Decommissioning, Asset Trading and the Future of the UKCS: A Case for Improved Financial Security Mechanisms

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1. ABSTRACT & BACKGROUND

- This study shows the relevance and importance of choosing the right financial security instrument to improve mature offshore asset trading.
- Free asset trading is key to field life extension and hence to the maximisation of the UKCS.
- In the UK, the widely used letter of credit might not be the best way to provide financial guarantee for decommissioning.
- A simple DCF analysis captures crucial insights on the effect of such mechanisms on the NPV of an offshore project, in particular the interest of considering alternative mechanisms (trust fund).

2. METHODOLOGY

The methodology includes a review of the legal framework and relates it to asset trading issues.

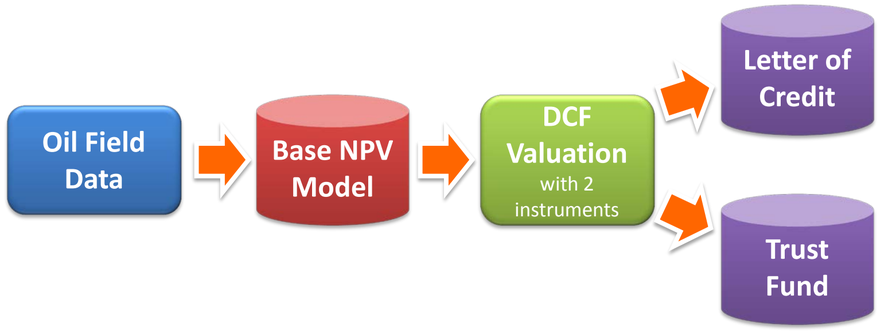
- Owners of an oil asset are jointly and severally liable for its decommissioning.
- Financial security is typically required when NPV falls below 150% of the decommissioning costs.
- Small oil E&P companies wishing to acquire mature offshore assets may lack the financial strength to provide the levels of security required.
- Tax (un)certainty has an effect on the cost of financial guarantees → **Decommissioning Relief Deeds**

METHODOLOGY (Continued)

Different types of security can be provided by buyers to enable the transfer of leases between companies .

- need to **strike the right balance** between facilitating investment and protecting the taxpayer against possible default.

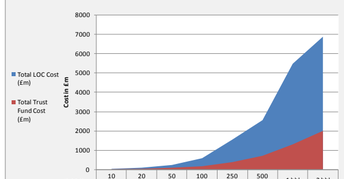
We use a simple DCF model on a mixed range of North Sea oil fields to measure the impact of decommissioning security on a given project's NPV.



Oil Field Data	Base NPV Model	DCF Valuation	Type of Financial Security
• **Revenues** based on oil prices and output levels for 8 different fields • **Costs** : devex, opex and abandonment • Type of **financial guarantee** • **Other data** such as inflation, UK fiscal terms and discount rate	• **Cash flows** – pre- and post-tax basis • **Base NPV**, IRR, payback period, PI • **Decommis-sioning rule** • **Trigger rate** and trigger year • **DCF sensitivity analysis** on selected parameters	• **Model** revenue uncertainty based on 3 oil price scenarios, field size and cost of financial guarantee • **Compute** post-tax, post-asset trade residual NPV based on trigger rate and year • **Check** if residual post-asset trade NPV is positive	• **LOC modelled** as a fee based on decommis-sioning costs + capital tied-up in the scheme – fee paid is tax relievable • **Trust fund modelled** as an advance on decommis-sioning costs – contributions paid are not tax relievable

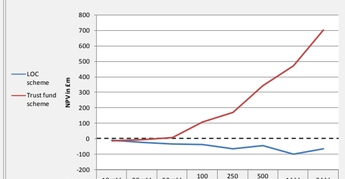
3. MAIN RESULTS

Cost of LOC and Trust Fund per Field Size
High Oil Price - $110/barrel



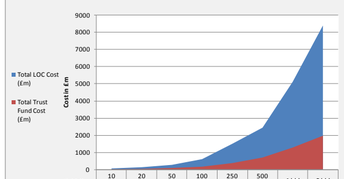
Field Size	10 mbl	20 mbl	50 mbl	100 mbl	250 mbl	500 mbl	1 bbl	2 bbl
Total LOC Cost (£m)	29,6	89,71	229,47	580,31	1544,88	2553,3	5476,37	6878,04
Total Trust Fund Cost (£m)	17,07	34,28	87,82	164,05	378,62	708,73	1302	2003,42

Post-Tax Post-Asset Trade NPV per Type of Instrument
High Oil Price - $110/barrel



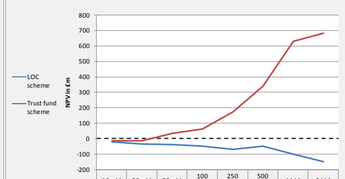
Field Size	10 mbl	20 mbl	50 mbl	100 mbl	250 mbl	500 mbl	1 bbl	2 bbl
LOC scheme	-11,99	-24,46	-34,75	-40,71	-65,77	-47,27	-101,93	-68,48
Trust fund scheme	-12,31	-6,63	9,97	107,81	171,79	343,33	471	702,91

Cost of LOC and Trust Fund per Field Size
Low Oil Price - $90/barrel



Field Size	10 mbl	20 mbl	50 mbl	100 mbl	250 mbl	500 mbl	1 bbl	2 bbl
Total LOC Cost (£m)	59,28	129,96	268,14	600,95	1497,74	2437,13	5116,71	8398,72
Total Trust Fund Cost (£m)	17,07	34,28	85,66	160,34	370,43	693,72	1274,84	1962,09

Post-Tax Post-Asset Trade NPV per Type of Instrument
Low Oil Price - $90/barrel



Field Size	10 mbl	20 mbl	50 mbl	100 mbl	250 mbl	500 mbl	1 bbl	2 bbl
LOC scheme	-19,97	-33,9	-39,35	-46,85	-69	-47,85	-100,33	-150,83
Trust fund scheme	-15,01	-14,42	32,35	62,43	174,06	339,35	632,56	684,14

4. CONCLUSIONS

The results indicate that the trust fund is, on average, **70.1% less expensive** than a LOC.

Beyond a threshold of 50 million recoverable barrels, the model yields a positive NPV from using the trust fund, whereas the LOC scheme seems to **swallow up the whole post-asset trade NPV**.

The model also shows that other factors such as reservoir size and oil price may be more important to the company's decision than the cost of the instrument itself.

The trust fund remains a costly option, but it is clearly **less damaging in terms of NPV**.

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