Route to Sell – Markets and Netbacks

Introduction

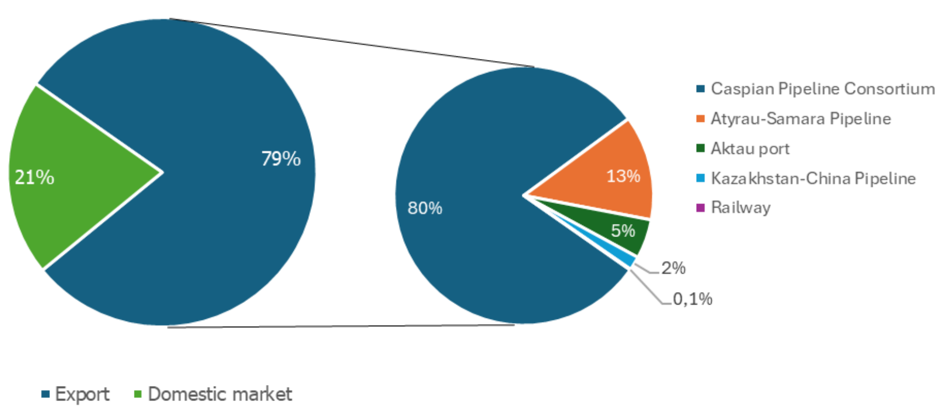
Oil is a crucial element in the global energy landscape, and for Kazakhstan, it is the most valuable export. The majority of Kazakhstan's crude oil is sent to international markets, making transportation routes and companies vital to the country's economy. Currently, Kazakhstan relies heavily on the Caspian Pipeline Consortium route, which handles almost 80% of its oil exports. This heavy reliance poses a risk, as any disruption could significantly impact on the economy. Therefore, diversifying export routes is essential for economic stability.

Transportation companies are key players in this scenario, not only moving millions of tons of oil each year but also serving as major taxpayers. This article explores the importance of Kazakhstan's oil export routes, the current dependence on the CPC, and the need for diversification to ensure the country's economic sustainability.

Oil distribution routes

According to data from the Analytical Platform EXia, in 2023, Kazakhstan exported approximately 79.4% of its oil and [stabilized] condensate production. The domestic market absorbed other 20.6% of the total oil production. In the first eight months of 2024, the distribution remained almost the same, with 79.5% allocated to exports and 20.5% to the domestic market. This indicates that Kazakhstan's oil distribution routes are very stable and consistent.

