



NCS – tax regime

WOC1 meeting, Seoul 11/12.03.14

by **Cyryl Federowicz CFO PGNiG Norway**

Main facts

- Activities on the NCS (drilling, development) are relatively expensive
- Even though NCS managed to attract many upstream companies over the past decade
- Companies focus on various stages of life cycle of the fields
- The value of the fields change over time
- There is an active market for upstream transactions
- Tax system is complex:
 - High marginal tax rate (78%)
 - Many incentives built into the system

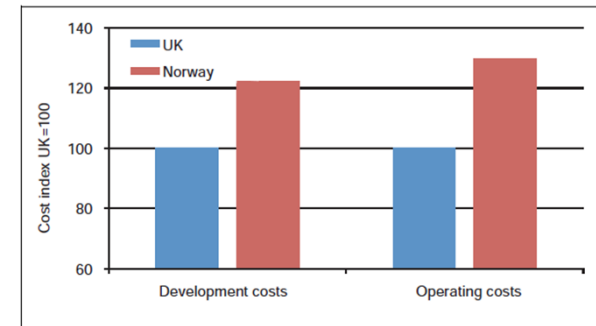


Figure 2.17 Development costs and operating costs for fixed platforms and FPSOs in Norway and the United Kingdom¹. Includes projects under development or fields that started production after 2000.

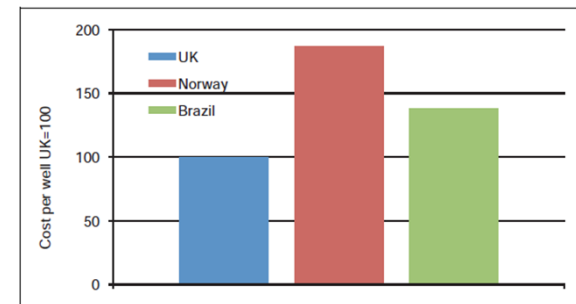


Figure 2.18 Exploration cost per well in water depths less than 400 metres. 2000–2009.

Source: White paper

NCS - upstream players and licensed area

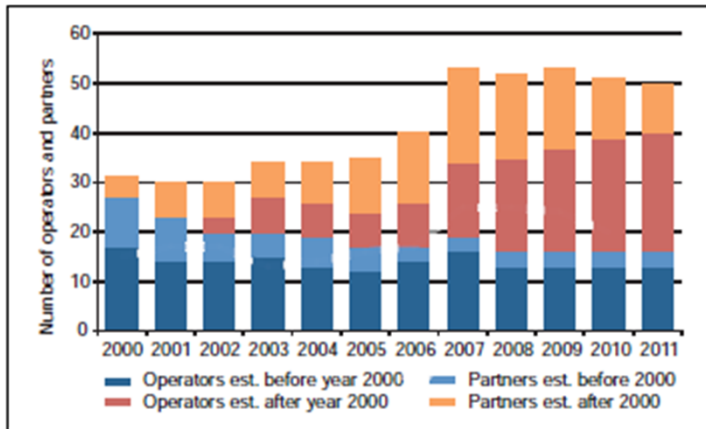
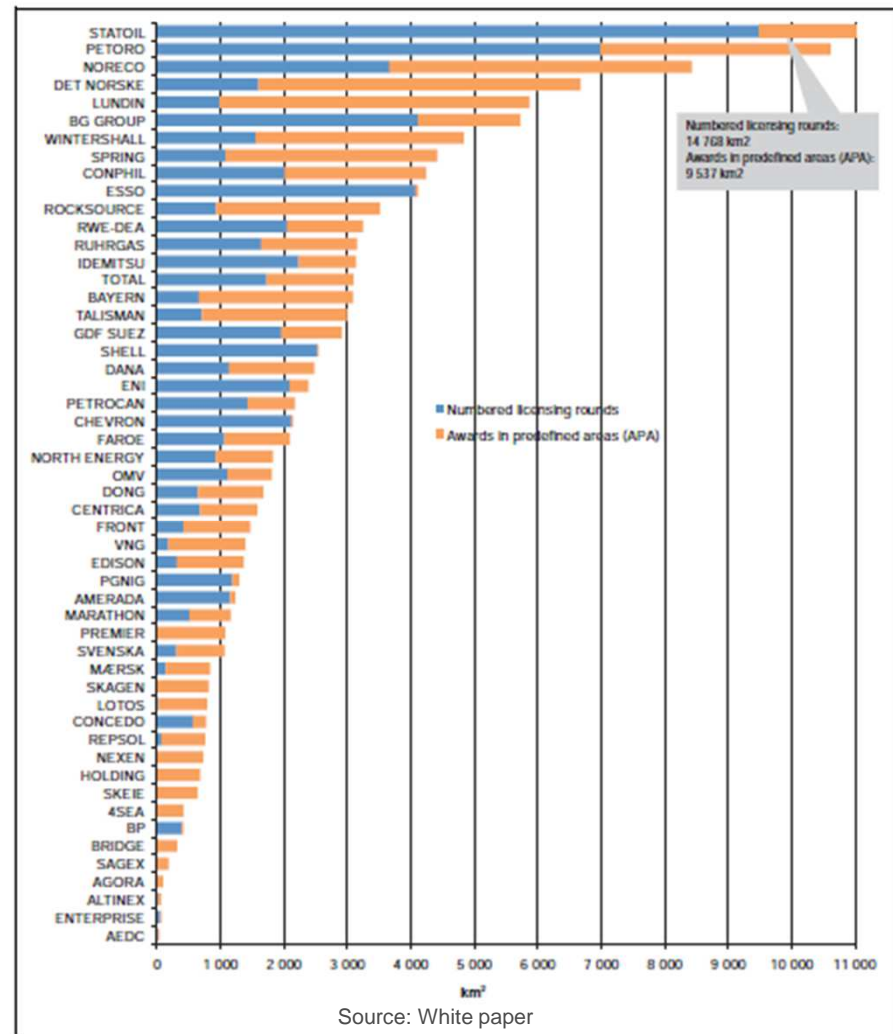


