Evaluation of proposed changes in the Norwegian Petroleum Tax Act

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Introduction

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- The Ministry of Finance has issued a proposal for changing certain elements of the Norwegian Petroleum Tax Act (”PTA”)
- A group of oil companies* on the NCS has asked Solstad & Bjørgo Finans AS (”SB Finans”) to perform an evaluation of how the new tax proposal will impact their Norwegian activities
- This report contains a summary of the evaluation performed by SB Finans of the impact the tax proposal will have on companies with a portfolio of development/producing projects, in addition to a detailed evaluation on generic project examples
- This report has been distributed to all the companies taking part in the separate initiative to evaluate the effects of the tax proposal

* The group of oil companies consists of BG, Dong, E.ON Ruhrgas, Faroe Petroleum, Gaz de France, Noreco, Pertra, Petro-Canada, Premier Oil, Revus Energy and Talisman.

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- Evaluation summary
- Economic assumptions
- Tax proposal’s effect on companies
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Evaluation summary

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- The tax proposal has an adverse impact on all the companies taking part in the separate initiative to evaluate the effects of the tax proposal
- The implementation of the tax proposal will result in an increase in the effective tax rate for the companies by 0.5 - 2.5 %-points, implying a loss of 2.5 – 10% of after tax earnings
- The tax proposal will increase the NPV of the tax burden for the six companies that have been evaluated by ~ NOK 620 mill in total over the 7 year evaluation horizon
- Including new projects in the companies portfolio in addition to the current projects, the effect of the tax proposal would be even more negative for the companies
- Applying a higher discount rate in the evaluation would increase the companies' effective tax rate even further
- In a high oil price scenario, the impact of the tax proposal is less significant than in a low oil price scenario
- The tax proposal will have an adverse effect on:
  - Exploration projects
  - Development projects
  - Marginal projects
  - Capital intensive projects

Evaluation summary cont.

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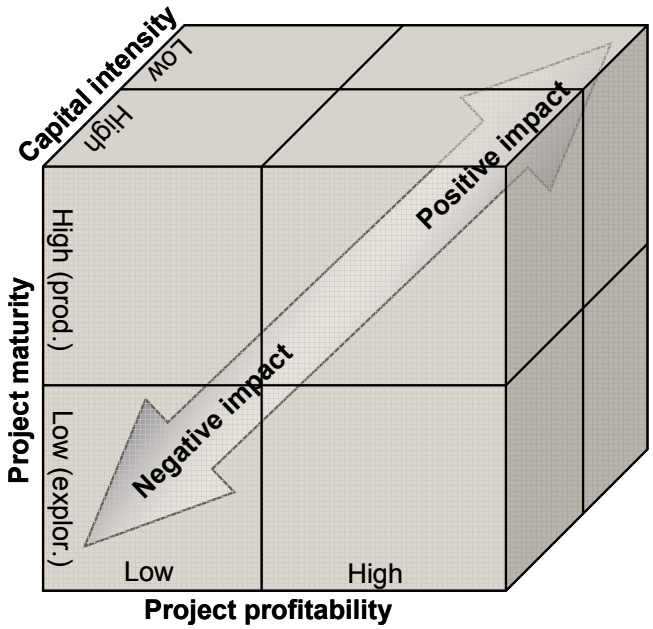
- The tax proposal will have a beneficial effect on:
  - Producing projects
  - Highly profitable projects
  - Projects with low initial development cost



Economic assumptions

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- Oil price:
  - RNB 2006
- Gas price
  - 25% energy equivalent discount to oil price
- Inflation
  - 2.5%
- Discount rate
  - Base: 8.0%
  - Low: 3.26 % (5 year Gov. Bond for June 06 + 50 bps, less corporate tax)
- Interest rate debt
  - Base: 5.03 % (5 year Gov. Bond for June 06 + 100 bps)
  - Low: 4.53 % (5 year Gov. Bond for June 06 + 50 bps)
- Interest rate cash: 3.78 % (5 year Gov. Bond for June 06 – 25 bps)
- Interest rate loss carry forward: 3.26 %
- Exchange rate
  - NOK/USD: 6.3
- Production and cost profiles for the assets are based on Wood Mackenzie's Energy Vision database (updated per May 2006) provided to SB Finans by the group of oil companies
- 50% of any onshore loss is deducted against corporate tax offshore (28%), and the remainder is carried forward in the onshore tax district

RNB 2006 - real (2006) oil price

Year	NOK/bbl	USD/bbl
2006	420	67
2007	360	57
2008	320	51
2009	300	48
2010	280	44
2011	260	41
2012	250	40
2013	240	38