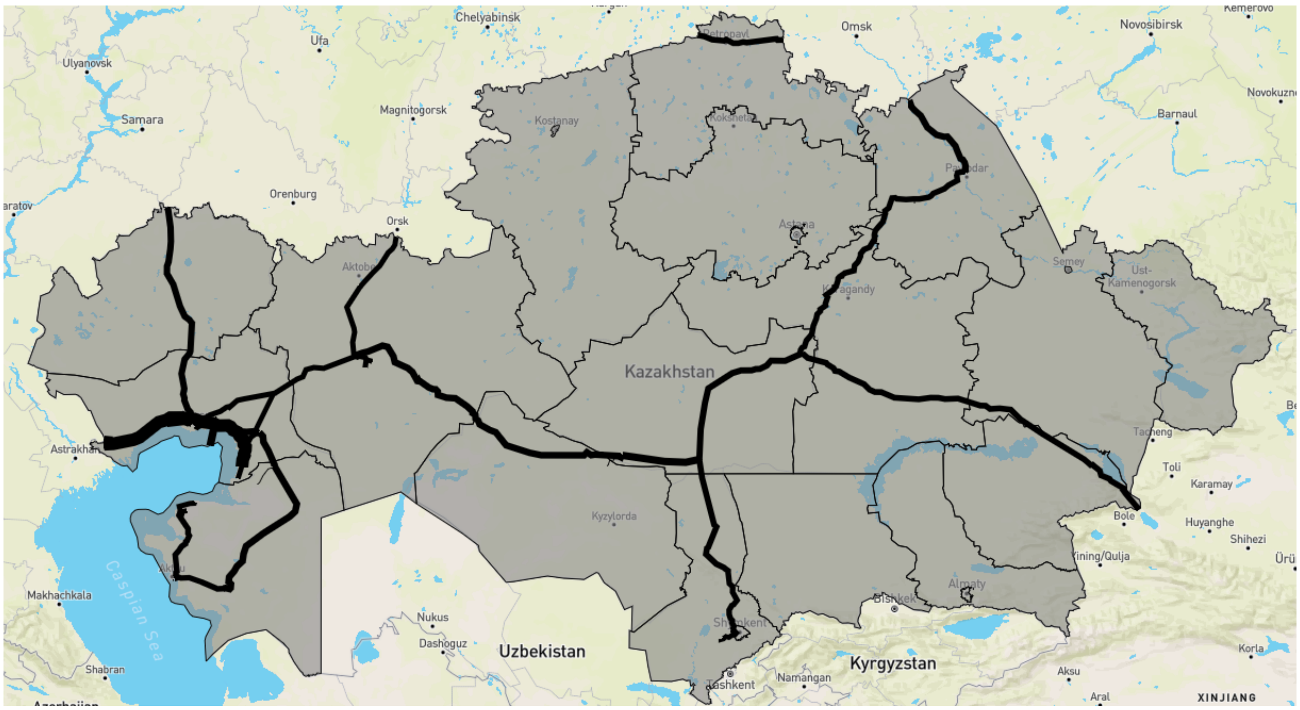
Oil distribution in 2023



Source: Compiled by ENERGY Insight & Analytics

Kazakhstan's oil distribution network is a complex system that plays a crucial role in the country's economy, given its landlocked geography and reliance on oil exports. According to the KAZENERGY National Energy Report 2023, the total annual capacity of Kazakhstan's overland pipeline crude oil export system is approximately 109.5 million metric tons [MMt], or 2.19 million barrels per day [b/d]. This capacity is distributed across several key routes, each with its own strategic importance and challenges.

Kazakhstan's oil pipelines



Source: Analytical Platform EXia

Caspian Pipeline Consortium [CPC] Route: The CPC is the most significant export route, with a capacity of 72.5 MMt [1.45 million b/d], which can be increased to 78 MMt [1.56 million b/d] with the use of drag-reducing agents. This pipeline terminates at the Black Sea terminal of Yuzhnaya Ozereyevka and handles the majority of Kazakhstan's oil exports.

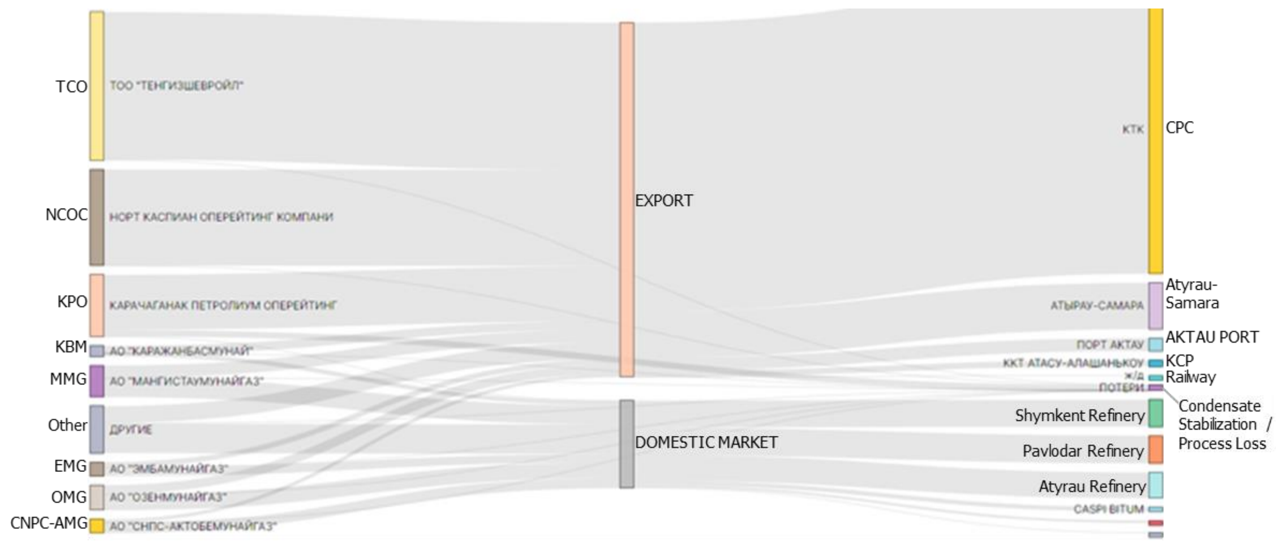
Atyrau-Samara Pipeline Network: This route has a capacity of 17.5 MMt [350,000 b/d] and is another critical channel for Kazakh oil exports. It connects to the Russian's Transneft pipeline system, providing access to European markets.

