

FX Insight

Commodity Currencies

Navigating currencies intelligently

Torca

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Highlights. Oil-price shocks affect currencies differently.

Commodity-price shocks influence exchange rates through changes in export revenues, terms of trade and global risk sentiment. Their effects are particularly relevant for economies with substantial commodity exports. However, the strength and direction of the relationship depend on the currency and the prevailing market environment.

Within the G10, the Norwegian krone and the Canadian dollar exhibit positive historical sensitivities to oil-price changes. The Australian dollar also shows a positive, though weaker, relationship, consistent with the greater importance of industrial metals in its export mix. The US dollar differs because its role as a reserve and safe-haven currency may outweigh the direct effect of commodity trade.

The study examines whether the US dollar responds differently during large oil-price movements. The authors discuss a potential non-linear pattern in which safe-haven effects become particularly relevant during market stress. Observations from extreme market phases are limited, however, and the estimated relationship should not be treated as a stable forecasting rule.

For euro-based institutional investors, these findings are relevant when assessing FX exposures and hedging strategies. The analysis considers why a static hedge ratio may not fully reflect changes in market regimes and discusses the potential role of market-adaptive hedging and option structures. Their suitability depends on mandate requirements, prevailing market conditions and the uncertainty of the underlying estimates.

Commodity currencies respond differently to oil-price shocks.

Higher oil prices do not necessarily strengthen every currency.

Periods of geopolitical tension draw attention to commodity markets and their impact on exchange rates. Conflicts in the Middle East in particular regularly trigger sharp moves in oil and gas prices. This suggests an intuitive assumption: rising commodity prices should lift the currencies of commodity-exporting economies, and as a net energy exporter the United States would be among the beneficiaries.

The empirical evidence is more nuanced. The direction of the relationship matters, but so does its shape. For the US dollar, the reaction depends on the size of the oil price move.

Commodity exports and FX sensitivities define the scope of the analysis.

The escalation in the Middle East has made the properties of commodity currencies relevant again, particularly for hedging strategies. The currencies of the Gulf energy exporters most directly affected by the conflict are almost all pegged to the US dollar or heavily influenced by it. The effect of commodity shocks on these currencies is therefore already captured through the US dollar, and the Gulf states are not considered further.

The analysis focuses on the G10, which also accounts for the bulk of currency risk in institutional portfolios. Commodity currencies are defined as currencies for which:

- the underlying economy is a significant net exporter of relevant commodities, and
- a stable, empirically measurable relationship exists between the exchange rate and commodity prices.

Given the current conflict, a focus on energy-driven currencies is appropriate, since the main supply risks lie in oil and gas. The relevant candidates are the Norwegian krone (NOK), the Canadian dollar (CAD) and, to a lesser extent, the Australian dollar (AUD). The US dollar holds a special position: although the United States is an energy exporter, the currency is shaped primarily by its role as the global reserve and safe-haven currency.

The economic rationale rests on terms-of-trade effects and the capital flows that follow from them. Rising commodity prices improve the terms of trade of exporting economies, raise export revenues and generally strengthen the current account and public finances.

This typically goes hand in hand with higher demand for the currency, through both trade flows and capital inflows. The latter show up mainly as larger allocations to commodity-related sectors, government bonds and other assets of the exporting economies.

Sensitivity to global price moves is asymmetric across countries. Exporters benefit from rising prices, while importers face a negative terms-of-trade shock that weighs on them through higher import prices and inflation. Asian economies such as Taiwan, South Korea and Japan are good examples.

These considerations point to a broadly positive relationship between commodity prices and commodity currencies. They leave two questions open: whether the relationship holds symmetrically across market phases, and where the US dollar fits in.

