# EVALUATING THE EFFECTIVENESS OF GHANA'S CURRENT OIL AND GAS **FISCAL REGIME**

#### **BENJAMIN OWUSU-ANSAH**

### **INTRODUCTION/MOTIVATION**

Ghana as nascent oil/gas producing country □ Fiscal regime widely criticised as ineffective

### **OBJECTIVES**

- □ Ascertain fiscal regime profitability
- □ Ascertain progressivity of the fiscal regime
- □ Assess contribution of various tax sources
- Examine contribution of additional oil entitleme (AOE)

### **METHODOLOGY**

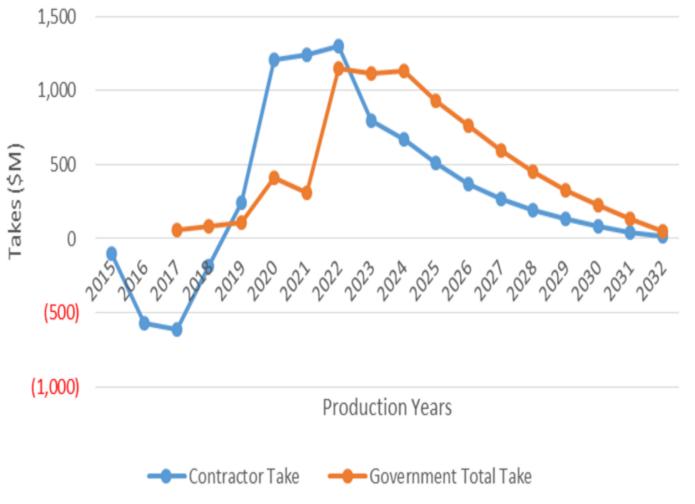
- Discounted cash flow (DCF) method
- Monte Carlo simulation
- Crystal ball
- □ Three model fields different characteristics

Fields	Small	Medium	Large
Recoverable reserves (mmbbls)	100	250	500
Production decline rate (%)	20	17	16
Development costs (\$/barrel)	22.5	20	17.5
Drilling costs (% of devex)	45	40	40
Operating costs (% of accumulated devex)	7.5	6.75	6
Abandonment costs (% of devex)	10	10	10
No. of years of abondonment (years)	3	3	5

## RESULTS

		500mmbbls		250mmbbls		100mmbbls	
	Pre-tax	Real	MOD	Real	MOD	Real	MOD
	NPV (\$M)	5,540	6,497	2,343	3,004	902	1,137
	IRR (\$)	49%	54%	33%	37%	33%	27%
		500mmbbls		250mmbbls		100mmbbls	
е	Post-tax	Real	MOD	Real	MOD	Real	MOD
	NPV (\$M)	2,570	2,810	1,208	1,485	538	627
	IRR (\$)	36%	39%	24%	27%	25%	27%
	NPV/Investment	0.30	0.32	0.26	0.31	0.24	0.28

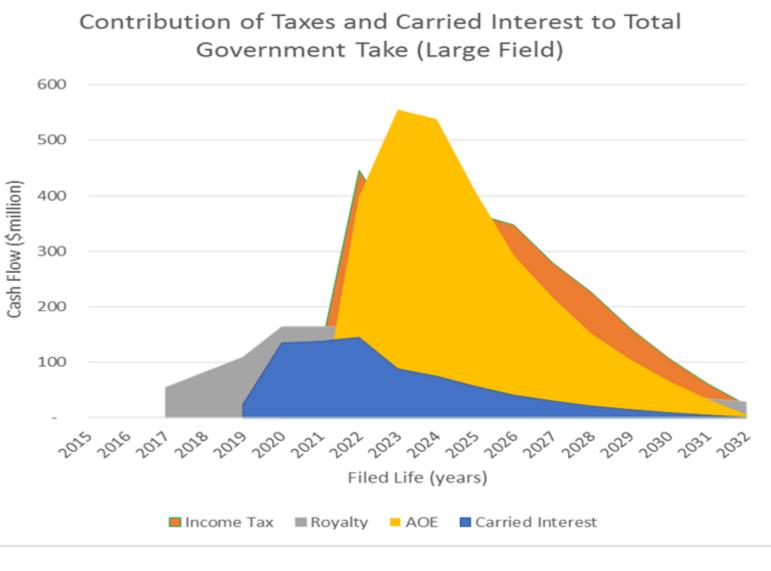
Government and Investor Takes over field life 500mmbbls



Benjamin.owusu-ansah.14@aberdeen.ac.uk +44 (0)7831263666 www.abdn.ac.uk MSc (Econ) Petroleum, Energy Economics and Finance, University of Aberdeen Business School, Aberdeen



#### 3. Maximum contribution from CIT, least from carried interest (additional risk)



**4.** AOE high with prolific reserves, otherwise low

#### CONCLUSION

- Generally profitable
- □ Regressive
- □ Carried interest additional risk
- Overall fiscal regime requires improvement

#### RECOMMENDATIONS

- Abandon carried interest and review CIT upwards
- □ Reduce AOE tiers, improve AOE tax rates for remaining tiers