



FOCUS ON SYSTEM REFORM

SAMRUK-KAZYNA JSC
ANNUAL REPORT 2022





Sovereign Wealth Fund «Samruk-Kazyna» JSC (hereinafter - the Fund) adheres to the principle of transparency in its activities and aims to provide maximum assistance to investors and other stakeholders in ensuring disclosure of information on the Fund's activities.

This report reflects the financial performance and operating results corporate, governance and risk management system, development strategy, as well as the results in the field of sustainable development. More detailed information on ESG components is reflected in a separate sustainability report, which is also available on the Fund's website.

The Annual Report is published on an annual basis and includes the performance results of the Fund for the period from 1 January to 31 December 2022 and where possible, outlines plans for 2023.

The external audit of the financial statements of the Fund was performed by Ernst & Young LLP.



We ensure sustainable economic development and create long-term value by effectively managing a diversified portfolio of assets and supporting businesses in the interests of the people of the Republic of Kazakhstan

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The Fund's Annual Report is available in electronic format in the state, Russian and English languages on the Fund's website



MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS



Dear ladies and gentlemen!

The 2023 is a landmark year for Samruk-Kazyna JSC. 15 years ago, an institute was established through the merger of two holdings Samruk and Kazyna to increase the national welfare of Kazakhstan and work on the modernization of its economy.

The Fund has approached this anniversary date with impressive results.

Despite the negative factors in the conditions of global turbulence in 2022, the Samruk-Kazyna Fund paid KZT170 billion of dividends to the republican budget, which is almost twice as much as in 2021. In addition, during the year, the Fund allocated KZT132 billion to support healthcare, culture, social and infrastructure projects.

The narrowing of export opportunities caused by the difficult geopolitical situation stimulated the turn of the Samruk-Kazyna Group companies to develop processing capacities, increase local content, and focus on ensuring the domestic market.

In November 2022, JSC NC KazMunayGas launched the integrated gas chemical complex Kazakhstan Petrochemical Industries (KPI), focused on the processing of raw materials from the Tengiz field with an installed capacity of 500 thousand tonnes of polypropylene per year. 1,200 new jobs have been created at the plant, including 650 for highly qualified engineers involved in working with robots.

The next step is the construction of a polyethylene production plant with a capacity of 1.25 million tonnes per year with the creation of 7 thousand jobs.

The commissioning of new oil and gas chemical enterprises will not only meet the demand for polymers in the domestic market, but will also stimulate the creation of a cluster of small and medium-sized enterprises that increase the added value of the product.

The facilities of Samruk-Energy JSC have demonstrated stability and sufficient safety margin in any period. Based on the results of last year's audit of thermal power plants and power grids, all the Company's facilities showed satisfactory condition and readiness for accident-free operation.

The share of electricity generated by the Samruk-Energy JSC's renewable energy facilities in 2022 was 8.3% of the total RES in Kazakhstan.

The attention of investors looking for new niches in the field of infocommunications is drawn to the project announced by the National telecommunications operator Kazakhtelecom JSC to lay a fiber-optic communication line between Kazakhstan and Azerbaijan. This global project will become a part of the large-scale Digital Silk Road project, which will lay the foundation for the creation of a telecommunication corridor between Europe and Asia.

In the conditions of global economic instability, the importance of the Trans-Caspian International Transport Route through China, Central Asia and further to European countries, has grown. In order to diversify export routes, agreements have been reached to increase transport volumes in this direction.

Despite the difficulties with logistics and transit, JSC NC Kazakhstan Temir Zholy ensured positive dynamics of production and financial indicators. The company's operating cargo turnover totalled KZT252 billion tonne-kilometer, which is the highest figure for the years of Kazakhstan's independence. The historical maximum of 23.2 million tonnes of traffic between the Republic of Kazakhstan and China was achieved, which is 15% more than in 2021. By the end of 2022, more than 14 million passengers were transported, which is also 21.4% more than in the previous year.

The companies of the Fund Group ensured the implementation of tasks to improve the sustainability of economy and minimized the impact of negative external factors on the economy of Kazakhstan. The largest employers – the national companies JSC NC KazMunayGas and JSC NC Kazakhstan Temir Zholy - maintained the number of permanent jobs.

The Government expects the Fund to transform further into an institutional investor involved in critical infrastructure projects, innovative industries, increasing jobs and production of products with high added value.

Alikhan Smailov

Chairman of the Board of Directors Samruk-Kazyna JSC
Prime Minister of the Republic of Kazakhstan

MESSAGE FROM THE CHAIRMAN OF THE MANAGEMENT BOARD



Dear colleagues!

The 2022 became for Samruk-Kazyna JSC a kind of borderline, and it will be followed by a stage of total renewal for all of the Fund Group's business lines. But even in this difficult period of economic development and external threats, the Fund, which is the basis for Kazakhstan's society stability, has demonstrated a significant margin of safety.

We would like to present the annual report of Samruk-Kazyna JSC for 2022, which discloses the main results of financial and operational activities as well as the decisions taken that ensured the sustainability and effectiveness of anti-crisis measures.

Safety is a top priority

Being one of the largest employers in the country with over 259 thousand employees, the Fund prioritises employee safety and health above all else. 2022 was declared the "Year of Occupational Health and Safety". The Fund in cooperation with Portfolio Companies carried out large-scale work aimed at ensuring a safe on-site environment. The occupational safety internal requirements were substantially updated in accordance with the best global practices, and steady enforcement of national legislation was ensured. As a result of the work done, the injury rate decreased by 16% compared to 2021. In addition, in 2022, wages for all enterprises of the Fund Group was increased from 5 to 48%, with a focus on low-paid positions of production personnel. The coverage totalled 243 thousand people.

Social responsibility

One of the most important activities of the Fund is to provide support through the implementation of projects within the framework of strengthening social responsibility. In total, 43 social projects for KZT10 billion were implemented during the year, 500 thousand Kazakhstan people received assistance.

A public report on charitable activities was also presented last year in front of the Public Council experts of Samruk-Kazyna JSC for the first time. Within the framework of the "Children's Year" declared by the Head of State in 2022, when considering applications from potential users, a significant emphasis was shifted to the implementation of projects aimed at children's education and development, support for children with physical and mental disabilities. With the establishment of the Samruk-Kazyna Trust Corporate Charitable Fund and streamlining of the social support policy for

vulnerable groups adopted in the Fund, the effectiveness and transparency of targeted assistance increased.

On profit and taxes

The Fund's net profit totalled KZT1.9 trillion, which is significantly higher than in 2021 (KZT1.6 trillion). The volume of oil and gas condensate production by the enterprises of JSC NC KazMunayGas in 2022 amounted to 22 million tonnes, an increase of 2% as compared to a year earlier. The volume of associated and natural gas production increased by 2%, to 8.7 million m³.

In 2022, JSC NC Kazakhstan Temir Zholy transported over 285 million tonnes of cargo. At the same time, a record cargo flow between Kazakhstan and China was recorded: at the level of 23.2 million tonnes, which is 15% higher than in 2021. Kazakhstan's exports increased by 17% due to the growth in iron and non-ferrous ores, ferrous metals, grain cargoes in containers and other cargoes.

To ensure uninterrupted transportation and develop the country's transit potential, the laying of the second track on the Dostyk – Moiynlyk section began in November 2022, which will increase throughput capacity fivefold (from 12 to 60 pairs of freight trains per day).

The sales volume of NAC Kazatomprom JSC and its subsidiaries in 2022 was 16,358 tonnes of uranium. At the same time, the average selling price of pound of uranium concentrate increased by 31% to USD43.44. Average realized prices for 2022 were higher compared to the same periods in 2021 due to the higher uranium spot price.

As part of the diversification of the economy, public and open trades in securities of JSC NC KazMunayGas on the domestic exchanges KASE and AIX were held. The deal also became the first "digital" IPO in Kazakhstan, as about 99% of all applications were received through mobile applications. The main condition was the priority of citizens of

Kazakhstan in the purchase of shares. This decision was made based on the judgment that citizens would share the fate of their national enterprises more responsibly. In addition, we would like to see how the number of people wishing to purchase shares of other enterprises of the Fund's group expand. In the near future, the airline Air Astana JSC, the green asset portfolio of Samruk-Energy JSC, JSC NC Kazakhstan Temir Zholy and JSC NC QazaqGaz will also go public.

ESG as a long-term priority

Reducing the carbon footprint is no longer just a global trend, but a matter of the competitiveness of the Fund's group. In 2022, the Fund developed the Concept of Transition to Low-Carbon Development, which contributes to increasing the long-term value of assets, will increase investment attractiveness in the implementation of large infrastructure projects.

As part of measures to reduce dependence on solid fossil fuels, the Fund plans to implement a number of projects.

This is an extensive action program that includes the development of renewable energy sources, the application of "smart" grid technology with introduction of energy storage and accumulation systems, research into carbon capture and storage methods the use of geothermal energy, and the construction of a pilot plant based on "clean" coal technologies.

The Fund also implemented a set of measures to reduce environmental impact and rational use of resources. During the year, the Fund's portfolio companies launched a number of RES projects.

Samruk-Energy JSC made a number of concrete steps to achieve the goal of low-carbon development. A new wind power plant (WPP) with a capacity of 60 MW was commissioned in the Shelek corridor of Almaty region. The new WPP will generate 225.7 million kWh of electricity per year. In addition to its production characteristics, the project is important for the region due to its environmental component - the launch of the power plant will reduce greenhouse gas emissions to 206 thousand tonnes per year.

Dear colleagues!

The Fund will continue to implement the large-scale reform program approved by the President of the Republic of Kazakhstan at the meeting of the Supreme Council for Reforms.

We anticipate that 2023 will be just as challenging as 2022. However, the professionalism of management and staff will enable us to keep up the pace and systematically move towards achieving the main goal – the transformation of commodity revenues into sustainable economic growth.

Nurlan Zhakupov

Chairman of the Management Board
Samruk-Kazyna JSC

PERFORMANCE HIGHLIGHTS 2022

PERSONNEL AND H&S

259 055 ^{+0.4%}

Number of employees in the Fund group, people
(2021 – 258 044)

28 ^{0%}

Share of women in the total number of employees, %
(2021 – 28)

139.6 ^{+87%}

Volume of social expenditures, KZT billion
(2021 – 74.6)

0.16 ^{–27%}

Lost Time Injury Frequency Rate, %
(2021 – 0.22)

2.60 ^{–11.2%}

Fatal Accident Rate, %
(2021 – 2.93)

¹ Includes pipeline and marine transport.

² Taking into account the exclusion of JSC NC QazaqGaz and its subsidiaries and independent organizations from the consolidation perimeter.

³ 1 ounce equals to 31.1 034 768 grams.

⁴ Broadband Internet access.

PRODUCTION INDICATORS

22.0 ^{+1%}

Volume of oil and gas condensate production, million tonnes (2021 – 21.7)

74.7 ^{+0.1%}

Oil transportation volume¹, million tonnes
(2021 – 74.6)

19.9 ^{+5.8%}

Oil refining volume, million tonnes
(2021 – 18.8)

8.5 ^{+1.1%}

Volume of natural and associated gas production², billion m³ (2021 – 8.4)

83.7 ^{–12.3%}

Gas transmission volume, billion m³
(2021 – 95.4)

21.3 ^{–2.3%}

Uranium production volume, thousand tonnes
(2021 – 21.8)

42.5^{-4.7%}

Coal production volume, million tonnes
(2021 – 44.6)

12.4^{+30%}

Volume of passenger traffic (railway),
billion ton-km (2021 – 9.5)

1 786.4^{+8.8%}

Gold production volume³, thousand ounces
(2021 – 1 641.3)

7.9^{+9.7%}

Passenger traffic (air), million people
(2021 – 7.2)

267.1^{+29.4%}

Silver production volume, thousand ounces
(2021 – 206.5)

114.7^{-12.9%}

Postal and courier services, million units
(2021 – 131.7)

35.9^{+0.8%}

Electricity production volume, billion kWh
(2021 – 35.6)

2 651.5^{-4.4%}

Number of fixed lines, thousand lines
(2021 – 2774.5)

1 863.2^{-0.1%}

Number of fixed broadband subscribers⁴,
thousand subscribers (2021 – 1 860.7)

58.6^{+7.1%}

Volume of electricity transmission services,
billion kWh (2021 – 54.7)

930.7^{+1.3%}

Number of pay TV subscribers,
thousand subscribers (2021 – 918.7)

252^{+5.4%}

Volume of operational cargo turnover (railway),
billion ton-km (2021 – 239)

14.5^{0%}

Number of mobile subscribers,
million subscribers (2021 – 14.5)

PERFORMANCE HIGHLIGHTS 2022

FINANCIAL INDICATORS

1 371 ^{+28%}

Funds spent in investment activities, KZT billion
(2021 – 1 071)

170 ^{+92%}

Dividends paid, KZT billion
(2021 – 88.3)

2 074.9 ^{+24.6%}

Operating profit, KZT billion
(2021 – 1 664.8)

1 696.4 ^{+45.3%}

Taxes paid, KZT billion
(2021 – 1 167.1)

1 921.5 ^{+17.9%}

Net profit, KZT billion
(2021 – 1 629.2)

53.4 ^{-2.1%}

State subsidies, KZT billion
(2021 – 54.6)

132.2 ^{+96%}

Other distributions in favor of the Shareholder,
KZT billion (2021 – 67.6)

3 482 ^{0%}

Number of shares issued, million
(2021 – 3 482)

5 189 ^{-20%}

Net debt, KZT billion
(2021 – 6 484)

ENVIRONMENTAL PROTECTION

60.9^{-9.3%}

Carbon footprint, million tonnes CO₂-equivalent
(2021 – 67.2)

1 502.5^{+28.3%}

Electricity production from RES, thousand GJ
(2021 – 1 171.3)

304 143^{-0.5%}

Water withdrawal, thousand m³
(2021 – 305 844.4)

56.3^{+1.8%}

Expenditure on environmental protection,
KZT billion (2021 – 55.3)

01 ABOUT THE FUND

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SAMRUK
K A Z Y N A



DEVELOPMENT STRATEGY



OUR VISION

A national economic leader, making a breakthrough in innovative development based on the principles of human welfare and environmental protection through responsible investments.



OUR MISSION

To ensure sustainable economic development and long-term value creation through effective management of a diversified assets portfolio and business support in the interests of people of the Republic of Kazakhstan.

THE REPORTING YEAR OF 2022 CONTINUED THE TREND OF THE PREVIOUS YEARS, EXACERBATING GLOBAL AND LOCAL CRISES AND TURMOIL:



the complication of the geopolitical situation, which caused a narrowing of the window of export opportunities for Kazakhstan;



the threat of the spread of new COVID-19 coronavirus strains and the risk of new quarantine restrictions;



increasing of inflation and social tension.

All this caused real problems for the national economy, and Samruk-Kazyna JSC, as its active subject.

The updated Development Strategy of Samruk-Kazyna JSC until 2032 (hereinafter - the Development Plan), adopted in pursuance of the Instructions of the Head of State, has been developed taking into account changing global trends and challenges.

Moreover, the Fund's strategy corresponds to the key National priorities and contributes to the implementation of the Kazakhstan-2050 strategy, which is a national document that determines the long-term course of the country's development.

It should be noted that the Strategy retains continuity with respect to similar documents of previous years, supplementing and specifying individual provisions.

Taking into account the current socio-economic situation of the country's development and the role of the Fund, it is advisable to focus investments primarily in the economy of Kazakhstan. In this regard, the management model of the Fund in the next 7 years is defined as a strategic holding with the tasks of maintaining social and infrastructural development of the country.

By 2030, the Fund should move to the investment holding model under favorable market conditions with retention of majority share in the Fund's strategic assets. The Fund will strive to diversify its portfolio and fill it with breakthrough projects with a high share of exports to strengthen its competitiveness and reputation on a global scale.

STRATEGIC GOALS



INCREASE IN THE VALUE OF NET ASSETS

- ▶ Increase in labor productivity
- ▶ Financial stability
- ▶ Optimization and improvement of business processes
- ▶ Asset modernization and digitalization
- ▶ Moving up the value chain and industry creation
- ▶ Development of R&D and innovation, high-tech industries



EFFECTIVE ASSET PORTFOLIO MANAGEMENT

The Fund will ensure the optimization and improvement of the portfolio quality, introduction of advanced technologies, as well as improvement of the business model.



COMPETITION DEVELOPMENT

- ▶ IPO/SPO and reduction of share in the economy
- ▶ Major infrastructure projects
- ▶ Development of the resource base
- ▶ Global partnership and coordination of investment activities
- ▶ Responsible and market-based tariff setting
- ▶ Equal access to infrastructure and markets



ECOSYSTEM FOR BUSINESS

The Fund will continue to work on transferring assets to a competitive environment. The Fund as a co-investor will only participate in critically important projects that cannot be implemented by private investors.



IMPLEMENTATION OF ESG PRINCIPLES

- ▶ Corporate governance
- ▶ Openness, transparency and compliance
- ▶ Social responsibility
- ▶ H&S Best Practices
- ▶ Human capital development
- ▶ Resource conservation
- ▶ Decarbonization
- ▶ "Green" finance



SUSTAINABLE DEVELOPMENT

The human well-being, ecological balance and ensuring long-term financial stability based on best business practices and corporate governance principles are in the focus. As a result, assets will increase the long-term value of assets, and investment attractiveness will improve.

ASSET PORTFOLIO

KAZAKHSTAN OPERATOR FOR EXPLORATION, PRODUCTION, PROCESSING AND TRANSPORTATION OF HYDROCARBONS



87.42% of shares

Number of employees:

more than 45 thousand people

Regions of presence:

Abai, Aktobe, Atyrau, Zhambyl, Zhetysay, West Kazakhstan, Kostanai, Kyzylorda, Mangystau, Pavlodar, Turkestan, Ulytau, as well as in cities of republican significance and the capital

www.kmg.kz



KAZAKHSTAN OPERATOR FOR THE IMPORT AND EXPORT OF URANIUM, RARE METALS, NUCLEAR FUEL FOR NUCLEAR POWER PLANTS



75% of shares

Number of employees:

more than 20 thousand people

Regions of presence:

Akmola, East Kazakhstan, Kyzylorda, Turkestan

www.kazatomprom.kz



THE LARGEST OPERATOR OF KAZAKHSTAN'S MAIN RAILWAY NETWORK



100% of shares

Number of employees:
more than 113 thousand people

Regions of presence:
all regions

www.railways.kz



KAZAKHSTAN'S LARGEST DIVERSIFIED ENERGY HOLDING COMPANY, SUCCESSFULLY INTEGRATED INTO THE INTERNATIONAL ENERGY BALANCE



100% of shares

Number of employees:
more than 11 thousand people

Regions of presence:
Almaty, East Kazakhstan, Pavlodar, Turkestan, as well as in cities of republican significance and the capital

www.samruk-energy.kz



KAZAKHSTAN'S GAS COMPANY OPERATING ALONG THE ENTIRE CHAIN FROM EXPLORATION AND PRODUCTION TO THE SALE OF FINAL PRODUCTS



100% of shares

Number of employees:

more than 12 thousand people

Regions of presence:

Almaty, Aktobe, Atyrau, East Kazakhstan, Zhambyl, West Kazakhstan, Karaganda, Kostanai, Kyzylorda, Mangystau and Turkestan regions, as well as in cities of republican significance and the capital

www.qazaqgaz.kz



SYSTEM OPERATOR OF THE UNIFIED ELECTRIC POWER SYSTEM OF KAZAKHSTAN



90%+1 of shares

Number of employees:

more than 4 thousand people

Regions of presence:

Abai, Akmola, Aktobe, Almaty, Atyrau, East Kazakhstan, Zhambyl, Karaganda, Kostanai, Kyzylorda, Mangystau, Pavlodar, Turkestan

www.kegoc.kz



KAZAKHSTAN'S LARGEST TELECOMMUNICATIONS COMPANY, WITH THE STATUS OF A NATIONAL TELECOM OPERATOR



ҚАЗАҚТЕЛЕКОМ

52.03% of shares

Number of employees:

more than 24 thousand people

Regions of presence:

Abai, Aktobe, Almaty, Atyrau,
East Kazakhstan, Zhambyl, West
Kazakhstan, Karaganda, Kostanai,
Kyzylorda, Mangistau, Pavlodar,
North Kazakhstan, Turkestan,
Ulytau

www.telecom.kz



NATIONAL POSTAL OPERATOR OF KAZAKHSTAN PROVIDING A WIDE RANGE OF POSTAL, FINANCIAL, BROKERAGE AND AGENCY SERVICES



100% of shares

Number of employees:

more than 17 thousand people

Regions of presence:

all regions

www.post.kz



KAZAKHSTAN'S LARGEST AIR CARRIER



51% of shares

Number of employees:

more than 6 thousand people

Regions of presence:

Aktobe, Atyrau, East Kazakhstan, West Kazakhstan, Kostanay, Kyzylorda, Mangystau, as well as in cities of republican significance and the capital

www.airastana.com



KAZAKHSTAN AIRLINE OPERATING REGIONAL FLIGHTS WITHIN THE COUNTRY



100% of shares

Number of employees:

more than 300 people

Regions of presence:

Akmola, Aktobe, Atyrau, East Kazakhstan, Zhetysu, West Kazakhstan, Kostanai, Kyzylorda, North Kazakhstan, Turkestan, Ulytau, as well as in cities of republican significance and the capital

www.flyqazaq.com



KAZAKHSTAN COMPANY FOR EXPLORATION, DEVELOPMENT, EXTRACTION, PROCESSING AND SALE OF SOLID MINERALS



100% of shares

Number of employees:
more than 500 people

Regions of presence:
Karaganda, Kyzylorda
and in the capital

www.tks.kz



KAZAKHSTAN COMPANY FOR THE DEVELOPMENT AND IMPLEMENTATION OF INVESTMENT PROJECTS IN THE CHEMICAL INDUSTRY



100% of shares

Number of employees:
more than 500 people

Regions of presence:
Akmola, Atyrau, Zhambyl

www.ucc.com.kz



The list includes only large Portfolio Companies of the Fund and is not exhaustive.

CONTRIBUTION TO SOCIAL AND ECONOMIC DEVELOPMENT

The activities of the Fund's Portfolio Companies have an impact on the quality of life of people in the regions where they operate. The Fund pays special attention to ensuring social and economic stability through the implementation of large-scale infrastructure projects.

Job creation

The Fund is one of the largest employers in the country with more than 259 thousand people. In 2022, the share of production personnel was 93%, while the share of administrative and managerial personnel was 7%.

The Fund pays special attention to employee well-being, as well as diversity and inclusivity. In the reporting year, the Fund initiated systematic differentiated wage increases. Labour remuneration increased from 5 to 48% across all companies in the Fund group with a focus on low-paid positions of production personnel. The coverage totalled 243 thousand people.

Payments to the country's budget

In the reporting year, the Fund paid KZT170 billion of dividends to the republican budget, almost doubling the previous year's figure. In addition, KZT132 billion was allocated to support social and infrastructure projects in the form of other distributions.

The amount of tax paid to the budget in the reporting year totalled KZT1.7 trillion. For employees, the Fund's Group pays social tax in accordance with the current legislation of the Republic of Kazakhstan.

Contribution to the country's GDP

The Government of Kazakhstan has approved two packages of investment projects aimed at solving social and economic problems.

The first package of 13 investment projects includes initiatives such as gasification of heat power plants in Almaty, water supply in Western Kazakhstan, construction of new gas pipelines and railways. The second package covers 20 projects, including the modernization of the national electricity grid, construction and power plants, renewable energy projects, construction of a 5G Internet network and new railways, as well as petrochemical projects.

The abovementioned projects are aimed at improving the quality of life of the population of Kazakhstan. In addition to the direct effect in the form of job creation, the projects have indirect long-term effects, including improvement of labour and environmental conditions, growth of living standards and development of social infrastructure. In the reporting year, five investment projects with a total value of KZT1 trillion 344 billion were implemented.

Development of non-resource production

In the reporting year, the Kazakhstan Petrochemical Industries Inc. LLP complex was opened – this is the first large-scale plant in the petrochemical industry of Kazakhstan with deep processing of raw materials. The design capacity is 500 thousand tonnes of polypropylene per year, which is about 1% of the world's polypropylene production and allows the plant to become one of the world's leading polypropylene producers. The project is aimed at diversifying the Kazakhstan's economy and moving away from the raw materials-based exports. Polypropylene is used in almost all spheres: medicine, agriculture, housing and utilities, road construction and other industries.

The construction of a polyethylene production plant, which will also have a synergistic effect, is in the pipeline. In general, the "Implementation of the Integrated petrochemical complex construction project will have a positive impact on the structure of the national economy.

Environmental problem solving

One of the most acute problems in the development of the southern capital is the environment. The conversion of Almaty CHP-2 to gas fuel partially solves this problem. This is necessary not only from the point of view of providing reliable and uninterrupted electric and heat energy to consumers of Almaty city and Almaty region, but also for tangible reduction of pollutant emissions into the environment.

The project is extensive and includes the application of the best available technology for combined production of electricity and heat energy using gas turbine technologies. The project involves process automation, including emission monitoring systems. Reduction of production maintenance costs will contribute to the Fund's program to transition to a low-carbon economy.