Tax proposal's impact on companies

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Tax proposal's impact on companies
- Introduction

SB Finans

- SB Finans has performed an evaluation of the tax proposal's impact on the companies taking part in the separate tax initiative
- Not all the members of the tax initiative currently have development or producing projects in their portfolio
- The companies that do, have provided SB Finans with the following information in order to get an evaluation of the effects of the tax proposal that is as accurate as possible:
  - Annual accounts for 2005
  - Financial book values per asset
  - Tax depreciation from historic investments per asset
  - Remaining uplift per asset
  - Abandonment cost accrued per asset
  - Permanent differences per asset
  - §10 rulings
  - G&A costs
  - Exploration costs (budgeted costs, average cost horizon for the companies: 2006 - 2008)
  - Other relevant costs

Tax proposal's impact on companies
- Introduction cont.

SB Finans

- The companies that have been included in the evaluation of the effects of the tax proposal are:
  - DONG Norge AS
  - E.ON Ruhrgas Norge AS
  - Gaz de France Norge AS
  - Pertra ASA
  - Revus Energy ASA
  - Talisman Energy Norge AS
  - Talisman Resources Norge

    (the results from the two Talisman entities have been combined and shows as one company)
- Only current and planned projects are included in the evaluation of the companies
- A detailed evaluation report has been prepared and presented to each of these companies
- The analysis has been based on the effects of the tax proposal from 2007-2013 (7 years analysis horizon)
  - The analysis horizon has been set to 7 years due to the uncertainty with respect to future exploration activities, investments in new projects and macro economic environment

Tax proposal's impact on companies
- Company evaluation summary (7 year horizon)

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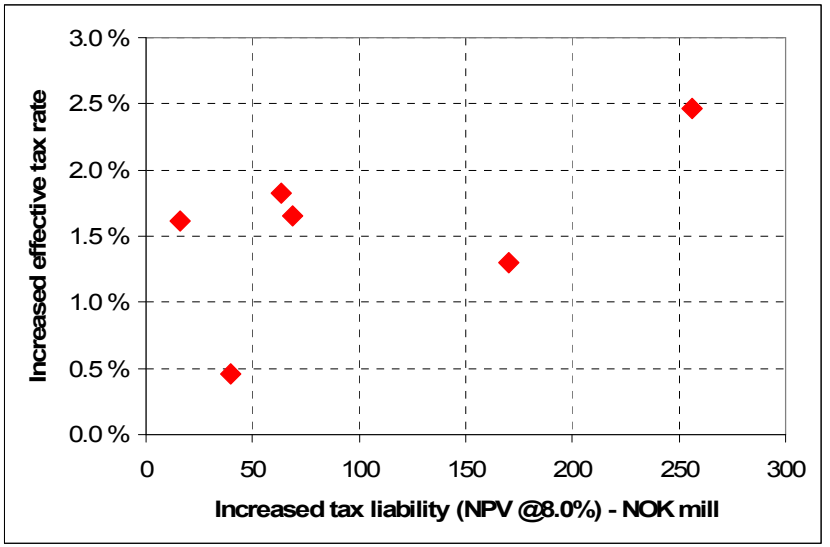
- All the companies that have been evaluated are adversely affected by the tax proposal
- The average increased effective tax rate* for the 6 companies that have been evaluated is 1.5 %-points (from 70.8% to 72.3%) over the seven year evaluation period
- The average increase in the NPV of tax liability** for the 6 companies that have been evaluated is NOK 102 mill (from NOK 3 679 mill to NOK 3 781 mill) over the seven year evaluation period
- The average reduction in the NPV of the alleged financing benefit*** is NOK 87 mill (from NOK 207 mill to NOK 120 mill) over the seven year evaluation period



In a low oil price scenario (-20%), the tax proposal would have an even more negative impact on the companies. Applying the low case assumptions with regards to discount rate (3.26%) and interest cost (4.53%) the average effective tax rate increases 1.2%-points, the NPV of average tax liability increases NOK 103 mill and the alleged financing benefit is reduced by NOK 94 mill.

