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# The changing relation between oil prices and the dollar —the concurrence of expensive oil with a strong greenback

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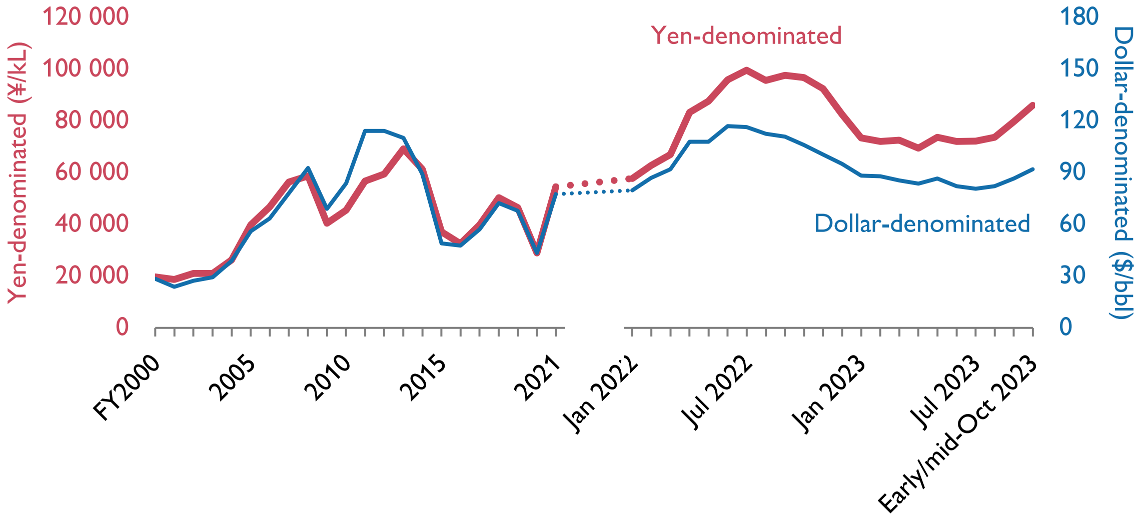
Oil prices are high. In early to mid-October 2023, crude oil imports to Japan cost over $90/bbl. This reflects the fact that international oil prices have rebounded since the summer due to both supply and demand tightening—although recent days have seen a fallback. What makes the situation even more difficult for Japan is that the strong US dollar and weaker yen are also pushing up oil prices. Over the past six months, the price rise in yen terms is 20%, much more than in dollar terms.

Fig. 1 | Crude oil import price in Japan

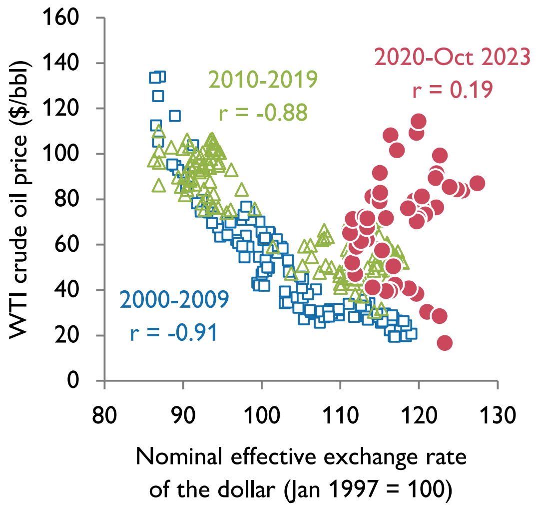



Note: Early/mid-October 2023 includes raw oil.
Sources: Institute of Energy Economics, Japan "EDMC Energy Trend", Petroleum Association of Japan (Early/mid-October 2023)

Traditionally, a strong dollar has been seen as a factor driving down oil prices. An appreciating dollar leads to market participants in countries other than the United States finding that oil prices rise in terms of their own country's currency. Therefore, it has been said that a strong dollar restrains demand which leads to downward pressure on the oil price.

However, the relation between the dollar and the oil price is no longer as obvious as it was. The correlation between the nominal effective exchange rate of the US dollar, a measure of the overall strength of the dollar, and the oil price was strongly negative in the 2000s and 2010s at around -0.9 of correlation coefficient. Yet, the relation has weakened and the correlation coefficient is now positive, albeit slightly. This means that in a turnaround, an appreciated dollar now points to rising oil prices.