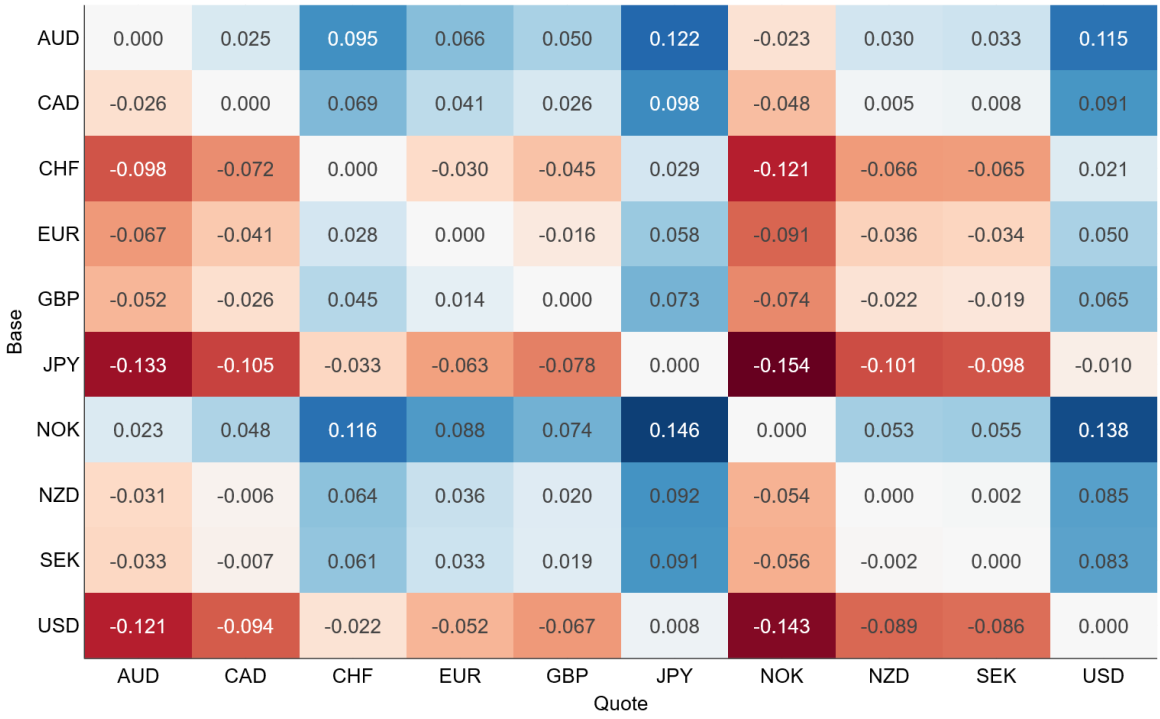
Estimated oil-price sensitivities differ across G10 currencies.

The economic classification is tested via the sensitivity of exchange rates to commodity price moves. To this end, a beta matrix of monthly currency returns against changes in the oil price is estimated (see Figure 1).

The results confirm the classification from Section 1.2. Currencies of commodity-exporting economies show significantly positive sensitivities to oil price moves.

- **NOK:** The relationship is strongest here. The krone has the highest positive oil betas across almost all currency pairs, which underlines Norway's role as a strongly oil-driven economy.
- **CAD:** The Canadian dollar shows consistently positive but more moderate sensitivities, reflecting the greater diversification of the Canadian economy.
- **AUD:** The Australian dollar is also positively linked, but lags well behind the krone, as industrial metals matter more than energy in its exports.

Figure 1: Regression betas between the WTI price and the G10 currency matrix



Source: 7orca – own calculations and illustration, estimation period 01.01.1999–31.03.2026