* Effective tax rate is calculated as the NPV of tax liability & change in deferred tax over the NPV of earnings before taxes (disc. @8.0%)

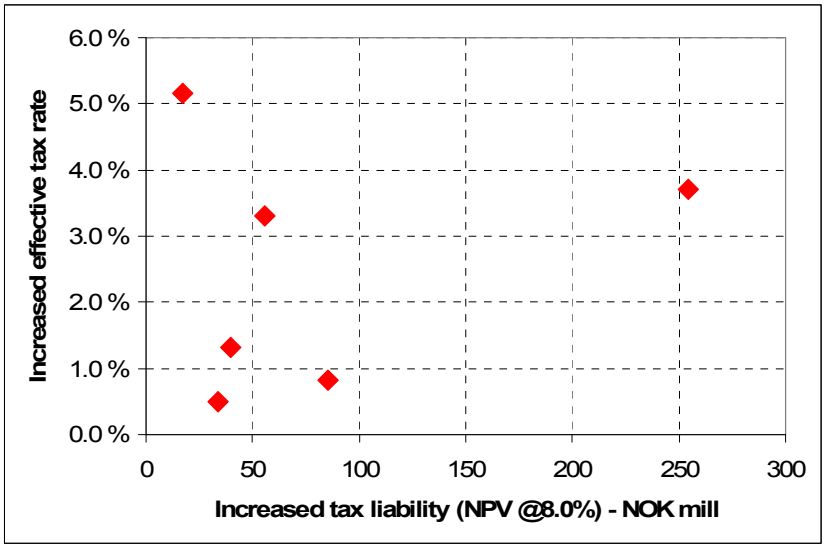
** Tax liability is the estimated tax for each year (of which 50% is paid in the year in question and the remainder the following year)

*** Defined in the tax proposal from the Ministry as the benefit from receiving interest deductions against special petroleum tax (50%)

Tax proposal's impact on companies
- Company evaluation summary (5 year horizon)

SB Finans

- All the companies that have been evaluated are adversely affected by the tax proposal
- The average increased effective tax rate* for the 6 companies that have been evaluated is 2.5 %-points (from 60.3% to 62.8%) over the five year evaluation period
- The average increase in the NPV of tax liability** for the 6 companies that have been evaluated is NOK 81 mill (from NOK 2 449 mill to NOK 2 530 mill) over the five year evaluation period
- The average reduction in the NPV of the alleged financing benefit*** is NOK 51 mill (from NOK 141 mill to NOK 90 mill) over the five year evaluation period



* Effective tax rate is calculated as the NPV of tax liability & change in deferred tax over the NPV of earnings before taxes (disc. @8.0%)

** Tax liability is the estimated tax for each year (of which 50% is paid in the year in question and the remainder the following year)

*** Defined in the tax proposal from the Ministry as the benefit from receiving interest deductions against special petroleum tax (50%)

Tax proposal's impact on generic projects

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Tax proposal's impact on generic projects - Introduction

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- The evaluation of the tax proposal's impact has been performed to provide a better understanding of how the companies that currently do not have development or producing projects in their portfolio will be affected by the tax proposal
- The results from this evaluation would also apply for new projects for the other companies
- The tax proposal has been evaluated with regards to three dimensions that affect the impact of the tax proposal:
  - Maturity of the project (exploration, development and producing project)
  - Profitability of the project
  - Capital intensity of the project
- The same economic assumptions have been applied in the evaluation of the generic project examples as in the evaluation of the tax proposal's impact on the companies

Tax proposal's impact on generic projects
- Introduction cont.

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- The level of net debt and offshore tax value of the asset over the life of a project are the determining factors for how the tax proposal will impact the project
- The level of net debt related to a project is dependent on:
  - The initial investment in the project (partly to be funded by debt)
  - The profitability of the project (determines how rapidly the debt is repaid)
  - The maturity of the project (determines how much of the debt has been repaid)
- The offshore tax value of the asset is dependent on the level of investments throughout the life of the project
- Capital intensity is a measurement for the level of investment in the project. The capital intensity of a project will typically have an impact on the project profitability. However, it does not impact the rate at which the debt is repaid. Consequently, we have evaluated both the capital intensity and the profitability (in terms of debt repayment) for the projects.