Upon completion of the Almaty CHP-2 modernization project, it is expected to reduce CO₂ carbon dioxide emissions by 1.5 times. According to experts' estimates the gasification project of the plant meets the most stringent requirements of the Republic of Kazakhstan and the European Union.

JSC NC QazaqGaz is designing the construction of gas infrastructure for heat and power plants in Almaty. Gas will come from the fields of Western Kazakhstan due to the redistribution from exports to the domestic market. This will help meet the rapidly growing demand for gas in the country.

A new wind farm of Samruk-Energy JSC was built in Shelek in Almaty region. Twenty-four 90-metre installations will be able to provide clean energy to over 60 thousand homes.

Demographic growth, construction of new facilities and residential buildings, as well as increased rates of water consumption in summer lead to the problem of water shortage in the western region.

The implementation of major infrastructure projects will ensure high quality, reliable and uninterrupted water supply to meet the growing consumer demand in Atyrau and Mangystau regions.

The Astrakhan - Mangyshlak trunk water pipeline is the only centralized source of water supply for consumers in Kurmangazinsky, Isatai and Zhylyoi districts of Atyrau region, as well as in Zhanaozen, Beineu, Mangistau, Karakiyan and Tupkaragan districts of Mangystau region. The water consuming population is more than 35% of the population of Mangystau region and more than 28% of the population of Atyrau region. In 2022, 29 million 786 thousand m³ of fresh water was supplied to consumers in Atyrau and Mangystau regions through the Astrakhan-Mangyshlak water pipeline. The increase in the volume of water supply compared to the indicator for 2021 was 399 thousand m³. It is should be noted that the project has not only important social significance, but is also necessary for the sustainable operation of oil and gas enterprises.

In 2022, a reservoir water desalination plant was commissioned at Karazhanbas field. Prior to the plant launch, the enterprise was supplied with water from the Astrakhan - Mangyshlak water pipeline. The treated water is used to produce steam, which is subsequently injected into the reservoir to extract oil. Thus, the plant's consumption of Volga water was reduced, which made it possible to redirect the volume of water from the Astrakhan - Mangyshlak water pipeline to meet the needs of the region's population.

Subsidizing the economy

In order to curb the growth of prices and tariffs the Fund is cross-subsidizes socially important areas. In 2022, the volume of cross-subsidization of prices and tariffs at the expense of the Fund amounted to KZT918 billion. The amount of capital investments for maintenance, not covered by the tariff, amounted to KZT256 billion. Economic subsidies mainly covered both prices for liquefied gas and oil products, gas transmission, and tariffs for transportation of goods by rail (grain, chemicals and soda, mineral fertilizers, coal, construction goods, etc.). In addition, the funds were also invested to organize the balancing of production and consumption of electricity and to maintain low heat tariffs. A considerable part was also directed to tariffs for periodicals, pensions and allowances at the local level.

Business support

The Fund maintains a direct dialogue with Kazakhstan manufacturers and industry public associations. The central project office of the Fund for import substitution and local content development functions in the Fund's subsidiary service company Samruk-Kazyna Contract LLP.

Annual KPIs for the share of local content and the share of purchases from domestic producers were established for all portfolio companies. In cooperation with local executive bodies, the Register of Commodity Producers was expanded. The list of documents was simplified, registration was digitized.

The Fund's import substitution program continues its development. More than 40 projects have been launched to off-take orders from the Fund's subsidiaries and affiliated organizations.

Social and Charity Projects

In the reporting year, the Fund group of companies increased its budget for charity by 40% to KZT10 billion and focused on supporting the regions of Kazakhstan. Within the framework of "Children's Year", 2022 declared by the Head of State when considering applications from potential users, significant emphasis is placed on implementation of projects aimed at supporting children.

The Corporate Fund Samruk-Kazyna Trust implemented 43 social projects

last year, and about 500 thousand Kazakhstan people received assistance. Among the brightest initiatives: the project "medical trains" to provide qualified medical care for 60 thousand residents of remote stations of the Republic of Kazakhstan; with "Salamatty Bolashak", special children in 15 cities of the Republic of Kazakhstan were able to take part in adaptive sports; delivery of hypothermia devices for resuscitation of infant resuscitation to maternity hospitals in Shymkent,

Karaganda, Taldykorgan, Aktau, Ust-Kamenogorsk and Uralsk.

Another major social project for 2022 was the project on construction of comfortable schools. The aim of the National Project is to eliminate emergency schools, three-shift training and shortage of pupil places in secondary education organizations.



02

CONSOLIDATED FINANCIAL INDICATORS

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SAMRUK
KAZYNA



THE FUND'S CREDIT RATINGS

Obtaining credit ratings from international rating agencies is an independent and reliable assessment of the Fund's creditworthiness. Rating agencies are provided with access to all the information of the Fund necessary for a thorough and reliable assessment of creditworthiness.

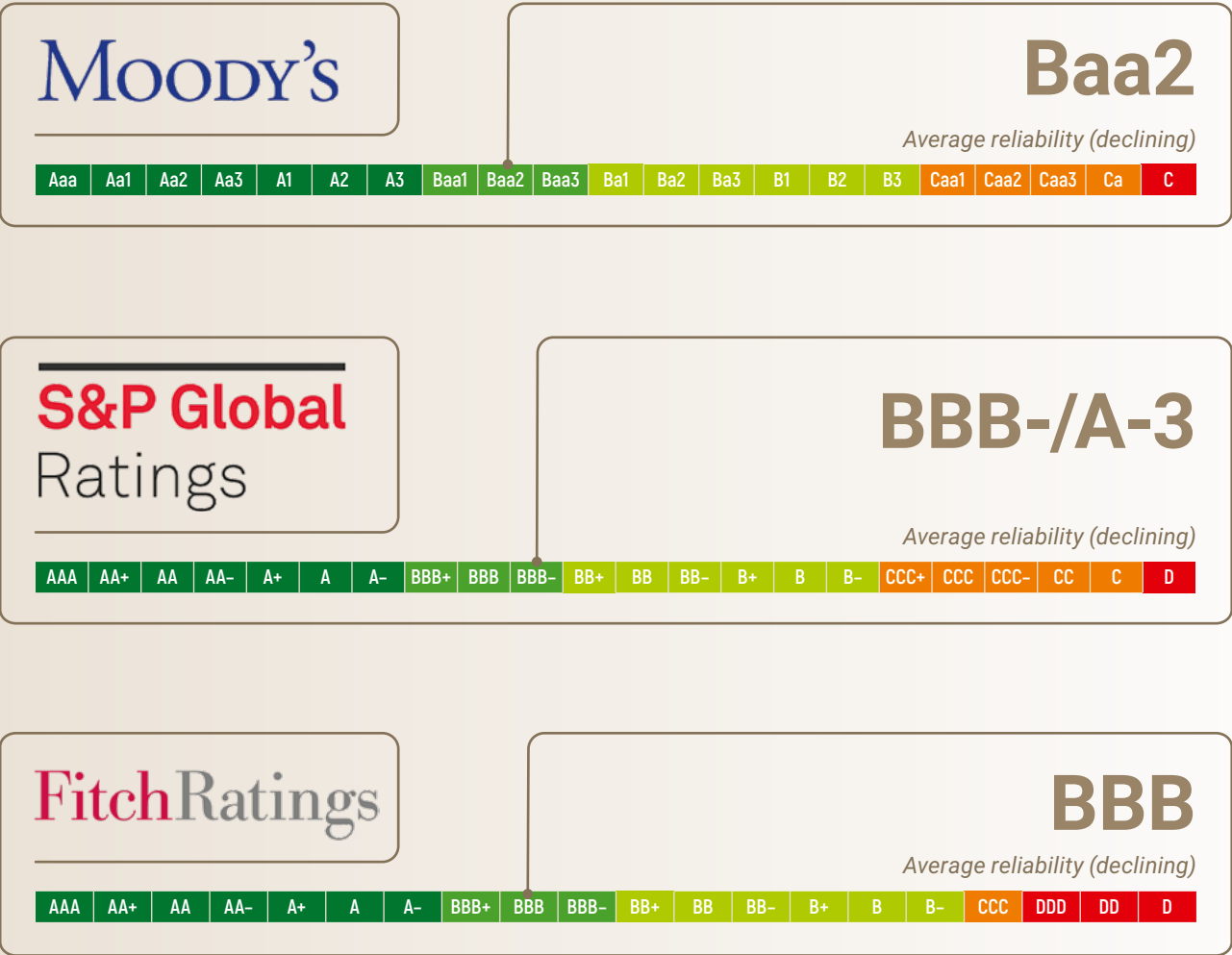
S&P Global Ratings and Fitch note the important role of the Fund in

the economy of Kazakhstan, aimed at industrialization and ensuring financial stability.

On September 8, 2022, S&P Global Ratings revised the rating outlook on the Fund to "negative" and affirmed the long-term and short-term ratings of the Fund at BBB-/A-3, as well as the rating on the national Kazakhstan scale KZAAA.

On November 28, 2022, Fitch affirmed the ratings of Samruk-Kazyna SWF at BBB, the outlook "stable".

On December 16, Moody's affirmed the rating of the Samruk-Kazyna Fund at Baa2, the outlook "stable".



In this section, the financial indicators are based on data for the 12 months ended on December 31,

2022, compared to the previous two years. The table below shows the financial information related to

the consolidated results of the Fund Group.

Indicator	2020	2021	2022
Consolidated revenue, KZT billion (excluding state subsidies)	8 556	11 710	14 785
Assets, KZT billion	27 483	30 310	33 575
Equity capital, KZT billion	15 152	17 173	19 744
Consolidated net profit per shareholder, KZT billion	558	1 629	1 922
EBITDA (operating)*, KZT billion	1 870	2 856	3 241
EBITDA Margin (%)	21.9	24.4	21.9

* Excluding equity income.

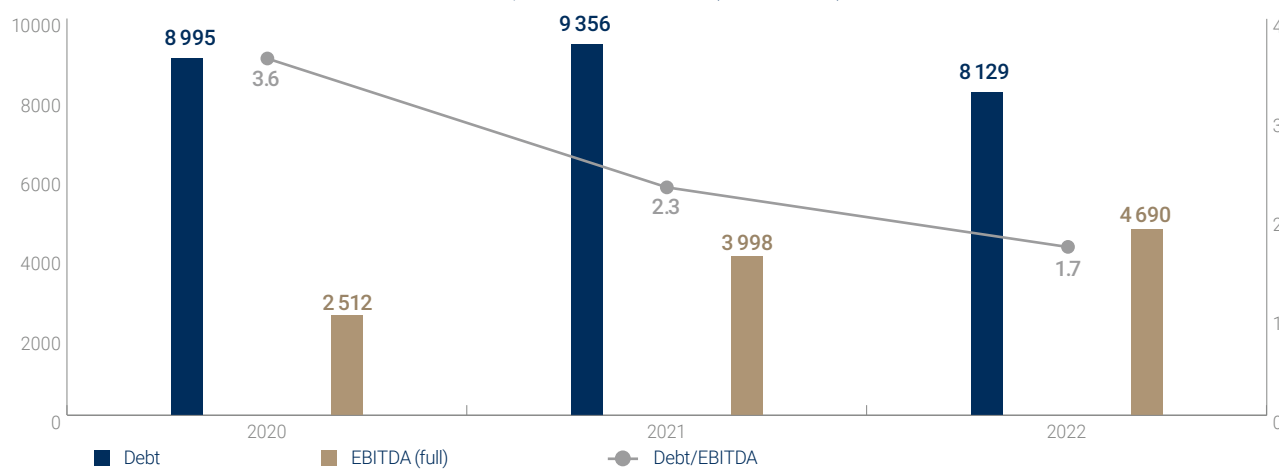
The amount of consolidated revenue by the end of 2022 totalled KZT14.8 trillion, up KZT3.1 trillion or 26% from 2021. The following segments show year-on-year growth compared to 2021: crude oil sale (+KZT882 billion), petroleum products sale (+KZT1 225 billion), rail freight transportation (+KZT96 billion), uranium products sale (+KZT297 billion), air transportation (+KZT160 billion), electric complex (+KZT24 billion),

refined gold sales (+KZT224 billion), telecommunications services (+KZT40 billion), processing of toll oil (+KZT1 billion) and passenger railway transportation (+KZT32 billion).

The consolidated assets of the Fund Group amounted to KZT33.6 trillion as of December 31, 2022, an increase of KZT3.3 trillion or 11% compared to the same figure in 2021. EBITDA (operating) and EBITDA margin at

the end of 2022 were KZT3 241 billion and 21.9%, respectively, compared to KZT2 856 billion and 24.4% at year end 2021. At the end of 2022, the Fund's Group paid taxes and payments to the budget of the Republic of Kazakhstan in the amount of KZT1 696 billion. General and administrative expenses amounted to KZT482.5 billion.

Debt and EBITDA of the Fund, KZT billion (consolidated)



At the end of 2022, Debt/EBITDA decreased to 1.73 compared to 2021 due to EBITDA growth and debt reduction, driven mainly by early

repayment of foreign currency loans, refinancing of loans and appreciation against foreign currency.

Revenue by segment, KZT billion

Indicator	2020	2021	2022
Crude oil	1 970	3 704	4 586
Petroleum products sale	1 306	2 027	3 252
Rail freight transportation	1 076	1 191	1 287
Gas processing products sale	810	763	895
Uranium products sales	563	667	964
Oil and gas transportation	290	323	296
Air transportation	163	332	492
Electric complex	263	345	369
Refined gold sales	638	719	943
Telecommunication services	520	580	620
Processing of toll oil	192	203	204
Electricity transportation	287	314	184
Passenger railway transportation	39	59	91
Interest income	40	47	48
Postal Services	42	43	46
Other income	357	393	508
	8 556	11 710	14 785

In general, the results for 2022, show an increase in revenue by segment. This was influenced by external and internal circumstances. Thus, as a result of partial mobilization in Russia, there was an unexpected increase in the flow of Russian citizens to and through Kazakhstan between September and October last year, which in turn had a positive impact on airline revenue in the form of additional revenue from passengers revenue of USD12 million. In the oil sector, the completion of the modernization of crude gas re-injection compressors at the North Caspian project enabled record daily oil production. Further record performance in petrol, diesel fuel, jet fuel, bitumen and refining reflected

in the results of refineries (Atyrau Refinery, Pavlodar Petrochemical Plant, PetroKazakhstan Oil Products and Caspi Bitumen). Despite the geopolitical situation, which led to the change in logistics along the China-Europe-China railway routes, the company managed to maintain revenue with a slight increase due to the formation of alternative cargo routes through Belarus and Russia. Investment demand for gold also affected the volumes of precious metal. The increase in revenue from uranium products sale was mainly due to an increase in the average realized price in 2022, associated with increase in the spot price of U_3O_8 and the weakening of the KZT against the USD, while sales volumes in 2022 were comparable to 2021.

Revenue from telecommunications services increased due to the expansion of backbone data networks. In postal services, the growth was maintained for basic services, including the development of online payment services (utility payments, mobile payments, registered mail, hybrid mail and EMS).

More detailed information is provided in the financial statements of the Fund for 2022 (Annex 1).



03

FUND PERFORMANCE



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58	• World Leadership in Uranium Mining
61	• Mining and Metallurgical Industry
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64	• Development of passenger transport
72	• Development of Transport and Logistics Potential
80	• Information & communication operators
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85	• Postal & Logistics, Financial and Digital Services
90	• Investment activities
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96	• Procurement Support
99	• Scientific Research Initiatives
100	• Shared Service Center



OIL & GAS



707

million TOE
hydrocarbon reserves (2P)

Transforming commodity revenues

JSC "National Company "KazMunayGas" (hereinafter - KMG) is the leading vertically integrated oil and gas company in Kazakhstan. KMG manages assets throughout the entire production cycle from exploration and production of

hydrocarbons to transportation, refinery and service provision in regions where it operates. The company founded in 2002 represents Kazakhstan interests in the country's oil and gas industry and controls four of the largest oil refineries in

Kazakhstan and two in Romania. When using natural resources, KMG recognizes its responsibility to society for the rational use of these resources and the preservation of a favorable environment.



Key performance results

Indicator	2021	2022
production indicators, million tonnes:		
oil and gas condensate production volume	21.7	22.0
oil refining volume	18.8	19.9
oil transportation volume*	74.6	74.7
volume of natural and associated gas production**, billion m ³	8.14	8.2
financial indicators, KZT billion:		
revenue	6 459	8 686
dividends of the Fund and the National Bank of the Republic of Kazakhstan	50	200
net profit	1 305	1 289
operating profit	1 444.2	1 701.1
net debt	1 984	2 143
taxes paid and other obligatory payments to the budget	787	1 176

* Includes pipeline and sea transportation.

** Taking into account the exclusion of JSC NC QazaqGaz and its subsidiaries and dependent organizations from the perimeter of consolidation.

2022 was a year full of significant and positive events for KMG.

Despite price volatility, geopolitical instability, “gray” imports from neighboring countries, increased competition and subjective problems, KMG managed to achieve positive dynamics of production indicators in all areas of business - from exploration and production to transportation and processing of hydrocarbons.

The company made the initial public offering of shares in its history. The IPO was the most significant on Kazakhstan's stock exchanges KASE and AIX. On December 8, 2022, secondary trading in KMG shares started on the stock exchanges. Listing on stock exchanges opened a new stage of the Company's corporate development.

An important strategic event was the acquisition of an 8.44% stake in the Kashagan project from Samruk-Kazyna JSC for USD3.8 billion. The transaction is one of the largest deals for KMG in the last decade.

A historically significant event was the launch of the integrated gas chemical complex of Kazakhstan Petrochemical Industries Inc. LLP, in which KMG acquired 49.5%. The project is designed to produce up to 500 thousand tonnes of polypropylene per year and is focused on creating its own cluster of petrochemical enterprises in Kazakhstan. At the end of 2022, the products of the new plant were exported. The raw material for production is dry gas supplied by Tengizchevroil.

In 2022, the company consistently followed the course of implementing

social and environmental initiatives and reducing its carbon footprint. In this direction, cooperation was continued with major international partners - Total Eren S.A, Chevron, Eni and others.

Hydrocarbon reserves

In 2022, KMG achieved significant increase in hydrocarbon reserves, through actively conducted geological exploration activities.

According to an audit by an international independent company prepared in accordance with international PRMS standards, KMG proven and probable hydrocarbon reserves (2P) as of December 31, 2022 amounted to 707 million tonnes in oil equivalent (5 478 million barrels of oil equivalent). As compared to 2021, the level of 2P reserves increased by 9.8%.

Net hydrocarbon reserves by PRMS (as of December 31, 2022)

Reserves category, million TOE*	2021 (for the KMG share)	2022 (for the KMG share)	change, %
Proven (1P)	477	486	+1.9%
Proven plus probable (2P)	645	707	+9.8%
Proven plus probable plus possible (3P)	761	816	+7.1%

* in oil equivalent



Production

KMG's oil and gas condensate production for 2022 totalled 22 012 thousand tonnes of oil (456 thousand barrels per day), up 1.7% year-on-year. Production of associated and natural

gas (before reinjection) increased by 2% to 8.2 billion m³.

Oil production at Tengiz increased by 10% to 5 836 thousand tonnes (128 thousand barrels per day). Associated gas production increased by 9%

to 3.23 billion m³. The increase in production was due to restrictions on production under the OPEC+ agreement in 2021 and the absence of restrictions in 2022.

Oil and condensate production, thousand tonnes	2021 (for the KMG share)	2022 (for the KMG share)	change, %
Ozenmunaigas	5 332	5 096	-4.4%
Mangistaumunaigas	2 944	3 049	+3.6%
Embamunaygas	2 522	2 581	+2.3%
Tengiz	5 311	5 836	+9.9%
Kashagan*	1 344	1 402	+4.3%
Karachaganak	034	1 013	-2.0%
Other	3 165	3 036	-4.1%
Total	21 651	22 012	+1.7%

* The KMG share in the project is 16.88% after September 15, 2022

Total oil production at Kashagan decreased by 21.9% to 12 682 thousand tonnes. It was caused by two circumstances.

First, the scheduled overhaul of the marine and land complexes in mid-2022.

The second is the need for repair and restoration work after the detection of a gas leak at the Gas pre-Selection Plant.

At the same time, the KMG share of oil production increased by 4.3% to 1 402 thousand tonnes (34 thousand barrels per day), and crude gas production increased by 7.3% to 877 million m³ due to increase in the KMG share in the project from 8.44% to 16.88% from September 15, 2022.

Oil and condensate production at Karachaganak decreased by 2% to 1 013 thousand tonnes (22 thousand barrels per day) as compared to the previous year due to a reduction in the intake of crude gas for processing from the Orenburg Gas Processing Plant, and the extension of scheduled preventive maintenance at its processing facilities

Gas production increased by 2.4% to 1 944 million m³, due to increased re-injection of crude gas at integrated gas treatment plant No. 2, the commissioning of the fourth compressor and increased gas processing at the Karachaganak processing complex.

Oil and condensate production at operating assets decreased by 1.4% to 13 761 thousand tonnes (273 thousand barrels per day).

The decrease in oil and condensate production volumes was due to emergency power outages by the utility company servicing the production facilities of Ozenmunaigas JSC, as well as natural decline in production levels at some mature fields.

At the same time, decrease in oil production at operating assets was partially offset by increased production of 3.6% at the enterprises of Mangistaumunaigas JSC and 2.3% at Embamunaigas JSC.

Gas production decreased to 2 190 million m³ due to the decision of the managing holding Samruk-Kazyna

JSC on the allocation of JSC NC QazaqGaz (former KazTransGas JSC) to the separate National Company in November 2021, to which the gas-producing asset Amangeldy Gas was also transferred.

Oil transportation

The total volume of trunk and sea oil transportation increased by 0.1% to 74.7 million tonnes as compared to 2021.

The volume of oil transportation via trunk pipelines increased by 0.9% and amounted to 65 316 thousand tonnes.

In 2022 there was a change in the volume of oil transportation by direction.

Firstly, the volume of transportation to Kazakhstan refineries through pipelines has increased to produce the required volume of petroleum products for the domestic market. At the same time, export volumes of oil transportation decreased due to natural decline in oil production at mature fields.

Secondly, the change occurred due to the redistribution of oil by shippers from the external to domestic market.

Thirdly, due to decrease in production volumes at Kashagan due to the repair work mentioned above.

By the end of 2022, there was also 3.3% decrease in transportation volumes at the Caspian Pipeline Consortium (CPC). The decrease was mainly due to repair work at Kashagan and repair of outriggers at the marine terminal of CPC itself.

The total volume of crude oil transportation by sea decreased by 5.2% to 9 343 thousand tonnes. The decline was mainly due to drop in oil volumes in the Mediterranean Sea due to decrease in export volumes of Kazakhstan shippers (due to increase in supplies to the domestic market).

Sales of hydrocarbons

Sales of oil and gas condensate produced directly by enterprises owned by the KMG group increased by 2.1% to 22 126 thousand tonnes. 62% of this volume was exported.

8 415 thousand tonnes of own produced oil and gas condensate were supplied to the domestic market of Kazakhstan. Including the supply of crude oil assets of Ozenmunaigas, Embamunaigas, Kazakhturkmunai and Urikhtau Operating in the amount of 4 907 thousand tonnes to Atyrau Refinery (AOR), Shymkent Refinery (PKOP) and Pavlodar Oil Chemistry Refinery (POCR) for further processing into petroleum products and their subsequent sale.

Refining

The total volume of hydrocarbon feedstock refining increased by 5.7% to 19 900 thousand tonnes compared to 2021.

At Kazakhstan refineries, the volume of hydrocarbon feedstock processed increased by 2.5% to 14 269 thousand tonnes (KMG's share). This is a record figure in the history of independent Kazakhstan.

Growth of refining volumes was due to increase in demand for petroleum products on the domestic market, the stable operation of PKOP in 2022 and the postponement of its scheduled preventive maintenance to 2023.

The volume of processing at the plants of KMG International (Petromidia, Vega) in Romania increased by 14.8% to 5 631 thousand tonnes. The increase in refining volumes was due to the stable operation of the plants in 2022 and the absence of shutdowns.

In total, the petroleum products production volume at Kazakhstan and Romanian refineries increased by 6.8% to 18 639 thousand tonnes.

Kazakhstan refineries produced 13 128 thousand tonnes of petroleum products, which is 4.1% more than in 2021, mainly due to the PKOP volume.

At the same time, the production of petroleum products at Atyrau Refinery was 4.5% lower due to scheduled maintenance in October 2022.

KMG International refineries (Petromidia, Vega) produced 5 512 thousand tonnes of petroleum products, which is 14.1% higher than in 2021. The increase in refining volumes was due to restrictive measures during the pandemic in 2021 resulting in lower demand for petroleum products, as well as due to the shutdown of the plant in July 2021 at the Petromidia refinery.