Figure 2.19 Number of operating companies and licensees divided between companies established before and after 2000.

- Many new players established after 2005 (regulatory incentives & oil prices)
- One of the key area for activity is exploration
- New acreage accessed through licensing rounds





Typical life cycle on the NCS



New reserves – how much does it cost?

New reserves on the NCS can be:

- **Discovered:**

- On a licensed area
- On a purchased license

- **Purchased:**

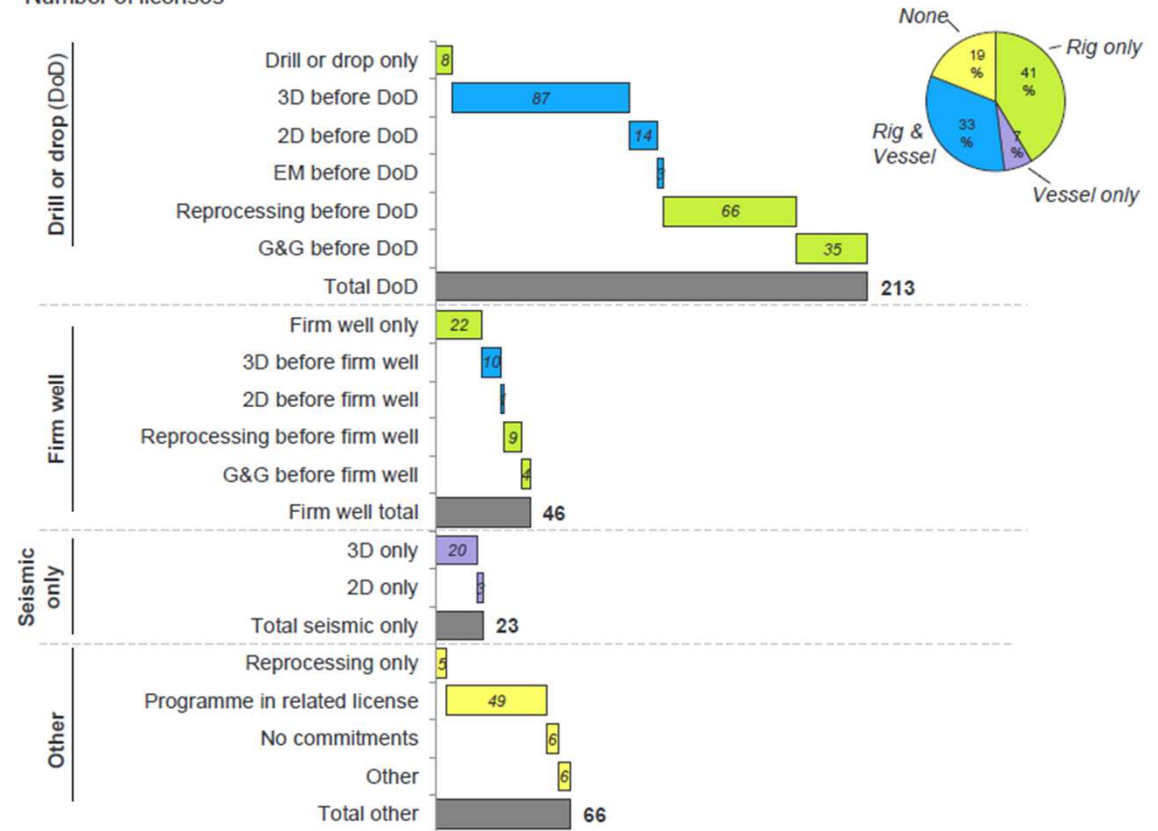
- Exploration license
- Discoveries without development plans
- Discoveries with PDO
- Producing fields (early and mid-stage production)
- Producing fields (tail production)

- Each option has different price and risk profile

What are the work commitments?