Tax proposal's impact on project economics - Project assumptions

SB Finans

- The tax proposal has been evaluated with regards to its impact on a project in different stages of the project's life cycle
  - Exploration project (whole life cycle)
  - Development project (from PDO)
  - Producing project (2 years after first oil)
- Project assumptions (Base case)
  - Recoverable reserves: 100 mmbbl (oil)
  - Exploration cost: 1.35 USD/bbl
  - Development cost: 6.00 USD/bbl
  - Operating cost: 5.00 USD/bbl
  - Tariffs: 2.00 USD/bbl
  - Abandonment cost: 0.50 USD/bbl

Tax proposal's impact on project economics
- Project production and cost profiles

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- Exploration project

Generic project	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17
Oil production (mmbbl/yr)	-	-	-	-	-	-	5	15	18	18	15	10	8	5	4	2	-
OPEX (NOK mill)	-	-	-	-	-	-	158	473	567	567	473	315	252	158	126	63	-
Tariffs (NOK mill)	-	-	-	-	-	-	63	189	227	227	189	126	101	63	50	25	-
Exploration cost (NOK mill)	50	400	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Development cost (NOK mill)	-	-	-	756	1 512	1 512	-	-	-	-	-	-	-	-	-	-	-
Abandonment cost (Nok mill)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	315

- Development project

Generic project				Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14
Oil production (mmbbl/yr)	-	-	-	-	-	-	5	15	18	18	15	10	8	5	4	2	-
OPEX (NOK mill)	-	-	-	-	-	-	158	473	567	567	473	315	252	158	126	63	-
Tariffs (NOK mill)	-	-	-	-	-	-	63	189	227	227	189	126	101	63	50	25	-
Exploration cost (NOK mill)	50	400	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Development cost (NOK mill)	-	-	-	756	1 512	1 512	-	-	-	-	-	-	-	-	-	-	-
Abandonment cost (Nok mill)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	315

- Producing project

Generic project									Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9
Oil production (mmbbl/yr)	-	-	-	-	-	-	5	15	18	18	15	10	8	5	4	2	-
OPEX (NOK mill)	-	-	-	-	-	-	158	473	567	567	473	315	252	158	126	63	-
Tariffs (NOK mill)	-	-	-	-	-	-	63	189	227	227	189	126	101	63	50	25	-
Exploration cost (NOK mill)	50	400	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Development cost (NOK mill)	-	-	-	756	1 512	1 512	-	-	-	-	-	-	-	-	-	-	-
Abandonment cost (Nok mill)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	315

Tax proposal's impact on project economics - Exploration project

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Key results under current tax regime

Recoverable reserves		
- Oil (mmbbl)	100	
- Gas (mmboe)	-	
- NGL (mmboe)	-	
- Total mmboe	100	
NPVs	**USD @ 8 %**	**NOK @ 8 %**
- Pre-tax cash flow	1 042	6 563
- After tax cash flow	238	1 498
IRRs		
- Pre-tax cash flow		27.4 %
- After tax Cash flow		16.5 %
Metrics (real 2006)	**USD**	**NOK**
- NPV/boe	2.38	15.0
- Revenue/boe	35.92	226.3
- Exploration cost/boe	1.35	8.5
- CAPEX/boe	6.00	37.8
- OPEX (incl. tariffs)/boe	7.00	44.1
- Abandonment cost/boe	0.50	3.2
- Total Cost/boe	14.85	93.6
- Pre tax contribution/boe	21.07	132.8
- Tax/boe	14.97	94.3
- Post tax contribution/boe	6.11	38.5
Effecive tax rate (@ 8%)	**77.2 %**	

Increased effective tax rate by 1.8 %-points

Key results with tax proposal

Recoverable reserves		
- Oil (mmbbl)	100	
- Gas (mmboe)	-	
- NGL (mmboe)	-	
- Total mmboe	100	
NPVs	**USD @ 8 %**	**NOK @ 8 %**
- Pre-tax cash flow	1 042	6 563
- After tax cash flow	219	1 379
IRRs		
- Pre-tax cash flow		27.4 %
- After tax Cash flow		15.9 %
Metrics (real 2006)	**USD**	**NOK**
- NPV/boe	2.19	13.8
- Revenue/boe	35.92	226.3
- Exploration cost/boe	1.35	8.5
- CAPEX/boe	6.00	37.8
- OPEX (incl. tariffs)/boe	7.00	44.1
- Abandonment cost/boe	0.50	3.2
- Total Cost/boe	14.85	93.6
- Pre tax contribution/boe	21.07	132.8
- Tax/boe	15.24	96.0
- Post tax contribution/boe	5.83	36.8
Effecive tax rate (@ 8%)	**79.0 %**	

Note: - Applying the low case for discount rate (3.26%) and for interest cost (4.53%), the effective tax rate would increase by 0.9 %-points.
- In a low oil price scenario (20% lower), the effective tax rate would increase by 4.0 %-points (ref. page 23).

Tax proposal's impact on project economics - Exploration project cont.

