

Client's Assignment to Student Research/Consulting Group

Refining after the tight-oil boom: Changed supply chains, changed geopolitics?

I. Client Institution:

DIW Berlin; Department Energy, Transportation, Environment ([link](#))

Large department in a prestigious German think tank engaged research and advisory on national and international energy markets for the general public as well as private and public stakeholders

a. Client Representative(s):

Dr Dawud Ansari, dansari@diw.de ([link](#) DIW, [link](#) LinkedIn)

II. Client's Abstract

a. Topic's Significance

In late 2014, oil markets were disrupted, with a rare collapse of market plunging prices by more than 80% within a single year. It took a deal between OPEC and Russia in 2016 to eventually stabilise oil prices for the time being (viz. forming the so-called "OPEC-plus" group). A central contributor to the price crash was the drastic increase of U.S. tight oil production capacities, which raised American oil production by more than twofold within a single decade. However, it was eventually OPEC's (controversial) strategic decision not to cut production which destabilised the markets in the first place. Ultimately, non-diversified exports and public revenues in many oil-producing nations on the one hand, as well as the dominant role of oil for energy security on the other, put the market also at the centre of geopolitical considerations.

The 'New Economics of Oil' – a term coined by BP's chief economist Spencer Dale – do not only include changes to market shares and production. Instead, holistic adjustments – including geographical shifts, a diversification of supply, and altered (geo-)politics – have eventually led to a still-transforming oil market. There is an extensive body of both academic and non-academic research on the upstream developments during (and prior to) the price crash. However, there is only little insight as to which midstream oil – especially refining – has been affected by the market's trajectory or may even be its driver. In principle, upstream changes will spread into the refining sector, as refineries are highly capital intensive and matched to specific blends of crude oil. Eventually, since 2015, there have been shifts in national efforts in the refining sector, which may reflect changed market conditions but could also reveal changed geopolitical ambitions.

The client, DIW Berlin, is one of Berlin's few institutions with expertise in hydrocarbon markets. The institute is often contracted for research and consulting projects by German, European, and Middle Eastern institutions in the public sector but also by private companies. DIW Berlin makes use of mathematical models (in addition to qualitative industry analysis) to investigate and predict market developments and the effect of climate and energy policies. The institute's focus, however, is on the extraction level as well as oil-governing institutions. Therefore, the client seeks to contract a team of experts that will investigate the oil midstream sector and give an account of its geopolitical consequences and involvement.

b. Particular Questions &/or Goals

The contractor will need to answer the following questions:

- How have global trends in the oil market and beyond changed the refining industry, especially with respect to refinery reallocation, new investments, and changed oil flows?
- Which geopolitical effects did these changes have and which ones can be expected?
- Which trends can be seen with regards to the geopolitical ambitions of nations active in the midstream sector?
- Based on the previous questions, which market and geopolitical developments are plausible for the future?

At all stages of the research, the contractor is expected to focus on Middle Eastern oil producers (yet, other relevant nations need to be included as well).

The contractor can expect the questions above to be detailed and altered on the course of the project. The exact final product is subject to discussion, but a mapping of (prospective) refinery capacities and reallocations, geopolitical ambitions, and future market developments is considered a possible outcome of the project.

IV. Client's vision of interaction, advice & supervision

a. Anticipated oversight/viewing of "Project Research Notebook"; frequency & forms of other interactions?

See Syllabus. Details

b. Contact protocols, methods, frequency, etc.

Weekly email brief; monthly in-person meeting; extraordinary meetings possible if necessary

V. Deliverables & Deadlines

b. Written Report

TBD

c. Presentation &/or Executive Consultation

TBD

VI. Background Materials &/or References from Client

The client will provide a list with introductory literature for the contractor. The client can provide contact details of selected oil market experts if required.

c. Models from Previous Work (if applicable)

TBD