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RESEARCH BACKGROUND

- £37 billion on average is expected to be spent on decommissioning from now to 2040
- Shift from majors to minors. Tuscan/Acorn (2005) serves as a warning.
- Regulations allocate 100% of the cost risk to the licensees.

RESEARCH OBJECTIVES/QUESTIONS

- To examine the optimal decommissioning security instrument that meets Governments' dual and often conflicting objectives of obtaining maximum share of economic rent whilst protecting the taxpayer from the huge cost associated with decommissioning.
- To show which instrument has the minimum impact on investors' return and decision to invest.
- Is there need for a supplementary assurance to ensure maximum protection to the public purse?
- What happens when there is insolvency: when the decommissioning cost exceeds the underlying security value (Estimated decommissioning cost)?

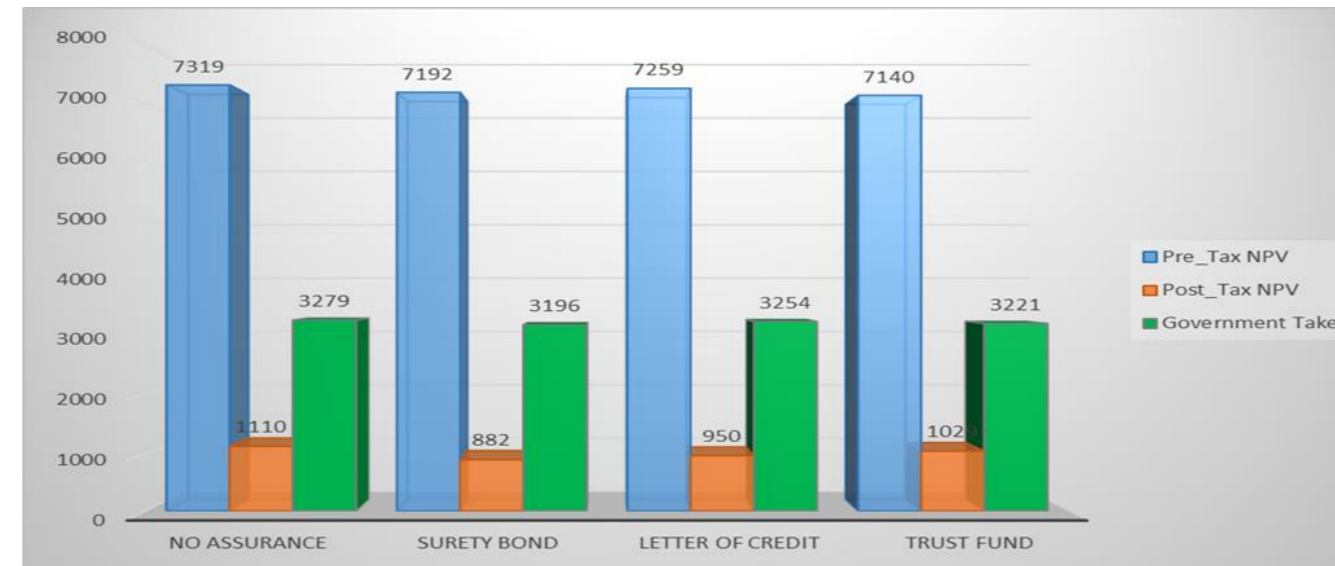
METHODOLOGY

Discounted Cash Flows (DCF) model and sensitivity analysis were used to analyse the effect of the instruments (surety bond, letter of credit, and trust fund) on investor's return and Government take of the economic rent using three different fields.

