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Oil market developments and prospects: A geostrategic perspective

by

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The views expressed are those of the author and do not necessarily reflect the views of UNCTAD.

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Outline

- Oil and international trade in commodities
- Share of oil in world energy consumption
- Oil production, consumption and inventories
- Oil market turning points.
- Evolution of crude oil price regimes
- Factors of oil price formation
- Supply management: OPEC and OPEC+
- Oil in more sustainable global energy
- How important are geostrategies of oil

The most important 10 commodities in international trade (Exports in 1938, 1977, 2011, in millions of USD)

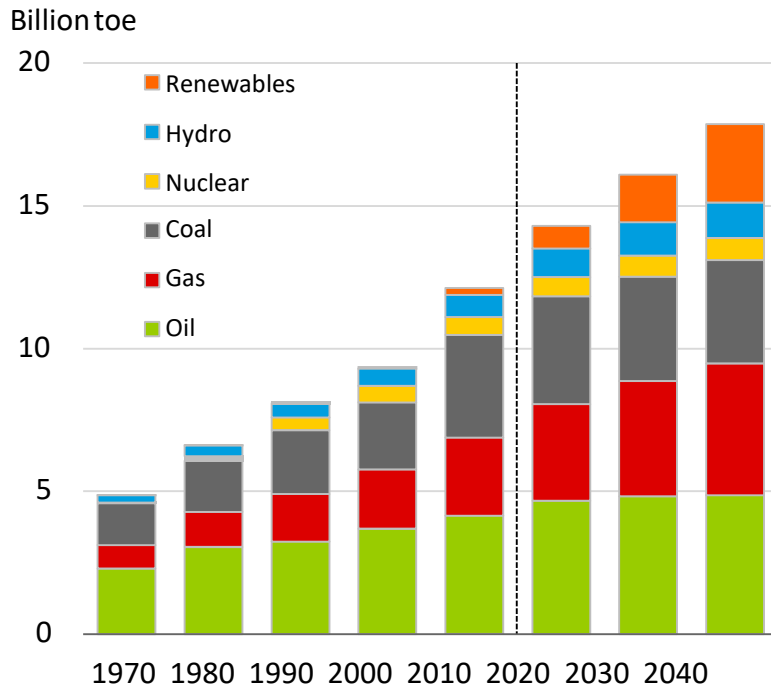
1938	USD	1977	USD	2011	USD
Cotton	600	Crude petroleum	145,161	Crude petroleum & bituminous oil	1,635,481
Coal	530	Oil products	42,760	Heavy petroleum & bituminous oil	937,123
Crude petr.	448	Coffee	12,918	Natural gas	270,192
Wheat	442	Coal	10,907	Gold non monetary	222,100
Wool	435	Pearls & stones	9,972	Pearls & pr. stones	161,318
Petroleum	394	Gas	9,293	Copper	149,197
Tobacco	359	Meat	9,291	Iron ore	144,346
Sugar	340	Wheat	7,987	Aluminum	126,237
Copper	325	Wood	7,810	Fruit nut	86,471
Butter	304	Sugar & honey	7,612	Meat	75,292

