

The Economics of Petroleum Extraction in the UKCS:

The Fiscal Regime in light of the changes in the 2015 March Budget

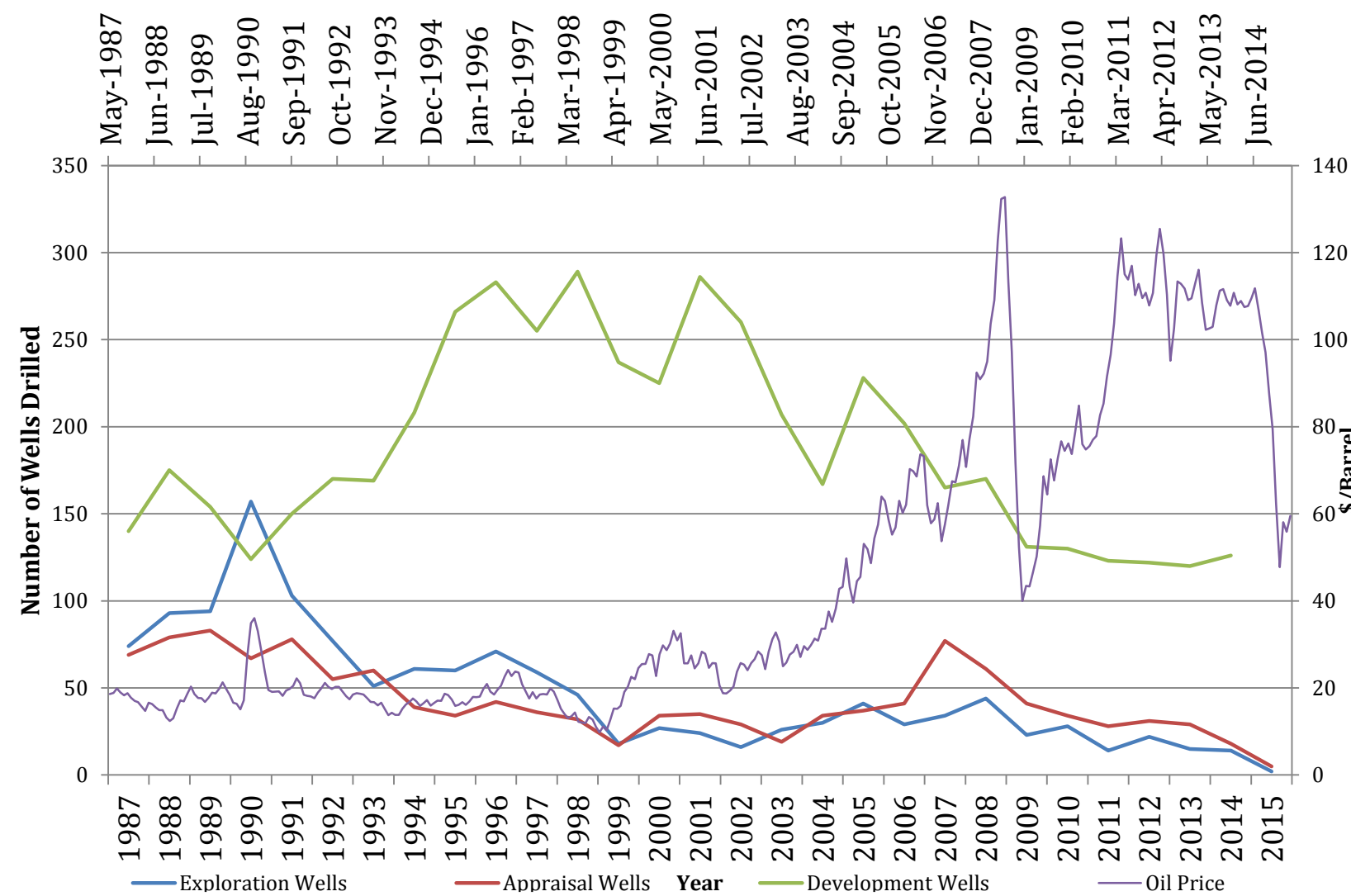
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Motivation

- Low oil price, high operating costs and an out of date fiscal system
- Budget changes 2015
- Need to create incentives to encourage investment

Petroleum Activity and Corresponding Oil Price in the UKCS



Research Questions

- How profitable is petroleum recovery in the UKCS now?
- Will the fiscal system attract new investment?
- Are the taxes distorting?

Methodology

- Discounted Cash Flow Analysis
- NPV, IRR & NPV/I
- Sensitivity Analysis

Field Size	Small	Medium	Large
mmbbls	10	20	50
Development Costs \$/bbl	25	22.5	17.5
OPEX % of acc. DEVEX	9.5	8.5	7.5

Input Data; Costs, Revenues & Field Size

Discounted Cash Flow Model

Profitability Measures; NPV, IRR & NPV/I

Government & Investor Take

Results

Investor		Pre-2015 Budget	Post-2015 Budget	Change
Large	Post-Tax NPV	\$428m	\$602m	\$174m
	NPV/I	0.49	0.69	0.20
	IRR	43%	54.4%	11.4%
Medium	Post-Tax NPV	\$90m	\$150m	\$60m
	NPV/I	0.2	0.33	0.13
	IRR	21.7%	29.6%	7.9%
Small	Post-Tax NPV	\$26m	\$40	\$14m
	NPV/I	0.103	0.16	0.057
	IRR	15.9%	19.9%	4%

Government

Government		Taxable Income	Pre-2015 Budget	Post-2015 Budget	Change
Large	Tax Take	\$2140	\$923m	\$698m	\$225m
	Percentage		43.1%	32.6%	10.5%
Medium	Tax Take	\$865	\$314m	\$241m	\$73m
	Percentage		36.3%	27.9%	8.4%
Small	Tax Take	\$437	\$125m	\$112m	\$13m
	Percentage		28.6%	25.7%	2.9%

Conclusion

- Larger obtainable revenues for Government and also Investor since Budget Changes
- Fiscal System will attract new investors
- Progressive taxes are not distorting
- More work needs to focus on cutting costs and incentivising exploration activities