Kazakhstan-China Pipeline [KCP]: With a capacity of 20 MMt [400,000 b/d], the KCP is a strategic route for exports to Asia. Approximately half of this capacity is booked for Russian transit crude.

Rail Capacity: Kazakhstan also utilizes rail to export up to 3 MMt [60,000 b/d] of crude to neighboring Uzbekistan or to Russian ports on the Black or Baltic seas.

Baku-Tbilisi-Ceyhan [BTC] Pipeline via Aktau Port: Although the BTC pipeline has a nameplate capacity of 60 MMt [1.2 million b/d], it has been underutilized in recent years. To access this route, Kazakh crude must be shipped across the Caspian Sea, facing constraints such as tanker availability and bottlenecks at the Aktau Port.

Oil distribution by routes



Source: Analytical Platform EXia

During 2023, total exports comprised 70.5 MMt of oil. Since CPC pipeline represents the lion's share of the country's total transportation capacity, it is unsurprising that this route represented almost 80% [56.6 MMt of oil] out of the total annual export volume. Companies that are CPC's customers are the three giants of our oil industry: Tengizchevroil [TCO] contributed 49% of the total volume, North Caspian Operating Company [NCOC] accounted for 32%, and Karachaganak Petroleum Operating [KPO] made up 17%. Thus, we can conclude that the CPC route is predominantly used by these three companies, as their cumulative share comprised 98% of the pipeline's total volume in 2023. The remaining 2% were attributed to various companies, each representing an individually insignificant portion. The situation is approximately the same so far this year as these three giants cumulatively represented 96% of CPC's volumes during the first eight months of 2024.

Atyrau-Samara also was a crucial route in 2023 with 9 MMt [13% out of the total] exported via this pipeline. Major oil production companies using this pipeline are Karazhanbasmunai [KBM] and Mangistaumunaigas [MMG]. The remaining 6% of our country's oil export were transported through the Aktau Port [3.6%] and KCP [1.7%] pipelines.

As mentioned earlier, domestic crude oil sales accounted for 21% of the total volume in 2023. During the first eight months of 2024, the top three contributors to the domestic market were MMG, contributing 21% of the domestic supply, Ozenmunaigas [OMG] at 18%, and CNPC-Aktobemunaigas at 10%. The balance remains stable, as these top three contributors were the same in 2023, with slightly different shares: MMG at 20%, OMG at 17%, and CNPC-Aktobemunaigas at 11%.