Sources: League of Nations, UNCTAD, Fiona Gordon-Ashworth

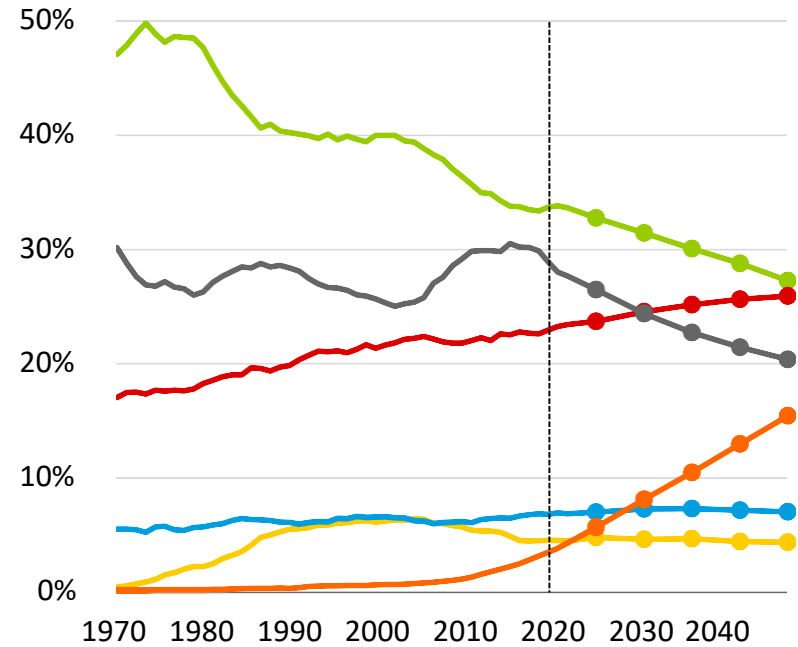


Global energy by fuel type

Primary energy consumption by fuel



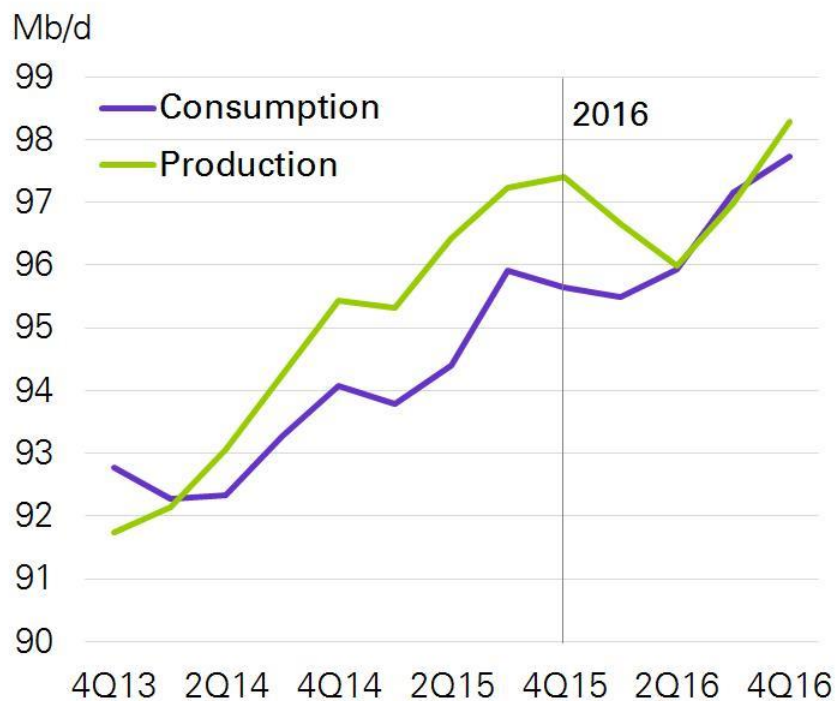
Shares of primary energy



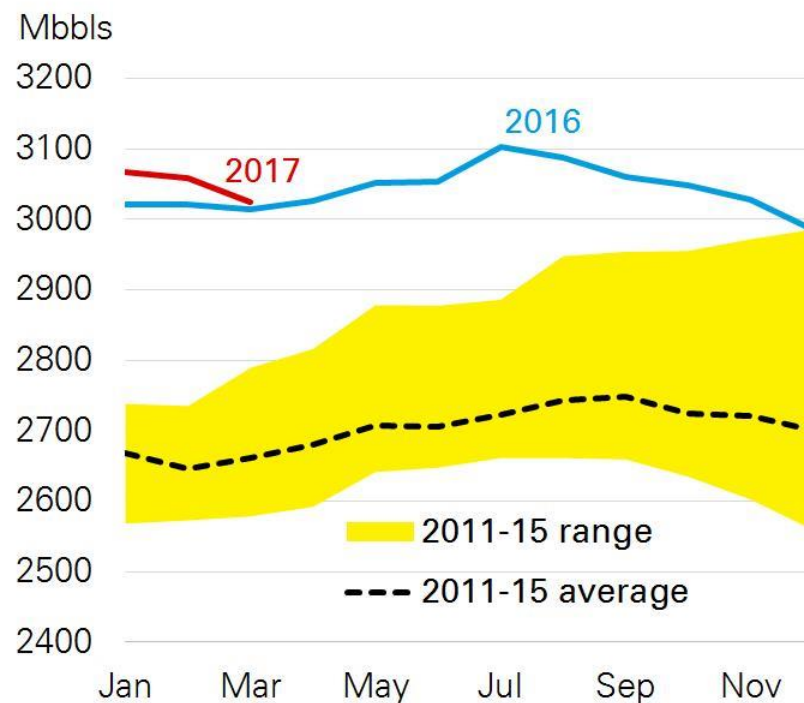
Oil market: balance and inventories



Oil production and consumption

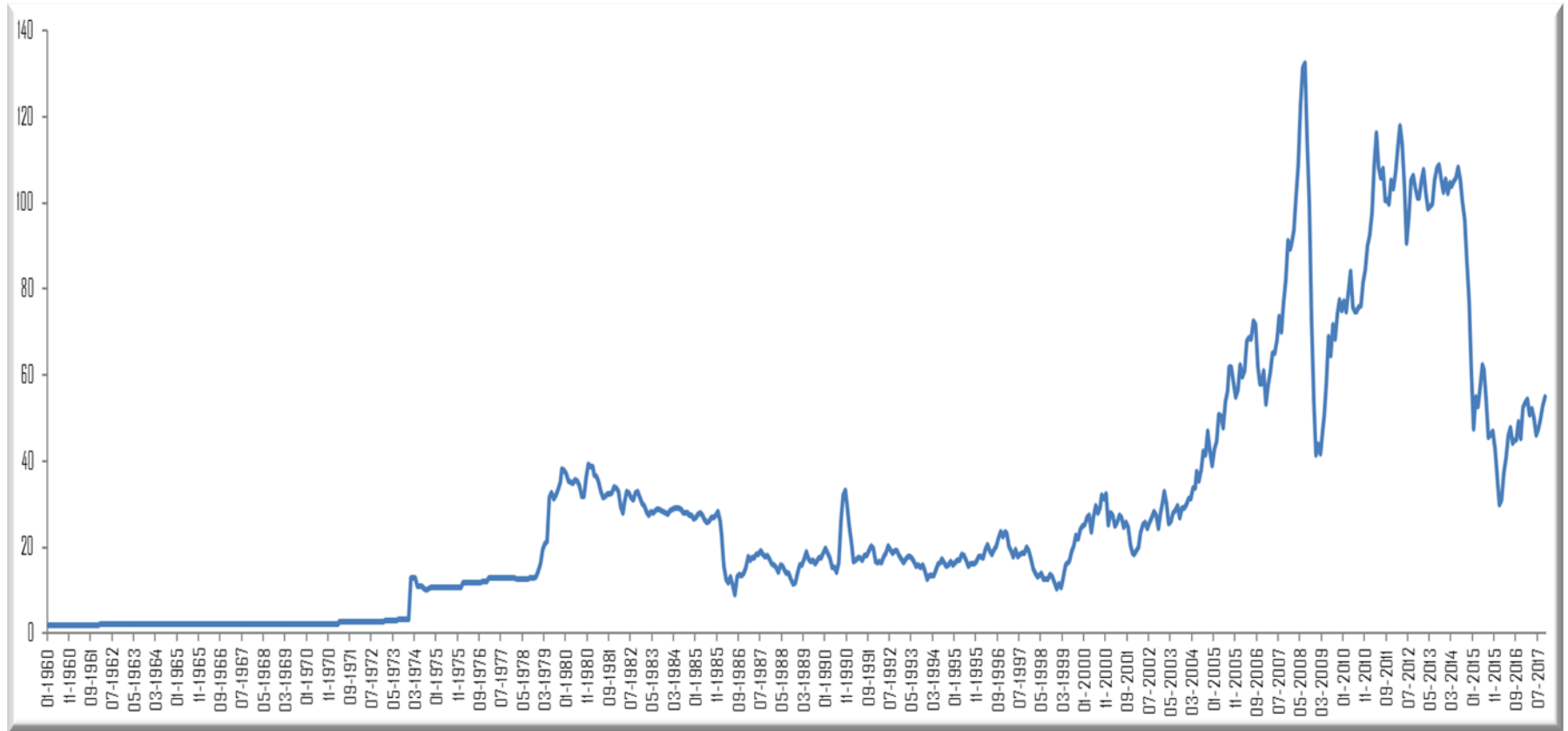


OECD commercial inventories



Source: includes data from the International Energy Agency © OECD/IEA 2017

Crude oil price booms & busts, and plateaus



Source: UNCTAD, UNCTADstat
Monthly, Equally weighted average of Brent, Dubai and WTI

Oil market turning points and outlook

- Oil price revolution: 1973-74 jump from 3 to 11\$/bbl; increase to nearly 30\$/b in 1979
- 1986: Saudi Arabia decided to stop being a swing producer and OPEC stops targeting prices. Prices fell by 66% in 82 days. 1990-1991 First Gulf War: 48% fall in 71 days
- 2008 Financial Crisis: 77% drop in 113 days
- 2014: OPEC and especially SA in November decided to defend market share ie abandoned swing producer role second time. Oil prices fell from US\$115/bbl on 19 June 2014 to a five-year low of US\$45/bbl on 13 January 2015. A drop of 61 %.
- The first and last sharp price drops were the result of abandoning of supply management policies, ie swing producer role by OPEC. That role was and may still make OPEC a major factor in crude oil price formation. Currently the name of the game is OPEC+ including Russia. US shale due to innovations and cost cutting is not so marginal.
- **Raising supply first from the US, and also from OPEC and other sources, combined with modest growth in Chinese demand, the increase in stocks, and the strengthening of US dollar, were the main determinants of recent crude oil price dynamics .** Geopolitics of Middle Eastern, Ukrainian conflicts and sanctions didn't alter the picture.
- **Futures prices for crude oil are still in the range of \$60-70 /barrel moving from contango to backwardation and again back to contango. While in short term prices may move downwards due to seasonal changes in supply and demand, the low level of investment to replace the exhausting traditional oil fields and increase in absolute demand for oil due to Asia centric growth of world economy may again bring about supply gaps and spikes in prices in medium term.**

