The geopolitics of trillion US$ oil & gas rents

July 21, 2022
Aviel Verbruggen
Professor emeritus
University of Antwerp
Prinsstraat 13
BE 2000 ANTWERP
Belgium

Email: aviel.verbruggen@uantwerpen.be
E-site: https://www.avielverbruggen.be

Abstract

Physical oil and gas abundance, turned in market scarcity, do prices of oil and gas spike and cashed rents mount. For the years 1970-2020, the rents from crude oil and natural gas sales are expressed in US$-2020, revealing the magnitude and volatility of the money flows. Peak rents coincide with turmoil impling particular oil & gas exporting countries. Oil & gas geopolitics metamorphosed from conquering oil deposits to precluding oil & gas exports by ‘hostile’ nations. Such preclusions turn physical abundance in market scarcity, boosting oil & gas prices¹,² and rents (also called royalties, windfall, excess profits). Rent skimming is also a part of the 2022 Ukraine war. Climate change mitigation intensifies geopolitical efforts to curtail the exports of ‘hostile’ nations.

Keywords: Trillions oil & gas rents; geopolitical conflicts; create market scarcity; climate change mitigation; Ukraine war

During oil crises, fluctuating prices attract most media attention. Price impact on money flows is mentioned, yet proper quantification left undone. Oil money flows incorporate price and quantity, and inform about the assets which really count for people and business. Price is ephemeral, cashed money is a lasting asset.

“Natural resources give rise to economic rents – revenues above the cost of extracting the resources, because they are not produced. Oil and natural gas rents are the difference between the value of crude oil and natural gas production at regional prices and total costs of production.”³ World Bank staff assesses the annual rents from crude oil, natural gas, and other resources, as a percentage of the annual wealth obtained by the world’s nations. To a high degree, oil & gas business is rent capturing business. To augment rents, oil & gas supply is manipulated by oligopoly power and by cartel actions⁴. However, excessive peak rents are boosted by political-military conflicts and their sequel of societal disruption, if not civil war.

Trillion US$ oil rents: magnitude and volatility

World Bank’s data⁵ allow the estimation of crude oil and natural gas rents for the years 1970-2020 in US$-2020 constant monetary value (figure 1). Rents added over the 51-year period equal 52.54 trillion US$-2020, on average 1.03 trillion per year. The shares of 86.4% in crude oil rents and 13.6% in natural gas rents are due to the versatility of liquid petroleum and its many derivatives, and to incomplete gas distribution facilities. The volatility of the annual rents is significant: a mere 92 billion US$-2020 in 1970 and 2,620 billion US$-2020 in 2011. To comprehend the volume of rent money flow, compare to the world energy investments⁶, in 2021 being 1,531bn US$-2019.
Data for comprehensive assessment of oil & gas rents after 2020 are not yet available. In 2022, oil prices again exceed US$ 100 per barrel, stirred by the Ukraine war and the embargos on Russian oil & gas exports, boosting profits from rent capturing. Twenty-eight of the largest Western oil & gas companies publish profits of US$183.9bn over 2021, and already US$93.3bn in the first quarter of 2022. Rystad Energy reveals Free Cash Flow of all publicly documented Exploration and Production (E&P) companies of US$493bn in 2021 and US$719bn when downstream activities are added. If the average oil price in 2022 is US$111/barrel, Rystad expects US$834bn from E&P and US$1100bn with downstream activities.

Explicate magnitude and volatility of oil & gas rents
Since 1973, oil prices have been volatile by unpredictable combinations of market fundamentals and speculation. Oil supply encompasses exploration, winning, processing, and delivery for serving end-users. Disruptions in supply chains cause price hikes. Disruptions in demand for oil may cause price falls, like happened in 1998 (Asian economic crisis), 2008 (global financial crisis) and 2020 (COVID crisis).

The abundant oil & gas reserves on Earth can meet a large demand at low prices. Low prices mean omitting payment for the significant external costs caused by oil & gas use, for example as environmental damage, and as irreversible climate change. Climate economics advises progressing higher levies on oil & gas use, installing stable, affordable price patterns for end-users. Levies (public rents) may compensate external costs and support technological innovation or other merit goods. However, the advice is poorly followed. On the contrary, IMF shows that fossil fuels are heavily subsidized.
Low oil & gas prices also mean moderate rent capturing on these natural resources. Yet, oil & gas market functioning is influenced by cartels like OPEC. By regulating its members’ supply quota, OPEC aims to maximize captured rents over time. Such precarious regulations are more effective when trust among cartel members is high and robust. In 1960, Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela founded OPEC. Since that date, Iraq invaded Iran and Kuwait, and serious animosity between Iran and Saudi Arabia is protracting. OPEC avoids mutual destruction of the members’ oil & gas business, while obtaining sizeable rents, being the baseload of the rents ‘load curve’ (fig.1).

Speculation is a general term for explaining high spikes in rent capturing. A cocktail of context factors need consideration, like climate change, technological advance, and mainly geopolitics. By the 1973 oil price crisis, oil depletion became a focal topic, anchoring beliefs in oil-related conflicts emerging for acquiring the dwindling oil deposits on earth. More militarized conflicts or ‘resource wars’ were expected. The Rio World Summit (1992) adopted the UNFCCC, for avoiding dangerous global warming. Energy use causes 76% of the greenhouse gas emissions. Climate change mitigation means abandoning fossil fuels to escape climate collapse. Building energy systems driven by electricity tapped from ambient energy currents (light, wind, water, geothermal) has become sound economics.

Giving up fossil fuel winning and use is the greater challenge, unsettling oil & gas geopolitics.