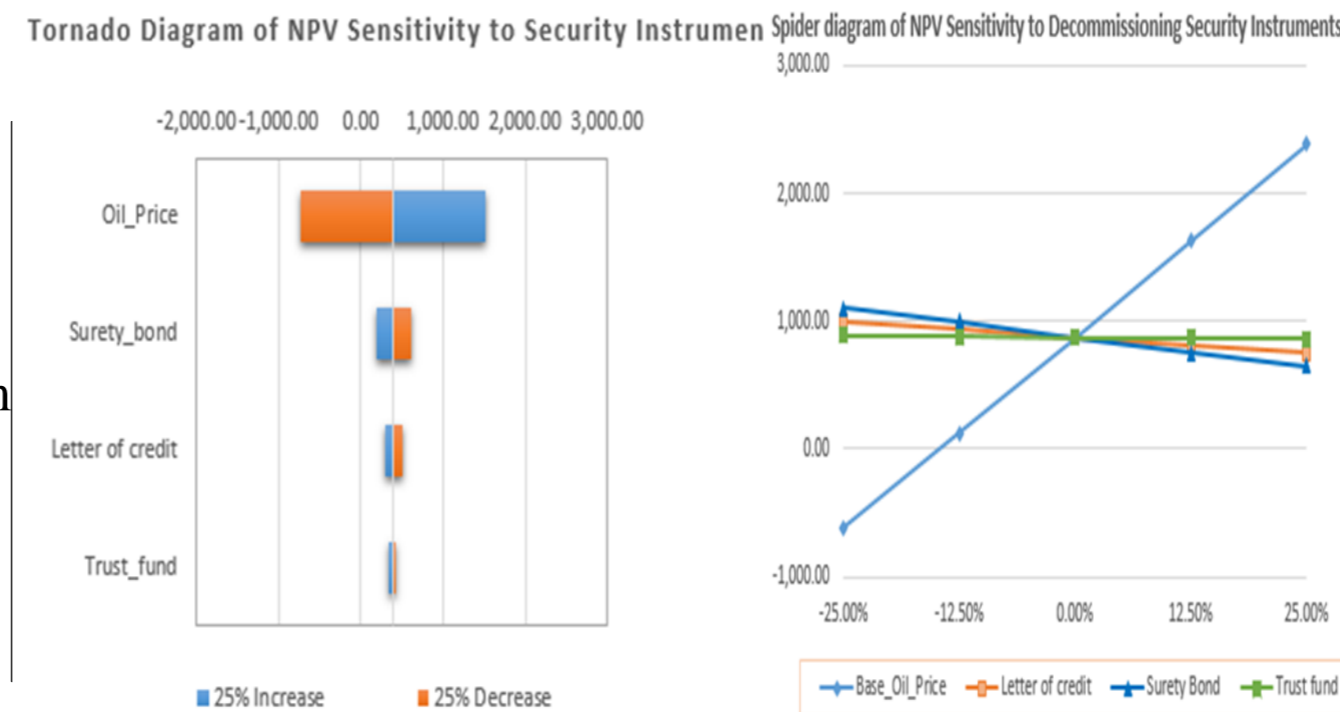
Fields		Marginal	Medium	Large
Recoverable Reserves	mmbbls	100	250	500
Development Expenditure (Devex)	\$ per barrel	22.5	20	17.5
Operation Expenditure (Opex)	% of acc. Devex	7.75	6.75	6
Abandonment Expenditure (Abdex)	% of acc. Devex	10	10	10

RESULTS

Impact of instruments on NPV and Government take



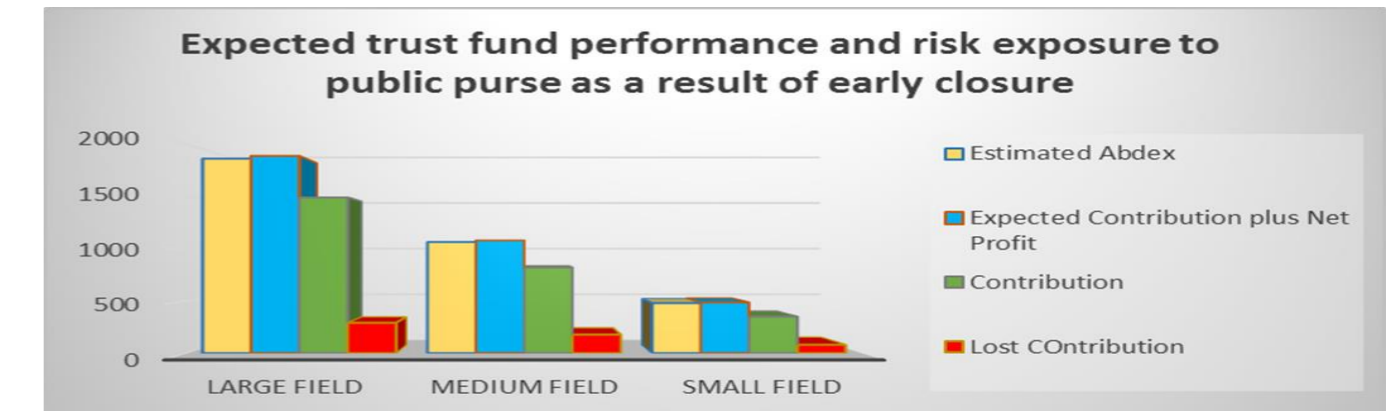
Sensitivity Analysis of the schemes compared with oil price to NPV



