

Investment Potential - Oil Production in Kazakhstan

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Introduction

There are approximately a hundred oil-producing companies in Kazakhstan, each with its own characteristics and development potential. ENERGY Insights & Analytics has analyzed and compared the actual performance of the largest oil-producing companies and assessed their investment potential using NPV, a key metric that indicates "how much money is in the industry". ENERGY Insights & Analytics plans to monitor changes in investment potential annually and track the factors influencing these changes.

For this analysis, investment potential is understood as an oil-producing company's and its shareholders' ability to invest in sustaining the company's operations and future development.

In our view, the best measure of investment potential is Net Present Value (NPV), which represents the sum of discounted net cash flows. Net cash flows account for taxes, mandatory payments, and investments. The discount rate, in turn, incorporates the cost of equity and debt financing. Thus, NPV reflects the amount of capital shareholders can allocate to new projects, including those in the oil and gas industry. Consequently, the higher the positive NPV, the greater the investment potential.

High investment potential converts to high investment attractiveness, as capital owners are more inclined to invest in a particular enterprise or industry.

Using a bottom-up approach, the NPV is calculated for Kazakhstan's fifteen largest oil and gas companies (refer to the "Selection of Companies for Analysis" section below). Given the high concentration of oil production (92% in 2023)¹ among these companies, the aggregate NPV of these firms can be considered representative of the investment potential for Kazakhstan's entire upstream oil industry.

¹ 91% in 2024

Sources of Information

Benchmarking indicators and investment potential are calculated using publicly available information, including annual reports from the companies and related organizations, audited individual financial statements (from the web portal of the Depository of Financial Statements for Public Interest Organizations of Kazakhstan), data from official company websites, and financial and economic models of megaprojects developed by ENERGY Insights & Analytics for the Tengiz, Kashagan, and Karachaganak oilfields.

Selection of Companies for Analysis

The scope of the Analytical Platform EXia, the primary tool used for this analysis, includes 50 of Kazakhstan's 92 oil-producing companies (those with any production volume), representing 97% of the country's total oil output in 2023². For simplicity and clarity, the analysis focuses on the 15 largest companies by oil production in 2023, which account for 92% of the total output. The branches of Buzachi Operating Ltd and Dunga Operating GmbH, with production levels 2023 of 1.04 and 0.55 million tons (1.2% и 0.6% of Kazakhstan's total oil production in 2023) accordingly, are excluded, as their operations are governed by production sharing agreements, meaning their financial and economic data is not publicly available³. ENERGY Insights & Analytics plans the development of financial & economic models for these companies soon.

Thus, ENERGY Insights & Analytics analyzed the financial and production performance of the following 15 oil and gas companies for 2022-2023:

² Hereinafter, oil means cruder oil and gas condensate

³ A Production Sharing Agreement is not a subsoil use contract, as a result, the company is not a public interest organization, and therefore is not obliged to provide information to the Depository of Financial Statements of the Ministry of Finance of the Republic of Kazakhstan

Company's name	Reference name	Oil production, million ton	
		2023	2022
Tengizshevroil LLP	TCO	28.89	29.18
North Caspian Operating Company B.V.	NCOC	18.77	12.68
Karachaganak Petroleum Operating B.V.	KPO	12.06	11.26
Mangistaumunaigas JSC	MMG	6.15	6.10
Ozenmunaigas JSC	OMG	4.88	5.10
Embamunaigas JSC	EMG	2.72	2.58
CNPC-Aktobemunaigas JSC	CNPC-AMG	2.68	2.86
Karazhanbasmunai JSC	KBM	2.05	2.14
JV Kazgermunai LLP	KGM	1.19	1.30
Caspi Neft JSC	KN	0.90	0.92
PetroKazakhstan Kumkol Resources JSC	PKKR	0.55	0.58
Kazakhoil Aktobe LLP	KOA	0.51	0.56
KoZhaN LLP	KOZHAN	0.49	0.55
Kazakhturkmunai LLP	KTM	0.44	0.44
KMK Munai JSC	KMK-M	0.38	0.39
Other companies - in AP EXia scope	Others - EXia scope	0.58	0.59
Other companies - not in AP EXia scope	Others - non-EXia scope	6.73	7.01
Total oil production		89.97	84.24
Average value		0.03	0.03
Median value		0.01	0.01
Quantity of copmanies		92	89
Share of TOP-15		92%	91%

Source: compiled by ENERGY Insight & Analytics

The number of oil-producing companies with active production rose from 89 in 2022 to 92 in 2023⁴. Production remains highly concentrated, with the top 15 out of 92 companies accounting for 92% of total output in 2023, a 1% increase from 2022. In 2023, the average annual production per company was 0.98 million tons (up from 0.95 million tons in 2022), while the median production was 75 thousand tons (compared to 65 thousand tons in 2022)⁵.