- The APA2003-APA2010 as well as the ordinary licensing round 21 published committed work programs
- There are four main groups of commitment mechanisms: Drill-or-drop (DoD), firm wells, pure seismic and other
- Most common mechanism is the DoD, with 61% of licenses
- Hereunder, the DoD in combination with 3D acquisition is most common (25% of total)
- How much does it cost?

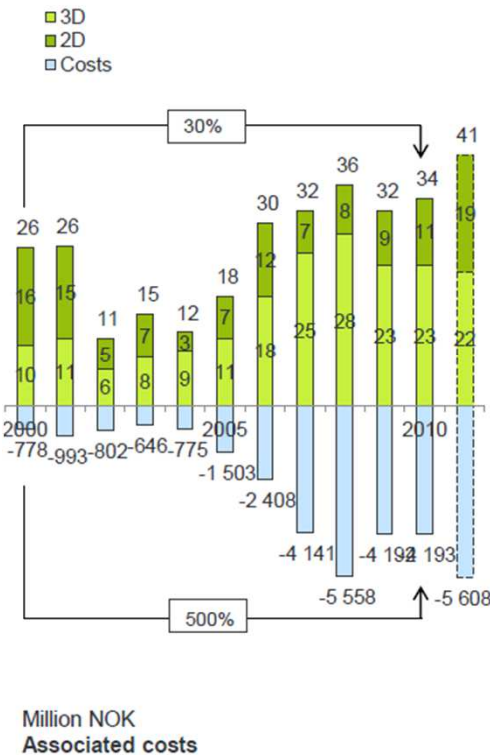
Work commitments
Number of licenses



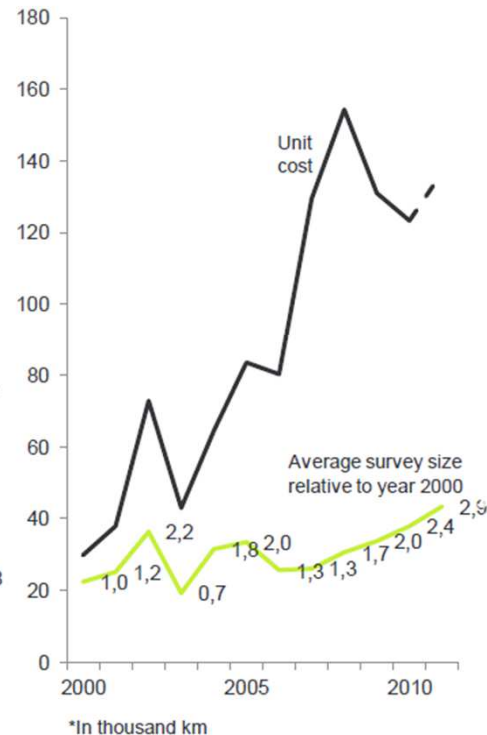
Source: Rystad Energy

Costs of seismic

Exploration seismic (2D and 3D)
Number of surveys



Unit cost
NOK million per survey



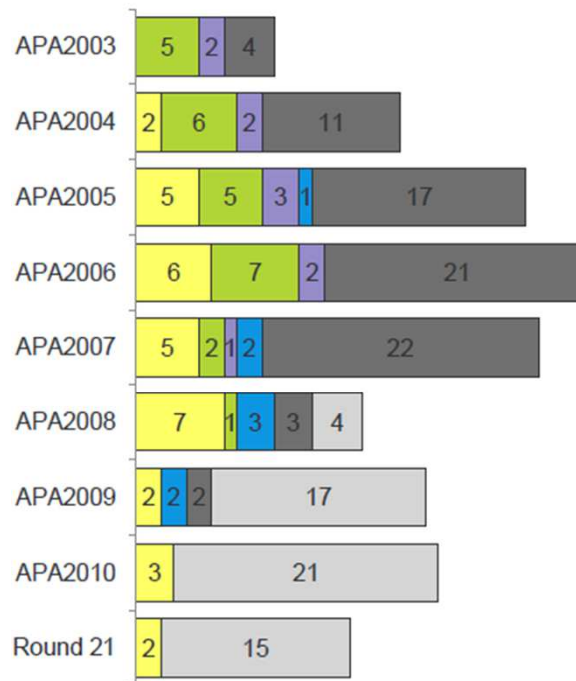
- Chart shows number of exploration surveys on NCS split by 3D and 2D seismic and the associated cost of these.
- Number of surveys increased by 30% between 2000 and 2010, while exploration spend increased by 5 times. This implied in a unit cost increase from 30 MNOK to 123 MNOK per survey (both 2D and 3D)
- Increase driven by larger surveys and increase in day rates during the period. Average size of the surveys increased by around 2.5 times in the period.