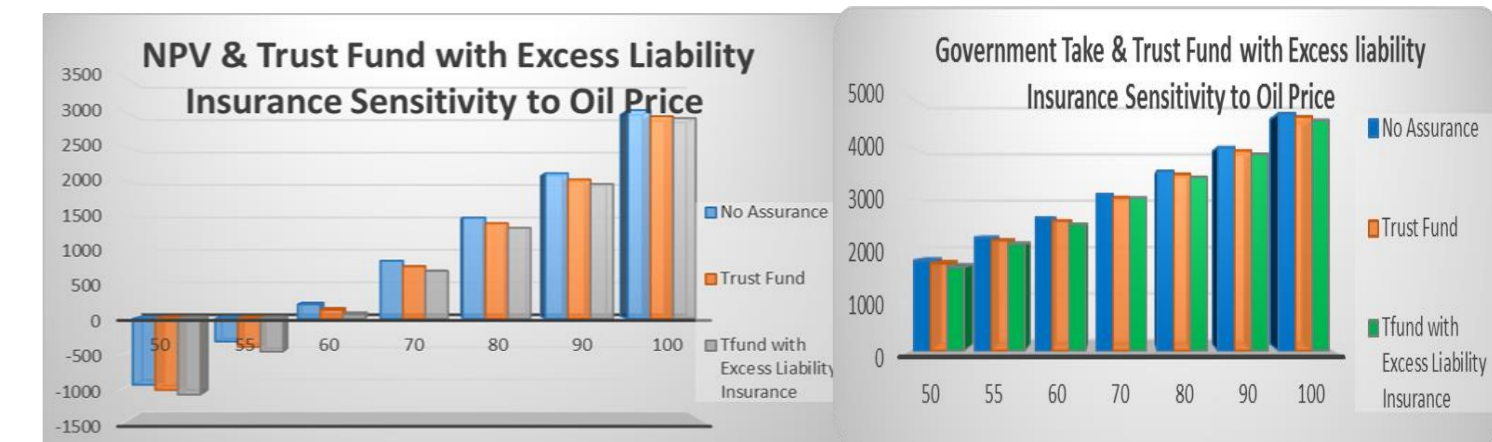
However, a single scheme is insufficient to provide full guarantee for decommissioning costs as a result of underestimation of the following potential risks:

- Early cessation of production: financial risk (e.g. low oil price), technological failure, and perhaps the impact of fee payments or contributions to trust fund can lead to early abandonment of field.
- Unexpected increases in decommissioning costs: given the time horizon, scope of coverage and information asymmetry can lead to increase in cost over the estimated amount.

Risk exposure to public purse due to early cessation of production



The Need and impact of supplementary assurance



- The supplementary assurance, i.e. excess decommissioning liability insurance will provide assurance of meeting the unexpected increase in cost and/or where the underlying instrument falls short.

CONCLUSION AND RECOMMENDATIONS

- The results indicated that the adoption of trust fund provides Governments with equitable share of the economic rent and the maximum protection against the risk of default on decommissioning obligations as compared to the Letter of Credit and Surety bond.
- The trust fund equally poses minimal impact on the investors return and hence, their decision to invest.
- There is the need for supplementary assurance to provide the full protection to the taxpayer's money.
- To remain attractive to investments, there's the need for policy adjustment to ensure risk/cost sharing between Governments and licensees.
- The study recommends policy review on residual liabilities and suggests to Government to consider the proposal to transfer these risks to Government, protected by funded insurance.