Benchmarking

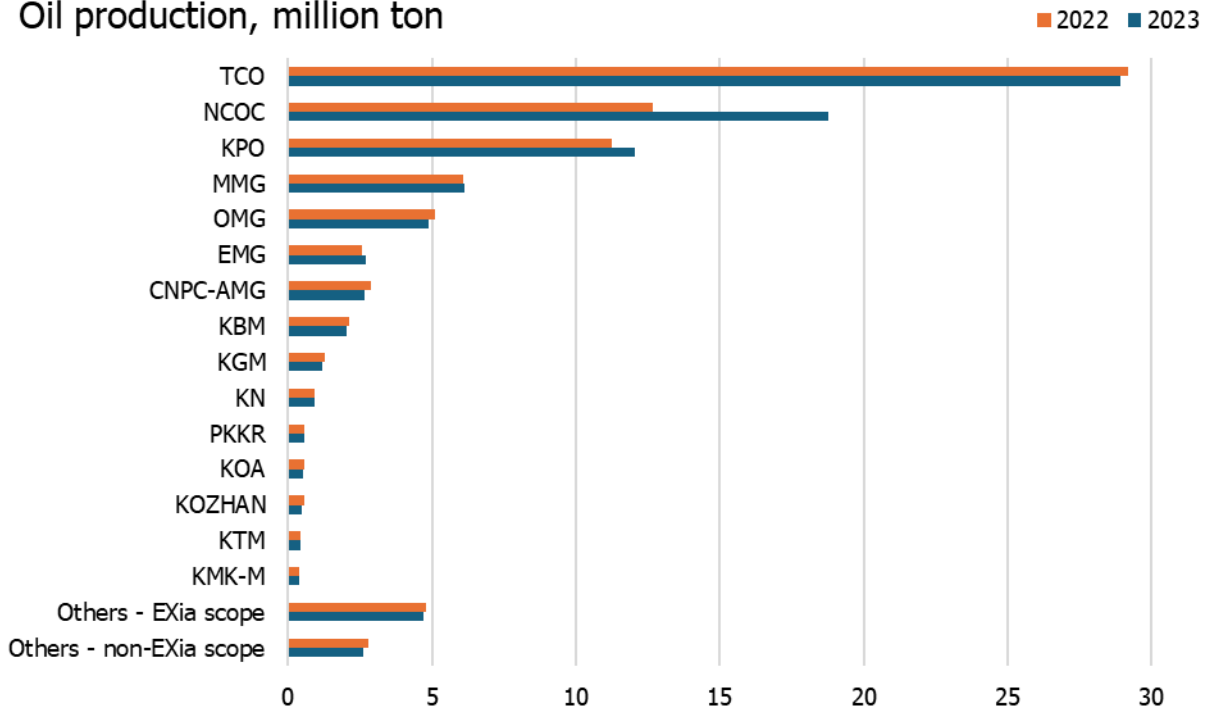
It is crucial to understand the dynamics of the key indicators of the companies being analyzed to assess investment potential. Aside from oil production, these indicators are presented on a per-ton-of-oil-produced basis to highlight each company's efficiency,

⁴ 94 companies in 2024

⁵ In 2024 the average annual production per company was 0.93 million tons and the median production was 62 thousand tons

independent of its production scale. At the same time, for clarity, the charts maintain the sorting of companies in order of decreasing production levels.

Oil production, million ton



Source: compiled by ENERGY Insight & Analytics

Regarding oil production, TCO leads with 28.9 million tons in 2023. Overall, the megaprojects - TCO, NCOC, and KPO - account for 66% of Kazakhstan's production (up from 63% in 2022)⁶.

