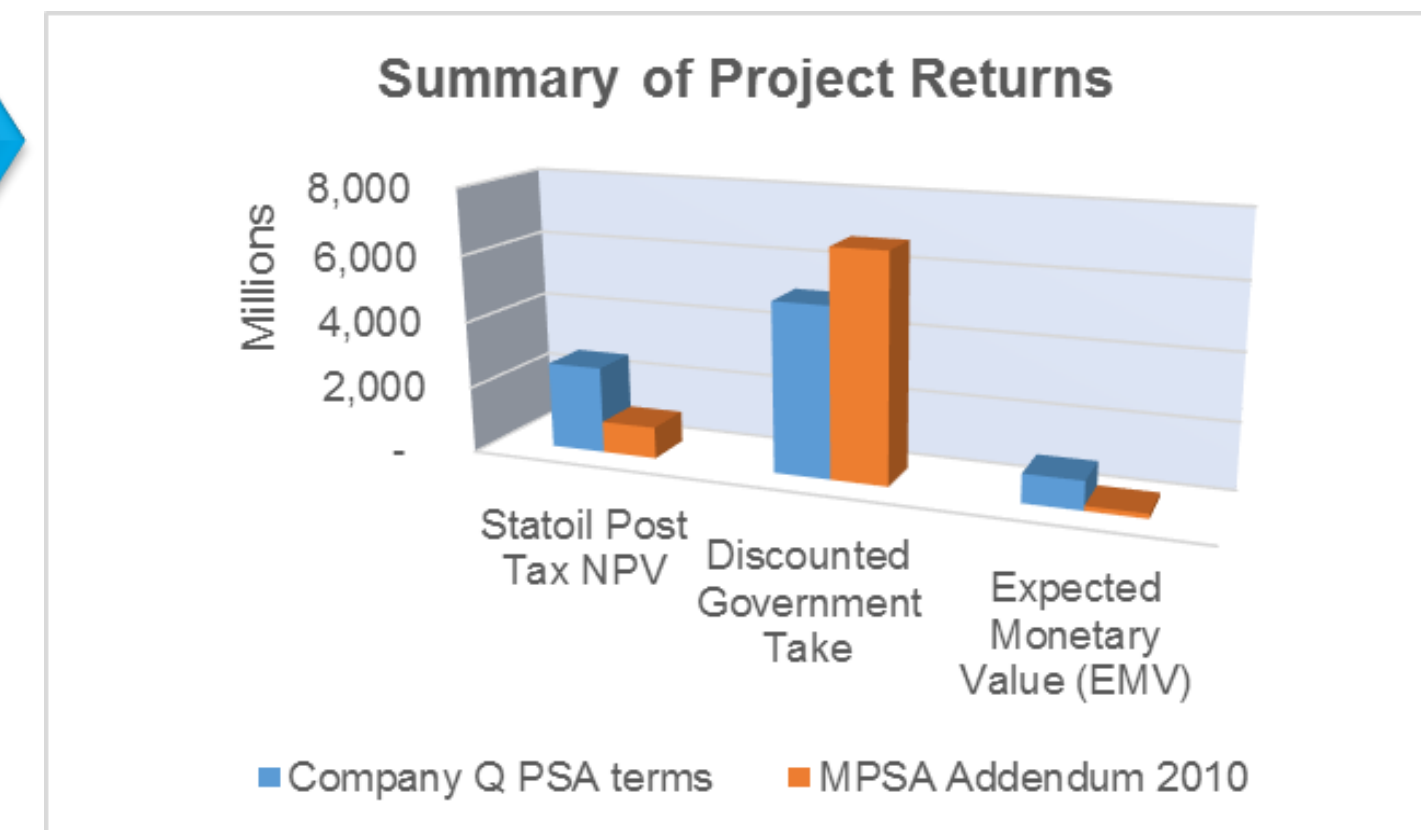
2. METHODOLOGY

- The same production, costs and natural gas price assumptions were used for easy comparison of the returns gained by the HG and IOC under the Company Q PSA and MPSA 2010.
- The two fiscal terms were chosen because Company Q's terms were negotiated based on MPSA 2010. The public query is whether the HG received a good deal.
- Data are obtained from Wood Mackenzie country overview report 2014, BP statistical review 2015, and other sources.



3. MAIN RESULTS

PROJECT PROFITABILITY METRICS:		
Present Values Terms	Company Q terms	MPSA 2010
Q Post-Tax NPV	2,606,651,875	947,337,722
Pre Tax IRR	27%	27%
Post Tax IRR	17%	13%
Profitability Index	0.63	0.23
Payback period	11	13
EMV	857,074,026	145,895,608



4. CONCLUSIONS

- Results indicate that Company Q is better off under its own PSA terms than it would have under MPSA 2010. The government take is however reduced from 88% under MPSA 2010 to 66% under Company Q terms reflecting the risk profile of Tanzania
- The HG flexibility in accepting lower returns follows the lack of knowledge on the geological prospectivity in Deepwater Tanzania during the contract signing as exploration activities had just commenced. Other contributing factors include the absence of infrastructure, pricing mechanism and market for natural gas.
- Benefits realised under the contract include better information on geological prospects and huge gas finds, which might not have been realised if the HG insisted on the higher take.
- Our results on the HG take confirms the HG empirical results of more than 61% return from the Company Q's contract.
- We suggest the HG should be more forthcoming to the public on the reasons for negotiating contracts higher or lower than the MPSAs to avoid potential conflicts.