Evolution of crude oil price regimes

- In 50-60s low and stable posted prices (for fiscal purposes) of crude oil were under 7 Sisters oligopolistic 1928 Achnacarry Agreement regime. Regime survived so long as it was fitting the geopolitics of low and stable oil prices for main oil importers, USA and Europe. Crude oil as well as dollar ceased to be key price anchors in the 70s. Since then we live in the world of floating prices and rates.
- OPEC price regimes (official, selling, buy-back and netback prices) existed from mid 70s to mid 80s.
- Since the 80s the crude oil and oil product prices started to be formed by spot and futures markets. Main commodity exchanges of New York and London and also elsewhere determine prices of many commodities. OTC markets gravitated around.
- Crude oil prices are quoted through mainly two benchmarks: Brent and WTI (West Texas Intermediate). Their differentials are fluctuating. There is also Dubai. Other crudes are priced due to the use of various differentials and coefficients around the benchmarks.
- In the short term supply of and demand for crude oil are inelastic to price signals: hence the volatility due to supply/demand mismatch. For example when prices collapsed in 2008, supply streams were still coming and adding up to the situation of a glut. Elasticity increases in medium-long term. The 1980s and 1990s were a period of low prices and underinvestment in the oil industry. Due to the boom of 2000s (so-called supercycle) the oil industry faced the challenges of limited production capacities, shortage of workforce, and cost inflation, increasing the cost of capital expenditure.
- While oil prices are formed in futures markets, gas prices say in Europe, while being linked to oil price, are still negotiated in the framework of term contracts.

Factors of price formation

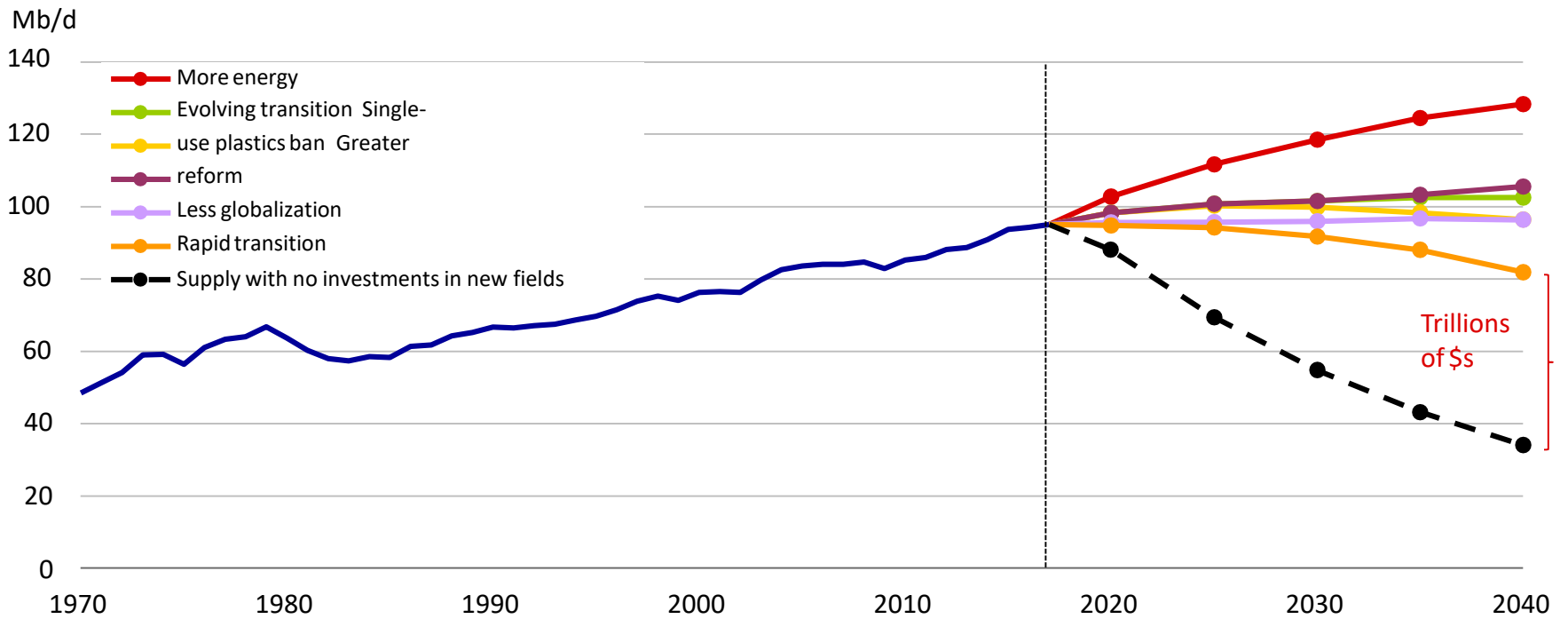
- International prices on crude oil are reflecting market fundamentals, including the state and prospects of demand, supply and stocks. Inelastic demand and supply and low level of stocks increase volatility of prices. Information is asymmetric due to lack of timely statistics on production, consumption and stocks. No exact numbers behind so called fundamentals. Hence, the guesswork of forecasters.
- Financialization of futures markets and increasing number of actors and volumes of finance betting on futures probably contributed to upward price swings and fluctuations thus deviating prices from equilibrium in the short run. Decrease in banks involvement in commodities futures coincided with recent lower volatility.
- Dodd Franck, EMIR, MIFID etc increase oversight of exchanges/OTC markets. Basel3-4 make lending more costly. So trading companies face constraints and higher costs of compliance. It could be translated into higher prices and volatility.
- Domestic prices are key for shaping the demand for oil and its products. High excise taxes on oil products in Europe diminish demand for oil.
- Geo-economy of export taxes on crude oil shows exporting countries need for higher prices & sales.
- Subsidies or low domestic prices on oil products increase demand for them.
- Domestic energy policies, in particular taxes & subsidies, are reflected in domestic prices, thus influencing demand & supply, and hence international prices.