Fig. 2 | Nominal effective exchange rate of the dollar and oil price (monthly)

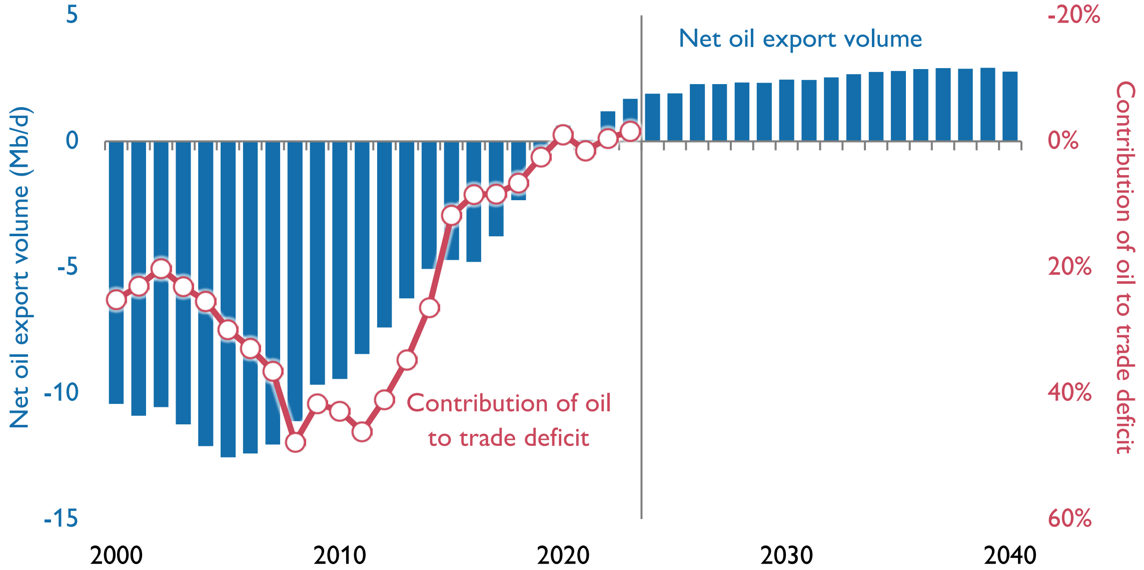



Notes: The higher nominal effective exchange rate of the US dollar, the greater the value of the dollar. r stands for correlation coefficient.
Sources: US Energy Information Administration (EIA), Board of Governors of the Federal Reserve System (FRB)

The mechanism that determines exchange rates and oil prices is not yet fully understood. However, the restoration of the United States as an oil exporter is posited as one reason for the changing relation between the oil price and the dollar. As a result of the shale oil revolution, it dramatically increased crude oil production and by 2020 the country was flourishing again as a net oil exporter. As a result, high oil prices are no longer a painful macroeconomic phenomenon for the United States. This means that rather than high oil prices driving up the cost of importing oil as the first adverse impact on the economy, causing a growing outflow of national wealth, wealth is actually flowing in. At today's elevated oil prices, many developed economies in a net oil importing position are economically stagnating. The US' avoidance of economic malaise may be a side-effect of this phenomenon to some degree.

The United States' net oil imports accounted for 48% of the country's trade deficit in 2008, when the oil price hit a record high. This figure is now down to -2%—which is by no means large, but at least it is working in the direction of reducing the trade deficit. If elevated oil prices can improve the US balance of trade through increased income received from net oil exports, then that could be a contributing factor to a stronger dollar. It is the simultaneous occurrence of high oil prices and a strong dollar.

**Fig. 3 | US net oil export volume and the contribution of oil to the trade deficit**




Notes: Net oil export volume data for 2023-2024 from US Energy Information Administration "Short-Term Energy Outlook" (November 2023), and for 2025 onwards from US Energy Information Administration "Annual Energy Outlook" (March 2023). The figure for contribution of oil to the trade deficit for 2023 is from January to September.
Sources: US Energy Information Administration, US Census Bureau

Net oil export volumes from the US will continue to increase until the end of the 2030s, according to the US Energy Information Administration's "Annual Energy Outlook" (2023). This implies the possibility of further strengthening of the simultaneous rise in oil prices and the US dollar as currently seen. It is not a bad scenario for the United States, which urges a strong dollar (in principle). However, the same does not apply to oil importing countries such as Japan. Looking ahead, these countries may have to bear in mind the scenario that would arise in the case of a simultaneous high oil price, strong greenback and weak local currency: a severe double punch for oil importers. One current concern is the conflict between Israel and Palestinian group Hamas. In terms of the impact on the economy and the oil market, there is a view that expansion of the conflict will slow down the global economy, undermining oil demand and resulting in cheaper oil. Meanwhile, the World Bank's "Commodity Markets Outlook" (October 2023) describes a scenario in which the price of crude oil could spike as high as $157/bbl. What would happen to the dollar then?

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