Oil transportation* , thousand tonnes	2021 (for the KMG share)	2022 (100%)	2022 (for the KMG share)	change, %
KazTransOil	41 224	40 656	40 656	-1.4%
Kazakh-Chinese Pipeline	8 706	19 235	9 618	+10.5%
MunaiTas **	2 179	5 606	2 859	+31.2%
Caspian Pipeline Consortium	12 601	58 711	12 183	-3.3%
Kazmorttransflot	9 855	9 343	9 343	-5.2%
Total	74 565	-	74 659	+0.1%

* Part of the oil volumes can be transported by two or three pipeline companies, and, accordingly, these volumes are taken into account more than once in the consolidated volume of oil transportation.

** MunaiTas is a joint venture consolidated by the equity method, therefore the transportation volumes are specified according to the ownership share of 51%.

Hydrocarbon processing, thousand tonnes	2021 (for the KMG share)	2022 (for the KMG share)	change, %
Atyrau Refinery	5 473	5 224	-4.6%
Pavlodar Refinery	5 407	5 480	+1.4%
PKOP*	2 582	3 103	+20.2%
Caspi Bitum*	464	461	-0.7%
Petromidia	4 586	5 258	+14.7%
Vega	321	373	+16.2%
Total	18 833	19 900	+5.74%

* The volume of processing by PKOP and Caspi Bitum is indicated for a share of 50%.

Financial results of KMG in 2022

The increase in world oil prices and the positive dynamics of production results ensured the growth of almost all financial indicators of the Company by the end of 2022.

- Revenue increased by 34.5% to KZT8 686 billion (USD18 845 million) compared to KZT6 459 billion (USD15 161 million);
- EBITDA increased by 25.9% to KZT2 538 billion (USD5 505 million) compared to KZT2 015 billion (USD4 730 million);
- The Company's net profit adjusted for share of profit in joint ventures and associates increased by 2.4% to KZT1 317 billion (USD2 858 million);
- Net profit adjusted for the share in profit in joint ventures and associates was KZT788 billion (USD1 710 million) compared to KZT1 022 billion (USD2 398 million);
- Free cash flow excluding the buyout of KMG Kashagan B.V. stake was KZT1 116 billion (USD2 421 million) compared to KZT756 billion (USD1 774 million) for 2021;
- Free cash flow restated in accordance with the new dividend policy, given the stake redemption in KMG Kashagan B.V. was minus KZT82 billion compared to KZT756 billion for 2021;

- The total debt as of December 31, 2022 was KZT4 143 billion (USD8 956 million) compared to, KZT39 746 billion as of December 31, 2021 (USD89 676 million);
- The Company's net debt as of December 31, 2022, was KZT2 143 billion (USD4 632 million) compared to as, at the level of KZT1 984 (USD4 594 million) billion of December 31, 2021.

Dividends from KMG Kashagan B.V.

In September 2022, KMG repurchased 50% of the shares of KMG Kashagan B.V. from the Fund, which owns a 16.88% stake in the North Caspian project.

As a result, dividends were paid in favor of the Shareholders for USD1 508 million, including USD941.5 million in favor of KMG.

IPO Entry

As already mentioned, the IPO of KMG was one of the most important events not only for the company, but also for the equity capital market of Kazakhstan.

KMG shares were offered on the trading platforms of the Astana International Financial Center (Astana International Exchange, AIX) and the Kazakhstan Stock Exchange (KASE).

The offering was the very first "digital" IPO in Kazakhstan - 99% of applications were submitted online

via mobile applications of second-tier banks.

KMG IPO was the largest in the history of the stock market of Kazakhstan. Moreover, both in terms of the number of bids received - 129.9 thousand bids and the volume of offering - KZT153.9 billion. Citizens of Kazakhstan purchased securities of the company for KZT74.6 billion.

The volume of bids of legal entities is estimated at KZT72.7 billion.

The offering price per share was KZT8 406, implying a capitalization of KMG for about KZT5.1 trillion (USD11 billion, at December 2022 exchange rate).

The proceeds from the IPO were transferred to the National Fund of the Republic of Kazakhstan.

Life-Saving Rules – IOGP

Since 2022, KMG adopted the International Association of Oil and Gas Producers (IOGP) the Life-Saving Rules, which are uniform for all members.

IOGP analyzed two thousand fatal accidents that occurred in a hundreds IOGP member enterprises between 1991 to the present. As a result of the analysis, the association identified the most frequent safety violations. To prevent these violations, nine life-saving rules have been developed. These rules allow employees to be informed about the actions they can take to protect themselves and their colleagues from fatalities.

Plans for 2023

In 2023, KMG sets ambitious and large-scale tasks. Taking into account the discovery of new deposits in a number of fields, the Company intends to increase the pace of energy production in order to fulfill all obligations to the state and shareholders in a timely manner.

KMG oil production plan in 2023 is over 23 million tonnes per year.

The company has a long-term exploration strategy, with plans to increase reserves through organic and inorganic growth. In 2023, a total of 22 exploration and evaluation wells are planned to be drilled:

- completion of drilling of one exploration well at the Zhenis offshore site;
- commencement of drilling of one deep technologically complex well (more than 5 km) on Paleozoic deposits in the Karaton Podsolevoi and Turgai Paleozoic sites;
- Drilling of 19 appraisal wells is planned for all major operating companies (EMG, MMG, OMG, KGM) as part of the ongoing work on additional exploration of mature fields and previously discovered deposits.

In 2023, KMG intends to conduct 3D seismic exploration at the Al-Farabi site, start drilling at the Karaton Podsolevoi and Turgai Paleozoi sites.

Also, the implementation of the project on Geological Subsurface Exploration (GSE) is starting at five new promising regional sites within the main oil and gas basins of Kazakhstan.

Ozenmunaigas JSC has been instructed to accelerate the work planned for 2023 on the rehabilitation of the Uzen and Karamandybas fields. This project has not only economic, but also important social significance.

In the field of energy transportation, a joint project with Abu Dhabi Ports Group, the agreement on which was signed during the visit of Kassym-Jomart Tokayev to the UAE, is to be filled with real content. The creation of a large transport and logistics hub in the Caspian region. Particular attention is paid to the acquisition of two oil tankers with a carrying capacity of 8 000 tonnes and the completion of the modernization of the "Barys" vessel into a container ship.

Great importance is attached to the completion of the joint construction with ENI of a hybrid plant based on wind and solar energy with a capacity of 120 MW in the Mangystau region.

Providing the population with clean drinking water is a serious indicator of KMG's efficiency. As part of the company's social responsibility program, construction of a new desalination plant in Mangystau region and reconstruction of the Astrakhan-Mangyshlak main water pipeline will be started. This issue is under the control of the Head of State.

KMG also plans to further develop oil and gas chemistry – the development of the project for the construction of a gas chemical complex for the production of polyethylene.





83.7

billion m³
gas transportation volume

Gas supply to the domestic market

JSC “National Company “QazaqGaz” (hereinafter – QazaqGaz) manages the centralized infrastructure for the transportation of commercial gas through main gas pipelines and gas distribution networks, provides international transit and sells gas

on domestic and foreign markets, develops, finances, builds and operates pipelines and gas storage facilities in 15 regions of operation. Founded in 2000 the company operates the largest network of trunk pipelines in the country with

a total length of over 20.6 thousand km (including 2 793 km of branch pipelines) and gas distribution networks with a length of more than 59 thousand km.



Key performance results

Indicator	2021	2022
production indicators, billion m³:		
gas transmission volume	95.4	83.7
realized gas volume	23.6	22.7
sold gas volume (export)	6.0	4.3
financial indicators, KZT billion:		
revenue	896.3	952.3
net profit	400.2	386.6
operating profit	166.3	103.7
net debt	512.5	425.1
taxes paid	52.7	106.4

QazaqGaz: milestones of history

On February 5, 2000 the resolution of the Government of the Republic of Kazakhstan on establishment of the KazTransGas Closed Joint Stock Company was signed. On June 9, 2004 KazTransGas Closed Joint Stock Company was renamed into KazTransGas Joint Stock Company.

On November 30, 2021, KazTransGas JSC was awarded the status of the National Company.

On December 31, 2021 KazTransGas was renamed to QazaqGaz.

The company operates along the entire chain: from geological exploration and production to the sale of final products.

QazaqGaz provides international transit and uninterrupted supply of gas to the domestic market, plans to introduce scientific developments, nurture young specialists and contribute to the energy security of Kazakhstan.

Over 23 years, the company has provided more than 2.3 million subscribers with blue fuel, who consume about 85 million m³ of gas daily during the heating season.

The company plans to achieve the level of gasification of the population of Kazakhstan up to 59% and increase the length of gas trunk pipelines and distribution networks up to 86 thousand km.

Today, the company operates the largest network of main gas pipelines in the country with a total length of more than 20.6 thousand km (of which 2 793 km are gas pipelines branches) and gas distribution networks with a length of more than 59 thousand km.

In mid-2022, a new division, QazaqGaz Exploration & Production was created in QazaqGaz JSC by transformation of Amangeldy Gas

LLP. Thus, all new subsurface use projects are consolidated in one structure.

The company has received 10 new licenses for exploration and development of new fields.

In 2022, the QazaqGaz group of companies practically implemented all production plans.

The main gas transportation totalled 83 755 million m³, including:

- domestic transportation - 21 956 million m³;
- gas transportation for export – 9 275 million m³;
- international transit – 52 513 million m³;
- gas sales amounted to 22 751 million m³, including for export - 4 333 million m³.

New gas processing plant

In August 2022 GPC Investment LLP - the operator of the Kashagan gas processing plant project with a capacity of 1 billion m³ - was transferred to the trust management of QazaqGaz.

After completion of the transfer procedure, the QazaqGaz team quickly staffed and mobilized the project team, with the support of the Government of Kazakhstan, logistics of equipment supplies was established.

QazaqGaz initiated and conducted the comprehensive audit of the project with the involvement of international companies.

700 people were involved in the project, at the peak of construction, 2,100 people, 300 units of special machinery and 991 units of equipment will be involved. Once commissioned, the GPP will create 600 permanent jobs in the region.

The railway tracks of the first start up complex have already been brought in, which allows for timely delivery of materials and equipment.

In order to control the quality of the equipment manufacturing process, QazaqGaz JSC engaged a specialized international company, TUV Rheinland.

In 2022, the previously approved design and estimate documentation (DED) was adjusted. When adjusting the DED, all shortcomings in terms of reliability and safety of equipment were taken into account considering world experience for similar projects. Technological equipment and technological processes have been optimized with a focus on the quality of products, as well as reducing emissions into the atmosphere and energy consumption.



To strengthen project management and engineering support of the project, one of the world leaders in the field of engineering, Technip Energies was engaged.

QazaqGaz held public hearings in Makat district of Atyrau region. The meeting discussed the possible impact on the environment as part of the adjustment of the project for the construction of a gas processing plant at Kashagan. The hearing was attended by residents of the district, republican public environmental organizations and representatives of local executive bodies.

The Kashagan gas processing plant, which will process 1 billion m³ of crude gas and produce about 700 million m³ of commercial gas, is scheduled to be launched in 2025. The capacity of the second stage of the project will be 2-4 billion m³ of crude gas per year. The third and fourth projects should provide another 6 billion m³ of gas.

Gas Transmission System Modernization

To date, Kazakhstan-China and Beineu-Bozoi-Shymkent modern gas trunk pipelines have been built

in Kazakhstan, through which gas exports and domestic gas supply are ensured.

These projects were implemented, among other things, at the expense of QazaqGaz. In addition, the entire technological infrastructure has been created, the possibilities of which are not only to increase capacity, but also to diversify gas flows in any direction.

QazaqGaz continues to implement investment projects on construction, modernization, reconstruction of gas transportation infrastructure and gasification of the regions.

In 2022, the company began work on the implementation of priority projects in Mangystau and Atyrau regions. The project is being implemented to build a gas infrastructure for the conversion of the Almaty heat power plant to gas.

In 2022, the construction of the megaproject of the gas transportation system of Kazakhstan – the second line of the Beineu-Zhanaozen main gas pipeline was launched.

According to the technological scheme of the project, the total length

of the 2nd line of the gas pipeline will be 308 km, with a capacity of 5.8 billion m³ per year.

Today Mangystau region has the highest consumption of natural gas in the domestic market of the country, so the construction of the second line is of great social economic importance, and will strengthen the energy security of the region.

The project implementation will ensure stable gas supply to the settlements of Mangystau region, large enterprises whose operation directly depends on reliable and uninterrupted gas transportation for power generation, heat supply to the population, social facilities and industrial enterprises of the region, as well as prevention of emergency situations and elimination of the risk of gas supply interruption as a strategically important service to the population of the region.

Also in 2022, the overhaul of the Zhanaozen-Zhetybai-Aktau gas transmission system was started, consisting of three threads and being a continuation of the Okarem-Beineu main gas pipeline, which covers the need for natural gas in Mangystau region, Aktau city and large industrial



enterprises of the region such as Mangistau Nuclear Power Plant etc.

Resource base

According to the company, following 2022 gas consumption in Kazakhstan totalled 21 billion m³, with exports - 5 billion m³. According to the forecast, by 2030 the volume of gas consumption in the country will grow to 40 billion m³.

To date, recoverable gas reserves in Kazakhstan are estimated at 3.8 trillion m³. The main gas reserves are concentrated in four large fields: Karachaganak, Tengiz, Kashagan and Zhanazhol. Their total volume is 2.7 trillion m³.

Meanwhile, QazaqGaz's own natural gas reserves in 2022 amounted to:

- at the Amangeldy deposit - 10.26 billion m³;
- at the Zharkum deposit - 0.343 billion m³;
- at the Airakty deposit - 2 485 billion m³;
- at the Anabai deposit - 2 226 billion m³.

In December 2022, QazaqGaz completed the procedure of acceptance and transfer of the Pridorozhnoye field, previously owned by Samruk-Energy JSC. It is known that the recoverable gas reserves on the Pridorozhnoye amount to about 10 billion m³.

The Pridorozhnoye field is located in Suzak district of Turkestan region. The field was discovered in 1975.

In 2023, the Minister of Energy of the Republic of Kazakhstan approved the roadmap for increasing the volume of commercial gas, which provides for an increase in the resource base of about 640 billion m³ of gas.

The Anabai field is planned to be commissioned in 2023. The forecasted production volume is 16 million m³ per year.

In 2026, Barkhannaya field will be launched with a forecasted production volume of 48 million m³.

In 2027, Pridorozhnoye field will be launched with a production of 142 million m³ per year.

Meanwhile, the deterioration of the gas transmission infrastructure hinders the development of the gas industry. The tariff for the supply of natural gas to Kazakhstan consumers, which does not permit the modernization of the gas infrastructure, results in losses.

To reduce losses by KZT18 billion, the company approved wholesale prices with 7.6% increase on average in Kazakhstan for the period from July 01, 2022 to June 30, 2023.

In April 2022, a pilot project was launched in Zhambyl and West Kazakhstan regions, where retail prices for commercial gas were reduced by 20%. Since July 2022, retail prices for commercial gas have been reduced by 20% throughout the republic.

By 2030, gasification is planned to cover 65% of Kazakhstan's – 13.5 million people. Industrial facilities are also switching to gas. According to the Ministry of Energy of the Republic of Kazakhstan, gas consumption in the country has increased by 35% over the past 5 years. Annual increase was 7% and will only grow in the future. This is facilitated by the commissioning of new industrial facilities and the implementation of large gas chemical projects.

A significant part of domestic gas consumption is directed to needs of the population, which is a priority energy policy of the Government of the Republic of Kazakhstan.

In Kazakhstan, the Committee on Regulation of Natural Monopolies of the Ministry of National Economy of the Republic of Kazakhstan regulates gas prices for end consumers

depending on regions and categories of consumers.

QazaqGaz carries out wholesale sales of commercial gas at marginal wholesale prices approved annually by the Ministry of Energy of the Republic of Kazakhstan in coordination with the Ministry of National Economy of the Republic of Kazakhstan.

QazaqGaz IPO

The company plans to go public in 2025. However, before offering securities to a wide range of investors, it is necessary to increase the investment attractiveness of QazaqGaz. Anti-crisis measures are already being taken in all areas of the company's business, and work is underway to optimize costs.

But the main agenda item remains the pricing of commodity gas. To date, its cost is underestimated, which is why producers are not interested in production.

This situation led to the shortage of this product in Kazakhstan, which could not but affect the activities of the national operator.

According to calculations of the company's analysts, the national gas operator loses KZT11 from each "cube". Over the past five years, the company has KZT587 billion of accumulated loss (from gas sales to the domestic market), and if nothing is changed, in three years the company's loss may reach KZT1 trillion.

In this regard, the company has developed and presented the new business plan. Now all the nuances are being worked out together with the Sole Shareholder - Samruk-Kazyna JSC.

QazaqGaz participates in the implementation of a comprehensive plan for the development of the country's gas industry for 2022-2026.

The company has already initiated a number of proposals to the law “On Gas and Gas Supply” on socially fair pricing reform, including expanding the list of categories of consumers willing to purchase marketable gas at market value.

Plans for 2023

On the run-up to the IPO, the company focused on achieving a

higher position in the ESG rating, improving corporate governance, and reviewing environmental regulations.

Among the priorities of QazaqGaz – modernization of gas transmission infrastructure in Mangystau and Atyrau regions. The company intends to start developing a feasibility study on the project “Increasing the Capacity of Beineu-Bozoi-Shymkent Main Gas Pipeline”. Besides, it is

planned to increase the volume of marketable gas, due to the commissioning of Anabai field into commercial development.

Negotiations are underway with the operator of the Kashagan field (NCOC) to reach an agreement on the management of the entire volume of liquefied petroleum gas.

From the extraction of raw materials – to a new processing stage Oil and Gas Chemistry Development

The idea of deep processing of the country’s gas resources to produce high value-added products was discussed at the dawn of Kazakhstan’s independence in 1993. From the very beginning of the development of the Tengiz field, all agreements with Tengizchevroil LLP included provisions on the supply of associated gas produced in the process of oil production to Kazakhstan for needs of the petrochemical industry at a significant discount.

The intention to implement petrochemical projects was adopted in 2008. According to the Development Program of the petrochemical industry of the Republic of Kazakhstan for 2008-2013, it was supposed to build, among other things, a single polypropylene and polyethylene production complex. Given the capital intensity of such project, it was decided to divide it into two independent projects and implement them in stages.

Kazakhstan Petrochemical Industries. Polypropylene as a basis of new production

In November 2022, the Kazakhstan Petrochemical Industries (KPI) plant was launched in Atyrau.

KPI is the first large-scale project in the petrochemical industry of Kazakhstan with deep processing of raw materials. The KMG subsidiary will annually produce up to 500 thousand tonnes of finished products



— about 1% of the global production of polypropylene.

The feedstock for the polypropylene production is propane delivered from the Tengiz field. Propane is delivered to the site of the complex by railway transport tank wagons. On average, 72 wagons with a total volume of 2 300 tonnes were discharged per day.

The KPI plant will not only cover the country's current demand for polypropylene, but will also trigger the expansion of existing facilities and the opening of new related industries.

It is calculated that production of the petrochemical industry for the country and Atyrau region in particular for each USD will bring USD2-3 of growth in the economy. It is assumed that the contribution to the country's GDP from the first integrated gas chemical complex will soon reach 1%.

90% of the polypropylene produced here will be exported to China, Turkey, European and CIS countries.

43 Kazakhstan enterprises took part in the project implementation. AtyrauNefteMash, Petropavlovsk Heavy Machinery Plant, Imstalcon JSC and others were engaged in the manufacturing and supply of equipment and materials. Over 4 000 jobs were created during the construction period.

For the first time, a laser scanning of 1 million points with an accuracy of dimensions up to 0.1 mm was carried out at the Kazakhstan enterprise. Each constructed part of the plant was compared with a 3D model in the

process of such scanning to track the compliance of works with design and technical documentation. During the construction, 29 thousand tonnes of metal structures were installed, more than 165 thousand cubic meters of concrete were poured, 2.5 thousand kilometers of cables and 261 kilometers of technological pipelines were laid.

The new petrochemical complex meets the strictest environmental safety standards. The propane supplied to the enterprise from the Tengiz field has already been purified from harmful substances, which implies minimal formation of harmful gases and safety of production.

KPI has become the successfully implemented first phase of the integrated gas chemical complex.

The next stage is the creation of production facilities for the polyethylene and butadiene production.

KMG PetroChem LLP

KMG PetroChem LLP (formerly KLPE LLP) was established to implement the second stage of this project. The goal is to produce polyethylene with a capacity of 1 250 thousand tonnes per year. The raw material for the project is ethane in the amount of 1.6 million tonnes per year.

The project is being implemented on the territory of FEZ National Industrial Petrochemical Technopark in Atyrau region.

The feedstock for the Polyethylene project is also the gas from Tengiz field.

The total amount of funds raised (including borrowed funds and funds of foreign investors) for the project implementation is more than USD6.5 billion.

More than 8 000 jobs will be required for the construction, 875 qualified personnel will be engaged during the operational period. According to preliminary estimates, tax revenues will amount to USD5.7 billion. The country's dividends are about USD18 billion.

It is expected that the availability of own production of basic petrochemical products will lengthen the value-added chain by developing new production facilities that will process basic products into industrial and household products with further export of finished products. The development of such approach can noticeably change the specialization of the economy of the Republic of Kazakhstan and provide significant increase in small and medium-sized businesses and new jobs.



603

thousand liters
volume of liquid glyphosate production

Development of chemical production

Samruk-Kazyna Ondeu LLP (hereinafter – SK Ondeu) was established in 2009 to organize and conduct research, expertise and other work required for the implementation of investment projects in the chemical industry in four areas of operation.

Key performance results



Indicator	2021	2022
production indicators:		
liquid glyphosate production volume, thousand liters	196	603
biaxial – oriented polypropylene film production volume, tonnes	9 357	5 299
polypropylene bags production volume, million pcs	15.5	15.5
sulfuric acid production volume, thousand tonnes	194.5	175.4
electricity production volume, million kWh	1.8	2
financial indicators, KZT billion:		
revenue	36.1	37.5
net profit	- 38.5	-144
operating income	1.7	3.6
net debt	72.6	67.3
taxes paid	2.8	3.5

In 2009 the Fund established United Chemical Company LLP. The main purpose of the company's activity is to promote the development of new chemical industries in Kazakhstan through equity participation.

In 2022, the company rebranded and since February 3 is called Samruk-Kazyna Ondeu LLP, the Company's logo and corporate colors have been changed. It is planned to focus on the development of chemical industry production, including the processing of secondary materials ("ondeu", translated from the Kazakh language "processing"). In 2022, changes in the geopolitical situation mainly caused not achieving production and financial indicators. The main product is Biaxiall oriented polypropylene film, exported (more than 80%) mainly to Russia. However, due to the sanctions restrictions in 2022, the market of the Russian Federation was oversaturated with its own similar products. This led to a significant drop in sales of SK Ondeu products in 2022.

In addition, the company faced a shortage of tank wagons for the transportation of sulfuric acid, which was caused by the recall of Russian wagons. This led to a shortage of the wagon fleet in the domestic market. But despite the changes in the market, the company has reached its planned income indicators.

The subsidiary producing agrochemical products in 2021-2022 faced a sharp rise in the price of the main raw material - glyphosate from China for the production of herbicides, which accordingly affected decrease in production volumes as compared to 2019-2020.

In order to minimize the negative impact of sanctions restrictions, the following measures were taken. The company increased its own wagon fleet, reoriented from exports to the domestic market, and concluded contracts for the supply of raw materials with local producers.

For the first time in the entire history of SK Ondeu operations, dividends were received from two Subsidiaries in the amount of KZT6.8 billion by the end of 2022. This had a significant impact on improving the financial stability of the companies group.

In 2022, a foreign currency loan from Sberbank of Russia JSC, raised in 2013 for the implementation of polymer products manufacturing project, was fully repaid.

The new Development Strategy of SK Ondeu for 2022-2032 was developed and approved, revealing the main trends in the development of the chemical industry of the Republic of Kazakhstan and promising areas.

With in the framework of the Fund management assignment to reform Portfolio Companies and withdraw non-core assets in 2022, successful work was carried out to bring KPI LLP, KLPE LLP, Silleno LLP into KMG. The work on portfolio optimization will continue in 2023. Along with the withdrawal of non-core assets, the company is actively forming a pool of promising projects for subsequent implementation in accordance with the approved strategy.

Modernization

During 2022 the project was developed to expand a sulfuric acid plant on the basis of an operating enterprise in Stepnogorsk due to the annually growing demand for sulfuric acid. The expansion will allow to produce additional 193 thousand tonnes of sulfuric acid of the highest quality annually.

As a result of pilot tests of Polymer Production LLP, a technological line for the production of polyethylene sleeves launched at the production site. The line capacity is up to 4125 tonnes. The finished products will be oriented on the domestic market of Kazakhstan.

In 2022, the company submitted four R&D projects to the Scientific and Technical Council of Samruk-Kazyna JSC, which were approved for implementation. The first stage of the R&D project for the production of a bactericidal-fungicidal drug based on lump sulfur was successfully implemented.

In 2023, the company intends to implement the measures of the 2022-2032 Strategy aimed at improving operational efficiency, sustainable development and diversification of production. Work will continue on optimizing the portfolio of Subsidiaries by transferring non-core assets to the competitive environment.