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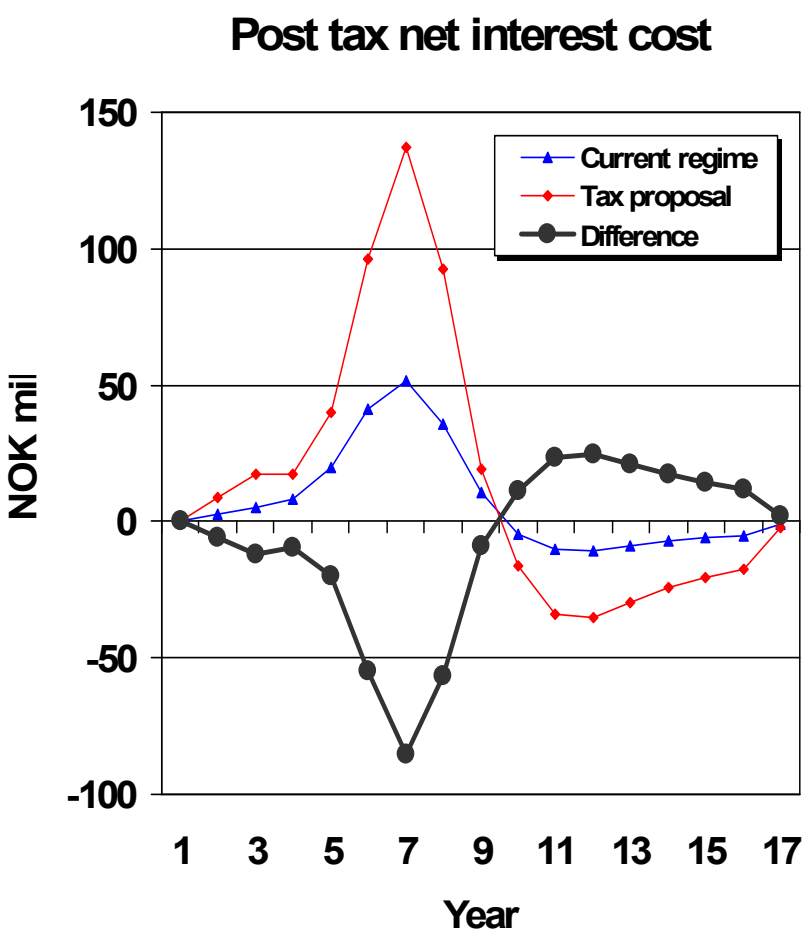

- As long as the project has a net debt position (year 1 to 10), the post tax interest cost is higher under the tax proposal
- When the project comes into a net cash position (in year 10) the post tax interest income is higher under the tax proposal
- In this example, the incremental increase in the post tax interest cost exceeds the incremental increase in the post tax interest income, making the impact of the tax proposal negative for the project at all discount rates
- The initial funding requirement and the profitability of the project determine when the project will come into a net cash position

Tax proposal's impact on project economics - Development project

SB Finans

Key results under current tax regime

Recoverable reserves		
- Oil (mmbbl)	100	
- Gas (mmboe)	-	
- NGL (mmboe)	-	
- Total mmboe	100	
NPVs	**USD @ 8 %**	**NOK @ 8 %**
- Pre-tax cash flow	1 549	9 758
- After tax cash flow	359	2 262
IRRs		
- Pre-tax cash flow		38.3 %
- After tax Cash flow		20.1 %
Metrics (real 2006)	**USD**	**NOK**
- NPV/boe	3.59	22.6
- Revenue/boe	36.79	249.6
- Exploration cost/boe	-	-
- CAPEX/boe	6.00	40.7
- OPEX (incl. tariffs)/boe	7.00	47.5
- Abandonment cost/boe	0.50	3.4
- Total Cost/boe	13.50	91.6
- Pre tax contribution/boe	23.29	158.0
- Tax/boe	16.76	113.7
- Post tax contribution/boe	6.53	44.3
Effecive tax rate (@ 8%)	**76.8 %**	

Increased effective tax rate by 1.1 %-points

Key results with tax proposal

Recoverable reserves		
- Oil (mmbbl)	100	
- Gas (mmboe)	-	
- NGL (mmboe)	-	
- Total mmboe	100	
NPVs	**USD @ 8 %**	**NOK @ 8 %**
- Pre-tax cash flow	1 549	9 758
- After tax cash flow	342	2 154
IRRs		
- Pre-tax cash flow		38.3 %
- After tax Cash flow		19.5 %
Metrics (real 2006)	**USD**	**NOK**
- NPV/boe	3.42	21.5
- Revenue/boe	36.79	249.6
- Exploration cost/boe	-	-
- CAPEX/boe	6.00	40.7
- OPEX (incl. tariffs)/boe	7.00	47.5
- Abandonment cost/boe	0.50	3.4
- Total Cost/boe	13.50	91.6
- Pre tax contribution/boe	23.29	158.0
- Tax/boe	16.94	114.9
- Post tax contribution/boe	6.35	43.1
Effecive tax rate (@ 8%)	**77.9 %**	