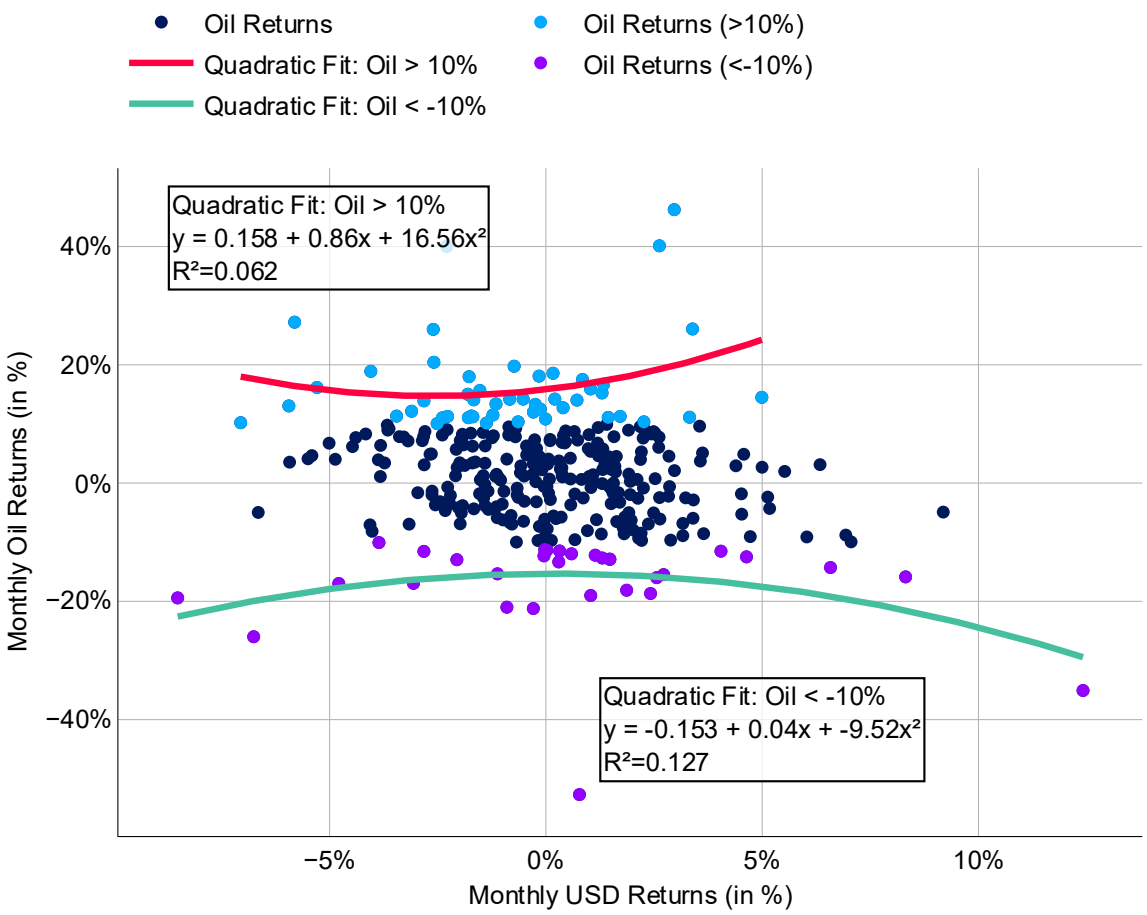
By contrast, commodity importers and classic safe-haven currencies show negative sensitivities. The Japanese yen reacts particularly negatively to rising oil prices, which mirrors Japan's heavy dependence on energy imports. Similar, if weaker, patterns appear for the euro and the Swiss franc.

The US dollar takes an intermediate position. Despite the United States being an energy exporter, the dollar shows negative sensitivities against classic commodity currencies such as NOK and CAD. In this context it acts less as a commodity currency than as a broadly diversified reserve currency with safe-haven properties. Overall, the currencies cluster clearly along the terms-of-trade positions of their economies.

The US dollar may respond differently to extreme oil-price moves.

Linear betas describe only average behaviour. For the US dollar it is especially relevant whether this behaviour holds during large price moves, since its reserve and safe-haven function may dominate in stress phases. To test this, a USD index is constructed from exchange rates against currencies of non-commodity-exporting economies. Its monthly returns are analysed separately for oil price shocks of more than 10% in either direction (see Figure 2).

Figure 2: Non-linear relationship between monthly oil price changes and USD index returns, differentiated by positive and negative price shocks of more than 10%



Source: 7orca – own calculations and illustration

Two caveats apply when interpreting the results.