Source: Rystad Energy

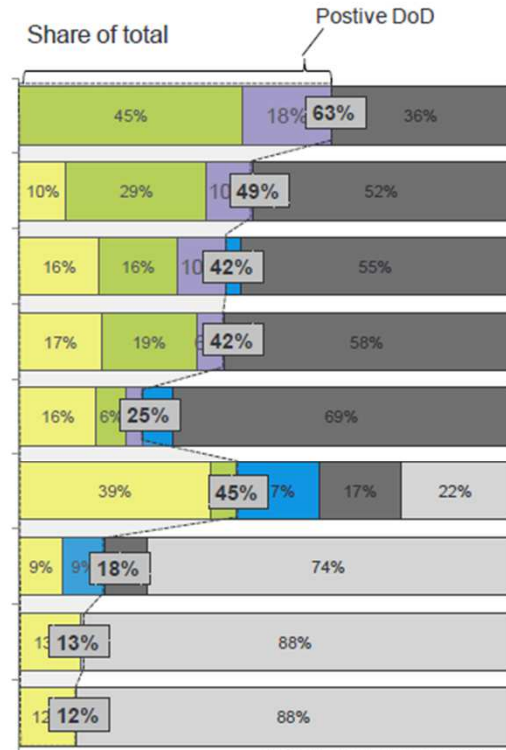
Do we have to drill?

- Chart outlines status of the licenses with drill or drop (DoD) decisions as of December 2011
- Positive DoD category is licenses fulfilling following criterias:
 1. DoD decision is made (yellow) or
 2. license is drilled and still active (green) or
 3. license is drilled and then relinquished
- A total of 213 licenses with DoD decisions are evaluated
- **32% of analyzed licenses awarded over last 8 years had positive DoD**

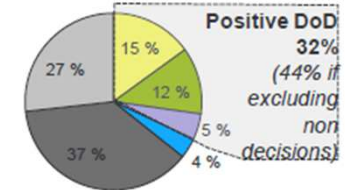
Licenses with DoD decisions and current status
Number of licenses



- Drilling plans observed*
- Drilled, still valid license
- Drilled, relinquished
- Passed DoD date, no drilling plans seen
- Relinquished without drilling
- Recently awarded license, not reached DoD decision



All rounds



Source: Rystad Energy

Costs over life cycle – license award

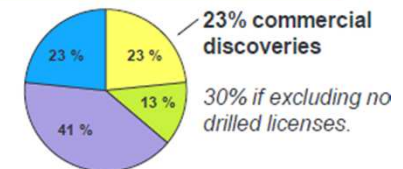
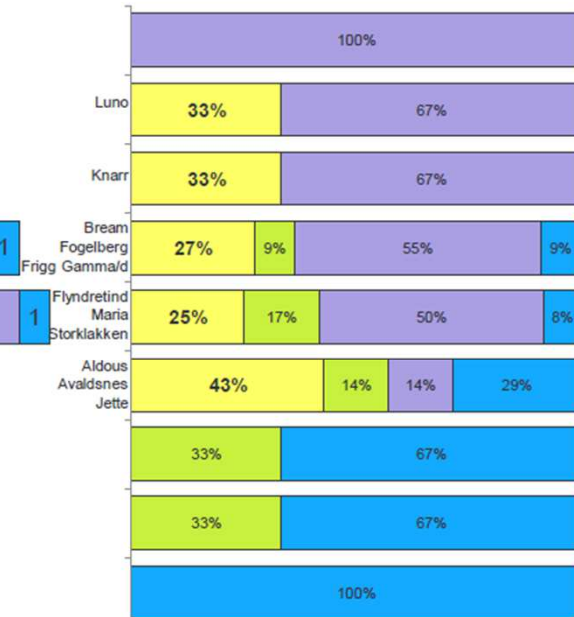
- 46 firm wells have been committed as part of the work obligations in the recent licensing rounds
- 40% of the firm wells have resulted in a dry well. 11 firm wells have yielded a commercial discovery, whereas 6 are technical discoveries not likely to be developed
- 11 firm wells are yet to be drilled, of which 1 was awarded in APA2006