It is planned to attract investor partners for the implementation of promising projects.

ENERGY



6 275

MW
installed capacity

Ensuring energy security

Samruk-Energy JSC was established 2007 in order to develop and implement a long-term state policy on modernization of existing and commissioning of new generating capacities.



Key performance results

Indicator	2021	2022
production indicators:		
electricity sales volumes, million kWh	35 609	35 884
capacity sales volumes, MW	3 248	4 013
heat energy sales volumes, million Gcal	5.76	5.50
electricity transmission volumes, million kWh	7 650	8 154
coal sales, million tonnes	44.8	42.4
financial indicators, KZT billion:		
revenue	332.5	381.5
dividends	3.2	2
net profit	15	30.1
operating profit	53.9	64.6
net debt	297.3	268
taxes paid	41.2	54.6

Power generation

In 2022, electricity generation amounted to 35 884 million kWh, including at Ekibastuz CHPP-1, production amounted to 23048 million kWh, at Ekibastuz GRES-2 – 6002 million kWh, at the AIES – 5099 million kWh, at the Moinak HPP – 973 million kWh, at the Shardara HPP – 518 million kWh, RES – 244 million kWh.

The volume of electricity generation at Ekibastuz GRES in 2021-2022 were the highest on record for the entire period of their ownership by the company.

Ekibastuz energy hub provides up to a quarter of the electricity produced in the country. The group of companies of Samruk-Energo JSC generated 31.8% of electricity from the entire energy balance.

As part of measures to reduce the wear and tear of the main and auxiliary equipment, increase the reliability of electricity supplies to the Almaty energy hub, as well as reduce the environmental load on Almaty, work is underway to transfer Almaty HPP from coal to gas.

Almaty CHPP modernization

A feasibility study was developed on the project of converting Almaty HPP-2 to gas and a positive conclusion has been received from Gosexpertiza RSE.

Also last year, an open two-stage international competition was announced to select an EPC contractor according to the rules of the European Bank for Reconstruction and Development (EBRD). The technical specification for the selection of an EPC contractor and the draft EPC contract were developed according to the “yellow book” of International Federation of Consulting Engineers. On November 25, 2022, a Loan agreement was

concluded between Almaty Electric Power Stations JSC (hereinafter - AIES) and the EBRD on financing the project.

A feasibility study has also been developed on the project of converting Almaty HPP-3 to gas and a positive conclusion of the Gosexpertiza RSE has been received.

At the end of 2022, AIES took part in an auction, according to the results of which AIES was announced the winner of the auction with the declared capacity of the station – 480 MW. The contract for the purchase of services for maintaining the availability of electric power during the construction of newly commissioned generating units with maneuverable generation mode with LLP “Settlement and Financial Center for support of renewable energy sources” guarantees a return on investment.

Contribution to the development of renewable energy

In September 2022, a wind power plant with a capacity of 60 MW was commissioned in the Shelek corridor.

In addition, the Board of Directors of Samruk-Energo decided to create a new company on the basis of the Astana International Financial Center (hereinafter -the AIFC) under the name Qazaq Green Power PLC. On November 4, 2022, this company was officially registered at the AIFC site. Work on consolidation of the assets of RES and HPP to prepare for an IPO is in progress.

Bogatyr Komir

Bogatyr Komir LLP is a leading open-pit coal mining company, which is a structure of Samruk-Energo JSC. The company's total industrial reserves amount to about 3 billion tonnes of coal.

Currently, the production capacity of the Bogatyr mine is 32 million tonnes of coal per year (with input of Cyclic-Flow technology (CFT) – 40 million tonnes), the Severny mine – 10 million tonnes of coal per year. The company accounts for 66% of the total coal produced in the Ekibastuz coal basin and 38% of the total coal production in the Republic of Kazakhstan.

The Bogatyr Komir LLP company is the largest supplier in the market of thermal coal of the CIS countries. Most of Kazakhstan's thermal power plants and Russia's largest power plant, Reftinskaya GRES, operate on Bogatyr Komir LLP coal. The company employs 6.3 thousand people.

Coal production volumes

In 2022, Bogatyr Komir LLP produced 42473.2 thousand tonnes of coal. At the same time, the volume of coal sold last year amounted to 42409.4 thousand tonnes, of which 32324.9 thousand tonnes accounted for the domestic market of Kazakhstan, 10084.5 thousand tonnes for export to Russia.

Technological update

The end of 2022 was marked by a long-awaited event: at the Bogatyr coal mine, a CPT was put into pilot operation. The new technology will increase the production capacity of Bogatyr Komir LLP from the current 42 to 50 million tonnes of coal per year. The full commissioning of the facility is planned for the summer of 2023.

The need for a fundamental change in the technology of coal mining at the Bogatyr mine is associated with the achievement of the depth of mining operations, in which the existing railway scheme of coal transportation is ineffective, and the main mining equipment has exhausted its resource and requires updating.

The CFT project provides for the introduction of auto-conveyor technology of coal mining, which will increase the capacity of the Bogatyr coal mine from 32 million to 40 million tonnes per year, which allow to increase labor productivity by 25%, reduce the production cost of coal mining by 12%, reduce the average turnover time of wagons from 14.3 to 5.4 hours.

By the end of 2022, the implementation of the CFT project has reached the final stage. The first tonnes of coal, having passed the main technological lines of the complex – from the crusher to loading into wagons, were sent by train to the HPP-2 of Astana.

The main importance of the CFT project for Bogatyr Komir LLP and the economy of the Republic of Kazakhstan is to update the worn-out main technological equipment for guaranteed supply of coal to power plants, and to ensure complete and rational extraction of coal reserves from a depth of 230 meters, which

would be impossible when using the old railway technology.

However, the traditional methods of mining on Bogatyr Komir LLP have not yet been abandoned. In May 2022, the EKG-12K excavator was successfully put into operation. This model of the machine is equipped with a modern control system that allows full control of the operation of the equipment and parameters of the main drives of the excavator. Also last year, a new EKG-15M excavator No. 1903, manufactured by P.G. Korobkov IZ-KARTEX LLC, was put into operation to work in conjunction with dump trucks with a lifting capacity of 130 tonnes. Along with excavators, three Caterpillar-777E heavy-duty dump trucks, five HITACHI dump trucks, and one Caterpillar-785D dump truck were put into operation in 2022.

A powerful reinforcement was the heavy truck crane of the Sany brand. The new machine is characterized by mobility and the ability to lift loads weighing up to 130 tonnes. The crane is intended for use during

the repair of mining equipment. At the moment, the main mining equipment involved in the shipment of coal are seven rotary excavators SRs(K)-2000, manufactured by the German company TAKRAF. The Bogatyr Komir Production and Technical Department is armed with five PRO TANDEM DER-300 tractor robots manufactured by the German company Vollert.

The equipment and the CFT put into operation will allow to release the old equipment that has worked out its resource and increase the productivity of miners.

However, the update affected not only the equipment, but also the laboratory equipment. In 2022, Bogatyr Komir acquired an integrated MicroLab 40 Series oil analyzer. The device is designed for the analysis of oil samples of internal combustion engines and hydraulics. Its appearance in the company will allow determining the condition of parts and assemblies of technological machines in advance.

TRAINING OF PERSONNEL OF CFT COMPLEX

194 people - covered by the learning process			Stage 1	Stage 2	Stage 3
Cyclic Flow Technology	115 people	OPERATIONAL PERSONNEL (machinists/operators)	Theoretical training	Trainings with the participation of representatives of the Actemium BEA GmbH, KUKLA 2022 – 2023	2023 – ... the training and development of CFT maintenance and repair personnel on the stated topics will continue
	38 people	SERVICE PERSONNEL (electrical equipment)	Basic training (with the consciousness of special programs Sinamics, WinCC, Siemens, Simotion, Step7, ST7-PRO-2) 2022		
PRO TANDEM DER300 Maneuverable robot	41 people	OPERATIONAL PERSONNEL	Workshop with the participation of representatives of the Vollet, KUKLA company 2022 – 2023	Internship 2023, April	Qualification tests 2023
		MAINTENANCE PERSONNEL			
		MANAGERS			

The process of personnel training for the CFT facilities is continuous and will be continued in the following years

THE MAIN OBJECTS OF ACQUISITION IN 2022



Bucket
Excavator
EKG-12K



Bucket
Excavator
EKG-15K



Rotary
Excavator
SRS-2000



Bulldozer
CAT D10T



Dump trucks
BELAZ - 75139



Dump trucks
CAT-777E



Dumpcars
2BC-105

The Bogatyr Komir LLP has successfully implemented an Automated Dispatching Control System for Open-pit Mining Operations (ADCS), which has proven its effectiveness in practice.

Salary increase for miners

Since January 1, 2022, tariff rates (salaries) have been increased by 15% at all enterprises of Bogatyr

Komir LLP. The company did this despite the fact that the cost of coal was reduced to the level of last year. Nevertheless, the company, taking care of the quality of life of employees, increased wages.

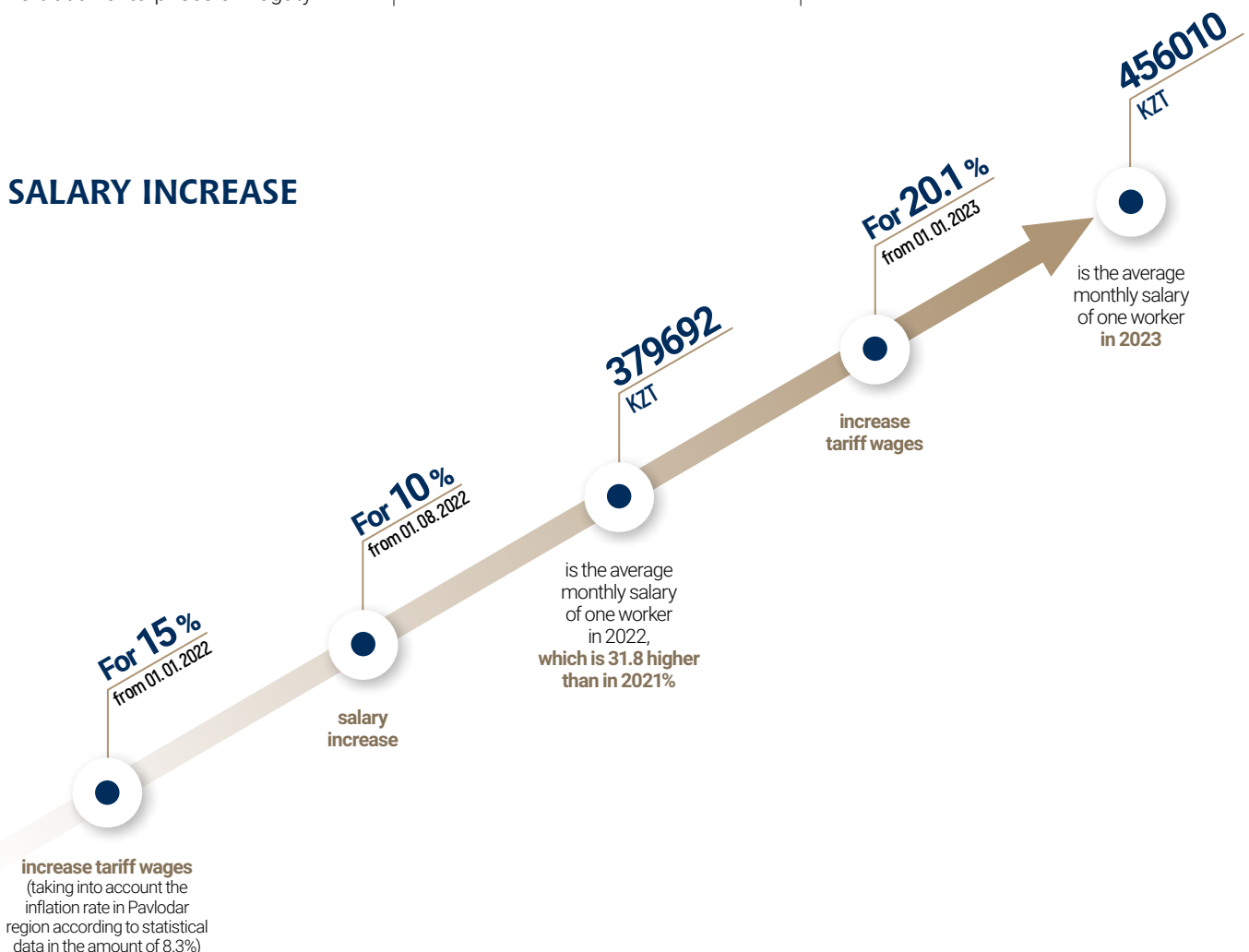
The company's enterprises also increased wages by 10 % to 1212 employees of the company in low-paid professions.

Plans for 2023

In 2023, Samruk-Energy JSC plans to implement the following issues:

- commissioning of power unit No. 1 at Ekibastuz GRES-1 with an installed capacity of 500 MW;
- conclusion of EPC contracts on gas conversion projects of Almaty HPP-2 and HPP-3;
- preparation for the IPO of Qazaq Green Power PLC.

SALARY INCREASE





58.5

billion kWh
of electricity was transmitted

Kazakhstan Electricity Grid Operating Company JSC (hereinafter – KEGOC JSC) is a company managing the National Electric Grid of the Republic of Kazakhstan (NEG) and has the status of the System Operator of the Unified Electric Power System of the Republic of Kazakhstan (UEPS).



Key performance results

Indicator	2021	2022
production indicators:		
electricity transmission volumes, billion kWh	54.6	58.5
financial indicators, KZT billion:		
revenue	186.4	217.3
dividends	41.5	13.2
net profit	52.6	26.7
operating profit	56.8	40.9
net debt	86.5	69.5
taxes paid	38.2	38

Factors affecting activities

2022 was the anniversary year for KEGOC JSC. Over the years, the company has created a strong foundation for stable operation and successful implementation of projects on modernization of the NEG, construction of new power transmission lines and substations.

The fulfillment of the planned volumes of services provided directly depends on the stability and development of the company. Thus, by the end of 2022, the volume of electricity transmission through the NEG reached 58.6 billion. kWh, which is higher by 7.2% compared to last year. According to technical dispatching, the supply to the grid and electricity consumption amounted to 104.3 billion kWh. Organization of balancing of production-consumption of electric energy KEGOC JSC - 203.1 billion kWh.

By the end of 2022, net profit amounted to KZT26.7 billion. It should be emphasized that the unbalanced operation of the UES caused by a shortage of capacity had a significant negative effect on financial indicators. Thus, the loss from operations for the purchase and sale of electricity from the Russian Federation in 2022 is KZT17.9 billion. In addition, as a result of the revaluation of fixed assets in December 2021, depreciation charges increased by an order of KZT24.3 billion. Excluding these negative factors, the financial result amounted to KZT 51.1 billion.

High qualification and experience of employees is the key to further successful development of the company, solving complex technical and technological problems. That is why the main focus of 2022 was the policy aimed at improving the social well-being of employees. In the reporting period, staff salaries and tariff rates were increased, quarterly bonuses were increased, due to which the total annual income of working personnel increased by 28 -48%, engineering and technical workers

and specialists by 15-36% and middle managers by 10-15%.

Investment activity

During 2022, the implementation of projects for the development of network infrastructure of social importance for the country was continued. The company has completed the project "Strengthening the external power supply scheme of Turkestan. Construction of electric grid facilities", within the framework of which the 220 kV substation "Ortalyk" was put into operation.

The reconstruction of 220-500 kV overhead power lines in the branches of Aktobe, Western and Sarbai intersystem electric networks continued. Among the projects being implemented is "Strengthening the electric grid of the Western zone of the UEPS. Construction of electric grid facilities", scheduled for completion in 2023. All the company's projects are implemented at the expense of own and borrowed funds without budget financing.

Dividends and payments

KEGOC JSC paid dividends in the amount of KZT13.2 billion at the end of 2021 in June 2022.

KEGOC JSC fulfills all obligations to financial institutions in a timely manner. Moreover, in September 2022, KEGOC repaid the loan of the International Bank for Reconstruction and Development in the amount of USD46.3 million ahead of schedule. This was done in order to reduce currency risk, debt burden and the cost of servicing loans in foreign currency. The funds were raised in 2010 for the implementation of the investment project "Construction of the 500 kV Alma substation with connection to the NEG of Kazakhstan with 500, 220 kV lines", for a period of 25 years with the date of the last repayment in 2035. That is, the Company repaid it in full 13 years ahead of schedule.

Issue of "green bonds"

KEGOC JSC issued the first "green" bonds. The funds from their placement will be used to implement the company's projects related to the construction of the necessary network infrastructure for large-scale involvement of renewable energy sources in the energy balance, ensuring the energy security of the country, as well as improving the efficiency of electricity transmission. The volume of the issue amounted to KZT35 billion at the rate of 35 million coupon bonds without collateral, with a nominal value of KZT1,000 per piece.

One of the important events for KEGOC JSC in December 2022 was the successful placement of "green" bonds of KEGOC JSC on the trading platform of Kazakhstan Stock Exchange JSC (KASE) with a total volume of KZT16.1 billion with a margin of 3%.

The Year of Occupational Health and Safety

In October 2022, KEGOC JSC held the first forum on occupational safety and health, which was attended by representatives of the Ministry of Energy of the Republic of Kazakhstan, managers and experts in the field of HSE (Health Safety Environment) of the Fund and companies within its structure, KEGOC JSC, as well as representatives of companies from the countries CIS.

At the forum, held under the auspices of the "Year of Occupational Health and Safety - 2022", profile specialists and leaders in the HSE field shared best practices in ensuring safe working conditions, talked about industrial medicine and modern means of protection at work.

At the event, the Chairman of the Business Council of Vision Zero Kazakhstan presented KEGOC JSC with a certificate confirming that the company is a participant in the international zero injury movement -

Vision Zero (the Vision Zero concept, based on three main aspects of work at all levels – safety, health and well-being, unites leading manufacturing companies around the world).

Another significant event at the forum was the signing by the heads of the branches of KEGOC JSC of personal obligations in the field of Health & Safety, according to which any employee of the company is entitled to stop the work if they identify unsafe working conditions.

Future prospects

Due to the influence of global trends related to the energy transition, especially decarbonization, geopolitical instability and changes in the country's macroeconomic environment, it became necessary to update the company's Development Strategy. At the same time, the company will continue to work to achieve the goal of increasing long-term value by strengthening the financial stability of KEGOC JSC, defining a portfolio of projects and initiatives, investing in profitable projects, implementing large infrastructure projects, improving corporate governance and ensuring sustainable development.

The Ministry of Energy of the Republic of Kazakhstan has developed a draft Concept for the development of the electric power industry until 2032, the adoption of which is planned in 2023. The adoption of the Law "On Heat Power Engineering" is expected in the near future, which will focus on solving the problems of heat supply in the regions, determine long-term plans and systematize the relationship

between central and local executive bodies.

In addition, the change in legislation provides for the transition to a new target model of the market - a single buyer who will carry out centralized purchase and sale of electric energy. The bill also provides for the introduction of a balancing market in real time.

The introduction of a Single Buyer model will allow:

- to ensure the return on investment for the construction of a new generation, including basic and maneuverable generation, taking into account environmental requirements;
- to provide an opportunity for consumers to declare a curve consumption schedule, which will reduce their imbalances (deviations of actual values from planned ones);
- to ensure the distribution of expensive electricity from renewable energy sources and from new generation, as well as expensive electricity imports during electricity shortages in the energy system.

When introducing the balancing electricity market (BEM) in real time, it is provided:

- targeting the responsibility of wholesale market entities for hourly deviations from the approved dispatch schedule;
- encouraging consumers to shift their load schedule from peak hours to another time of day (the price of BEM during the "peak" of consumption is much more expensive than during the so-

called "failure" of consumption), which will reduce the need for the construction of new regulatory capacities;

- as a consequence, the possibility of reducing deviations of actual consumption from the planned one at the border with adjacent power systems.

KEGOC JSC will continue to work actively to create conditions for the development of generating capacities, including traditional and maneuverable generation, actively participate in the development and discussion of a new model of the electric energy market, preparation of legal acts on the connection of wholesale market entities to the National Power Grids of Kazakhstan.

Based on the analysis of industry development trends in Kazakhstan and in the world, the current state of production and corporate processes, KEGOC JSC has formed key areas of technological development and digitalization, including the main ones: development and application of energy storage systems for the provision of system services and integration of renewable energy, consideration of the use of digital substations.

In order to ensure effective support of the core business, the company will develop a Program for the development of the information and telecommunications complex of KEGOC JSC, reflecting the priorities of the development of the information and telecommunications complex, as well as the technologies of innovation and technological development of Smart Grid.



Low-carbon Energy Sources



Kazakhstan Nuclear Power Plants LLP (hereinafter – KNPP LLP) was established in order to ensure the development of a pre-project and design documentation for the construction of nuclear power plants, as well as the organization of work on the construction of nuclear power plants in the Republic of Kazakhstan.

The current status of implementation of the NPP construction project

In 2022, the Marketing section of the feasibility study was developed and updated. In May last year, at a meeting of the Interdepartmental Commission on the Development of the Nuclear Industry of the Republic of Kazakhstan, the proposals of KNPP LLP in choosing an area near the village of Ulken for the construction of a nuclear power plant were supported.

Work has also been carried out on the selection of potential vendors of nuclear power plants, a corresponding “shortlist” has been compiled, which includes proposals from the Chinese company CNNC, Korean KHNP, Russian Rosatom and French EDF.

Information and explanatory work

In 2022, 668 materials were released in the Kazakh media on the topic of nuclear energy, including 87 television, 581 print and Internet. 441 materials were published with the direct organizational, consulting, expert and technical participation of KNPP LLP (on TV – 54, in newspapers and Internet resources – 387).

In July 2022, a professional sociological study was conducted by order of the KNPP LLP to determine the attitude of the country's population to nuclear energy and directly plans for the construction of nuclear power plants. The results of the 2022 survey showed an increase in the level of public acceptance compared to 2021.

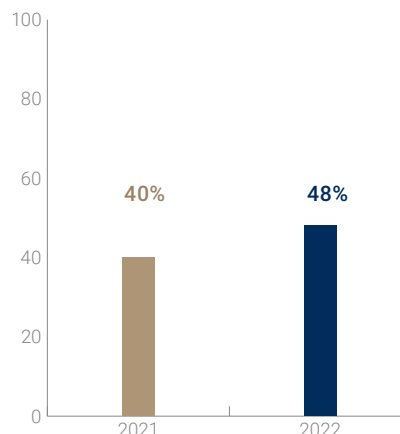
The number of people who are aware of nuclear energy has doubled in a year – from 19 to 38%. However, 48% of respondents believe that Kazakhstan needs to build its own nuclear power plant. The number of opponents of the NPP construction project has decreased to 44%.

Plans for 2023

KNPP LLP is planning for 2023:

- holding public hearings in Ulken village and adoption of the Decree of the Government of the Republic of Kazakhstan on the choice of the NPP construction area;
- preparation, coordination and adoption of the resolution of the Government of the Republic of Kazakhstan on the choice of the vendor;
- determination of the scope of work and approval of the Terms of Reference for engineering surveys and development of feasibility studies.

Supporters of NPP construction in Kazakhstan



PRODUCTION AND EXTRACTION



42%

from world uranium mining

World Leadership in Uranium Mining

Kazakhstan is the world leader in uranium mining in the world and produces about 42% of the world's uranium production. JSC NAC Kazatomprom (hereinafter – Kazatomprom) is the national operator of the Republic of Kazakhstan on export and import of uranium and its compounds, nuclear fuel for nuclear power plants, special equipment and technologies.

Kazatomprom is the world's largest producer of natural uranium with priority access to one of the world's largest resource bases. All of the company's uranium deposits are suitable for cost-effective and the least environmentally harmful in-situ leach mining, which, combined with a long operating life of mining assets, allows Kazatomprom to remain among the world's leading producers

with the lowest uranium production costs.

Kazatomprom's shares have been traded on the Astana International Financial Center and the London Stock Exchange since November 2018.



Key performance results

Indicator	2021	2022
production indicators, thousand tonnes:		
uranium production by the Holding	21.8	21.2
uranium sales by the Group	16.5	16.4
financial indicators, KZT billion:		
revenue	691	1001.2
dividends	150.1	227.4
net profit	140.8	348
operating profit	238.2	455.9
net debt	-115.1	-32
taxes paid	148.6	215.2

The 2022 was turbulent for Kazakhstan and the entire world community. The 2022 has experienced risk management processes that have proven their resilience in key areas such as finance, operations and supply chains. The Company continues to monitor the situation and respond to emerging challenges.

The events that took place in 2022 in the country and in the world did not have a significant impact on the activities of Kazatomprom.

All enterprises have been working and are working without interruption due to the introduction of timely measures on preventing the destabilization of the situation at work and ensuring the safety of personnel and production sites.

In 2022, Kazatomprom shipped contracted volumes via its regular route without any interruptions or problems related to logistics.

In 2022, Kazatomprom successfully delivered natural uranium via the Trans-Caspian International Transport Route, which has been used by the company as an alternative since 2018. This was done in order to offset the potential risk of unavailability of the main route.