- **Sample period:** A consistent analysis of exchange-rate dynamics is only possible from the late 1990s, owing to the introduction of the euro. Earlier oil shocks, in particular those of the 1970s, are therefore not included. This is acceptable: oil prices were then largely set administratively, exchange rates were moving from Bretton Woods to floating regimes, and currencies were strongly shaped by central bank intervention, as around the Plaza and Louvre Accords.
- **Changing US position:** On an annual basis, the United States only became a net exporter of petroleum around 2020, following the shale revolution. For most of the sample it was a net importer, so the terms-of-trade channel for the dollar has shifted within the estimation period.

The results show three distinct regimes:

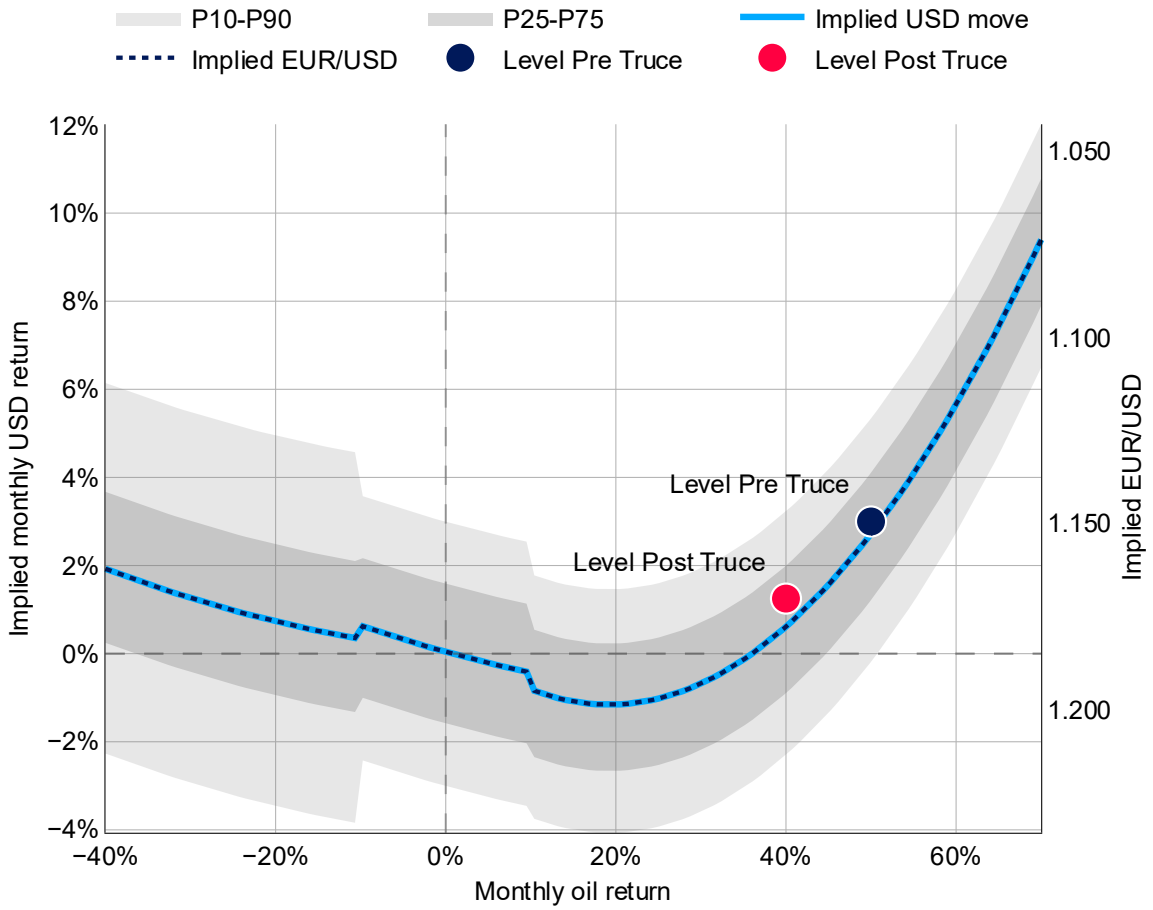
- **Normal months:** Within moves of ±10%, the US dollar weakens slightly as oil prices rise, consistent with the negative linear betas. Two mechanisms are at work. Oil is priced in dollars, so a weaker dollar lowers the price for non-US buyers and supports demand. In addition, both movements often reflect the same shifts in global risk appetite.
- **Sharp price falls:** For declines of more than 10%, the relationship reverses. Such moves have historically signalled global demand shocks, as in 2008 and 2020, during which the dollar appreciated as a safe-haven and funding currency, at times by double digits within a single month.
- **Sharp price rises:** For moderate spikes, the dollar continues to weaken on average. Only in the most extreme price rises does it tend to appreciate. Supply shocks of this magnitude hit energy-importing Europe and Asia considerably harder than the United States, and safe-haven demand adds to the effect.