In summary, there is a significant concentration risk associated with Kazakhstan's reliance on the CPC and Atyrau-Samara pipelines. Approximately 93% of the country's oil exports depend on these two routes, highlighting substantial vulnerabilities. While Russia has been a longstanding partner, sharing a deep historical connection and the world's longest continuous border with Kazakhstan, there is an undeniable "elephant in the room": Russia's ongoing military conflict with Ukraine. Recent developments indicate that energy infrastructure within Russian territory has become a primary military target.

Beyond the direct risks posed by the conflict, the CPC pipeline has encountered additional challenges in recent years. In March 2022, a storm inflicted physical damage on the pipeline, and during the summer, World War II-era mines were discovered in its vicinity. Furthermore, geopolitical risks associated with Russia, including economic sanctions, add layers of complexity to the situation.

Despite efforts to diversify export routes, such as the KCP, these initiatives appear insufficient to fully mitigate the high concentration risks associated with routes passing through Russia. This underscores the urgent need for Kazakhstan to explore and develop alternative pathways to ensure the resilience and sustainability of its oil export infrastructure. On the other hand, developing new crude oil export routes is not the only option. Additionally, creating economic value for our country could involve utilizing Kazakhstan's crude oil in more advanced processing than current refineries offer, producing higher-value petrochemicals rather than just transportation fuel.

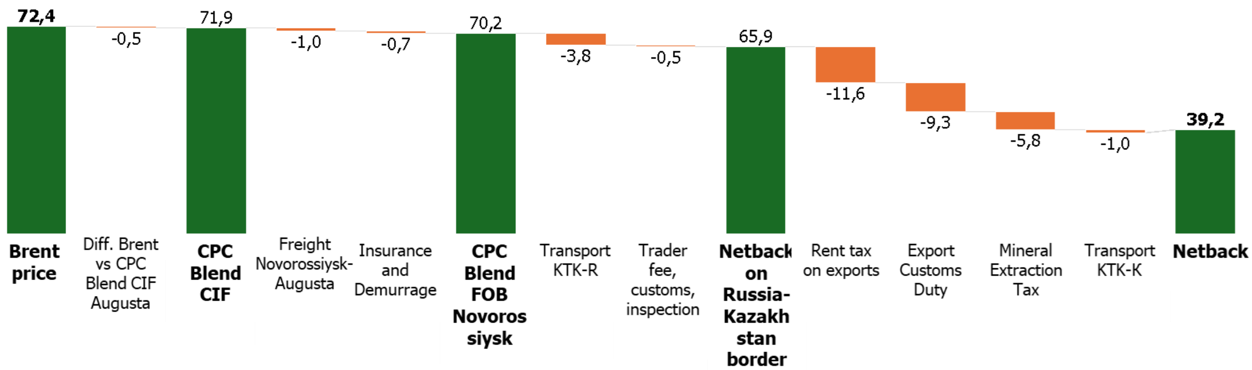
Netback

Netback is a crucial metric in the oil industry that measures the profitability of oil production by calculating the revenue remaining after deducting all costs associated with bringing oil to market. This includes production costs, transportation fees, royalties, and oil price linked taxes. The government's policies, including price controls for the domestic market and export regulations, have a profound impact on the netback calculations for oil companies operating within the country.

In the domestic market, the country's government implements price ceilings to ensure affordable energy for its citizens and local businesses. While this policy benefits consumers, it constrains the profitability of oil sales within the country. The regulated pricing structure limits the potential revenue for oil producers, resulting in lower netbacks for domestic sales.

Conversely, the export market offers more economically attractive opportunities for Kazakhstani oil producers. Despite facing higher taxes, duties, and transportation costs associated with international sales, the netback for exports remains notably higher than that of the domestic market. This discrepancy is primarily attributed to the ability to sell oil at global market prices, which are typically higher than the regulated domestic prices.