Licenses with firm well and status
Number of licenses



■ Commercial discovery
■ Non-commercial discovery
■ Dry well
■ Not yet drilled

Share of total

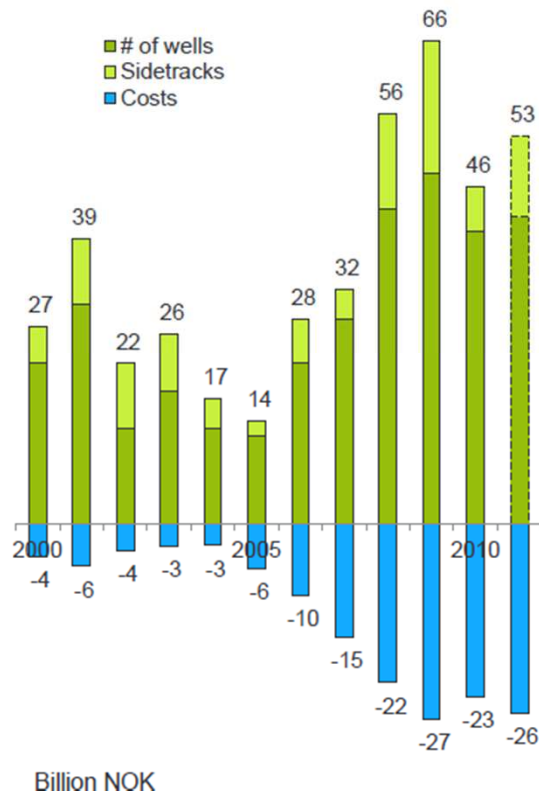


Source: Rystad Energy

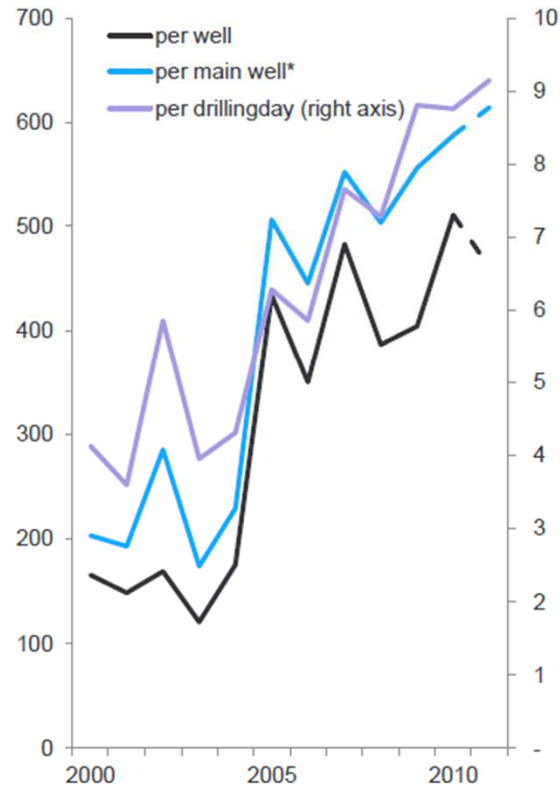


Drilling costs on the NCS

Number of wells



Unit cost
Million NOK nominal



- Leftmost chart summarizes costs (lower part) versus results/activity as measured in number of wells (higher part).
- Costs divided by results yields the unit cost outline as visualized in rightmost chart.
- Three different proxies for results are used to establish a set of different unit costs measures; (1) all wells counted including sidetracks, (2) main wells only excluding sidesteps and (3) drilling days.