The Company continues to monitor the situation with sanctions against Russia and their potential impact on the transportation of finished products through the territory of the Russian Federation. To date, there are no restrictions related to the supply of finished products to the Company's customers around the world.

However, the management of Kazatomprom is closely monitoring the current situation, and is ready to make decisions that will minimize risks and ensure the continuity and efficiency of the holding's activities.

Prospects

Against the background of the energy crisis associated with rising prices for fossil energy carriers and the need to achieve decarbonization goals, nuclear energy has become increasingly regarded by countries as a reliable low-carbon energy source.

The growth of activity of energy companies in the long-term uranium market against the background of the geopolitical situation and positive changes in the nuclear power plant market has become a driver of decision-making by manufacturers around the world about restarting suspended and launching new production facilities in the coming years.

These factors also influenced the company's decision to increase production volumes from 80% to 90% of the nominal volumes specified in subsurface use contracts in 2024.

Despite the continuing uncertainty, Kazatomprom showed good results in 2022.

Consolidated revenue in 2022 for the first time amounted to KZT1 trillion, an increase by 45% compared to 2021. This was mainly due to increased average selling price associated with growth of the spot price and a weakening of KZT against USD, while sales volumes in 2022 were comparable to 2021.

Operating profit in 2022 amounted to KZT456 billion, an increase by 91% compared to 2021, which is also a consequence of the growth in the average selling price of products.

Net profit for 2022 amounted to KZT473 billion⁵, an increase by 115% compared to 2021.

Production volumes were 3% lower compared to last year and amounted to 21227 tonnes on a 100% basis due to the impact of the COVID-19 pandemic on well development in 2021.

As a rule, the development of wells and the extraction of uranium by underground well leaching takes from eight to ten months, and therefore in 2021 delays and limited access to certain key materials and equipment affected the schedule of commissioning wells, which resulted in a decrease in production in 2022.

Consolidated sales volumes in 2022 were similar to those of 2021 and amounted to 16358 tonnes.

Due to the increase in the spot price of uranium, the average selling price for the Group in 2022 amounted to KZT52051 per 1 kilogram, which is 42% higher compared to 2021.

The first delivery of Kazakhstan's nuclear fuel

In 2021, the Ulba-TVS LLP plant for the production of fuel assemblies was put into commercial operation. In December 2022, the plant carried out the first delivery of nuclear fuel (slightly more than 30 tonnes of low-enriched uranium in the form of fuel assemblies) to China, where the products were accepted by the Chinese corporation CGNPC-URC. In 2024, Ulba-TVS plans to increase production volumes to reach full production capacity, which is 200 tonnes of uranium in the form of fuel assemblies per year. This is the only production facility in Kazakhstan for the production of nuclear fuel for nuclear power plants and has a guaranteed market for 20 years ahead.

⁵ Including non-controlling interest.

Occupational health and industrial safety

Industrial safety has been and remains for Kazatomprom an absolute priority. The company is constantly improving the level of industrial safety, and statistics in recent years show a trend to reduce the number of accidents.

Production activities are conducted in compliance with Kazakhstan and international requirements, comprehensive measures are implemented to prevent accidents, systematic work is carried out to improve the safety culture among employees and managers at all levels.

In 2022, Kazatomprom allocated more than KZT8 billion for the implementation of labor protection and industrial safety programs (similar to 2021).

Radiation exposure and nuclear safety remained stable in 2022 without any excess or radiation accidents. In 2023, the issues of labor protection, ecology and radiation safety will also remain key for Kazatomprom.

Plans for 2023

Kazatomprom's expectations for the volume of production in 2023 are still consistent with the market-oriented strategy. The company maintains its intentions to reduce production by 20% from 2018 to 2023 (compared to the production levels set under the subsoil use contracts).

Sales volume in 2023 is expected to range from 15,400 to 15,900 tonnes.

Kazatomprom still strives to maintain the target level of stocks (stock balances), which corresponds to approximately six-seven-month production volume of the Company in proportion to the share of participation.

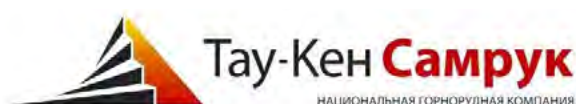
The financial performance of the company may be affected by factors such as difficulties with the supply of necessary raw materials, changes in the Tax Code of the Republic of Kazakhstan and possible requests for social contributions.

Kazatomprom retained its position as the largest producer and seller of natural uranium in 2022, and is confident in the long-term prospects of the nuclear industry.

The company's strategy in 2022 has remained unchanged: Kazatomprom continues to focus on market discipline in production and sales, in order to obtain benefits and create value for all stakeholders.

Kazatomprom continues to operate in accordance with the highest international professional standards in key aspects of its activities, such as transparency, corporate governance, as well as health, safety and environmental protection.





55.6
tonnes
gold produced

Mining and metallurgical industry

Joint Stock Company “National Mining Company “Tau-Ken Samruk” (hereinafter – JSC NMC Tau-Ken Samruk) is a vertically integrated company established in 2009. The main objectives of the company are to promote the economic and strategic interests of the state in the management of state assets of the mining and metallurgical industry and the development of the mineral resource complex of the country.

The mission of the company is to contribute to the development of the individual sectors of mining and metallurgical industry of the Republic of Kazakhstan by means of the projects implementation in collaboration with strategic investors.

The mining and metallurgical complex remains one of the most competitive and dynamically developing sectors of the economy of Kazakhstan. The 2022 is marked by the development of the global crisis. The trends in the development

of the world and Kazakhstan mining and metallurgical industry were determined by the slowdown in the pace of development of the world economy and geopolitical tensions, with a downward trend in metal prices on the world market.

Despite the negative trends in the global and domestic economy, JSC NMC Tau-Ken Samruk made every effort to implement the planned activities of the company's Development Strategy.

Key performance results

Indicator	2021	2022
production indicators, tonnes:		
gold production volume	51.1	55.6
silver production volume	6.4	8.3
gold sales volume	52.4	55.6
silver sales volume	14.9	4.3
financial indicators, KZT billion:		
revenue	724	945
dividends	46	89
net profit	72	-16
operating profit	-2.02	2.16
net debt	-9	23
taxes paid	1.5	2.4

During this difficult period, JSC NMC Tau-Ken Samruk continued to implement existing exploration, mining and metallurgical projects. At the same time, the company pays considerable attention to attracting and introducing new innovative technologies. JSC NMC Tau-Ken Samruk as a national company has the necessary experience and competence to effectively manage mining projects.

Implementation of projects with investors

Currently, JSC NMC Tau-Ken Samruk is focused on development of gold, copper, and lead-zinc deposits, participates in the implementation of projects for other metals (Severnii Katpar and Verkhneye Kairaktinskoye – tungsten and molybdenum).

The projects contributing to the development of the company include:

- a project for development of the world's largest deposit of polymetallic ores Shalkiya with the construction of a processing plant

and plants for the production of metallic zinc and lead;

- project for development of the Alaigyr lead deposit with the release of lead concentrate;
- a project for development of the Severnii Katpar rare metal deposit with the construction of rare metal production on its basis;
- a project for the production of refined gold and silver at the refining plant in Astana.

All these projects are created and mastered with participation of foreign partners, including European ones.

New record of Tau-Ken Altyn

In 2022, the refining plant located in the capital exceeded the gold production plan by more than 10% (against the plan for 50 tonnes, the company refined 55.6 tonnes of gold).

In total, 249 tonnes of gold have been refined at Tau-Ken Altyn since its commissioning. The plant produces 99.99 gold, the so-called “four nines”, in standard ingots of 12 kg and in granules. The plant’s products are of strategic importance – replenishment of the country’s gold and foreign exchange reserve, the buyer of bullion is the National Bank of the Republic of Kazakhstan.

Tau-Ken Altyn LLP is the holder of the “Good Delivery” certificate of The London Bullion Market Association (LBMA). This means that the gold produced in Tau-Ken Altyn meets 100% international quality standards and has a guarantee of legal purity.

In addition, in 2022, the plant confirmed compliance with the standards:

- quality management – ISO 9001:2015;
- environmental aspects – ISO 14001:2015;
- occupational health and safety – ISO 45001:2018.

The company’s success in terms of occupational safety is also recognized by the industry community – Tau-Ken Altyn became the leader of the year in industrial safety according to the Astana Mining & Metallurgy (AMM) International Congress.

The refining plant of Tau-Ken Altyn LLP was put into operation in December 2013. The plant uses modern high-performance and energy-efficient equipment, maintains the strictest environmental standards: innovative technological solutions can reduce the risk of negative impact on the environment to zero.

Interaction of JSC NMC Tau-Ken Samruk with Kazzinc LLP

Currently, JSC NMC Tau-Ken Samruk is a partner of Glencore International

and owns 29.82% in the authorized capital of Kazzinc LLP. According to the Report on the preliminary financial results of Glencore International Corporation for 2022, the losses of Kazzinc LLP amounted to USD51 million.

Non-core assets

In July 2022, JSC NMC Tau-Ken Samruk announced the sale of Tau-Ken Temir LLP and Silicon Mining LLP.

The design capacity of the Tau-Ken Temir LLP plant is 25 thousand tonnes of metallurgical silicon. The company is located on the territory of the special economic zone “Saryarka” in Karaganda, which implies 100% exemption from corporate income tax, property tax, land tax, customs duties and VAT on imported goods.

The raw material base of the Tau-Ken Temir plant is the Aktas quartz deposit, located in the Karaganda region and owned by Silicon mining LLP. The total reserves of quartz deposit - about 4 million tonnes with an average SiO₂ content of 99.5% - can provide the plant with the necessary raw materials for 30 years.

Tau-Ken Temir LLP and Silicon Mining LLP are included in the list of facilities proposed for transfer to the competitive environment as a priority in accordance with the Decree of the Government “On Some Privatization Issues for 2021-2025” dated December 29, 2020.

The first stage of the competition was held until November 7, 2022. Following the results of the first stage of the competition, guided by the rules, the competition was declared invalid, the corresponding notice was posted on the official website of JSC NMC Tau-Ken Samruk.



International cooperation

The reserves of mineral raw materials in Kazakhstan are quite large, but not always competitive due to the low content of the target metal, the persistence of ore, as well as territorial, transport and other restrictions.

The existing technologies for the production of non-ferrous and rare metals in Kazakhstan do not fully meet the modern requirements of ecology, economy and integrated use of mineral raw materials. Therefore, the company is establishing close cooperation with a number of major global companies offering the latest technological solutions for mining and metallurgical industries.

In August 2022, JSC NMC Tau-Ken Samruk and the Turkish holding Eczacıbaşı established a joint venture South Ural Resources LLP to search for gold and copper in the republic. The new joint venture will operate in the Aktobe region of Kazakhstan. In case of successful completion of the exploration stage, joint mining and production of non-ferrous and precious metals is planned.

Eczacıbaşı Holding was founded in 1942. Today Eczacıbaşı is one of the leading industrial producers of mineral and metallic minerals in Turkey and the only producer of primary magnesium in Turkey and Europe. As a supplier of high-quality minerals, industrial materials and equipment, Esan sells more than 150 products for industry in 50 countries.

A preliminary agreement on the establishment of the joint venture was reached in May 2022 during the state visit of the President of Kazakhstan to the Republic of Turkey.

It is worth noting that the Kazakh enterprise aroused genuine interest in Qatar.

In October 2022, JSC NMC Tau-Ken Samruk and Qatar Mining signed a memorandum of understanding with the intention to develop strategic business relations to jointly explore opportunities for the development of projects in the mining and metals sector at the international level.

Social Partnership

The social well-being of JSC NMC Tau-Ken Samruk is an indisputable priority for the holding. The company pays great attention to the preservation of their health, provides medical insurance, supports the pursuit of healthy lifestyle, and provides opportunities for sports.

In 2022, within the framework of social partnership, salaries of employees holding low-paid positions have been increased by 5-41% in the entire group of companies of JSC NMC Tau-Ken Samruk. The corporate IR standard has been implemented.

Today, the staffing of qualified personnel in the JSC NMC Tau-Ken Samruk group of companies is 92%. There is a need for specialists with project management skills, and, as in many mining and metallurgical companies, there is a shortage of good technical specialists.

In order to train, retrain and improve the qualifications of the company's employees and to employ young specialists, JSC NMC Tau-Ken Samruk has signed a number of memoranda with Satbayev University, Kazakh University of Technology and Business, D. Serikbayev East Kazakhstan Technical University, MISIS National Research Technological University and other universities. Students who have expressed a desire to build a career in JSC NMC Tau-Ken Samruk are paid for their studies, a scholarship is paid.



TRANSPORT AND LOGISTICS



7.3

million people
air passenger traffic

Development of passenger transport

Founded in 2002, Air Astana JSC is the largest airline in Kazakhstan in terms of revenue and fleet size.



Key performance results

Indicator	2021	2022
production indicators:		
passenger traffic, thousand people	6618	7,349
cargo traffic volume, tonnes	18 772	12 839
aircraft load factor, %	80	83
on-time flight performance indicator, %	82	74
financial indicators, KZT billion:		
revenue	324.9	478
net profit	15.5	37.6
operating profit	43.6	70.1
taxes paid	14.5	41.9

Market Overview

Being one of the largest airlines in Eurasia by income and fleet size, Air Astana JSC Group has 71% and 42% market share on domestic and international routes from Kazakhstan, respectively. In 2022, Air Astana JSC group transported more than 7.3 million passengers on more

than 51 thousand flights covering 88 routes in 20 countries. Despite the COVID-19 pandemic, the Air Astana group of companies has increased its fleet to 43 aircraft, the average age of which is 5 years.

The Air Astana JSC group operates under two brands: Air Astana, a full-service carrier, and FlyArystan,

which is a budget carrier. Each of these brands of the Group is aimed at different customer markets and geographical regions, providing a choice according to a range of customer needs and travel goals.



FlyArystan is one of the first low-cost carriers, or LCC, in Eurasia⁶ and the largest domestic airline in Kazakhstan in terms of capacity and volume of traffic with a growing network of international routes. The company's strategy is to adhere to the principles of the ultra-low cost model used in the USA and Europe, while Air Astana JSC remains a full-service option for travel within the country and abroad. The COVID-19 pandemic resulted in the stoppage of domestic air traffic in Kazakhstan in March 2020, but later that year it recovered and exceeded the volume of domestic passenger traffic in 2019. This permitted FlyArystan to take advantage of the growing domestic market and promote a new way of air transportation in the region.

FlyArystan renders low-cost air transportation services on regular short- and medium-haul routes through Kazakhstan and further to the Caucasus, Central Asia and the Middle East. The FlyArystan brand was established in May 2019 and by the end of 2022 operates 14 aircraft from five bases in Kazakhstan on 40 routes.

A strong financial position and a flexible approach to decision-making during difficult periods in the market permitted the Group to react quickly to the geopolitical events of 2022. During the year, the airline's route network continued to expand due to the resumption of flights from Almaty to London, Almaty to Beijing and Atyrau to Istanbul, as well as the launch of new flights to the Greek island of Crete. Along with flights to Phuket in Thailand, the airline has started daily flights to Bangkok since November, which is an important step in the restoration of the Asian network. Frequencies to Dubai and Delhi have also been significantly increased.

Factors that Affected Results

Freight sales on domestic routes within Kazakhstan decreased slightly due to increase in the capacity of trucks between Almaty and Astana. The volume of Kazakhstan exports on international routes was negatively affected by the suspension of flights to Russia and Ukraine; those heading to China were also affected by the absence of freight charters from Almaty to Beijing.

The main factors that affected the indicator of timely flight performance in 2022, which resulted in its decrease are as follows:

- Almaty airport infrastructure: equipment problem and staff shortage;
- Shymkent airport infrastructure: security restrictions, very limited number of maintenance equipment and weather conditions;
- the closure of the Astana airport during the daytime due to construction work, which resulted in longer delays when the flight deviated from the schedule;
- the unstable political situation in the world, which forces us to quickly change the routes of most

international flights, which leads to an increase in flight time and to a violation of the timely arrival / departure of flights;

- the airline industry is facing an extreme crisis, expressed by strikes and a shortage of resources, including human resources, at foreign airports;
- environmental factors (e.g. bird strike or damage by foreign objects);
- inability to provide spare parts by the manufacturer Pratt&Whitney due to global supply chain disruptions.

The above violations affect the duration of the flight crew's duty.

To minimize the impact of the above, the following actions are performed:

- from July 20, 2022, aircraft are being introduced daily in case of unforeseen circumstances in order to avoid or minimize massive schedule disruptions and long delays;
- regular meetings with the management of Almaty Airport to improve the work of the Group and service at the airport;
- Air Astana JSC has officially appealed to all domestic airports with a request to inform in advance



⁶ The Eurasian countries include Afghanistan, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, and the Republic of Moldova, Tajikistan, Turkmenistan, Ukraine and Uzbekistan (as defined by the Organization for Economic Cooperation and Development (OECD)).

about all planned construction works for more accurate planning of the flight network;

- regular meetings with the Civil Aviation Committee and the Aviation Administration of Kazakhstan regarding Kazakhstan airports and the condition of equipment;
- the approach to crew planning has been changed due to the postponement of basic vacations and training for periods of low load.

Aircraft Fleet

In December 2022, Air Astana JSC received its 10th Airbus A321LR aircraft directly from the manufacturer. The Airbus A321LR is a long-haul version of the A321neo with a two-class layout: 16 seats in business class and 150 seats in economy. Airbus A321LR operates flights of the international Air Astana network to destinations such as Antalya, Bangkok, Dubai, Frankfurt, Istanbul, London, Phuket and Sharm el-Sheikh, as well as a new flight to Heraklion on the Greek island of Crete.

As of December 31, 2022, the Group operated 43 aircraft, including 35 Airbus A320/A321 family aircraft, three Boeing 767s and five Embraer

E190-E2. 29 aircraft are operated by Air Astana JSC and 14 by FlyArystan in accordance with a single operator certificate owned by the Group. The average age of the Group fleet at the end of 2022 was 5 years, which makes it one of the youngest in the world.

By decommissioning the Boeing 757 and Embraer E190-E1 in 2020-2021, the Group will continue to implement its fleet simplification strategy aimed at reducing the aircraft family to two types. By the end of 2027, it is planned to increase the fleet to 64 aircraft.

Engineering and Technical Support

To ensure the highest level of aircraft safety, airworthiness and reliability of aircraft, the Department of Engineering and Technical Support (ETS) maintains the Group fleet of aircraft in accordance with the aircraft manufacturer's maintenance program approved by the aviation regulator. ETS is one of the largest and most complex divisions of the airline, which employs more than 850 employees in 6 subdivisions.

High standards of maintenance of Air Astana are carried out in accordance with the rules of the European

Aviation Safety Agency (EASA). The airline is an approved EASA Part 145 maintenance organization that is regularly examined by EASA to ensure compliance. The airline has EASA permits to perform aircraft maintenance at bases in Almaty and Astana, with linear stations in Atyrau, Shymkent and Aktau, which opened in 2021, there are also hangars for maintenance in Almaty and Astana. In addition, Air Astana JSC provides line maintenance services for external customers-airlines.

In 2022, the ETS Department continued to expand the project to organize its own maintenance and repair (M&R) in the form of C-check for the Airbus A320 family of aircraft, which provides significant cost savings in comparison with the M&R outsourcing scheme. In October 2022, Air Astana JSC became the first Kazakhstan carrier to perform comprehensive C2 level maintenance, which includes in-depth inspections and tests of each part of the aircraft, including non-destructive testing of the aircraft structure. At the end of 2022, the company has completed 14 C-checks, which has significantly reduced costs and at the same time increased engineering experience.



Training Academy

The Air Astana JSC Training Academy is an accredited aviation training center of the Aviation Administration of Kazakhstan (AAC), which also provides mandatory (regulatory) trainings to external clients.

In 2022, the development of instructors' skills was focused on computer and e-learning, focusing both on new programs and on improving existing courses. To improve the employee experience and encourage a culture of self-learning, the Learning Management System (LMS) has been redesigned to make it more user-friendly. The LMS has launched a new personal development library with over 40 new courses/articles and videos to support individual personal development and training plans based on evaluation results, company values and core competencies.

The development of an on-the-job training program for engineering and ground services was also the key aspect to maintain continuous on-the-job training and the integration of new employees into their departments.

A full-fledged flight simulator will be installed at the base in Astana to support pilot training, which will be the first of its kind in Kazakhstan, which will be put into operation in April 2023. The simulator will be operated in accordance with EASA standards with the support of an EASA-approved flight simulator training organization and under the supervision of the EASA Aviation Administration. The operation of the flight simulator and the technical capabilities provided by Air Astana JSC will comply with EASA requirements. This will significantly expand the airline's training capabilities as part of its planned future growth.

Booking System

The development of a new online booking mechanism (IBE) has significantly improved the quality of customer service and interaction with users. www.airastana.com remains the key source of international e-commerce in Kazakhstan, offering customers various convenient payment methods in addition to credit cards, such as using ApplePay or obtaining instant credit from the largest banks in Kazakhstan. Flexible self-service and registration options also attract customers online, rather than through portals run by global agents who require high costs for a global distribution system due to their overseas locations.

Innovations

A distinctive feature of any business aimed at success in the future is the emphasis on innovative processes and digitalization. In 2022, the Company continued to actively invest in the Company's IT and e-business infrastructure, launching new products and implementing ongoing development projects in response to customer feedback, and to optimize and improve the efficiency and convenience of the entire travel process.

About 10000 passengers use self-service terminals every month. During 2022, Air Astana JSC took part in the EGOV ID project in cooperation with the aviation authorities and airports of Kazakhstan, allowing passengers to use e-ID for domestic flights, and this system is now fully operational at all airports in Kazakhstan. A Baggage Reconciliation System (BRS) has been implemented to avoid cases of improper handling of baggage.



Plans for 2023

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • Development and restoration of regional routes by launching new destinations and increasing the frequency on existing routes; • Expansion of the fleet due to the supply of new aircraft; • Implementation of a number of new digital projects: biometric airport, which permits to perform all airport formalities faster and more efficiently; payment system at airports; interactive mobile boarding pass, integration of SCS (Station Control System) in Astana with the airport system (automation of services and billing); digital station files (paperless procedures); • Increase in annual enrollment in the Ab-Initio Cadet program; | <ul style="list-style-type: none"> • Further expansion of heavy maintenance facilities in Astana by adding workshops for composite repair, airframe construction repair, repair and testing of emergency equipment, repair of on-board entertainment components and calibration of instruments; • Meeting the maintenance needs of the expanding fleet by considering all aspects of the expansion of hangars in Almaty and Astana, human and technical resources, including training requirements; • Increase in the indicator of timely execution of flights; • Expansion of Almaty Airport in 2023-2024 will increase the capacity, as well as improve conditions for passengers; | <ul style="list-style-type: none"> • Presentation of a number of initiatives to improve passenger service on board; • The transition to a more environmentally friendly approach, supported by the introduction of MyPress (digital content for passengers), which reduces the number of printed press. • Expansion of the film and music library due to improved built-in monitors and a signed agreement with Disney; • Getting ESG rating; • Verification of the section on sustainable development in the Annual Report of the Group; • Integration of the Sustainable Development Goals into the practice of AS reporting. |
|---|--|---|





82%

aircraft load factor

QAZAQ AIR JSC is the Kazakhstan airline established to improve the safety and accessibility of interregional air services in the Republic of Kazakhstan and the border areas of neighboring states. Annually confirming the IOSA certification and being an official member of IATA, the Airline brings a culture of international safety standards to regional air transportation. The airline was created specifically to operate on domestic airlines of Kazakhstan, as a response to the growing public demand for stable connections between regional centers.



Key performance results

Indicator	2021	2022
production indicators:		
passenger traffic, thousand people	569.8	561
cargo traffic, tonnes	50.2	32.1
aircraft load factor, %	78	82
on-time flight performance indicator, %	73	75.7
financial indicators, KZT billion:		
revenue	12.8	20.4
net loss	-6.5	-6.6
operating profit/loss	-2.8	3.2
taxes paid	0.8	0.8

Market Overview

The main strategic goal of the Airline is to establish internal regional routes for the development of air traffic, especially in those areas where there is an active demand, and there is no or insufficient supply on the market.

The airline contributes to economic development by connecting regions with affordable domestic flights to cities that are engines of growth, providing connections with international and longer routes from these cities.

In Kazakhstan, in the field of regional transportation, there are destinations that are not sufficiently covered by convenient and affordable air transportation. At the same time, the development of regional communication contributes to the disclosure of the social economic potential of the regions of Kazakhstan. Today, most of our passengers use unique routes that other airlines do not have. QAZAQ AIR JSC continues intensive work

on the development of domestic air transportation and will work towards border routes in order to support the qualitative growth of the Kazakhstan economy and improve the standard of living of the population.

In 2022, the Airline entered the top three in the nomination "Best Regional Airlines of Central Asia and the CIS 2022" according to Skytrax. The high appreciation of the Airline's work within the framework of the Skytrax award is proof of the commitment to high standards and recognition from passengers. High customer orientation, provision of reliable products and services at all stages of travel: from ticket purchase, on board and assistance in expedited passage of all airport check-in procedures.