Note: - Applying the low case for discount rate (3.26%) and for interest cost (4.53%), the effective tax rate would increase by 0.5 %-points.
- In a low oil price scenario (20% lower), the effective tax rate would increase by 2.5 %-points (ref. page 24).

Tax proposal's impact on project economics - Development project cont.

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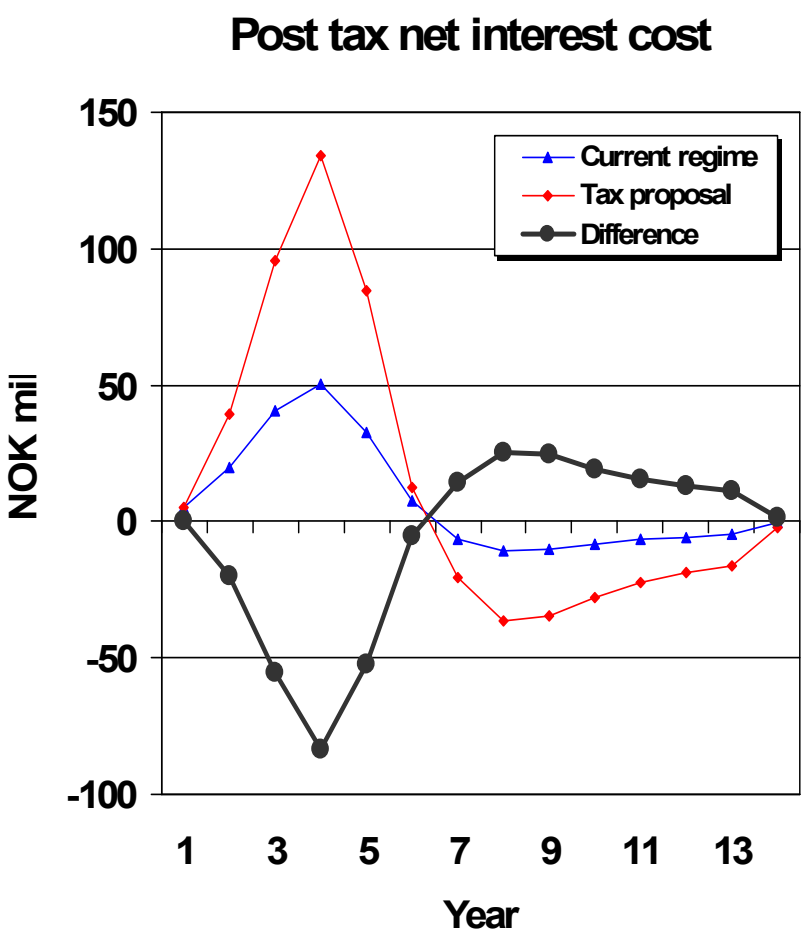

- As long as the project has a net debt position (year 1 to 7), the post tax interest cost is higher under the tax proposal
- When the project comes into a net cash position (in year 7) the post tax interest income is higher under the tax proposal
- In this example, the incremental increase in the post tax interest cost exceeds the incremental increase in the post tax interest income, making the impact of the tax proposal negative for the project at all discount rates
- The initial funding requirement and the profitability of the project determine when the project will come into a net cash position

Tax proposal's impact on project economics
- Producing project

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Key results under current tax regime

Recoverable reserves		
- Oil (mmbbl)	80	
- Gas (mmboe)	-	
- NGL (mmboe)	-	
- Total mmboe	80	
NPVs	**USD @ 8 %**	**NOK @ 8 %**
- Pre-tax cash flow	3 050	19 215
- After tax cash flow	870	5 482
IRRs		
- Pre-tax cash flow		n/a
- After tax Cash flow		n/a
Metrics (real 2006)	**USD**	**NOK**
- NPV/boe	10.88	68.5
- Revenue/boe	43.74	335.8
- Exploration cost/boe	-	-
- CAPEX/boe	-	-
- OPEX (incl. tariffs)/boe	7.00	53.7
- Abandonment cost/boe	0.63	4.8
- Total Cost/boe	7.63	58.5
- Pre tax contribution/boe	36.12	277.2
- Tax/boe	26.07	200.1
- Post tax contribution/boe	10.05	77.1
Effecive tax rate (@ 8%)	**71.5 %**	