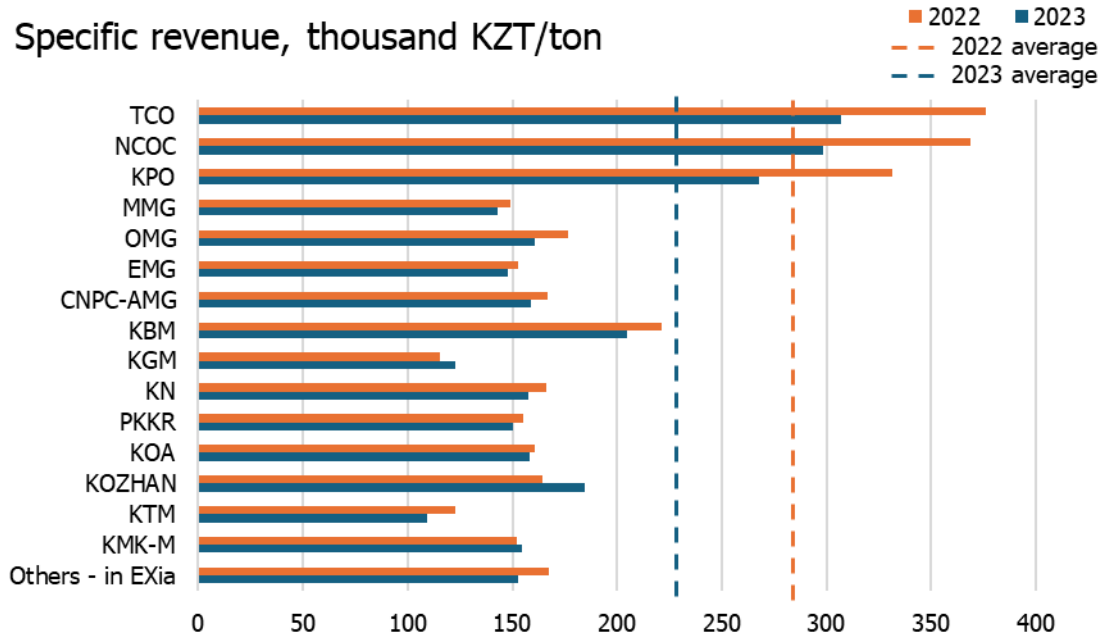
The following key macro indicators should be considered to understand the significance of assessed specific values:

Macro indicator	UoM	2023	2022
Brent crude oil price	USD/barrel	82.49	100.93
Average exchange rate	KZT/USD	456.31	460.48

Sources: U.S. Energy Information Administration (EIA), National Bank of Kazakhstan

⁶ Megaprojects' production accounted for 65% of Kazakhstan's total production in 2024

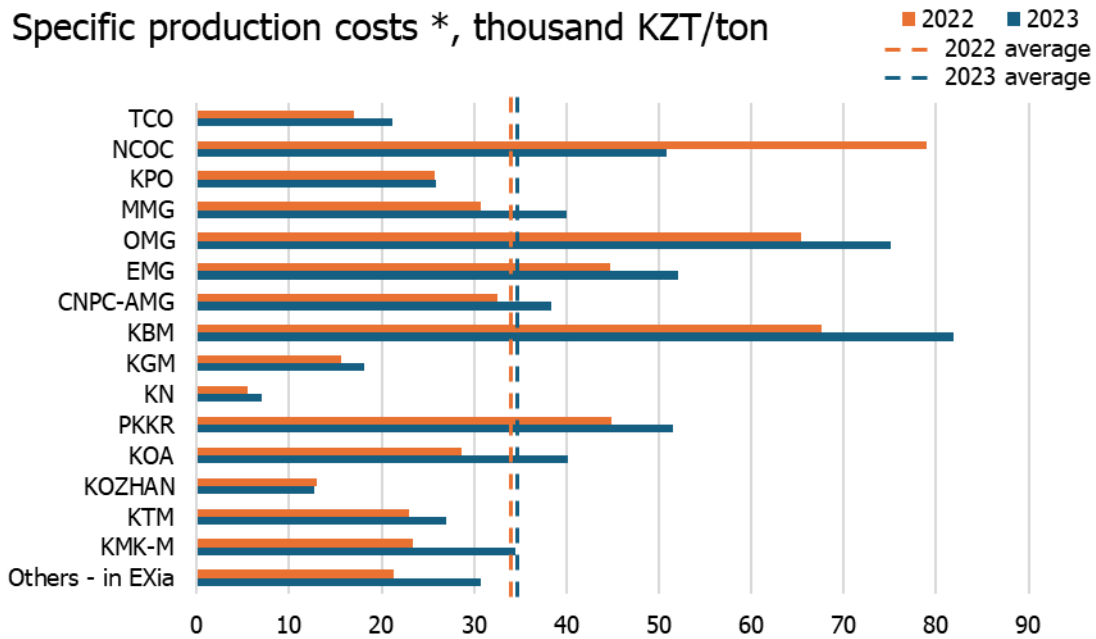
Specific revenue, thousand KZT/ton



Source: compiled by ENERGY Insight & Analytics

TCO had the highest specific revenue in 2023, at 307 thousand KZT per ton, while KTM had the lowest at 109 thousand KZT per ton of oil produced. The perimeter average of the Analytical Platform EXia was 244 thousand KZT per ton in 2023, compared to 285 thousand KZT per ton in 2022.