Supply management: OPEC and OPEC+

- 1st and 2nd oil crises in 1970s, made OPEC a major player in price formation. OPEC disrupted the geopolitics of 7 sisters price regime. However it didn't manage to maintain long its own price regime. Finally benchmark based futures prices determined in commodity exchanges.
- While IEA members were holding the main strategic and commercial buffer stocks, it was the OPEC production quotas and unused spare capacities, that were supporting the price levels. When OPEC abandoned quotas in 1986 and 2014, the prices fell dramatically. In the first case they stayed low till early 2000s. How long they will gravitate around 65-70\$/b depends on demand but also on state of shale and traditional oilfields.
- OPEC + is essentially coordination of supply between OPEC, Russia and other non-OPEC developing oil exporters. It used to work recently putting a floor to price. Iran and Venezuela are the case when producers can not take action as geopolitics are cutting production
- Currently OPEC is a price taker. The paradox is that while Saudi Arabia, is no more swing producer, the US shale oil/gas companies, which made the US in 2014 the leading world crude oil producer, are still continuing to produce and compete. They are not so marginal with current prices.



Demand and supply of oil



Oil in more sustainable global energy:

- BP, IEA and other centers are considering various options of for oil consumption in future
- The main contradiction is how to assure supply of energy to meet increasing demand while decreasing CO₂ and other emissions.
- Assuming that nuclear fusion will still not be there, the energy sources competition may concentrate more and more between renewables & gas from one side and oil & coal from the other.
- While carbon tax will contribute to structural change in energy balance towards renewables and gas, the remaining oil and coal production should drive more towards clean technologies and methods such a carbon capture and storage.
- How far technological innovation with contribute to sustainable energy production and consumption? In that sense the 4th industrial revolution is key.

How important are geo-strategies of oil

- So while oil is becoming less important in world energy balance it is subject to albeit at lesser extent to forces geopolitics and geoeconomics. Needs of China and India and the resolve of main powers to address seriously the climate change challenges and cooperate, making energy consumption more rational and nature-friendly, will determine the demand for oil and hence its supply from OPEC and non-OPEC sources.
- Futures oil markets, multiple actors, well established contracts and supply chains, are making political interference in oil trade less relevant. Moreover, competition between various types of energy and declining role of oil in world energy balance are increasingly turning it into just one of the energy sources taking out of it the aura of exceptionality, that was the case in XX century, which Daniel Yergin in his “The Prize” called a century of hydrocarbon man.
- So how policies and technologies can contribute to making energy production and consumption sustainable is key to tame emissions and climate change, and make our planet livable.

Thank you

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