Reduced effective tax rate by 0.6 %-points

Key results with tax proposal

Recoverable reserves		
- Oil (mmbbl)	80	
- Gas (mmboe)	-	
- NGL (mmboe)	-	
- Total mmboe	80	
NPVs	**USD @ 8 %**	**NOK @ 8 %**
- Pre-tax cash flow	3 050	19 215
- After tax cash flow	890	5 605
IRRs		
- Pre-tax cash flow		n/a
- After tax Cash flow		n/a
Metrics (real 2006)	**USD**	**NOK**
- NPV/boe	11.12	70.1
- Revenue/boe	43.74	335.8
- Exploration cost/boe	-	-
- CAPEX/boe	-	-
- OPEX (incl. tariffs)/boe	7.00	53.7
- Abandonment cost/boe	0.63	4.8
- Total Cost/boe	7.63	58.5
- Pre tax contribution/boe	36.12	277.2
- Tax/boe	25.82	198.2
- Post tax contribution/boe	10.30	79.0
Effecive tax rate (@ 8%)	**70.8 %**	

Note: - Applying the low case for discount rate (3.26%) and for interest cost (4.53%), the effective tax rate would fall by 0.6 %-points.
- In a low oil price scenario (20% lower), the effective tax rate would fall by 0.5 %-points (ref. page 25).

Tax proposal's impact on project economics - Producing project cont.

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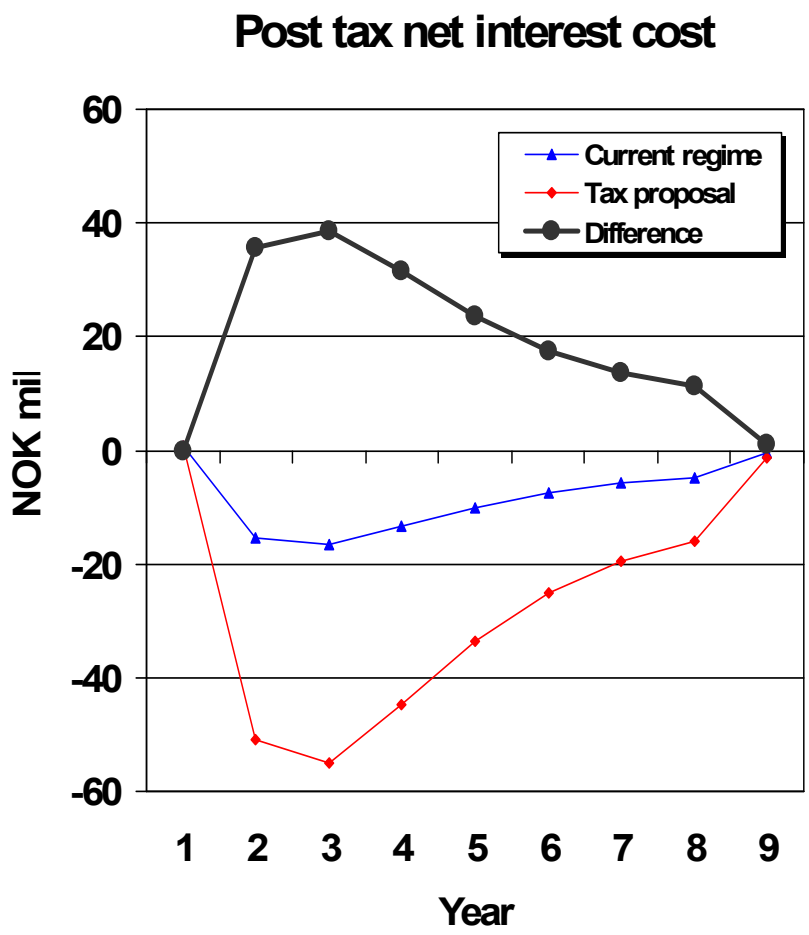

- In this example, the project comes into a net cash position in year 1 and consequently, the post tax interest income is higher under the tax proposal from year 2 (since the tax proposal will take effect starting 01.01.2007 and year 1 is defined as 2006)
- The incremental increase in the post tax interest income exceeds the incremental increase in the post tax interest cost (=0), making the impact of the tax proposal positive for the project at all discount rates