**Oil & gas geopolitics in light of contracting business**
Abundance of fossil fuel resources dissipates discourses on ‘depletion’ and ‘peak-oil supply’. Growing probability of irreversible climate collapse requests urgent and drastic reductions in using fossil fuels. In a necessarily decaying industry, competition for market share intensifies. Characterization of the coincidences between military conflicts and excessive rents alters over the 1970-2020 period. Up to the 1990s conflicts seem mainly politically driven, with control over oil & gas resources on the back-seat. After 1992, climate change mitigation and the projection of reductions in fossil fuel use, changed the conflicts’ content and aim. Sanctions, embargos, invasions, instigated civil wars, aim at precluding the sales by ‘hostile’ oil & gas exporting nations. Conflicts are most severe in Middle Eastern and African countries, also spreading to South America and Russia.

The political context is sketched here, economic logics in the next section. Disintegration of the USSR after 1989 expanded the superpower position of the US. It marked the triumph of neoliberalism, pushing economic growth with transnational corporations leading in economic globalization, helped by subservient politics. “A globalizing power wants military bases abroad, trading partners, markets, and consumers: suzerainty, not an old-fashioned empire.”

The US economy is built on opulent use of fossil fuels. Since the 1970s, it pursued ‘energy independence’ by reducing oil imports. In 2026, D. Trump launched ‘American energy dominance’, stimulated by the shale revolution. In 2020, the US produced ca. 50% more oil than Saudi Arabia and Russia. President Trump coerced Germany to dump Nord Stream 2, supported by 98% of the US Senate imposing new sanctions on Russia.

Acting as Superpower, the US engages NATO allies, and maintains friendly links with the Gulf Cooperation Council among six Arab Gulf states (*1981). This US-axis faces a dispersed array of other oil & gas exporting nations: some allow Western oil companies to exploit their resources in joint-venture; some nationalize their oil assets, excluding foreign capital. The US typifies the latter nations as ‘hostile’, like Iran, Venezuela, Russia, and Iraq, Libya before they were invaded. Sanctions, embargos, and conflicts aim at paralyzing hostile oil exports, not at conquering resources. Covert warfare and instigated civil wars are tactics to exhaust hostile opponents.

**The economic rationale of curtailing oil supply**
Figure 2 is a textbook graph of a one-day snapshot of global crude oil business in a market format. Manufacturing crude oil, done by sun and earth million years ago, has zero cost. In large fields, winning oil at US$10/barrel + additional processing makes the expense
around US$20/barrel. US shale oil is more expensive in a range around US$60/barrel. The mentioned prices are approximative; the graph intends to show how huge rent capturing is constructed; the calculation of the rents (fig.1) is not based on figure 2 numbers.

Without curtailing access to the world oil market for ‘hostile’ oil supplies, a competitive price would fluctuate around US$20/barrel. Since the 1970s, OPEC’s intervention pushes prices upwards. The frail power of OPEC limits its rent capturing capability. For excessive rents, oil & gas reserves in abundance must be truncated to create delivery scarcity. So doing, the market fundamentals of supply are reshaped. The US-axis does this successfully by sanctions, embargos, instigated conflicts, sometimes invasions. The exclusion of hostile supplies has three effects. First, on the US$20/barrel horizontal supply a panhandle supply curve is fabricated, cutting the short-run inelastic demand curve at a high price level (above US$100/barrel). Second, the bulk of the rents occasioned by the high selling price, land mainly to the US, transnational oil companies, and friendly oil-exporting nations. Third, by stifled competition the US can export shale oil & gas to Europe, notwithstanding the higher prices and higher carbon emissions than natural gas imported from Russia.

Most of the oil & gas rent bills are charged on European and Far Eastern energy users, driving cars or living in poorly insulated dwellings. Their industrial activities using intensely fossil fuels, lose competitive advantage. Excessive rent bills extort their economies and finances, causing inflation and economic recession, if not crisis. Poor people in the wealthy EU cannot afford the inflated oil, gas, and electricity bills.

**Ukraine war**

Geopolitics of exerting political-military power implies also political-economy interests. For example, the Ukraine war with immense personal and economic outfall, most for the people directly involved, also for the rest of the world. Billion to trillion US$ in rents are cashed by transnational energy companies, which they can use to transit to low-carbon
neoliberalist regimes, accepting deep inequalities between winners and losers, and quelling peoples’ renewable energy and efficiency projects. Money for investing in such projects is stripped from energy users, mainly by paying the rent bills and by diverting public funds to military spending. The military activities are exhausting significant volumes of greenhouse gases, however not affecting the UNFCCC statistics, because the military is freed from reporting their emissions.

In the perspective of conflicts for excluding ‘hostile’ oil & gas supplies from the world market, Russia is the final nation with abundant resources to boycott. A positive insight, however, choked by the likely protraction of the conflict during many years. The fossil fuel business knows that their activities must shrink for succeeding in climate change mitigation. The more their sales of fossil fuels have to be reduced, the stronger they strive for excessive pricing of the last billion ton-oil-equivalents allowed to sell.

References

1. BP (2021) Statistical Review of World Energy
2. Montgomery, S.L. (2022) Oil price shocks have a long history The Conversation
5. World Bank databank & Petroleum rent indicator & Natural gas rent indicator
6. IEA World Energy Investment 2021
7. Trading economics: crude oil prices
8. Milman, O. Largest oil and gas producers made close to $100bn in first quarter of 2022. The Guardian May 13, 2022
11. IMF energy subsidies
13. World Resources Institute
15. Carrington, D. How much of the world’s oil needs to stay in the ground? The Guardian. September 8, 2021
16. IRENA (2022) Renewable Power Generation Costs in 2021