Source: Rystad Energy



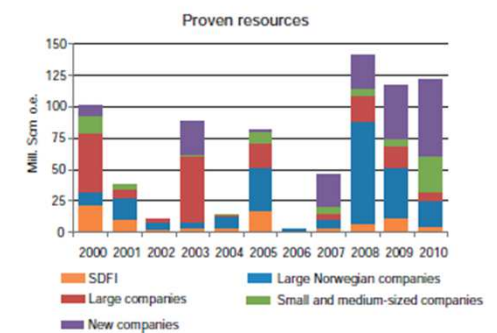
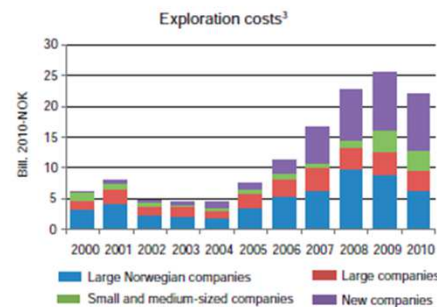
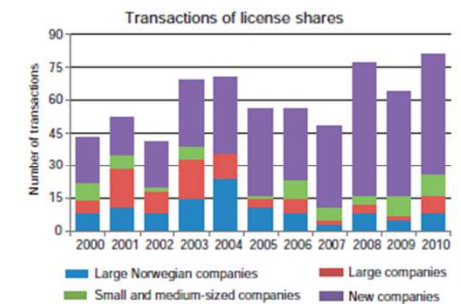
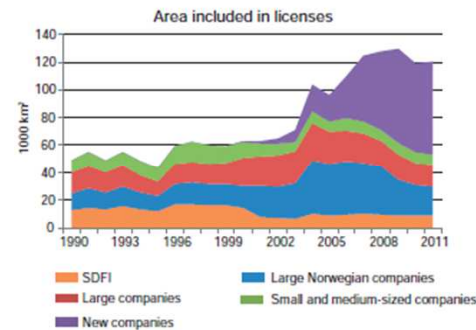
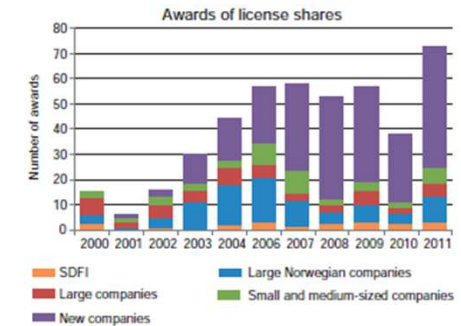
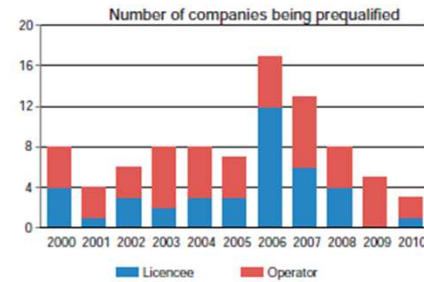
Summary of exploration costs (awards)

- Pre-license award – applications prepared in house (administration budget)
- License award - free
- Seismic survey - ~30-150 million NOK
- Seismic reprocessing – ~5-30 million NOK
- Operating costs of the license (2-3 years) – ~10 million NOK
- Exploration well - ~300-700 million NOK
- Appraisal program **300 – 1000 million NOK (gross)**
- Area fee **Post tax value: 11 – 36 mUSD**
- PDO - ~30-100 million NOK **Finding costs: 0.2-0.6 USD/boe**

assuming average size of discovery of 10 MSm³ oil

Exploration market is active

- Large number of awarded acreage post 2000
- Large number of asset transactions
- Some companies specialize in huge exploration programs with an idea to sell proven reserves (Spring, Noreco, Det norske...)





Summary of NCS fiscal regime

- Marginal tax rate of 78%
 - 28% corporate tax, 50% special petroleum tax
- 93% tax allowance for capital expenditures (30% uplift)
 - The post tax cost of investing USD 100 is USD 7
- Cash refund for 78% of exploration cost for companies without petroleum income
 - Explore for USD 100 in 2012 → USD 78 is repaid by the authorities in 2013
- If a company chooses to exit the NCS, all tax losses and remaining tax balances are paid in cash by the authorities

Due to the high marginal tax rate in Norway, the post tax cost of exploration and development of fields is low. The impact of dry holes and cost overruns is consequently less significant than under other fiscal regimes.

Project IRRs are relatively high in Norway, even though the high marginal tax rate makes the NPVs low in relative terms compared to other fiscal regimes.

→ There is less risk, both on the upside and downside, related to activities on the NCS



Tax calculation on the NCS

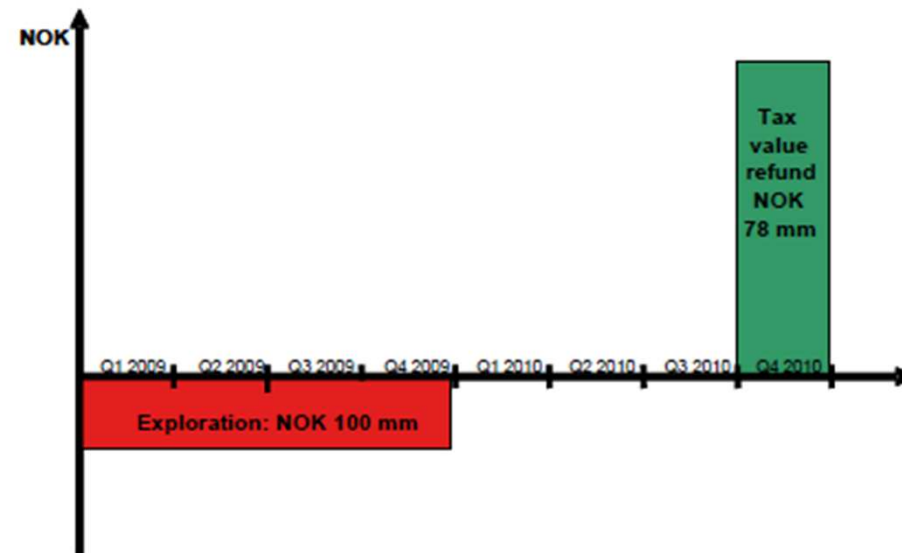
- Revenue (norm price)
- OPEX
- Exploration, R&D
- Gross fees (CO₂, Area, NOx)
- Depreciation (6 year – straight line)
- Net financial items (allocated offshore)
- Abandonment costs