Netback – Export by CPC



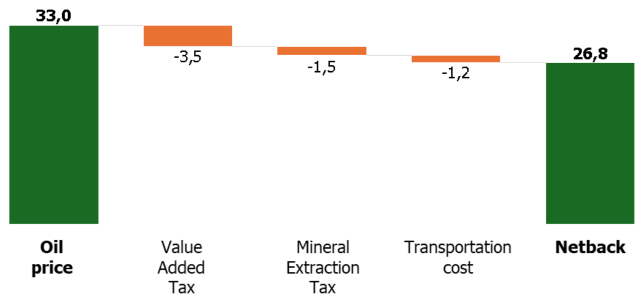
Source: Analytical Platform EXia

The current scenario, with Brent Crude Oil priced at $72.4 per barrel as of the end of September 2024, illustrates this stark contrast. The above bar chart suggests that after accounting for transport costs and applicable taxes/duties, the export netback stands at $39.2 per barrel. Notably, the CPC's netback level is the highest among comparable [pipeline-based] Europe's distribution routes, which makes it the most economically attractive for producers.

With the same $72.4 Brent Crude Oil price per barrel, Atyrau-Samara delivers $33.2 netback per barrel. This makes it the second most attractive route, but the gap with CPC looks significant as there is around 20% difference between these two routes. Ust-Luga holds the third spot in terms of economic attractiveness as it demonstrates a $31.3 netback under the same Brent Crude Oil Price scenario.

Finally, let us emphasize the netback for domestic sales. The bar chart below demonstrates that the domestic market's netback at $26.8 per barrel is substantially lower than delivered by any export route. The gap per barrel between the netback of domestic sales and all three export routes is large and it represents a significant incentive for oil producers to prioritize exports over domestic sales.

Netback – Domestic market



Source: Analytical Platform EXia

This netback disparity has far-reaching implications for Kazakhstan's oil industry and broader economy. It influences investment decisions, production strategies, and government policies. Oil companies operating in Kazakhstan are incentivized to maximize their export volumes to capitalize on the higher netbacks, potentially leading to supply constraints in the domestic market.

The government faces a delicate balancing act in managing this situation. On the one hand, higher export volumes contribute to increased tax revenues and foreign exchange earnings, bolstering the national economy. On the other hand, ensuring sufficient domestic supply at affordable prices is crucial for social stability and industrial development within Kazakhstan. Moreover, it's important to recognize that our Kazakhstan's downstream industry still has significant potential for development, particularly in petrochemicals. Expanding the capacity of producing petrochemicals will require more crude oil for the local market.

To address these challenges, the government of our country may consider implementing incentives that bridge the gap between domestic and export netbacks. This could involve gradual adjustments to domestic price ceilings, targeted subsidies for specific population strata, or incentives for oil producers to maintain a certain level of domestic supply.

KEBCO

KEBCO [Kazakhstan Export Blend Crude Oil] represents a strategic rebranding of Kazakh oil exports, prompted by shifting geopolitical dynamics in the global energy markets. This initiative aims to clearly differentiate Kazakh oil from Russian oil, particularly considering the sanctions imposed on Russian energy exports.

Before this rebranding, Kazakh oil exported through Russian ports was mixed with Russian oil and marketed as REBCO [Russian Export Blend Crude Oil], commonly known as Urals crude. The sanctions on Russian oil created significant challenges for Kazakh exports, despite Kazakhstan not being the target. The Urals crude blend faced substantial pricing pressures, trading at a significant discount to the Brent benchmark, which impacted Kazakh oil revenues until KEBCO introduction.

The launch of KEBCO in June 2022 coincided with the European Union's decision to cease imports of Russian seaborne oil by the end of the year. This timely rebranding is crucial for Kazakhstan’s oil industry, as it ensures the country of origin is clearly identified in official documentation for international trade, such as opening letters of credit.

This rebranding is particularly important because Kazakhstan relies heavily on Russia-placed infrastructure for its oil exports, with 93% of its oil exports transiting through Russia in 2023. By establishing a distinct identity for its oil, Kazakhstan aims to maintain and potentially expand its market share in Europe, where buyers are actively seeking alternatives to Russian crude.