Specific production costs *, thousand KZT/ton

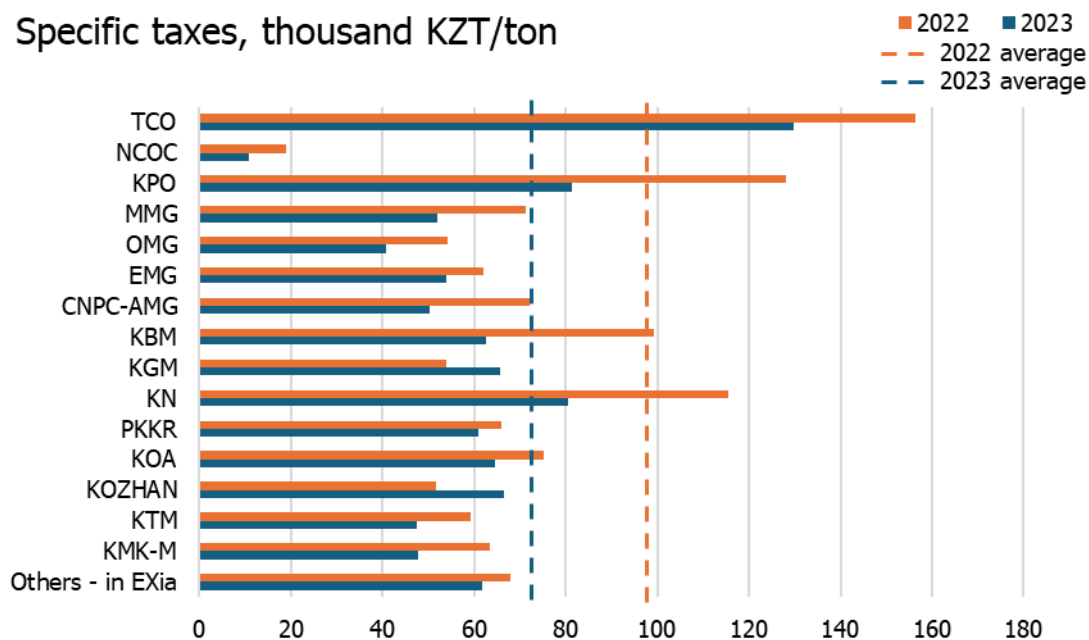


Source: compiled by ENERGY Insight & Analytics

* production costs net of Depletion/Depreciation and Mineral Extraction Tax

The highest specific production costs in 2023 were at KBM, amounting to 82 thousand KZT per ton, while the lowest was at NCOC, at 7 thousand KZT per ton of oil produced. The perimeter average of the Analytical Platform EXia was 35 thousand KZT per ton in 2023, compared to 34 thousand KZT per ton in 2022.