- = **Corporate tax base (28%)**
- Uplift (30% of investments taken over 4 years)

- = **Special petroleum tax base (50%)**

Exploration refund

- For companies in tax paying position, exploration costs are expensed as the costs occur
- The exploration costs can alternatively be capitalized, but no uplift is granted
- Companies that are not in a tax paying position will get the tax value of the exploration cost paid by the tax authorities in the following year

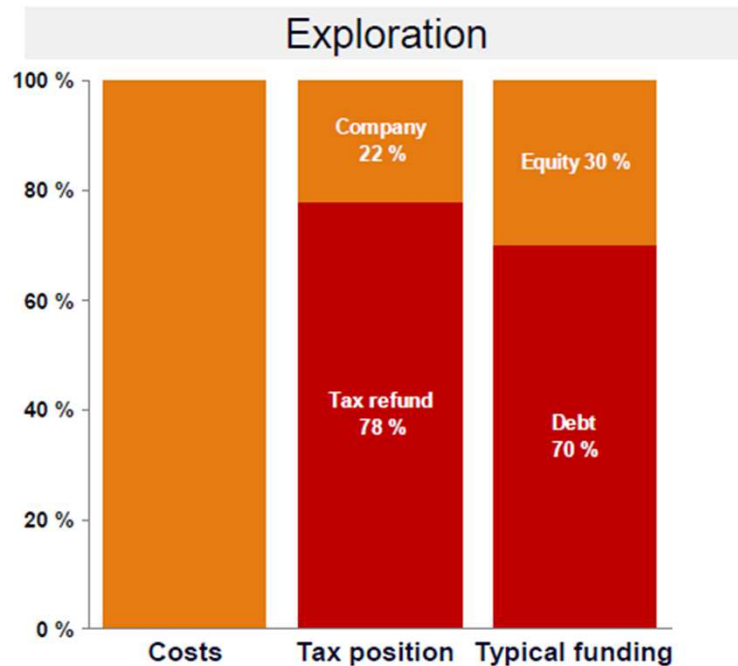




Other elements of tax system

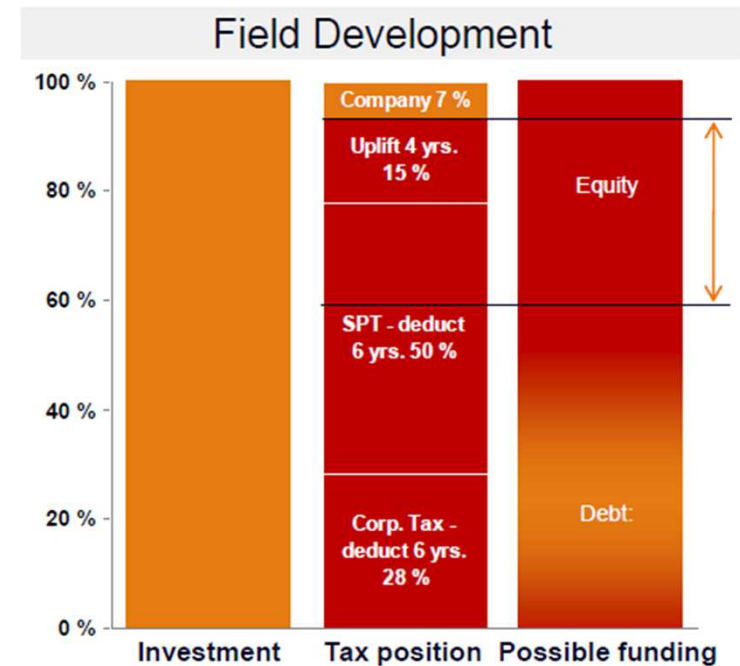
- High depreciation (6 years straight line)
- Uplift (30% of investment value can be depreciated over 4 years under SPT)
- Tax consolidation of projects
- Immediate start of depreciation (from expense and not from production start-up)
- Losses can be carried forward indefinitely
- Interests on loss carried forward
- Possibility to use financial leverage
- Discontinuation tax refund