Tax proposal's impact on project economics
- Exploration project sensitivities

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Tax proposal impact on effective tax rate (%-points)

		Capital intensity		
		Low	Base	High
Oil price	Low	+ 2.4	+4.0	+ 6.5
	Base	+ 1.1	**+ 1.8**	+ 2.8
	High	+ 0.5	+ 0.9	+ 1.5

- Low oil price reduces the profitability of the project and the table above shows that the impact of the tax proposal is more significant with low oil price
- High capital intensity increases the funding requirement of a project and the table above shows that the tax proposal has a more significant impact on a project with high capital intensity

Low oil price: base - 20%, high oil price: base + 20%, low capital intensity: base - 20%, high capital intensity: base +20%

Tax proposal's impact on project economics - Development project sensitivities

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Tax proposal impact on effective tax rate (%-points)

		Capital intensity		
Oil price		Low	Base	High
	Low	+ 1.4	+ 2.5	+ 3.9
	Base	+ 0.5	**+ 1.1**	+ 1.8
	High	+ 0.1	+ 0.5	+ 0.9

- The table shows that the sensitivities for development projects are directionally the same as for exploration projects, but in a smaller scale
  - Low oil price reduces the profitability of the project and the table above shows that the impact of the tax proposal is more significant with low oil price
  - High capital intensity increases the funding requirement of a project and the table above shows that the tax proposal has a more significant impact on a project with high capital intensity

Low oil price: base - 20%, high oil price: base + 20%, low capital intensity: base - 20%, high capital intensity: base +20%

Tax proposal's impact on project economics
- Producing project sensitivities

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Tax proposal impact on effective tax rate (%-points)

		Capital intensity		
		Low	Base	High
Oil price	Low	- 0.5	- 0.5	- 0.5
	Base	- 0.6	**- 0.6**	- 0.6
	High	- 0.7	- 0.7	- 0.7

- Capital intensity is not relevant for the producing project since we have assumed that there are no investments post first oil
- However, the table above shows the tax proposal has a more favourable impact on producing projects with high profitability (oil price)

Low oil price: base - 20%, high oil price: base + 20%, low capital intensity: base - 20%, high capital intensity: base +20%

Tax proposal's impact on project economics - Summary

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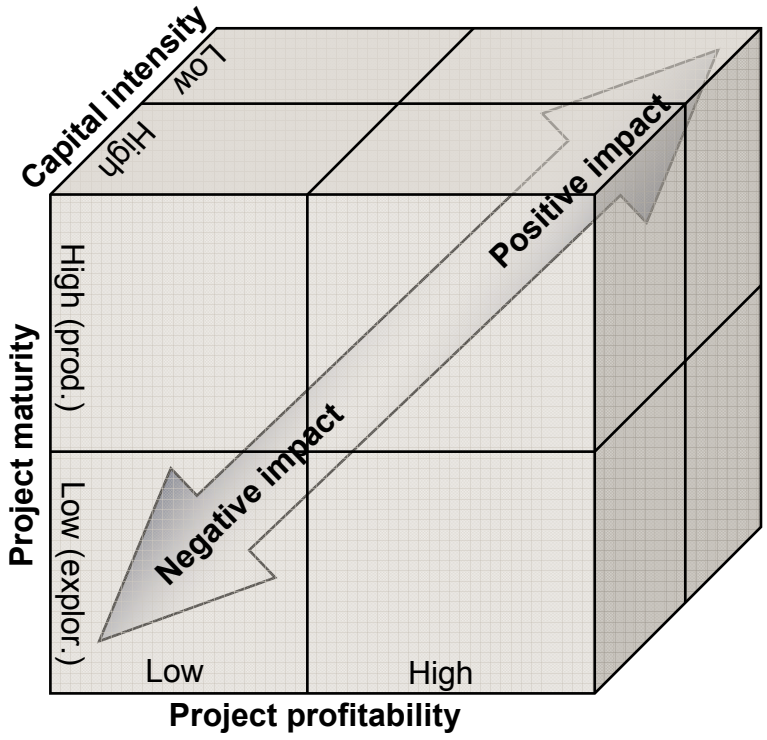
- The tax proposal will typically have an adverse impact on exploration projects
- The tax proposal will typically have an adverse impact on development projects
- The tax proposal will typically have a positive impact on producing projects
- The tax proposal will typically have a more negative impact on capital intensive projects
- Highly profitable projects will become even more profitable with the tax proposal
- Less profitable projects will become even less profitable with the tax proposal



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