Factors that Affected Results

The results of 2022 confirm the achievement of QAZAQ AIR JSC of the key results of the airline's formation and contribution to the

development of civil aviation in Kazakhstan.

In 2022, the Airline demonstrated 61% increase in income, including due to the expansion of the international flight program.

At the same time, it is necessary to identify a number of factors that influenced decrease in the indicator of timely flight performance in 2022:

- infrastructure of local airports: limited number of maintenance equipment and weather conditions; lack of aircraft parking to check engines and difficulties with their organization) and lack of personnel;
- unstable political situation in the world, which affected the number of traffic in 2022.

Launch of its own aviation training center

The airline's first educational institution for the training of aviation personnel was successfully launched in 2022. In May, the training center received a certificate confirming its compliance and readiness to train aviation industry specialists. 23 flight attendants have already been trained and started working at the center. Also in 2022, 6 Kazakhstan's – co-pilots - became aircraft commanders.

Route Network

In 2022, the airline launched international flights from Atyrau to Astrakhan and from Aktobe to Baku. Flights with the border million cities - Omsk, Novosibirsk, Kazan and Yekaterinburg began to be carried out on a regular basis.

The Airline's regional route network includes popular, socially important routes subsidized by the state in the following directions: from Turkestan



to Kostanai, Uralsk, Aktope, from Almaty to Zhezkazgan, from Astana to Taldykorgan and Pavlodar, as well as from Zhezkazgan to Karaganda.

Compliance with the IOSA international industrial safety standard

In 2022, QAZAQ AIR JSC has once again successfully confirmed compliance with the international IOSA standard and is an official member of IATA. Accredited independent auditors checked the implementation of IOSA standards and recommended practices in all areas of the airline's operational and production activities: organization and safety management system, flight operations, organizational support of flights and flight control

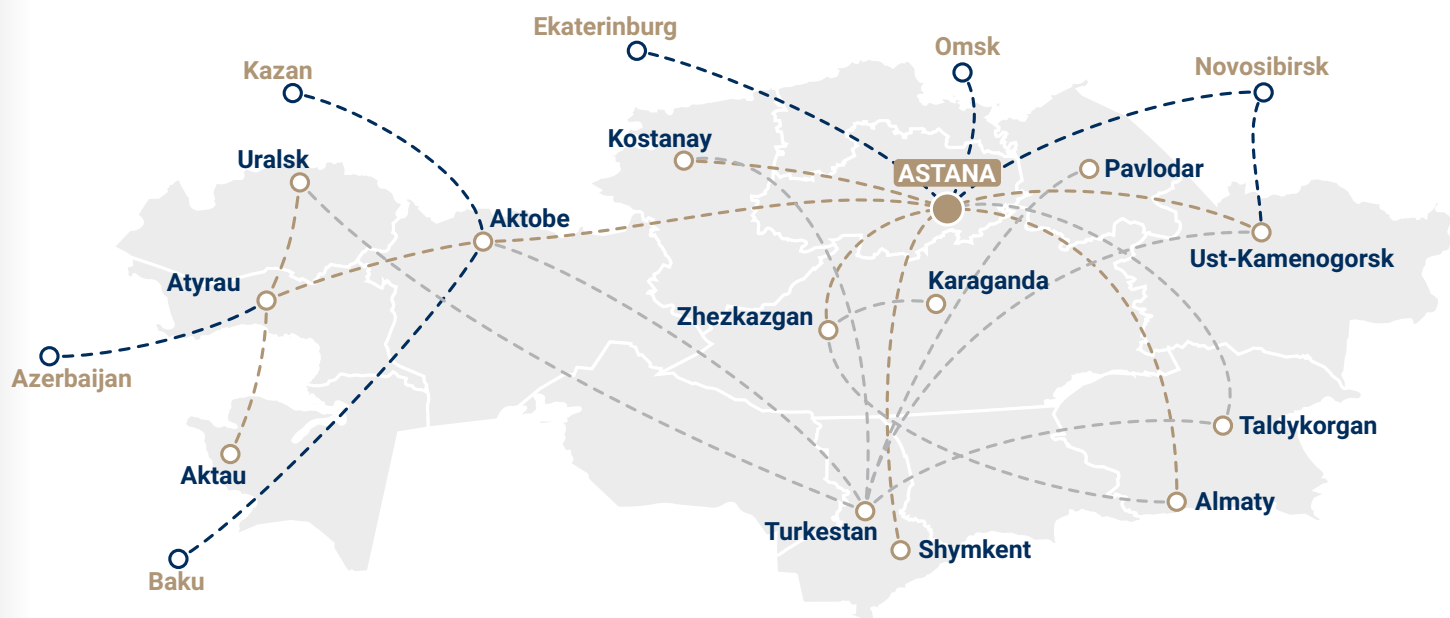
support, aircraft engineering and technical support, actions of flight attendants and technical crew, ground handling, freight transportation and maintenance aviation security.

Safety Culture

The health and safety of employees determines the basis for the implementation of the company's strategic goals. QAZAQ AIR JSC follows the indicators of industrial safety, reducing the risks of injuries and accidents by introducing a safety culture in all aspects of its activities. For 2022, the coefficient of injuries with loss of working time (LTIF) is 0, no accidents and incidents were registered during the period.

Toward the goal

QAZAQ AIR JSC fleet consists of five modern De Havilland Dash-8-Q400NG turboprop aircraft (formerly known as Bombardier Q400) of Canadian production. In order to increase passenger traffic and expand the route network, the company is working on the acquisition of a jet aircraft. Increased fleet will ensure competition in the air transportation market and will make it possible to fly longer distances. In 2023, it is planned to launch new international flights Astana - Chelyabinsk - Astana, Aktope - Mineralnye Vody - Aktope, as well as a new subsidized direction on the route Astana - Urjar - Astana.



ҚАЗАҚСТАН ТЕМІР ЖОЛЫ



252

billion ton-km
cargo turnover (operational)

Transport and Logistics Potential Development

Joint Stock Company "National Company "Kazakhstan Temir Zholy" (hereinafter - JSC NC KTZh) is a transport and logistics holding company, operator of the main railway network of the Republic of Kazakhstan, national railway

freight and passenger carrier. The group of JSC NC KTZh companies provides economic interconnection with 17 regions of the Republic of Kazakhstan and 3 cities of republican significance, and through 16 junction points - with five neighboring

countries: China, Russia, Uzbekistan, Kyrgyzstan and Turkmenistan. JSC NC KTZh is the largest owner of locomotives, freight and passenger cars in the country. JSC NC KTZh is one of the largest employers in Kazakhstan.



Key performance results

Indicator	2021	2022
production indicators		
cargo turnover (operational), billion ton-km	239	252
passenger turnover, billion pkm	9.5	12.4
transit in containers, thousand TEU*	1065.6	1129.2
financial indicators, KZT billion		
revenue	1330.2	1482.1
net profit	119.1	34.9
operating profit	254.8	177.9
net debt	1937.4	2161.4
taxes paid	140.4	148.8

* Twenty-foot equivalent unit.

In the outgoing year, JSC NC KTZh achieved a record, in the entire history of its existence, freight turnover, which exceeded the mark for 252 billion tonnes per kilometer. Over 20 years, this indicator has doubled, by 5.4% to the level of 2021. This achievement was made possible through changes in logistics, increase in the range of transportation and growth of exports of mining and metallurgical products.

The passenger turnover of railway transport also increased by 29.7% as compared to the level of 2021, therefore, the share in the total passenger turnover of the entire transport industry, including civil aviation and road transport, increased by 22% and amounted to 14%.

Factors that Affected Results

Decrease in financial results was due to increase in the costs of materials, fuel and services due to rising prices, financing costs because of growth of debt obligations, payroll fund expenses due to increased salaries to employees of the Company.

Increase in net debt is due to the attraction of debt financing for the renewal of the Company's locomotive fleet, in the amount of KZT132 billion, and the first issue of bonds was made for the implementation of the infrastructure project "Construction of the Second Tracks of the Dostyk-Moiynty Section", the KZT162.9 billion.

Growth of greenhouse gas emissions is associated with increase in fuel and energy sector costs. The reason for increase in energy consumption is explained by growth of the volume of freight and passenger traffic by 4.9%.

The volume of disposed waste has been reduced due to the segregation of waste with the subsequent transfer of waste from production and consumption on a reimbursable basis to stakeholders.

In addition, in 2022 there were problems associated with the disruption of traditional transport and logistics chains.

These problems included the following factors:

- the geopolitical situation and logistics changes that resulted in the disruption of the traditional transport chain on the China-Europe-China route;
- difficulties in receiving trains at Kazakhstan-Chinese border crossings;
- inability to accept trains in full at Kazakhstan-Russian and Kazakhstan-Turkmen border crossings;
- sanctions policy towards Iran;
- increased competition from alternative modes of transport.

To ensure the safe and uninterrupted passage of goods through the territory of Kazakhstan, work was carried out on the formation of alternative routes.

A new transit freight flow was attracted along the route from China to Russia and Belarus, as well as in the opposite direction.

The Trans-Caspian International Transport Route (TITR) is a promising direction for the development of international transportation and was actively in demand among shippers for the delivery of goods to the ports of Georgia, Turkey and further to European markets. To expand the TITR capacity, a unified approach to infrastructure development was formed by all participants of the route, a number of projects were planned to improve the infrastructure of the Kazakhstan section of the route, as well as on the territory of Azerbaijan and Georgia.

A lot of work has also been done on the development of the Southern Corridor. Transit traffic along the Southern Corridor, which runs from China through the territory of Kazakhstan and Iran to Turkey, is actively developing.



Infrastructure Modernization

As part of the National Project “Strong Regions is the National Development Driver”, construction of the second tracks on the Dostyk - Moiynlyk railway section began in November 2022. The aim of the project is to increase the capacity of the site and develop the transit potential of the country.

The construction of the second line with a length of 836 km will increase the capacity of the section by 5 times (from 12 pairs of freight trains to 60 pairs per day). This will solve the important task of ensuring the uninterrupted export of domestic products and will provide the possibility of transporting goods of Kazakhstan exporters in this direction.

The construction is planned to be carried out using domestic materials. At the same time, the share of local content will be over 80%. As part of the project, 3700 builders will be involved, and after the line is put into operation, 500 permanent jobs will be provided on the railway.

The project implementation contributes to the development of small and medium-sized businesses. The cumulative effect of the project implementation will further increase budget revenues in the amount of KZT4.1 trillion over

20 years. The construction is scheduled to be completed in Q4 2025.

In addition, work has been done on a number of projects: construction of the Darbaza–Maktaaral railway line, with the length of 106 km, is scheduled for 2024-2025, construction of the Bakhty-Ayagoz railway line - 3rd border checkpoint with the length of 270 km - is scheduled for 2024-2025, construction of a bypass railway junction around Almaty, with the length of 73 km is scheduled for 2023-2024. Along with major infrastructure initiatives, a plan has been formed to modernize the main railway network and access roads. In the next three years, it is planned to carry out major repairs of more than 2 thousand km of railway tracks.

As part of the development of international transport routes, Kazakhstan has signed joint Roadmaps with Azerbaijan, Turkey and Georgia for 2022-2027 to synchronously eliminate bottlenecks and strengthen the Trans-Caspian International Transport Route. The state plans to increase the capacity of Aktau and Kuryk ports, build a “container hub”, and replenish the merchant fleet with 10 new ferries. It is expected that similar measures will be taken by other signatory countries.

Also in 2022, on behalf of the President, the process of transformation of JSC NC KTZh into the National Transport and Logistics Company started. To date, the Competence Center has been established at JSC NC KTZh, whose main task is to organize new logistics products and reorient transit freight flows to trans-Kazakhstan routes.

Passenger Transportation

The passenger turnover of railway transport also increased by 33.2% as compared to the level of 2021, therefore, the share in the total passenger turnover of the entire transport industry (including civil aviation and road transport) increased by 22% and amounted to 14%.

Passenger Transportation JSC, the KTZh subsidiary, does a lot to create comfortable conditions for passengers. Moreover, given the length of railways on the territory of Kazakhstan, this is a very important factor in maintaining the image attractiveness of this business sector of JSC NC KTZh. The preferences of passengers are studied, feedback is provided, complaints about the service are carefully recorded and sorted out in the company. It does a lot to update the car fleet.

Passenger turnover of Kazakhstan in 2022 by means of transport, million pkm

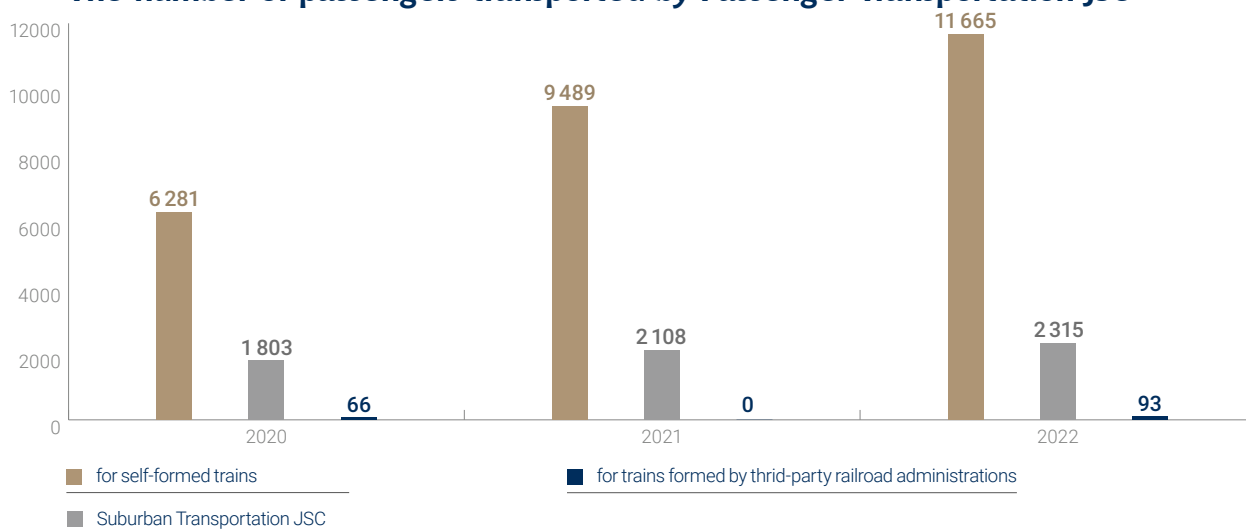
	Passenger turnover, million pkm				Share in total passenger turnover, %	
	2020	2021	2022	Change 2022/2021, %	2021	2022
All transport	108283.6	106813.1	116516.1	9.08	100	100
Automobile and urban electric transport	91298.4	79709.3	80040.8	0.42	74.63	68.70
Air transport	8335.0	14815.7	20109.3	35.73	13.87	17.26
Railway transport	8649.3	12286.1	16363.0	33.18	11.50	14.04
Water transport	0.5	1.4	2.4	71.4	0.00	0.00
Sea transport	0.3	0.6	0.7	16.7	0.00	0.00

The Company passenger turnover in 2022 increased by 29.7% as compared to the level of 2021 and amounted to 12353 million pkm (in 2021 – 9524.3 million pkm). Increase in passenger turnover was due to the lifting of restrictions on the movement of trains associated with coronavirus infection and due to the resumption of interstate and transit

trains, as well as the optimization of the route network on Talgo trains with the transfer of individual trains from commercial to social routes. The number of passengers transported by Passenger Transportation JSC in 2022 amounted to 14,073 thousand passengers (in 2021 – 11,597 thousand passengers), including:

- as for trains of the formation of Passenger Transportation JSC – 11,665 thousand passengers;
- as for the branch “Suburban Transportation” – 2,315 thousand passengers;
- as for trains of the formation of third-party railway administrations - 93 thousand passengers.

The number of passengers transported by Passenger Transportation JSC



Income from passenger transportation in 2022 amounted to KZT88.4 billion, which is 54.4% higher than the Actual of the same period in 2021 due to increase in passenger turnover by 29.7%.

New Routes

In January 2022, passenger train No. 77/78, following the route “Mangystau – Almaty-2”, with new compartment and second-class carriages, left Aktau for the first route. This was a big event for Mangystau residents, as the peninsula is located far from both the capital and Almaty.

The Mangystau – Almaty route is the longest in the country, its length is 2,812 kilometers, and, of course, the issue of comfortable travel conditions is top-of-mind for passengers.

The population of the region immediately felt a direct benefit,

because the trains of brand-new cars provide incentives for the development of the region's economy, since the Caspian Sea coast is very attractive for tourism development. And new trains running from here are in great demand not only among local residents, but also among visiting guests and tourists.

By the way, the schedule of these trains has changed: the travel time from Aktau to Almaty has been reduced by 2.5 hours. Passengers will spend this time on the way in new cars with increased service.

The cars have connectors for charging phones (two electrical outlets and two modern USB ports), there is a video surveillance system. For the convenience of passengers, each car has a refrigerator, a microwave oven, a titanium with hot water and a dispenser with drinking water.

The cars were purchased within the framework of the Nurdy Zhol infrastructure development state program and assembled at the Tulpar plant according to the technology of the Tver Car Building Plant. Industrial Development Fund JSC funded the purchase of cars.

A railway operation between Atyrau and Astrakhan has also been opened. Trips are carried out by international passenger train No. 625/626 with the Atyrau-Astrakhan traffic. The decision to launch was taken based on a bilateral agreement between the railway administrations of Kazakhstan and Russia. The frequency of running is every other day.

In September 2022, JSC NC KTZh, meeting customer requests, launched the Astana–Zhezkazgan train, running every other day.

There are 344 seats in the train formed from Talgo cars. The cars are equipped with air conditioning and toilets. There are sockets in each compartment, and on the way they can watch movies and listen to music on the Vputi.kz multimedia portal.

In addition, passengers can use the services of a dining car. Shower cabins are provided in the Grand and Grand PMR class cars (for persons with disabilities).

Passenger Transportation JSC is constantly updating its car fleet. Only in the period from 2010 to 2022, the company purchased 1,224 cars, of which 141 cars were used to upgrade train fleet in Mangystau region.

A pleasant news for the fair sex was the appearance of a special female car on the Mangystau – Almaty-2 route. In 2021, the company conducted a market analysis and a customer survey, as a result of which Passenger Transportation decided to introduce a new service for female passengers. Externally and internally, women's cars are no different from others. Only when booking train tickets on the BILET.RAILWAYS.KZ website or at the ticket offices of Passenger Transportation JSC, if there is a "female" sign, this car will be intended only for the sale of tickets to exclusively female passengers. As part of the pilot project, the service was decided to be implemented on the longest Mangystau – Almaty and Almaty – Ust-Kamenogorsk routes.

As part of the pilot implementation of the loyalty program, from March 14, 2022, Passenger Transportation JSC launched the Altyn discount card. It provides a 25% discount on trips in standard passenger cars and Talgo. The card can be purchased at the company's ticket offices, its cost in 2022 amounted to KZT19,999. You can use the discount card for offline and online ticket purchases.

Comfortable Conditions for Passengers

In 2022, 62 Talgo railcars were added to the passenger railway fleet of Kazakhstan. According to results of the international competition, it is planned to purchase about 500 more new cars in the coming years. All of them will comply with international standards. After the delivery of these cars, the fleet will be updated by a total of two-thirds. At the end of 2022, according to the results of an international competition, based on the recommendations of DB Engineering & Consulting, the Swiss company Stadler Bussnang AG was identified as a partner in a project for the production of passenger cars in Kazakhstan on the basis of the Tulpar plant.

Stadler cars have a number of advantages: the service life is 40 years, the European quality standard, modern design, localization level of at least 35% and the transfer of the latest technologies.

Among the advantages is also the capacity of the fuel tank of the cars, which will permit the passenger train to operate in autonomous mode much longer compared to other manufacturers.

In general, the technical characteristics of the cars permit for uncoupling repairs, without lengthy uncoupling for scheduled repairs. Thus, the trains will ensure a continuous transportation process.

It is planned that to organize the production of cars, the local staff of Tulpar will undergo appropriate training at the Stadler plants. To date, JSC NC KTZh is working on the issue of financing with the participation of Samruk-Kazyna JSC, negotiations are also underway to minimize currency risks.

Cargo transportation

Increase in the volume of freight turnover was observed in inland waterway transport – 54.5%, sea transport – by 23.4%. Increase in the turnover of pipeline transport amounted to 3.6%.

In 2022, the tariff turnover of JSC NC KTZh amounted to 245.2 billion tonnes per kilometer, which is 5.1% higher than the level of 2021. Growth is due to increase in freight turnover in export and transit traffic. The total operational freight turnover has reached a historical maximum and amounted to 252 billion tonnes per kilometer – and this is an absolute record of the railway workers of Kazakhstan.

It is noteworthy that freight transportation within the country, on the contrary, demonstrated decrease of 1.9%. This happened due to decrease in the volume of transportation of ferrous scrap, iron ore and non-ferrous metal ore, grain.

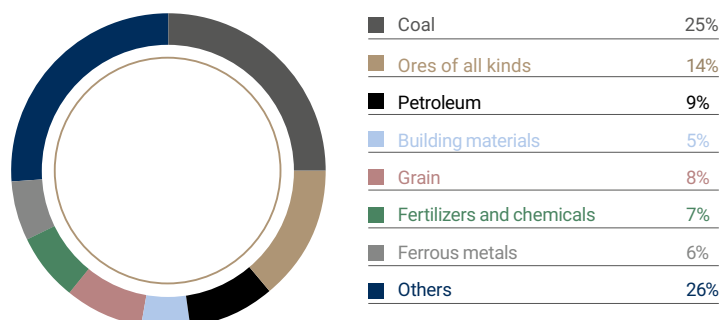
But for export, freight turnover increased by 10.3%. Freight turnover decreased by 2.3% on import to Kazakhstan (due to decrease in the volume of freight transportation by 3%). The volume of transportation of petroleum products, coal, chemicals, construction goods, ferrous scrap, fertilizers, non-ferrous metals, coal coke, cement has decreased.

Freight trains transiting through Kazakhstan resulted in 14% increase. Which is not surprising, given growth in the volume of traffic as a whole - by 10.5%. Coal shipments from Kyrgyzstan to Belarus, Russia and European countries have increased; iron ore from Russia to Uzbekistan and China; petroleum products from Russia and Belarus to Central Asian countries, etc.

In 2022, there was increase in freight turnover in relation to 2021:

- coal – by 3.5%;
- oil products – by 11.7%;
- grain – by 9.4%;
- non-ferrous metals - by 20.5%.

The share of main cargo in the freight turnover of JSC NC Kazakhstan Temir Zholy for 2022 as a percentage



In 2021, the railway administration of Kazakhstan took measures to overcome pandemic restrictions. And this permitted us to maintain positive dynamics in 2022. Transit freight transportation increased by more than 10%, including in containers – by 6%.

The main factors of increase in transit traffic were a new freight flow of coal from Kyrgyzstan to Russia, Belarus and European countries; significant increase in petroleum products from Russia and Belarus to the Central Asian countries and Afghanistan due to decline in

exchange prices in Russia; increase in grain transportation from Russia to Kyrgyzstan; change in the logistics of chemical freight transportation – growth in the supply of polyvinyl chloride and caustic from China to Russia and Central Asian countries.

Logistics, which changed due to geopolitical reasons, resulted in the fact that in the absence of transportation of fertilizers (carbamide, potassium chloride, ammonium nitrate) from Uzbekistan to Ukraine, producers from this country reoriented to partners from Latvia, Poland, Belarus and other European countries. Transportation of potash fertilizers in containers from Belarus to China has increased. Growth of container traffic on the China-Russia-China route has sharply increased.





Alternative Transportation Routes

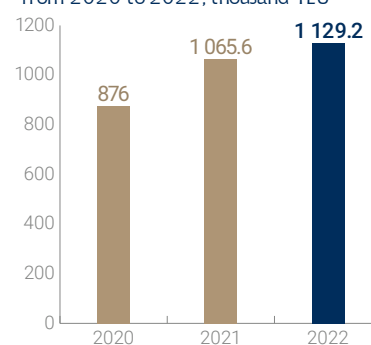
In August 2022, the President of Kazakhstan gave instructions on the Trans-Caspian International Transport Route (TITR). Today, this promising area of international transportation development is actively in demand among shippers for the delivery of goods to the ports of Georgia, Turkey and further to European markets.

The eastern direction of the North-South international transport corridor is also considered by shippers as an alternative route for transporting their products to the markets of Iran, India and the Persian Gulf countries.

Transit in containers increased by 6% to the level of 2021 and amounted to 1,129.2 thous. TEU⁷.

