<u>English:</u>

POL2022/POL3522:
Petroleum Management, Political Economy and Ethics
(*Petroleumsforvaltning, politisk økonomi og etikk*)

FINAL EXAM
10 June 2016

The exam includes three components, each of which constitutes 1/3 of the final grade.

I. Provide short (e.g., one paragraph) descriptions for each of the following five terms:

- **Carried Interest**.
    - Refers to a context in which a working interest partner (usually a NOC) pays a disproportionately lower share of its costs and expenses (than its working interest share) during the exploration or development phase of a contract. Typically, NOCs are carried through the exploration phase, at which point the government takes up a working interest (or "backs in").
- **R-factor**.
    - R-factor is a royalties formula, where R stands for the ratio of cumulative revenues/cumulative costs.
- **Lifting**.
    - Share of production that various parties are allowed to take in physical and legal possession (i.e, what IOCs can "book").
- **Achnacarry**.
    - Place (castle) in the Scottish Highlands where the 1928 meeting resulted in the infamous "As-Is Agreement". All the big oil producers of the time were present.
- **Tempoutvalget.**
    - Under the leadership of Hermod Skånland (later governor of the central bank, Norges Bank), *Tempoutvalget* [Pace Committee] laid the foundations for many of Norway's subsequent macroeconomic policies regarding petroleum management, including the establishment of a petroleum fund and the need for a budgetary rule (which was connected to the real rate of return on investment) to restrict spending
- **Sliding scale**.
    - Tool used by Norwegian authorities to provide Statoil with a larger participation share. Used in 3rd to 10th Allocation Rounds. What this means is that Statoil's share of total production was allowed to increase along with the size of peak production from the field. The precise share was subject to negotiations, and not generally published.

II. How does the EU affect Norway's petroleum management strategy?

- First, note that Norway is not member of EU, but is affected through EEA. Then, the book notes:
- At a more general level, the EU's common market rules can be seen to affect Norway's management of the petroleum market in at least four policy areas:
    - *Preferential Treatment*. On account of the EU's Concessions Directive (1994), Norway can no longer extend preferential treatment to domestic (Norwegian) suppliers.

- *Competition Policy*. Norwegian competition policy was gutted by the EEA agreement. For example, the country had to jettison its long-standing policy of choosing developmental concepts and materials specifically designed to fit the Norwegian supply industry (Arnesen, 1995: 343-393).
- *Procurement policy*. In the EU's main treaty, member states are prohibited from discriminating on the basis of nationality, they must grant the freedom of establishment, and they must establish the freedom to provide services.16 In the mid-1980s, discriminatory public purchasing was seen as one of the last obstacles to completing a single EU market (Martin, Hartley and Cox, 1997).
- *Concessions policy*. Norway negotiated the EEA agreement in 1992, it made clear that its "*hjemfallsretten*" was not to be affected by the treaty, as the agreement didn't extend to cover property rights issues. But in June 2007, the EFTA Surveillance Authority20 challenged Norway's position and ask that it jettison its long-standing concessions policy.

III: Has Norway managed its petroleum resources in a way that is consistent with Hotelling's rule?

- Harold Hotelling (1931) argued that in a competitive market there was an equilibrium price path, in which the price of oil would rise at the prevailing rate of interest for capital invested in projects with similar degrees of risk. Hotelling's rule would have a country slow the pace of extraction when prices are high, and increase production when the price falls below the prevailing rate of interest.3 For Hotelling, then, the laws of supply and demand (not political, environmental or surrounding macroeconomic factors) should determine the speed of extracting a natural resource: the rate of extraction should coincide with the exponential price path of the compound rate of interest.
- Norway has not followed Hotelling's rule: it first used political necessity to determine a (slow) pace of production; then it maximized production to fill up its Petroleum Fund. Although one could make the argument that the latter strategy (of pumping it up when oil price was high, and investing it in financial markets) is consistent with Hotelling.