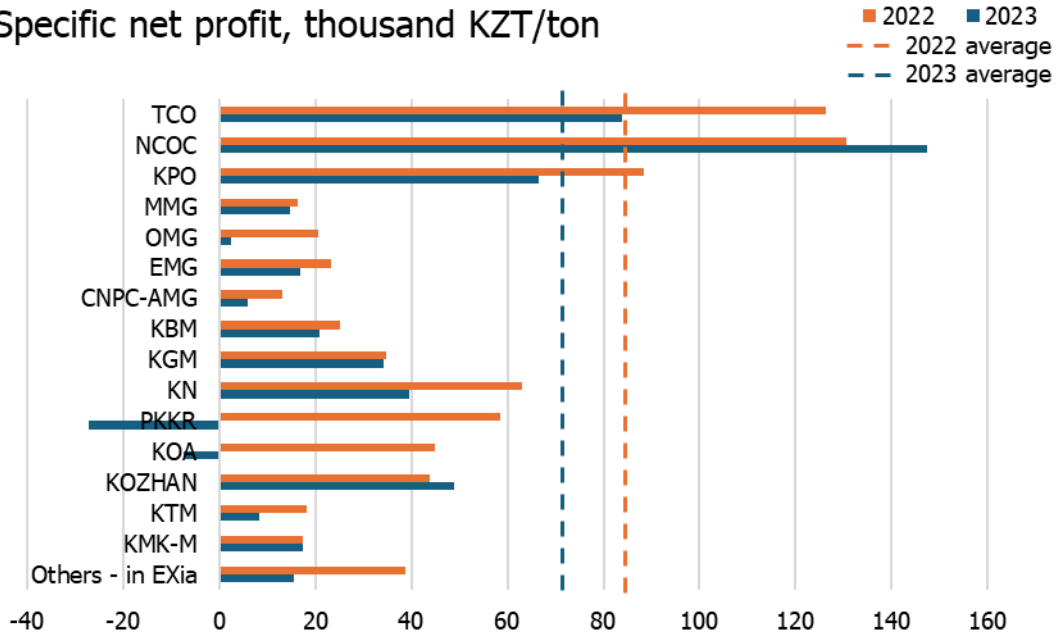
Specific taxes, thousand KZT/ton



Source: compiled by ENERGY Insight & Analytics according to the State Revenue Committee of the Ministry of Finance of the Republic of Kazakhstan on amounts paid by taxpayers

In 2023, TCO accrued the highest specific taxes at 130 thousand KZT per ton, while NCOC had the lowest at 11 thousand KZT per ton of oil produced. The average across the Analytical Platform EXia's perimeter was 72 thousand KZT per ton in 2023, down from 97 thousand KZT per ton in 2022.

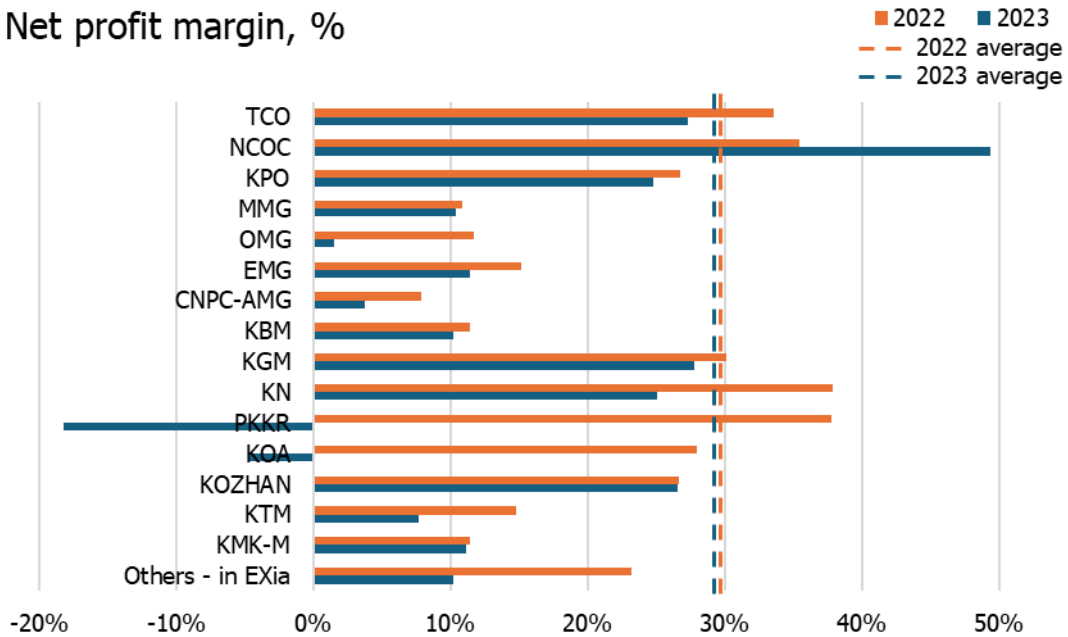
Specific net profit, thousand KZT/ton



Source: compiled by ENERGY Insight & Analytics

In 2023, NCOC had the highest specific net profit, amounting to 147 thousand KZT per ton, while PKKR recorded the lowest, with a loss of 27 thousand KZT per ton of oil produced. The perimeter average on the Analytical Platform EXia was 71 thousand KZT per ton in 2023, down from 84 thousand KZT per ton in 2022.