Fiscal regime protects downside



Tax refund instantly monetized

- Cash tax refund for exploration drilling irrespective outcome of well – 78% of cost.
- Cash tax refund pledged to bank, LTV of 90 – 95% of claim

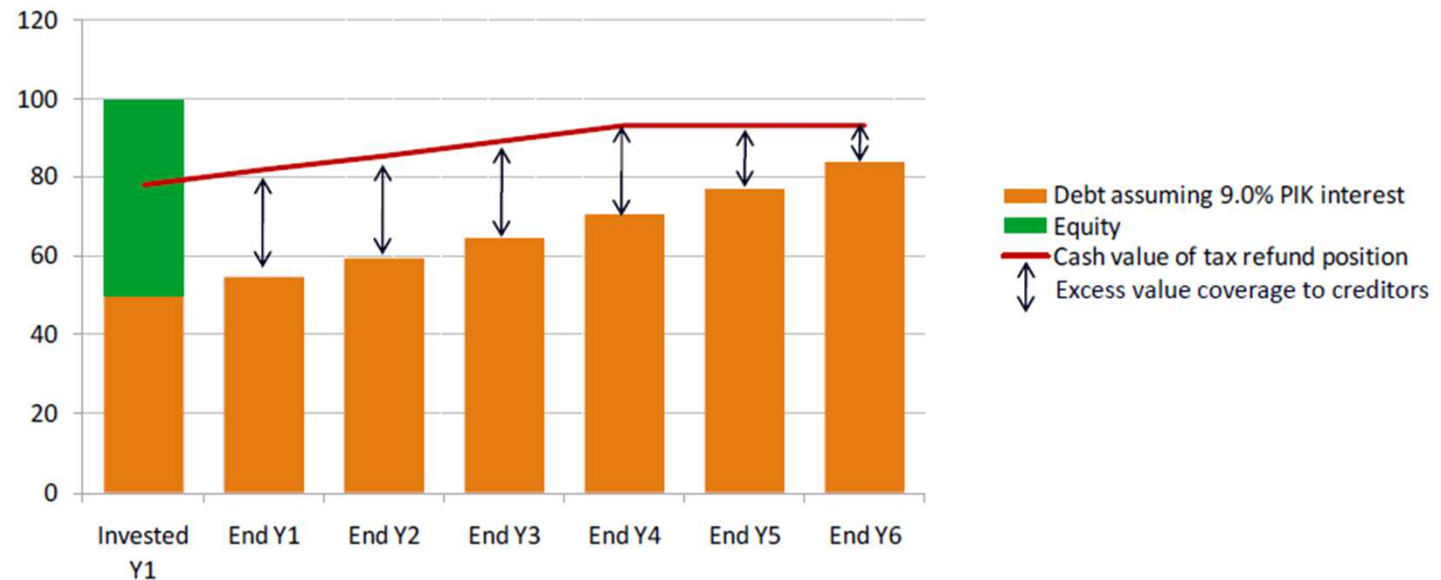


Tax refund as value build-up on balance

- Tax relief effectively 93% of field investments
- Tax balance built in parallel with investment
- No field ring-fencing
- Cash refund if petroleum activities are terminated

Fiscal regime enables using leverage

- Generic case study:
 - 100 is invested in a development project
 - The investment is funded by 50 equity and 50 debt
 - The cash value of the tax refund is 78 after the total amount is invested. This grows further to 93 where it remains in years 4 – 6.
 - For the creditors in this arrangement, the cash value of the tax refund offers solid coverage, even if assuming that interest is paid in kind *
 - Note: The tax refund values can be depleted against other production revenues in the company



PTA about discontinuation of activities

Refund
of tax
losses

PTA 3c

“If there remains an uncovered loss upon the discontinuation of activities that are liable for special tax, the taxpayer may claim payment from the State of the tax value of such loss. The tax value shall be determined by multiplying the uncovered loss in ordinary income in the shelf district and in the special tax base by the rates applicable on the discontinuation date. The amount shall be determined by the tax authorities when performing the tax assessment relating to the year in which the activities liable for special tax are discontinued.”

Refund of
tax value of
offshore
assets

PTA 3f

“The remaining cost price of an operating asset that loses its utility value upon the discontinuation of production from a petroleum deposit, may be deducted in the year of discontinuation.”

Refund of
uplift carried
forward

PTA 5

“If there is any excess uplift upon the discontinuation of activities that are liable for special tax, the taxpayer may claim payment from the State of the tax value of such uplift. The tax value shall be determined by multiplying the excess uplift by the rate of special tax applicable as per the discontinuation date. The amount shall be determined by the tax authorities when performing the tax assessment relating to the year in which the activities liable for special tax are discontinued.”