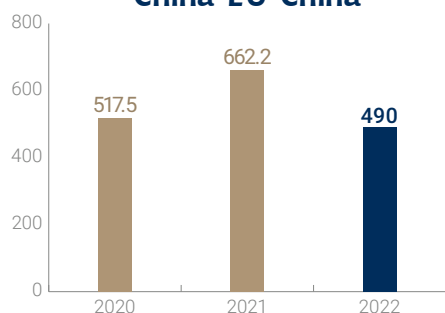
Transit in containers

from 2020 to 2022, thousand TEU

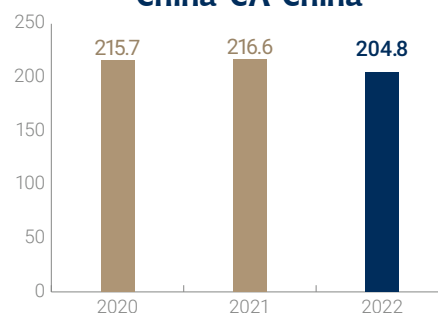


Transit in containers in the period from 2020 to 2022, thous. TEU

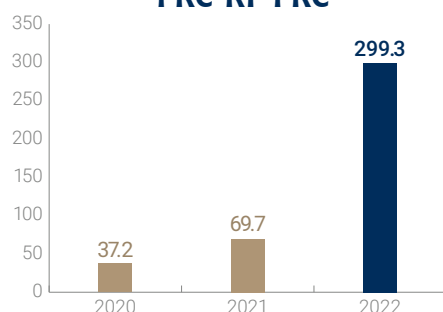
China-EU-China



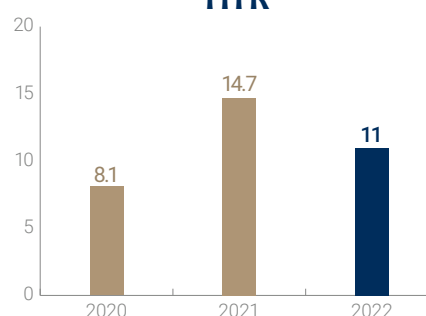
China-CA-China



PRC-RF-PRC



TITR



⁷ TEU or "twenty-foot equivalent" (TEU, eng. TEU) is a conventional unit of measurement of the quantitative side of transport flows, the capacity of container terminals or the capacity of freight vehicles. Equivalent to the size of an ISO container with a length of 20 feet (6.1 m) – editorial note.

In addition, active work is being carried out to increase transit freight traffic through the Trans-Caspian International Transport Route and the North-South Corridor in the direction of India and the Persian Gulf countries through Iran and the Iranian port of Bandar Abbas.

A container service and, in particular, a shuttle train on the Altynkol-Aktau-Baku-Poti/Batumi TITR route has been organized and launched.

A roadmap has been developed for the project "Construction of the Ayagoz-Bakhty Railway Line", within the framework of which JSC NC KTZh together with Russian Railways JSC has begun to analyze the existing and potential (in conditions of increasing) volumes of freight transportation in the Russia-Kazakhstan-China traffic until 2030.

Plans for 2023

In 2023, JSC NC KTZh plans to implement the following goals:

- increase the operational freight turnover to 268.8 billion tkm (6.7% by 2022);
- increase container transit to 1,250 thous. TEU (10.7% by 2022);
- continue work on the renewal of the park and modernization of infrastructure;
- continue the construction of the second tracks of the Dostyk-Moiynty railway section;
- start the construction of two railway lines (bypassing Almaty station, Bakhty-Ayagoz)
- start implementing trade hub projects;
- create a joint venture with PSA to manage TITR assets;
- start the production of passenger cars built using Stadler technology;
- continue the transformation of the Company into a national transport and logistics company.

INFORMATION & COMMUNICATION OPERATORS


ҚАЗАҚТЕЛЕКОМ
5G

for mobile operators

National Information Superhighway

Kazakhtelecom JSC, the largest telecommunications company in Kazakhstan, established in 1994, occupies 93% of the fixed voice market (2.6 million subscribers), 61% of the mobile market (14.5 million subscribers), 74% of the broadband market (1.8 million), 33% of the segment pay TV (930,7 thousand subscribers) and 18% – in the market of ICT services.

Kazakhtelecom JSC owns the National Information Superhighway, which is a transport fiber-optic ring connecting large cities of Kazakhstan with digital streams with high data transfer rates. The company's infrastructure includes more than 87 thousand km of fiber-optic network and more than 13 thousand base stations, which



provides coverage of the entire territory of the country with fixed communications and 81% of the total population of the country with

an LTE network. The infrastructure base of the group also includes 27 commercial data centers.

Key performance results

Indicator	2021	2022
production indicators:		
number of fixed lines, thousand lines	2774.5	2651.5
number of fixed BBA subscribers, thousand subscribers	1860.7	1863.2
pay TV, thousand subscribers	918.7	930.7
mobile subscribers, thousand subscribers	14543.3	14548.9
financial indicators*: KZT billion		
revenue	594.2	634.5
operating profit	160.9	174.3
net profit	90.8	128.8
dividends paid**	22.0	39.5
net debt***	139.7	32.1
taxes paid	89	118

* decrease in the indicator is due to the refusal of subscribers from landlines

** dividends accrued following 2020 and 2021 were paid in 2021 and 2022, respectively.

*** Net debt is calculated according to the consolidated financial statements, where: Debt – loans and lease obligations, Cash – cash and cash equivalents + Short-term financial assets measured at amortised cost.

Last year 2022, although it turned out to be difficult for the company, but in general it became quite productive for the national operator of the telecommunications market.

In Q1, during the tragic events of January, the company took unprecedented measures to support subscribers who tried to call relatives to make sure of their safety. Namely, by providing a 50% discount on the subscription fee for a number of services to individuals and businesses, canceling the penalty for late payments, and providing free long-distance phone calls for 1000 minutes to each subscriber.

Similar steps were taken in early September, when Kazakhtelecom JSC exempted residents and entrepreneurs of Auliyekol district of Kostanai region affected by large-scale forest fires from subscription fees for services.

At the same time, the company has allocated significant financial resources to improve the welfare of its employees. All these measures could not but affect financial indicators at the beginning and middle of the year, however, at the end of four quarters, Kazakhtelecom JSC managed to completely neutralize negative deviations and significantly improve the net income indicator."

According to the consolidated financial statements, in 2022, Kazakhtelecom JSC group of companies showed growth in all major financial and economic indicators, despite the objective difficulties of last year.

Already in Q3 2022, Kazakhtelecom JSC's net income directly exceeded KZT88 billion, having increased by 2.4% as compared to January – September 2021. (It is noteworthy that in H1 2022, the company showed 13% decrease in net income).

The consolidated revenue of the group companies in the same period increased by 9.8%, and the EBITDA

margin remained at 46% throughout the year. Positive trends continued in Q4 2022.

The book value of the company's ordinary shares, calculated according to requirements of Kazakhstan Stock Exchange JSC, has increased by almost 40% since December 31, 2021, amounting to more than KZT37 thousand.

Despite a fairly large amount of capital expenses, in 2022, the company maintained a comfortable level of liquidity: Kazakhtelecom JSC had a significant amount of cash both on the balance sheet and available for attraction under open credit facilities.

At the same time, Kazakhtelecom JSC was not exposed to currency risk, since all the company's liabilities were denominated in KZT. These positive factors were also noted by the international rating agencies, S&P Global Ratings and Fitch Ratings, which in 2022 appraised the rating at the "Stable" level, forecasting further organic revenue growth and recognized a significant margin of financial stability of the companies group. The data of the consolidated financial statements for the companies group by the end of 2022, in particular, growth of income and net profit in the difficult conditions of 2022, fully confirm this assessment of international analysts.

Infrastructure Investments

The Kazakhtelecom JSC group of companies has been investing more than KZT100 billion annually in its long-term assets over the past years. At the same time, the volume of investments in the development and modernization of the network (construction of 5G networks, replacement of copper networks with "optics", continuation of the construction of broadband access networks in urban and rural settlements, etc.) in 2021 increased by 40%, and by the end of 10 months of 2022 - by 17% (as compared to the same the period in 2021). Income, including from invested investments, also show growth: in 2021 by 13%, and by the end of 10 months of 2022 by 8% as compared to January-October 2021.

The company continues to continuously improve the quality and availability of communication services throughout Kazakhstan, planning even more significant investments in 2023. The share of capital expenses in income is about 20%. The share of receipt of new fixed assets from their residual value at the end of the period is about 20%. This shows that the company's development process is continuous.



Dividend Payment

In 2022, Kazakhtelcom JSC (according to the decision of the Extraordinary General Meeting of Shareholders) allocated 43.53% of the consolidated retained income for 2021 - KZT39.5 billion to pay dividends.

For comparison, at the end of 2020, 30% of net income - KZT19.0 billion was allocated to pay dividends.

Social Partnership

The year 2022 was declared the year of social support for employees in the company. In the spring of 2022, Kazakhtelcom JSC adopted a new version of the collective agreement, which assumed increase in official salaries of employees (with an emphasis on workers of mass professions, including engineering and technical personnel) by an average of 20%.

In addition, 475 employees of Kazakhtelcom holding low-paid positions have their salaries increased on average from 4% to 20%.

In addition, various payments and support measures were provided: financial assistance for labor leave for recovery, social benefits for temporary disability, a one-time allowance for early retirement, payments in connection with the birth of a child and monetary assistance in cases when an employee found himself in a difficult life situation.

Thus, the company's expenses on the payroll fund increased by 27% in 2022 as compared to the previous year - up to KZT95.5 billion.

Mobile communication

In the mobile communications market, Kazakhtelcom JSC group includes operators of Kcell JSC (Kcell and Activ brands) and MT-C LLP (Altel and Tele2 brands).

In December last year, the consortium of operators of Kazakhtelcom JSC group of companies represented by MT-C LLP and Kcell JSC won the auction of radio frequencies for the fifth generation of mobile communications (5G) at the information system site "gosreestr.kz" for lot No. 1 in the 3600-3700 MHz (100 MHz) radio frequency bands and lot No.2 in the 3700-3800 MHz (100 MHz) radio frequency bands. According to terms of the competition, these companies must deploy more than 7 thousand 5G base stations throughout the country by 2027, of which 486 base stations in Astana, Almaty and Shymkent will be put into operation this year.

Despite the difficulties of the beginning of last year, Kcell has maintained positive dynamics due to the development of its own digital ecosystem, mobile financial services, B2B segment and retail sales of devices. In 2022, Kcell invested KZT41.6 billion, most of which was aimed at upgrading the network to improve the quality of communication.



As part of the program to improve the quality of communication, equipment was installed and upgraded at 1,272 base stations and up to 40% increase in data transmission speed was recorded at locations where installation work took place. 604 sites⁸ (including partner sites) were

launched in rural areas to provide the population with mobile broadband access. The company has provided new coverage and improved the network by upgrading and activating 246 base stations.

Last year Tele2 confirmed its leadership position by becoming the winner in the nomination "Fastest Mobile Internet Network" based on the results of tests of users of the Speedtest service from Ookla⁹.



In addition, Kazakhtelcom JSC contributes to the development of rural talents through access to high-speed Internet and, as a result, to social networks. The project was awarded the national award in the field of communications – Ak Mergen.

According to the analysis of non-personalized traffic in our network for 2022 in small villages - where the MBBA was connected under the 250+ program¹⁰ - the share of video services and social networks was almost 40%.

Plans for 2023

The positive results of 2022 permit the companies group to start work on a number of large and expensive projects this year. The priority is the launch of fifth-generation mobile communication networks in Kazakhstan.

According to the commitments made as a result of the auction, it is expected that by 2027 75% of cities of republican significance, 60% of regional centers will be provided with 5G technology.

⁸ The site is the base station

⁹ Ookla is a world leader in the field of intelligent analysis of mobile and broadband networks, application testing and related technologies. Speedtest is the Ookla's flagship network testing platform, receives and processes hundreds of millions of network performance and quality measurements around the world every day. Ookla trademarks are used under license and reprinted with permission.

¹⁰ Mobile broadband access

FOL on the bottom of the Caspian Sea will connect the countries of Central Asia with a single Internet space

In 2023, Kazakhtelecom JSC will continue working on an international complex project for the construction of a fiber-optic line along the bottom of the Caspian Sea on the Azerbaijan–Kazakhstan route.

The main route will run from Aktau to the Azerbaijani district of Sumgait and will be more than 340 km, a reserve channel with a length of about 330 km will be laid from the Kazakh port of Kuryk to the district of Sumgait, which is not far from Baku.

The Trans-Caspian project is strategically important for Kazakhstan (and, in general, for the entire Central Asian region), because with its implementation, our country will receive additional access to the international transit market, which will ensure the transit of global traffic from Asian countries through Kazakhstan to Azerbaijan with access through Georgia, the Black Sea and Bulgaria to Europe.

The project will also serve as a driver for accelerating the creation of a new digital telecommunications corridor and will help to reach a higher level of development of high-speed and secure data transmission infrastructure, strengthening trade ties.

Closer to the Consumer

Kazakhtelecom JSC will also continue to carry out a large-scale transfer of Kazakhstan subscribers from outdated ADSL data transmission technologies to optics within the framework of the Network Deduplication program, which in 2023 will affect more than 25 thousand users in nine cities of the republic.

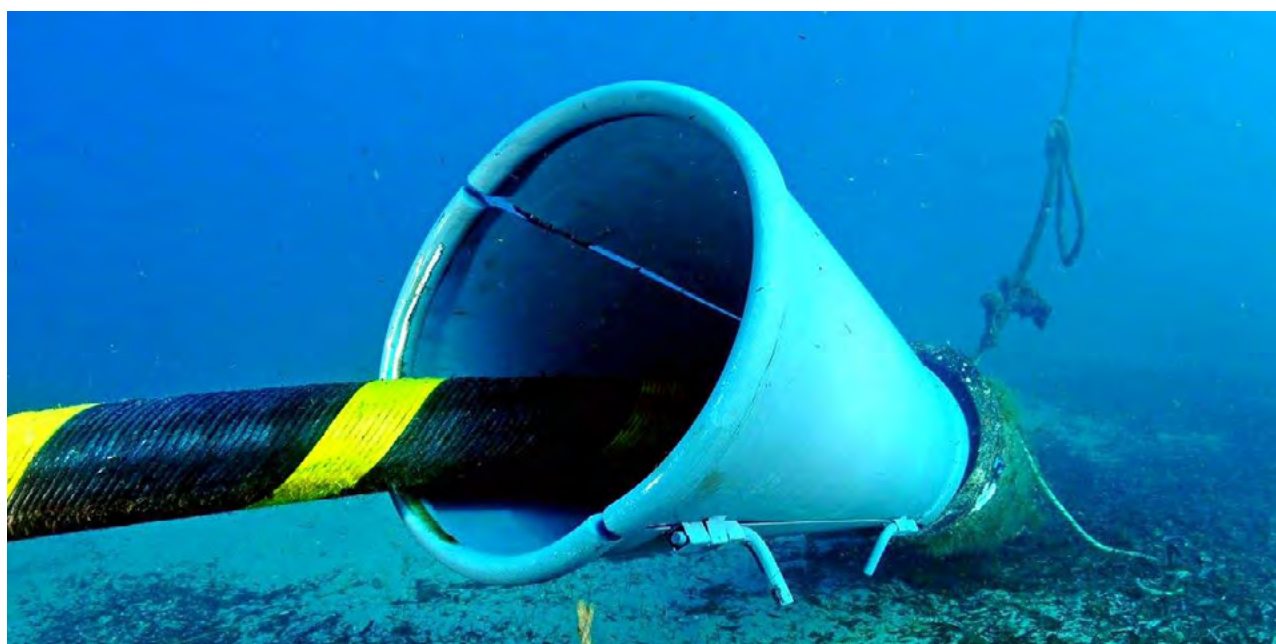
Also, the country's largest telecom operator intends to install additional caching servers of global content providers Akamai, Facebook, Google, Cloudflare, Netflix, and Meta.

The undoubted competitive advantage of the company is a developed and powerful infrastructure, which includes more than 87 thousand kilometers of fiber-optic lines throughout the republic,

more than 13 thousand base stations, 27 data processing centers and 40 thousand city video surveillance cameras. This infrastructure permits the companies group to render high-quality services to more than 1.8 million subscribers in the broadband access sector, over 14.9 million in the mobile communications segment and serve 913205 thousand pay-TV connection points

The year 2023 has been declared the “Year of Service and Customer Orientation” in the company. Six main goals for managing customer experience are formulated, in particular:

- achieving NPS-service satisfaction index 11%;
- achieving 90% of the indicators of solving consumer requests from the first request - FRR (First request resolution) – that is, 90% of all requests must be solved at the first attempt;
- achieving 63% of the eNPS staff satisfaction index;
- achieving 68% in the SRS Social Stability Index;
- achieving 90% of the implementation of GPON



technology service installations in 24 hours;

- achieving 95% elimination of single damages in 12 hours.

In 2022, Kazakhtelecom JSC approved the Development Strategy of Kazakhtelecom JSC “JRun” for 2023-2032.

The two most important areas of the strategy are Jakyn - leadership in the telecom market by improving customer experience and Birlik - success by improving employee experience. Special attention in the strategy is focused on the client experience not only of the external, but also of the internal client.

Today, the service is the main differentiator in the service market. And that is why 2023 has been declared the year of service quality improvement in Kazakhtelecom JSC.

The main goal of the company is to become the No. 1 operator in terms of customer experience in the B2C and B2B segments. This goal can be achieved only through the involvement of each employee of the company, so special attention will be paid to the SRS and eNPS indices. There is serious work to be done on the transformation of current business processes for

servicing, changing and improving communication channels and further digitalization of online service channels.

Occupational health, environment and industrial safety

For achieving zero occupational injuries, Samruk-Kazyna JSC has developed the Occupational Safety Action Plan for all Portfolio Companies.

As part of the implementation of this plan, Kazakhtelecom JSC held the I Annual Occupational Safety Forum, at which all top managers of the company signed personal labor protection obligations.

The main measures for occupational safety in the Plan can also include the granting of all employees of the company the right to work stoppages, the introduction of a behavioral monitoring program, training in the field of occupational safety according to the methodology of international programs, and the “Safety for Children” project.

The implementation of all these measures, according to the results of 2022, showed a positive result. The LTIF coefficient (frequency of injuries

with temporary disability) decreased by 85% as compared to the beginning of the year, that is, from 0.7 to 0.1, and in comparison with the result of 2021, the company achieved 41% decrease in injuries, from 0.17 to 0.1. During the final meeting on occupational safety among Portfolio Companies, the Company was awarded for the best indicators and achievements in the field of occupational safety by the end of 2022.

For improving results achieved in the future, the Company has developed and started to implement the concept “Kazakhtelecom JSC Kauipsizdigi”, which is based on four pillars, such as: involvement of senior management in occupational safety issues; improving the quality of personal protective equipment, tools, equipment and devices; improving the efficiency of employees of the Safety and Labor Protection Service, involving all employees of companies.

Kazakhtelecom JSC retains absolute leadership in the telecommunications market of Kazakhstan. The company renders a wide range of services and services in all segments of the domestic telecommunications market: in the field of fixed telephony, broadband Internet access, mobile communications, pay television and IT products.



Kazakhtelecom JSC takes an active part in the construction of New Kazakhstan, developing digital services and helping to digitalize industrial and commercial enterprises of the country, local and central executive bodies. The main result of the work of Kazakhtelecom JSC is that about 99% of the country's population has the opportunity to use all modern digital technologies.



994.6

billion tenge
turnover of financial services

Postal & Logistics, Financial and Digital Services

Kazpost JSC today is an aggregator company of a large-scale range of socially significant activities, rendering postal and logistics, financial, brokerage, agency and other services. This is the only subsidiary of the Fund, bears social responsibility for the delivery of pensions, benefits and periodicals.



Key performance results

Indicator	2021	2022
production indicators:		
postal, in thousand units	131 662	114 663
financial, KZT million	1 144 094	994 618
agency, KZT million	36 067	28 677
financial indicators, KZT million		
revenue	53 521.7	60 977.5
net profit	-7 172	-12 453.7
operating profit	-7 109.6	-6 837.3
net debt	7 000	7 000
taxes paid, KZT billion	5.8	6.0

The company employs about 20 thousand persons. And, despite the fact that the company has not always experienced favorable periods from a financial point of view, over the past 10 years, the question of cuts has never been raised. The close-knit team of Kazpost consistently implements the Development Strategy, which is expressed in a set of measures to launch new projects and initiatives that improve the financial situation.

The accelerated digitalization is one of the key areas of the Strategy. The Kazpost team is actively automate logistics processes, reengineer courier products, and introduce piecework remuneration for our couriers.

In 2022, the company focused on improving the quality of courier delivery service. A mobile application was developed to reduce the processing time, unloading and loading of mail due to automation of processes, GoPost application for couriers, palletization and containerization of parcels.

The development of e-commerce opens up an international market for Kazakhstan with global resources for the sale of goods, access to quality products, and the transition to non-cash payments. Therefore, Kazpost JSC keeps pace with the market. For improving the quality of e-commerce services, processes

were reengineered in 2022 and the GoPost ecosystem was created. Fulfillment centers have been opened where online store owners can receive a range of services, including acceptance, processing, storage, tracking and delivery of goods to the final consumer. At the same time, online stores minimize their logistics costs, warehouse rental for goods, personnel and other costs, as well as significantly reduce the delivery time of parcels. In almost all regional centers of the country, e-commerce centers operate in the Kazpost offices. The post offices and parcel supermarkets are another areas of e-commerce. The Kazpost market share in this segment exceeds 19%.

The company's social responsibility is great – Kazpost employees deliver pensions and home benefits to over-80 population, people with disabilities, veterans. Periodicals are delivered 24/7 to the most remote settlements. It is no coincidence that the year 2022 was declared the "Year of the Postman" in the company, which allowed solving a number of pressing issues of the activities of postmen and operators of Kazpost.

Today, Kazpost JSC renders almost the entire range of financial services, except for lending. At the same time, Kazpost JSC operates in the competitive environment of banks that have licenses for lending and

maintaining deposits, which is the most important component of profitability. Kazpost JSC renders these services as an agent of partner banks.

But the main vector of Kazpost JSC business remains postal and logistics services, which, alas, do not bring such a volume of income as credit and financial activities.

Today, Kazpost JSC is the only window for 41% of the country population – rural residents – to receive the following services: postal, financial and agency services, starting from the sale of railway and air tickets and ending with consumer lending. Postmen remain a link between the state and residents, especially in rural areas.

The focus is on infrastructure

In 2022, the bonded warehouse located on the territory of the Khorghos - Eastern Gate SEZ reached self-sufficiency. It carries out the import and transit of commercial goods from China to Europe and Central Asia through Kazakhstan, as well as operations for processing transit freight to the EAEU countries and receiving mail intended for Kazakhstan (with the possibility of up to 100 tonnes daily). The bonded warehouse has the ability to receive and send freight by rail and road. Its main feature is the storage of goods without payment of customs duties. The commissioning of the warehouse made it possible to realize postal shipments to non-CIS countries, contributing to the development of Kazakhstan's transit potential, reducing the delivery time of goods from 1 to 10 days and increasing trade turnover.

Kazakhstan bond's services are in demand by clients from Russia, Uzbekistan, Kyrgyzstan, and Azerbaijan. Cooperation agreements have been reached with major Chinese logistics companies and with partner postal administrations, which will increase the volume of



direct commodity flows. A contract for transit to Russia has been concluded with Yiwu Yuexuan Trade Co. LTD, work is underway to conclude an agreement with other clients. In August 2022, a pilot of receiving postal transit in the amount of 400 kg to the Russian Federation was conducted.

Storing goods in a bonded warehouse is most profitable for retailers and electronic trading platforms. Such warehouse placement helps them to have the goods "at hand", while paying tax duties and fees only after the actual export of the goods from the customs territory for delivery to the purchaser. This permits the business to reduce costs and at the same time deliver their orders to customers faster.

It is also beneficial for end consumers who receive their goods

in a shorter time without waiting for delivery from the country of origin. Together, all these advantages contribute to the development of e-commerce and the solution of the state task of reducing the volume of shadow turnover of funds due to increased number of non-cash payments.

Kazpost JSC pays a lot of attention to the modernization of logistics infrastructure. To date, the company has 13 sorting centers and three hubs with a total area of more than 25 thousand square meters. Within five years, production capacity will increase by another 33.4 thousand square meters, that is, almost 2.5 times by 2025.

E-commerce

The branch network of Kazpost, including the branches of the partner network, covers the entire territory

of the country, up to rural areas and comprises more than 2,700 production branches employing more than 18 thousand people.

Fulfillment centers operate in Almaty, Aktobe, Astana with a full cycle of services for the reception, storage, collection, packaging and delivery of goods to customers. This is convenient for entrepreneurs who minimize their logistics costs, rent a warehouse for goods, etc. Due to the placement of goods in the fulfillment center, the delivery time of parcels is reduced.

There are 219 parcel supermarkets for self-service, which have two zones: receiving and sending parcels. This format of service rendering increases the efficiency of business processes by introducing the service in self-service mode.