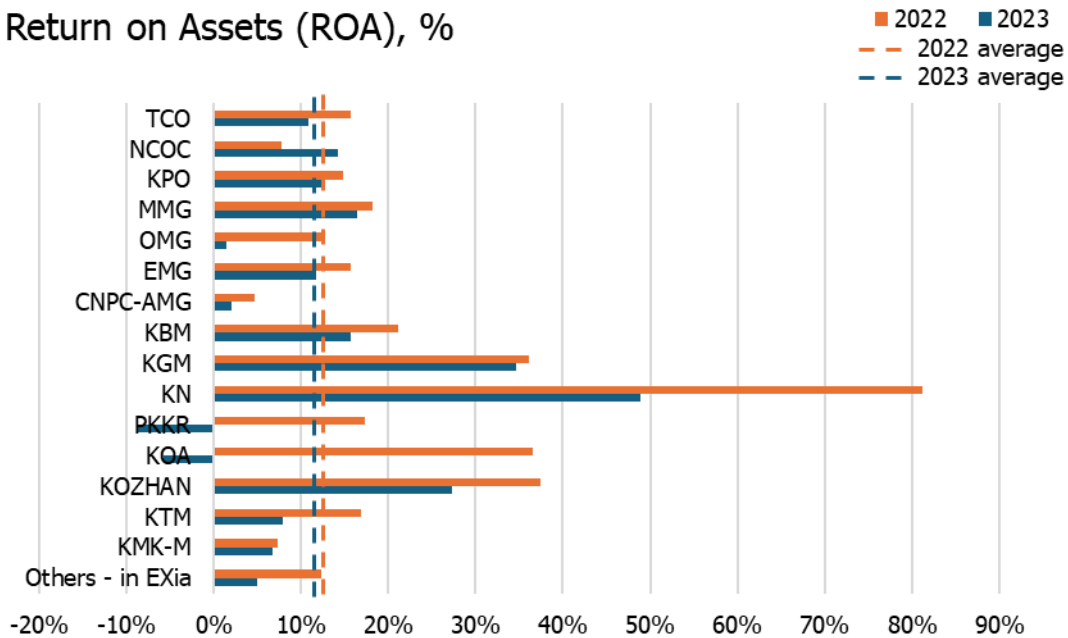
Net profit margin, %



Source: compiled by ENERGY Insight & Analytics

The highest net profit margin in 2023 was in NCOC at 49%, while PKKR posted the lowest at -18%. According to the Analytics Platform EXia, the average for the perimeter stands at 29.0% in 2023, compared to 29.5% in 2022.

Return on Assets (ROA), %



Source: compiled by ENERGY Insight & Analytics

The highest return on assets (ROA) in 2023 is 49% for KN, while the lowest is -9% for PKKR. The average ROA for the Analytics Platform EXia is 11.9% in 2023, compared to 12.6% in 2022.

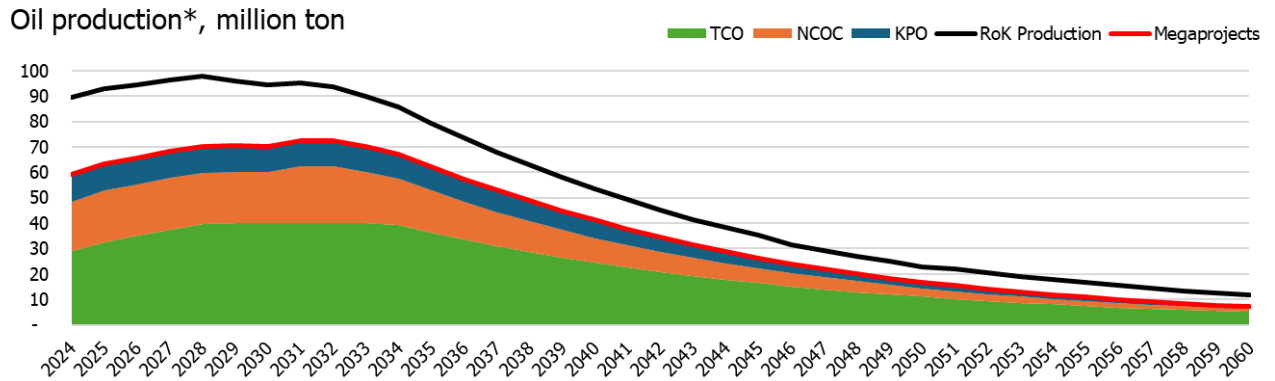
Prospects for Kazakhstan's Oil Production

An oil production forecast has been prepared by ENERGY Insights & Analytics to assess investment potential. This forecast includes only projects where investments have already been made, are currently underway, or where final investment decisions have been made, ensuring that investments will begin soon. For example, Phases 2B and 3 of the Kashagan project are not included, as the timing for investment and subsequent oil production remains uncertain. Similarly, oil production from the Kalamkas-sea & Khazar project is excluded for the same reason.

The forecast predicts that oil production will increase from 89 million tons in 2024⁷ to a peak of 98 million tons by 2028, driven primarily by the planned expansions of megaprojects.

