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Operation of refineries in Central Europe during a period of low water levels on the Danube

Low water levels on the Danube have caused logistical disruptions to fuel transportation in Central and South-Eastern Europe. Reduced barge loading capacity has forced some deliveries to be redirected to rail and road transport, increasing both costs and pressure on inventory levels. Despite these difficulties, the main refineries located along the Danube continue to operate without major disruptions, and the problems are primarily logistical in nature. Serbia has been the country most affected by the consequences of low water levels, with fuel imports in July 2026 falling to one quarter of planned volumes.

Logistical constraints. The Danube remains one of the key transport arteries for fuel, grain, and other commodities in Central and South-Eastern Europe. During periods of low water levels, the river loses part of its logistical function because barges must reduce their loading capacity, certain sections become more difficult to navigate, and carriers shift part of the volumes to more expensive alternatives, primarily rail and road transport, which nevertheless offer lower capacity when handling large volumes. In July 2026, these constraints were particularly visible on the Serbian sections of the river, where barges were operating at only around 30-40% of their normal loading capacity. As a result, Serbia was only able to receive around 20-25% of its planned monthly fuel imports via this route. The importance of the Danube for the fuel market stems not only from its scale but also from its location in relation to refineries and regional markets. The river connects countries that produce, import, and re-export fuels and, under normal conditions, enables the relatively low-cost transport of large volumes of products.

The situation on the Danube, however, differs from the crisis on the Rhine. At present, navigation restrictions on the Rhine are having a stronger impact on the European fuel market, as the section around Kaub is crucial for supplies to southern Germany and Switzerland. Low water levels on the Danube primarily constrain fuel logistics in Central and South-Eastern Europe. The effects are, therefore, more regional in nature, while many refineries in the area have alternative supply or distribution channels, so the risk of a direct halt to crude oil processing remains limited.

In the case of the Danube, the main risk is that persistent transport constraints may gradually spill over from logistics into the balance of local fuel markets. Supply problems affecting customers in Central and South-Eastern Europe increase pressure on operational inventories, raise local price premiums, and force companies to plan deliveries over shorter time horizons and at higher cost. Under such conditions, supply tensions may emerge even without formal restrictions on refinery operations, especially during the summer increase in demand.

Impact on refineries in the region. Low water levels in the river are creating logistical problems for refineries located along the Danube. In Slovakia, the Bratislava refinery (Slovnaft, owned by Hungary's MOL Group) had to reduce planned river transport volumes by half after the Danube water level near Komárno fell to around 39% of its normal level in July 2026. Thanks to alternative supply routes, however, the situation does not pose a significant risk to the safe operation of the facility. Similarly, the Schwechat refinery in Austria, owned by OMV, was not directly affected by the low water levels on the Danube, as its supply system does not rely on inland waterways.

MOL's refinery in Százhalombatta, near Budapest, has also not experienced any impact from the low Danube water levels on its day-to-day operations, with restrictions mainly concerning barge capacity, while the facility

has safeguards in place to secure access to process water as well as alternative distribution options. This means that, in the case of the largest refineries in the region, there have been no confirmed production stoppages directly caused by low water levels on the Danube. The risk nevertheless remains elevated, as prolonged problems with product evacuation could limit operational flexibility and force adjustments to production plans.

The strongest impact of the Danube's low water levels on the fuel market has been recorded in Serbia, where NIS operates the Pančevo refinery. This facility is of key importance for the domestic fuel market, especially following the reduction in river-based imports. The risk is increased by NIS's ownership and sanctions-related status: the company remains controlled by Russian entities, and its continued operations depend on further OFAC licences. An additional element of uncertainty is the ongoing process of selling the refinery ("IEŚ Commentaries", No. 1506). In August 2026, the Serbian authorities decided to make part of NIS's operational stocks available to other fuel companies in order to maintain supply continuity without drawing on state strategic reserves. In August 2026, fuel imports into Serbia were expected to amount to around 39,000 tonnes of diesel, a significant share of which was supposed to arrive by river. With low water levels on the Danube persisting, the delivery of these volumes remains uncertain. For this reason, the burden of market stabilisation has shifted towards increasing refinery throughput, using operational stocks, and maintaining the ban on exports of crude oil and fuels. These measures may reduce the risk of shortages, but they do not eliminate the underlying problem of limited transport corridor capacity.

Market consequences. Low water levels on the Danube coincide with broader tensions in the European fuel market. At the same time, problems on the Rhine are restricting supplies to the Amsterdam-Rotterdam-Antwerp (ARA) hub and to inland markets, while high freight costs are increasing price premiums in the interior of the continent. In the gasoline segment, additional pressure comes from constraints on the supply of blending components, including aromatics, which makes market balancing more difficult. As a result, refineries and traders are operating in an environment of heightened volatility, with crude oil procurement costs, prices of individual fuels on international markets, and logistics costs changing rapidly and complicating production planning. Falling water levels primarily increase the cost of delivering fuels to end users. Even if refineries continue to operate, products may become stuck at the logistics stage, particularly where rail and road infrastructure lacks sufficient capacity. This leads to local shortages or local price premiums, without necessarily resulting in a Europe-wide fuel deficit.

Conclusions

- Low water levels on the Danube demonstrate that the region's fuel security also depends on the resilience of transport infrastructure. Even in the absence of production disruptions, navigation restrictions can lead to local supply tensions, higher logistics costs, and greater price volatility. Central and South-Eastern European countries should, therefore, strengthen alternative supply channels, particularly rail, storage, and cross-border infrastructure.
- Low water levels on the Danube have so far not led to any confirmed refinery outages in Central Europe, but they have significantly disrupted fuel logistics. The main problem is the decline in barge loading capacity, the need to rely on more expensive rail and road transport, and growing pressure on operational inventories.
- Serbia is the most exposed country, as low water levels have reduced fuel imports to around 20-25% of planned volumes, while market stability depends to a large extent on the operation of the Pančevo refinery, operational stocks, and the validity of OFAC licences. Making part of the NIS stocks available to other fuel companies may help postpone the risk of shortages, but it does not resolve the underlying problem of limited transport capacity.