If KEBCO succeeds in the international market, it could have significant implications for Kazakhstan's economy, as oil exports are vital to the country's economic stability. Additionally, it could enhance Kazakhstan’s standing in the global energy markets and potentially lead to more favorable pricing for KEBCO compared to alternative blends.

However, the path forward for KEBCO is not without challenges. The global oil markets remain volatile, influenced by geopolitical tensions, shifting demand patterns, and the ongoing transition towards renewable energy sources. Kazakhstan must navigate these complexities while managing its relationship with Russia, through whose territory the majority of its oil continues to flow.

KEBCO's success will depend on more than just branding; it will rely on the quality and consistency of the oil, the reliability of supply, and Kazakhstan’s ability to forge strong relationships with international buyers. Investments in additional infrastructure and exploration of new export markets may be necessary to fully realize KEBCO’s potential.

In conclusion, the introduction of KEBCO is a pivotal step in Kazakhstan’s strategy for its oil sector. It reflects the nation’s efforts to reposition itself in the international oil market amidst uncertain geopolitical times. As KEBCO becomes more integrated into the global energy trade, it has the potential to play a significant role in Kazakhstan’s economic development, its partnerships with the international community, and its influence within the evolving landscape of global energy politics.

Bottom line

In conclusion, Kazakhstan’s oil transportation industry experiences the moment of truth while facing a series of challenges and opportunities that will shape its future. The nation’s heavy reliance on the CPC and Atyrau-Samara pipelines presents a significant concentration risk, particularly in the context of geopolitical instability with Russia. The ongoing crisis in Ukraine and the associated risks to energy infrastructure make it especially urgent for Kazakhstan to expand its export route options. This diversification is not only strategic but essential for achieving economic stability and resilience in the face of potential adversities.

With the launch of KEBCO, Kazakhstan is making a significant shift in its approach to the international oil market. By rebranding its oil exports to distinguish them from Russian oil, Kazakhstan aims to protect its market share from the impact of sanctions on Russian energy exports. This move is crucial for maintaining Kazakhstan's market presence, particularly in Europe, where demand for non-Russian oil is increasing. The success of KEBCO will depend on Kazakhstan's ability to consistently deliver high-quality oil and maintain strong relationships with international customers.

However, the road ahead is challenging. Global oil markets are volatile due to geopolitical factors, fluctuating demand, and the ongoing transition to renewable energy sources. Kazakhstan must navigate these complexities while managing its relationship with Russia, through whose territory the majority of its oil exports still flow. Investment in new infrastructure, including trading the Kazakhstan's oil and derivatives on own soil, and the pursuit of new export opportunities will be necessary to fully capitalize on KEBCO's potential and reduce reliance on existing pipelines.

Additionally, the netback gap between domestic and export markets remains a critical issue for the Kazakhstani government. While higher export prices boost tax revenues and foreign exchange inflows, affordable domestic energy is vital for social stability and industrial development. Implementing incentives to balance domestic and export netbacks, such as adjusting price ceilings or providing targeted subsidies, could help address these challenges.

ENERGY Insights & Analytics

Analytical center "ENERGY" LLP (ENERGY Insight & Analytics) is a joint venture between the KAZENERGY Association and IT company AppStream. The company aims to become a priority source of data, analytical information, and recommendations for Kazakhstan's oil, gas, and electric power industries, allowing decision-makers to analyze and predict the most significant industry indicators with details on leading market players. Activities of ENERGY Insight & Analytics incorporate the whole analytics cycle with consequent stages: Descriptive, Diagnostic, Predictive, and Prescriptive analytics.

The key tool and product of ENERGY Insight & Analytics is internally developed software - the Analytical Platform EXia, aimed to identify, localize, format, and present data most efficiently for the specified use cases in a kind of Software-as-a-Service based on open-source software.