⁷ The actual production in 2024 was 87.7 million tons

However, production from other companies is expected to decline⁸. By 2034, the share of megaprojects in Kazakhstan's total oil production is projected to reach a maximum of 78%, compared to 66% in 2023.



Source: ENERGY Insight & Analytics

* including FGP/WPMP project for TCO, 1 bcma and 2,5 bcma (Phase 2A) projects for NCOC, KEP1 A+B for KPO

It should be noted that, according to the forecast prepared by the Government of the Republic of Kazakhstan as part of the country's socio-economic development forecast for 2025-2029 (2nd stage), oil production is projected to reach 97.2⁹, 101.5, 105.5, 103.9, and 104.8 million tons in 2025, 2026, 2027, 2028, and 2029 accordingly. The oil production targets set by the government appear to include projects for which investment decisions have not yet been made and for which investment has yet to be secured. Achieving these targets will require maintaining and enhancing the sector's investment attractiveness, a topic explored in detail by S&P Global Commodity Insights in the article «Kazakhstan's overall attractiveness for upstream investment: insights from S&P Global's E&P ratings», which was published in our flagship analytical report, [Kazakhstan Energy Outlook 2024](#).

Current Investment Potential

Investment potential was assessed based on the dynamics of key financial and economic indicators for oil-producing companies. These include operating, transportation, and capital costs, tax regime parameters, oil sales structure, cash and debt balances, and forecast oil production profiles, among other assumptions. The key assumptions are outlined below. NPVs were calculated using the Analytical Platform EXia. As mentioned earlier, NPV indicates investment potential: the higher the NPV, the better. Conversely, companies with an NPV below zero are either destroying shareholder value or are expected to do so in the future.

⁸ Please see the article ["Mature Oilfields – Nurture and Revitalize"](#) for details

⁹ On January 8, 2025, the Ministry of Energy of Kazakhstan [announced](#) an adjustment to the oil production plan for 2025 to 96.2 million tons.

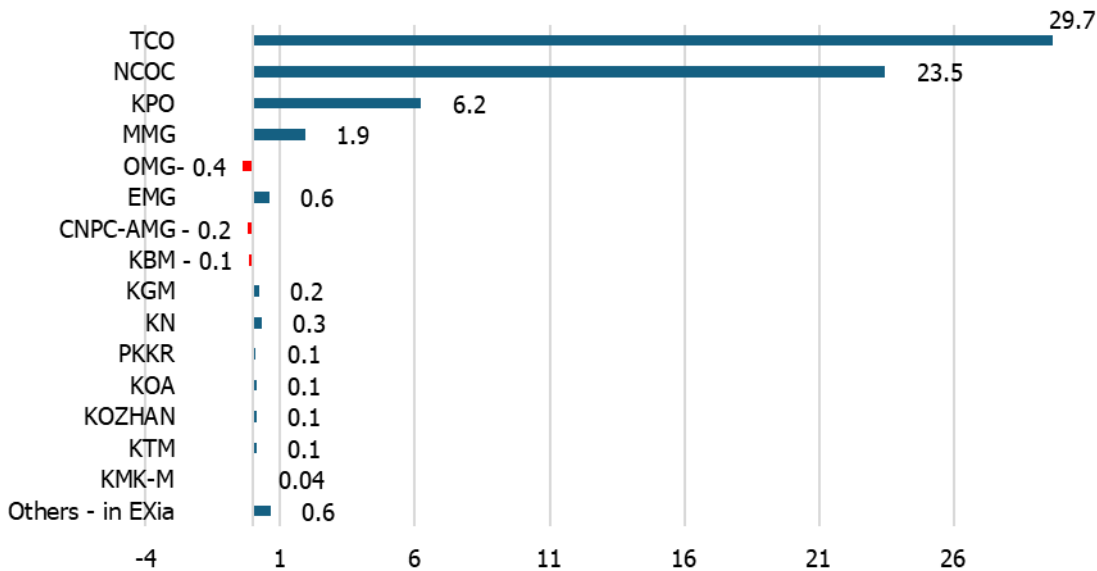
Assumption	UoM	2025	2030	2035	2040
Brent crude oil price	USD/баррель	87	95	104	112
Average exchange rate	KZT/USD	470	470	470	470
Inflation rate KZT	%	6.5%	5.0%	5.0%	5.0%
Inflation rate USD	%	2.1%	2.1%	2.1%	2.1%

Source: compiled by ENERGY Insight & Analytics

10

A discount rate of 12.5%¹¹ was applied to assess the present value of cash flows. The discount rate is consistent with [Aswath Damodaran's](#) calculations for upstream oil companies.