The result is a smile-shaped pattern, an oil-price analogue of the well-known “dollar smile”: the US dollar gains at both extremes and weakens slightly in between. This distinguishes it fundamentally from commodity currencies, whose reaction to oil prices is broadly monotonic. The relationships in the tails rest on a limited number of observations, however, and should be read as a tendency rather than a stable parameter.

The April ceasefire provides a historical USD scenario.

The smile can be translated into a scenario framework (see Figure 3). The figure shows the model-implied USD move and the resulting EUR/USD level as a function of the oil price change since the onset of the conflict on 28 February 2026, including the interquartile range and the 10th to 90th percentile range. The estimate dates from the first US–Iran ceasefire announced on 7 April 2026; oil prices and exchange rates have moved since, so the levels shown reflect the situation at that time.

Figure 3: Model-implied USD move and EUR/USD level as a function of the oil price change since 28 February 2026, before and after the first ceasefire of 7 April 2026



Source: 7orca – own calculations and illustration, estimate as of April 2026

By early April, before the ceasefire, the oil price had risen by roughly half from its pre-conflict level. The model implied a USD appreciation of around 3%, corresponding to EUR/USD at around 1.15, which was very close to the observed level. After the ceasefire was announced on 7 April, oil gave back part of its gains within days. The model implied that the dollar's premium would shrink to below 1%. EUR/USD rose accordingly to around 1.17, slightly below the model-implied level.

The key insight lies in the steepness of the curve. On the outer branch of the smile, the dollar reacts disproportionately to further oil price moves:

- **Renewed escalation:** A further rise in oil prices would, according to the model, push EUR/USD towards 1.12–1.13.
- **Further de-escalation:** A further easing would take the dollar back below its pre-conflict level.

At the same time, the uncertainty ranges widen markedly in the tails. Even in the post-ceasefire scenario, the 10th to 90th percentile range spans a USD move of roughly −2% to +3%.

Hedging implications depend on the market regime.

The key implication follows from the shape of the relationship. For euro-based investors:

- **Normal markets:** USD exposure moves only mildly against the oil price.
- **Tail scenarios:** In both a geopolitical escalation and a global recession, the dollar tends to appreciate. Unhedged USD exposure therefore acts as partial protection precisely when energy shocks hit the euro area hardest.
- **Reversal risk:** The convexity cuts both ways. A geopolitical premium built into the dollar can unwind quickly on de-escalation, as the first ceasefire showed.

A static hedge ratio captures this profile only inadequately. Approaches that allow the hedge ratio to respond to the market regime appear more appropriate. They can retain part of the dollar's gains during an escalation and secure them once the risk of de-escalation dominates. In practice, depending on market conditions, this can be achieved through option structures or linear market-adaptive hedging strategies that adjust the hedge ratio over time.

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This document was prepared by 7orca Asset Management AG, Hamburg.

Source and data date of all information, unless otherwise stated:
7orca Asset Management AG (30.04.2026)

NAVIGATING
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