NPV, trillion KZT

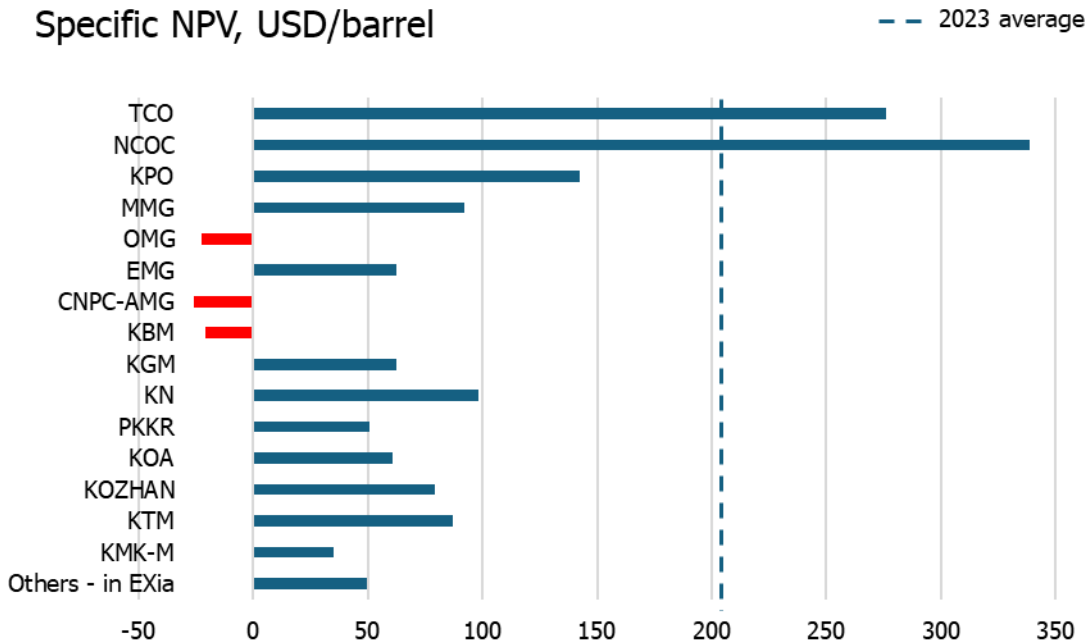


Source: compiled by ENERGY Insight & Analytics

The total NPV of oil-producing companies included in the scope of the Analytical Platform EXia is estimated at 63 trillion KZT (134 billion USD). TCO has the highest NPV at 29.7 trillion KZT (63.2 billion USD), while OMG has the lowest, with a negative NPV of -0.4 trillion KZT (-0.8 billion USD). Megaprojects account for 95% of Kazakhstan's oil industry's total NPV, thus its investment potential.

¹⁰ As of the publication date of this article, the price of Brent crude oil is 77.9 USD per barrel, and the exchange rate is 517.84 KZT/USD.

¹¹ The updated discount rate by A. Damodaran as of January 9, 2025, is 10.3%.



Source: compiled by ENERGY Insight & Analytics

A significant gap in oil production volumes between megaprojects and other oil-producing companies makes it challenging to compare their prospects directly. NPV per unit of (expected) oil produced in 2024 was calculated to enable a more meaningful comparison. NCOC has the highest specific NPV at 338 USD per barrel (1.3 million KZT per ton of oil produced), while CNPC-AMG has the lowest at -26 USD per barrel (minus 92 thousand KZT per ton of oil produced). The average NPV value across the perimeter of the Analytical Platform EXia is 202 USD per barrel (734 thousand KZT per ton of oil produced).

The Bottom Line

Considering the expected increase in competition for investment and the President of Kazakhstan's directive to double GDP, it is necessary to justify the target GDP growth figures by enhancing investment attractiveness and, consequently, increasing (foreign) direct investment in Kazakhstan's oil and gas industry. An assessment of the current investment potential of the oil-producing sector, conducted by ENERGY Insights & Analytics, reveals an extremely high concentration in megaprojects, driven by their large relative size in production and special tax regimes. Monitoring investment potential trends, along with forecasting changes under evolving business conditions (such as the parameters of the New Tax Code of the Republic of Kazakhstan), will enable us to evaluate progress in boosting the industry's investment attractiveness and, ultimately, the growth of direct investment.

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.

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