Nº	Indicator	Unit of measure	2020	2021	2022
1.	Workers	person	21 101	18 468	17 972
2.	Consolidated income	KZT billion	56.1	54.2	62.6
3.	Volumes of services:				
	- <i>Postal</i>	million units	149.2	146.4	114.7
	- <i>Financial</i>	KZT billion	1 372.9	1 144	994.6
	- <i>Agency</i>	KZT billion	27.6	36	28.7
4.	Production network	unit	3 081	2 873	2 746
5.	Automation of post offices	%	87.5%	88.3%	87.1%
6.	Supermarkets	unit	237	219	219
7.	Automated parcel terminals	unit	151	151	151
8.	Branches transferred to the partner network	unit	625	253	216
9.	Transport	unit			
	- <i>Passenger cars</i>	unit	1 881	1 747	1 783
	- <i>Trucks</i>	unit	188	191	246
	- <i>Mail cars</i>	unit	36	36	35
	- <i>Other</i>	unit	113	117	811

Automated parcel terminal is an automated terminal for the delivery of goods ordered from online stores and catalogs, created as an alternative delivery service with a working mode of at least 8 hours. At the moment, 151 post offices are operating in

Kazakhstan in all regional centers and cities of republican significance.

The "post.kz" corporate Internet portal is a hypermarket of services. The portal is constantly working to improve its convenience for users of

postal and financial services online. This system permits carrying out Internet banking for individuals with attaching of bank cards.

Clients of B2B services at post.kz are more than 700 companies. The

service of sending parcels, online filling out forms and other services helps to make doing business more convenient. The total number of registered users was about 1,770 thousand, 600 people join post.kz everyday.

There are licenses for brokerage, dealer, transfer-agency activities, opening and maintaining bank accounts of individuals.

Every year the business sphere expands, new projects are implemented aimed at creating comfortable conditions for the client. It takes an active part in the process of implementing state and industry programs in the field of mail. Transparency and balance are maintained as part of the national infrastructure that performs important social functions, and at the same time as a commercial organization

Postal Services

The company plans to reformat the technology of rendering services in rural post offices by introducing a mobile application based on the GoPost ecosystem by the end of 2023.

The new system for monitoring written correspondence "GMS"

(Global Monitoring System) is operating. As you know, quality can be improved only if it is measured. The Global Monitoring System is a modern measurement system managed by the International Bureau of the UPU. Its main goal is to provide each participant with accurate and high-quality operational results. This information can be used to determine remuneration for UPU expenses in accordance with the performance bonus system established within the UPU, and to facilitate informed decisions to improve performance and quality.

Earlier, new GMS equipment was received from the UPU, which is currently installed and configured in Almaty, Astana and Shymkent. The technical capabilities of this equipment permits to more accurately assess the quality and timeliness of delivery of written correspondence. The GMS system implementation is also expected in other major cities of the country.

Postal items from the UPU are read by RFID antennas installed at work sites where mail traffic is received and processed. This process generates the bulk of the information needed to determine the quality of service.

Integration with the State Revenue Committee of the Ministry of Finance of the Republic of Kazakhstan has been carried out with respect to international postal items not exceeding 200 euros or 31 kg. Preliminary transmission of data on these types of postal items to the state customs control bodies and receipt of preliminary decisions is carried out. Due to integration, it is possible to reduce the processing time of mail and the number of requests from state bodies.

As part of the network modernization, it is required to purchase about 2 thousand tablets for operators and 3.5 thousand smartphones for couriers for a total amount of KZT2.4 billion. As a result of the network modernization, the Company will cover rural support settlements in the north and east of Kazakhstan with a population of less than 2 thousand people.

Social Partnership

The year 2022 exposed the contradictions between the difficult conditions of the company's activities in the new economic realities and the increased needs of the Labor Man. Not without conflicts, but in Kazpost, through the efforts of professional associations of workers and representatives of employers, through conciliation procedures and mediation, it was possible to reach compromise solutions.



With the support of the Sole Shareholder - Samruk-Kazyna JSC - the management of Kazpost JSC decided to increase the official salaries of the company's production staff – over 14 thousand people (93.5% of the total staff). In 2022, the average monthly official salary of employees increased by 29.6% or from KZT149.2 thousand to KZT193.4 thousand, including for production personnel, the average official salary growth was 33.3% or the average monthly official salary increased from KZT135.0 thousand to KZT179.9 thousand.

In 2022, the preparation of the new version of the Collective Agreement began. For employees with continuous experience of 30 years or more, in case of reaching retirement age and termination of the employment contract, a one-time allowance in the amount of three average monthly official salaries will be paid. Previously this item was absent. Also, upon termination of the employment contract, a one-time allowance in the amount of three average monthly official salaries will be received by employees of branches with disabilities of group 1 or 2 (previously there was one average monthly official salary).

The contract takes into account the interests of employees who have suffered an occupational injury or who

have fallen ill in the performance of their work duties. They will be released from work with the payment of at least 100% of the average official salary until the employee regains his/her working capacity. Or he/she will be diagnosed with disability or loss of professional ability to work. Previously, this category of employees was paid no more than 50% of the average official salary.

The list of employees associated with the transportation and delivery of cash and valuables has been expanded. Along with the approved list of specialists, the heads of mobile post offices are included; employees for this position are provided with an additional payment for risk.

Participation in the KMG IPO

In the period from November 09 to December 2, 2022, as part of the IPO, the company participated in accepting applications for the acquisition of KMG shares. Residents of the country were given the opportunity to submit applications to acquire shares through 1,170 branches and remotely through our website.

For creating conditions for accessibility to all citizens of the country in the IPO program and for reaching the maximum number of investors, in

August 2022, integration measures were carried out with the information systems of Astana International Exchange Central Securities Depository Limited (AIX CSD). This event permitted citizens of the country to make a direct subscription to acquire KMG shares through the Tabys application.

The company took part in information and explanatory work in preparation for the IPO in field meetings in Kazakhstan together with representatives of the Fund, KMG, stock exchanges and brokerage companies.

In support of the annual World Investor Week 2022 program of the World Federation of Stock Exchanges (WFE), KASE held a fair of Kazakhstan brokers KASE FEST in leading universities in Almaty and Astana, we also took an active part in this event.

Kazpost JSC continues to fulfill its duty to the country and its population, remaining in some cases the only link between citizens and the State. Strategic modernization has resulted in the emergence of new areas of profitable activity of this institution, which previously seemed “stagnated” and “backward”. Today, Kazpost JSC keeps a confident course for renewal, helping the development of society and SMEs.



INVESTMENT ACTIVITY

To increase commercial assets in the Fund's portfolio, and thus focus on continuing to optimize and restructure the portfolio with a full transition to active management of the investment portfolio by 2024 – these are the objectives of the Fund in the foreseeable future.

The transition of the Fund to the format of an investment holding implies the presence of two categories of assets in the portfolio. The first is strategic assets, where the controlling share of the Fund will be retained. These assets will be managed through the exercise of shareholder rights and with the help of the Fund's representatives on the Board of Directors of these companies.

During the period of economic recovery, the Fund's investments will concentrate on development of priority areas under the principles of co-investment.

There are two directions for foreign investments: direct and portfolio. Direct investments in the long term are planned to invest in projects implemented in developed countries, in industries that will ensure the diversification of the Fund's portfolio.

In this part, the Investment Policy of Samruk-Kazyna JSC fully complies with and supports the implementation of the Fund's Development Strategy until 2032.

Investment Policy

The Fund's investment policy is designed to implement the strategic goal of portfolio management and defines the goals and principles of the Fund, as well as the main provisions and tools for managing the Fund's investment portfolio.

It is important to know that the Policy does not apply to cases of alienation of shares in the authorized capital (blocks of shares) of portfolio companies and other legal entities included in the list of organizations subject to transfer to the competitive environment recommended by the Government of the Republic of Kazakhstan for approval.

Three priority goals define the Fund's investment policy. The first is to ensure long-term sustainable growth in the value of the Fund's portfolio and a reasonable increase in capital. The second is the formation, preservation and multiplication of financial well-being for future generations.

And, finally, the third is to ensure the diversification of the portfolio by geography, economic sectors and asset classes.

At the same time, the Fund is guided by investment principles.

The principle of commercial expediency is that the investment projects of the Fund and portfolio companies are based on the principles of commercial expediency, long-term interests and maximizing the profitability and return on investment.

The principle of "yellow pages": the Fund's investments in facilities conducting their economic activities on the territory of Kazakhstan are carried out taking into account the restrictions established by the legislation of the Republic of Kazakhstan and do not hinder the development of the private sector, do not restrict competition, do not lead to monopolization.

The principle of responsible investment is to promote sustainable development, including economic, social and governance principles (ESG principles), as well as a ban on investments in tobacco, alcohol, weapons, etc.

The Fund is a long-term investor aimed at creating sustainable value and able to withstand short-term market volatility.

Investment criteria

- All investments must have a positive net present value ($NPV > 0$) and an internal rate of return above the cost of equity ($IRR > CoE$).
- Availability of a strategic partner: new investments of the Fund are carried out jointly with a strategic partner.
- The Fund carries out international investments in sectors of the economy that are linked



strategically to Kazakhstan (with the exception of the oil industry). It also makes investments at all stages of the project implementation and stages of the project life cycle.

To implement investment plans, the Fund uses all available sources of funds - its own funds, dividends from portfolio companies, funds from divestments (sales of companies (shares) when deciding to exit, borrowed funds raised on domestic and international capital markets, intra-group financing and other sources.

Priority investment projects of the Fund

In 2022, the Fund continued to implement the First package of priority investment projects, which was approved at the meeting of the Investment Headquarters of the Government of the Republic of Kazakhstan on November 9, 2021. Most of them are included in the National Action Plan and various country program documents.

In accordance with the investment strategy of Samruk-Kazyna JSC, an initiative has been put forward to implement the Second package of priority investment projects of the Fund Group totaling more than KZT20 trillion. The projects cover the areas of expansion of critical infrastructure of petrochemistry, electric power, gas

infrastructure, railway transport and telecommunications.

The implementation of this group of projects will create over 39 thousand temporary and 10 thousand permanent jobs, introduce additional electrical power up to 8.4 GW, give a powerful impetus to the development of the petrochemical cluster in the western region (polyethylene – 1.25 million tonnes/year, butadiene – 45 thousand tonnes/year, isobutane-isobutylene fraction – 130 thousand tonnes/year, synthetic rubber – 100 thousand tonnes /year, methyl tert-butyl ether - 40 thousand tonnes/year), increase the volume of main gas transportation by 15 billion m³/year, increase the level of raw gas utilization by 4 billion m³/year and much more.

Name of projects	Preliminary cost billion tenge
1st package	
Reconstruction of the Astrakhan-Mangyshlak main water pipeline (stage 1)	113.8
Construction of a seawater desalination plant in Kenderly	127.2
Construction of a looping MG "Makat-North Caucasus"	98.2
Reconstruction of the gas transmission system of the Mangystau region, including Construction of the 2 nd line of MG "Beineu-Zhanaozen"	228.3
Construction of gas infrastructure for the thermal power plant of Almaty	95.6
Gasification of the area "Sarsha" and the resort area "Warm beach"	33.2
Construction of a gas processing plant on Kashagan m. (Stage 1)	390
Construction at the Almaty CHPP-2 CCGT with a capacity of up to 600 MW	421.1
Reconstruction of Almaty CHPP-3 on the basis of CCGT with an increase in the station's capacity to 450 MW	341.4
Expansion of CHP-1 with the construction of a 200-250 MW CCGT	466.6
Reconstruction of Almaty cable networks	83.3
Construction of a CCGT with a capacity of up to 1000 MW in Turkestan region	626
Modernization of the Dostyk-Moynty railway corridor (Stage 1)	543
TOTAL for the 1st package	3 567.7

Name of projects	Preliminary cost billion tenge
2nd package	
Production of polyethylene	3 661
Construction project of a gas separation plant for the Polyethylene project	1 071
Production of butadiene and its derivatives in the Republic of Kazakhstan	417
Increasing the capacity of the main gas pipeline MG "Beineu-Bozoy-Shymkent"	1 992
Development of Kashagan Crude Gas Utilization Project (Stage 2)	1 010
Expansion and reconstruction of Ekibastuz SDPP-2 with the installation of power unit No. 3	445
Expansion of Ekibastuz SDPP-2 with the installation of power unit No. 4	548
Expansion of Ekibastuz SDPP-2 with the installation of power units No. 5 and 6	1 096
Construction of the station based on clean coal technologies of SDPP-3	1 400
Unification of the energy system of Western Kazakhstan with the UES of Kazakhstan	103
Strengthening of the electric network of the Southern zone of the UES of Kazakhstan	222
Construction of a nuclear power plant with a capacity of up to 2800 MW	5 760
5G network construction in Kazakhstan	395
Laying of a fiber-optic highway along the bottom of the Caspian Sea	59
Construction of a sulfuric acid plant with a capacity of 800 thousand tons per year	73
Construction of a bypass railway line bypassing the railway junction of Almaty station	94
Construction of the Darbaza– Maktaaral railway line	162
Construction of the Bakhty-Ayagoz railway line (3 rd border checkpoint)	321
Construction of a 1 GW wind farm with an energy storage system jointly with Total Eren	905
Construction of a 1 GW wind farm jointly with ACWA Power	675
TOTAL for the 2nd package	20 409



The Fund participates only in projects that are critically important for the country, as well as in projects identified by the Head of State that cannot be implemented by private investors.

New investments in renewable energy

In 2022, the Fund, together with Portfolio Companies, worked on innovative investment projects involving strategic partners in the renewable energy industry, among others. Thus, within the framework of the Memorandum of Understanding signed in 2021 and 2022, the Agreement on Principles and the Term Sheet between the Fund, KMG, Total Eren and the Ministry of Energy

of the Republic of Kazakhstan, it is planned to implement a large-scale project for the construction of a 1 GW wind farm with an energy storage system.

A similar wind generation project is discussed with a partner from Saudi Arabia, ACWA Power. The project "Construction of the wind power plant in the Shelek corridor with a

capacity of 60 MW with the prospect of expansion to 300 MW" is also has been launched. On September 12, 2022, as part of the opening ceremony of the WPP station in the Shelek corridor with a capacity of 60 MW, a Memorandum of Cooperation was signed between Samruk-Kazyna JSC and PowerChina Resources Limited on further development of Phase 2 of the project.



Activities of Samruk-Kazyna Invest LLP

Samruk-Kazyna Invest LLP (SK Invest) is an investment company that, together with strategic partners, makes direct investments in projects on the territory of the Republic of Kazakhstan.

The main objective of the company is to diversify the investment portfolio of the Fund.

SK Invest is designed to stimulate development of the economy by

creating new industries, quality jobs, reducing import dependence, increasing exports, attracting foreign investment and technology.

Key performance results

Indicator	2021	2022
financial indicators, KZT million		
net profit from transactions with financial instruments measured at fair value, changes in which are reflected in profit or loss for the period	4 067	3 853
income (loss) from operations	3 991	4 523
financial income (expenses), net	5 488	14 877
income (loss) before taxation	1 497	13 488
corporate income tax expenses	462	2,938
profit/(loss) for the period	1 035	10 550

In December 2022, Fitch Ratings assigned SK Invest long-term issuer default ratings (IDR) at the level of BB+ with the "Stable" outlook. The received international credit rating will increase the reputation and the level of trust in the company, as well as have a positive impact on the brand awareness of SK Invest.

Plans for 2023

In 2023, the company plans to increase its investment portfolio by investing in industrial projects in the field of building materials, food industry, mechanical engineering, chemical and electrical industries. The total cost of the projects is KZT290.7 billion, including direct foreign investments in the amount of KZT101 billion from investors of China, Switzerland, Turkey.

It is planned to update the Development Strategy of Samruk-Kazyna Invest LLP for 2023-2032 in accordance with the mission, vision, strategic initiatives and key priorities, as well as with the national development priorities of the Republic of Kazakhstan.

Taking into account the current socio-economic development situation in Kazakhstan and the role of the Fund in the country's economy, it seems appropriate to focus investments primarily in the economy of Kazakhstan (in strategic projects).

Globally, the Fund will strive to diversify its portfolio and fill it with breakthrough projects with a high share of exports.

In foreign markets, emphasis will be placed on cooperation with major international organizations and sovereign wealth funds in order to implement jointly initiatives and projects.

Attracting international strategic partners will have a positive effect in the form of technology transfer and attracting investments for the sustainable development of the country's economy.

This will allow the Fund to gain access to new markets and increase the experience of international investments, pooling resources through co-investment mechanisms and improving the image of Kazakhstan and Samruk-Kazyna JSC.



150.7

thousand square meters

Real estate commissioning

Support for the construction sector

Samruk-Kazyna Construction Joint Stock Company (former Real Estate Fund of Kazakhstan) is a developer company established on March 06, 2009, by the Government of the Republic of Kazakhstan in order to stabilize the situation in the real estate market, namely, solving the problems of shareholders and completing problematic objects. Initially, the company's task was to acquire residential and non-

residential premises in the facilities under construction and ensure effective management of this property. As a national operator, the company participated in the implementation of Affordable Housing 2020, Nurly Zher and a number of other state programs in eleven regions of the presence of the Fund group of companies.

In March 2019, the Government of the Republic of Kazakhstan transferred 100% of the company's shares to the Sole Shareholder - Samruk-Kazyna JSC. According to the updated Development Strategy, the real estate company is moving from the functions of the operator of state programs to rendering services in the field of construction and real estate management for the Fund group of companies.

Key performance results

Indicator	2021	2022
production indicators:		
real estate commissioning, thousand m ²	8.18	150.65
real estate sold, thousand m ²	29.07	99.08
production of non-primary goods and services, KZT million	22.04	26.09
labour productivity, KZT million/person	170.62	255.08
financial indicators, KZT billion:		
revenue	14.31	19.64
dividends	1.02	2.03
net profit	9.78	5.28
operating profit	9.51	9.52
net debt	93.36	71.94
taxes paid	2.57	2.28

“Comfortable school”

The goal of the National Project is to eliminate emergency schools, three-shift training and a shortage of student places in secondary education organizations. Sources of financing: KZT646,535,206 thousand is provided at the expense of the National Fund, KZT1,960,060,849 thousand - at the expense of the Republican Budget.

The total amount of funding required for the implementation of the National Project is KZT2,606,596,055 thousand. The total number of facilities put into operation during

the implementation of the National Project under the first mechanism is 401 schools in 20 regions of the Republic of Kazakhstan.

Design capacities of secondary education facilities are as follows: 300, 600, 900, 1,200, 1,500, 2,000, 2,500 students. The repayment of funds allocated to the Company for the implementation of the national project will be carried out by transferring secondary education facilities to the ownership of local executive bodies, simultaneously with the commissioning of these facilities

Since 2023, Samruk-Kazyna Construction JSC is appointed the Directorate for the target construction of secondary education facilities. The company manages the project in accordance with the Rules for Rendering Engineering Services in the Field of Architectural, Urban Planning and Construction Activities, while being endowed with the function of the customer.

Financial results

At the end of 2022, net Income of the company amounted to KZT5,284 million with a planned net income for KZT8178.6 million. The high

volatility of the Russian ruble had a negative impact on the financial result: the company recognized a loss from the currency difference on a previously issued ruble loan repaid in the first decade of September (at the exchange rate as of the maturity date for KZT7.84/RUB1), and on the ruble bond loan (at the exchange rate as of the end of the reporting period for KZT6.43/RUB1).

Support for the construction industry

As of December 31, 2022, residential construction investment agreements were concluded for 11 objects in Astana, Almaty, Atyrau, Aktobe, Konayev and Ust-Kamenogorsk; the company's real estate pool for which is 362.98 thousand m², the total cost of projects amounts to KZT129 billion, including the volume of the company's own investments – KZT55.3 billion. The Company's share in projects averages 60%. Of these, three projects were commissioned in 2022 and three projects were partially commissioned, the total share of the Company's commissioned real

estate amounted to 150.7 thousand square meters, 99.1 thousand square meters were sold. These projects are financed at the expense of own funds and borrowing on market conditions.

One of the tasks assigned to Samruk-Kazyna Construction JSC is participation in the program of plants for the production of import-substituting construction materials. In 2022, the company signed an investment agreement for the construction of a plant for the production of roofing and cladding materials in Astana. The project cost is KZT2.6 billion.

The project provides for the production of up to 630,000 units of metal roofing elements per year and up to 2,200,000 units of cladding materials per year.

With the start of plant operation, about 70 jobs will be created. More than 90 people will be involved in the construction process.

On August 19, 2022, on the territory of the Astana – New City special economic zone, a capsule was laid

at the construction site of the plant for the production of roofing and cladding materials in Astana.

Improving the operational efficiency

In 2022, the company started automating the rental payment management system with completion in 2023.

As part of the automation of internal corporate business processes for personnel records management, the electronic platform SimBASE has been introduced.

Plans for 2023

In 2023, the Company plans to complete the construction of 5 residential complexes in Astana, Almaty, Aktobe, Konayev. Among the priorities is the completion of the construction of the plant for the production of roofing and cladding materials in Astana; the beginning of the construction of schools in 20 regions as part of the Comfortable School pilot national project.





3 591

KZT billion

the amount of contracts concluded

Procurement Support

Samruk-Kazyna Contract LLP (hereinafter referred to as SKC) is the Procurement Operator of the Fund group of companies. The company was founded in 2009. SKC provides support and development of the electronic procurement information system (the Fund's procurement web portal), monitoring of local content

and marketing of prices for goods purchased by the Fund group of companies. The company is also the developer of the Unified Stock Item Catalogue of Goods, Works and Services used in the procurement of the Fund group, public procurement, as well as procurement of the quasi-public sector and subsoil users.

In addition, SKC carries out the preliminary qualification of potential suppliers and has been designated by the Management Board of the Fund as the Competence Center for Managing Procurement Categories of the Fund.

Key performance results

Indicator	2021	2022
procurement indicators for the Fund group		
amount of contracts concluded, KZT billion	3 381	3 591
total share of local content in procurement, %	77%	79%
local content in goods procurement, %	67%	61%
local content in the procurement of works and services, %	83%	89%
Total amount of single-source procurement (SSP), KZT billion (the share of the total amount of procurement is specified in %)	1 340 (39%) of them 488 (14%) are IHC	1 407 (39%)
Total amount of procurement through an open tender (OT), request for price quotations (PQ) and other competitive methods, KZT billion (the share of the total amount of procurement is specified in %)	2 041 (61%)	2 184 (61%)
number of concluded offtake contracts (at the end of the year, auto-incremental), units	192	331
amount of concluded offtake contracts (at the end of the year, auto-incremental), KZT billion	82.2	101.4
Indicators of Samruk-Kazyna Contract LLP		
production indicators		
number of potential suppliers registered on the procurement web portal (at the end of the year, auto-incremental), thousand units	65	81
number of potential suppliers who have passed the pre-qualification, units	83	129
number of procurement category strategies (at the end of the year, auto-incremental), units	78	21
number of codes of the Unified Stock Item Catalogue of Goods, Works and Services (at the end of the year, auto-incremental), units	50 670	52 363
financial indicators, KZT million		
revenue	8 624	2 781
dividends	164	1 721
net profit	1 902	585
operating profit	2191	663
net debt	0	0
taxes paid	1 115	1 008

Implementation of the import substitution program

One of the strategic objectives of the Fund is to participate in the implementation of socially significant, industrial and innovative projects that contribute to the sustainable development of the economy of Kazakhstan.

An effective mechanism for supporting domestic producers has become the Import Substitution Program, under which the manufacturer undertakes to create a new production of imported products, and the Fund companies acquire it on a long-term basis.

To implement this direction, the Fund approves the "Pool of Net Import Goods" on a quarterly basis in which the Fund group of companies has a long-term need. Enterprises are proposed to establish production on the territory of Kazakhstan, and the Fund companies undertake to ensure long-term demand. From 2018 to 2022, 53 projects were approved for the conclusion of offtake contracts. 331 offtake contracts were concluded for a total amount of about KZT101.4 billion.

Maintaining the Register of Commodity Producers of the Fund

In order to support domestic producers, acceptance, consideration and decision-making on materials submitted for inclusion in the Register of Commodity Producers of the Fund (hereinafter - the FCP Register), the presence in which gives producers the priority right to participate in the procurement of the Fund.

Based on the results of 2022, 2 890 applications from businesses for inclusion in the FCP Register were considered. At the moment, 719 organizations for more than 17 thousand commodity items are included in the FCP Register.



Potential supplier pre-qualification (PQ)

Pre-qualification of potential suppliers (PQ) in modern procurement practices is important, indirectly contributes to reducing the risks of subsequent contracting, reduces the cost of procedures, ensures transparency and ultimately contributes to the development of fair competition. Pre-qualification means the selection of precisely such business entities that will be able to satisfy the customer's needs for goods, works, and services of appropriate quality with the maximum degree of probability.

The Register of Qualified Potential Suppliers includes 243 potential suppliers. For 2020-2021, 83 potential suppliers were included in the QPS Register.

During 2022, together with Portfolio Companies of the Fund, 24 categories of goods, works and services have been developed for which the PQ is applied. In addition, 5 categories have been developed for major investment projects of JSC NC KazMunayGas, JSC NC Kazakhstan Temir Zholy, KEGOC JSC, Samruk-Energy JSC.

The ongoing monitoring of the quality of service rendering indicates a 100% level of satisfaction with the PQ process on the part of potential suppliers.

Category procurement management

Categorical procurement management (CPM) is a modern global management practice that can increase the economic efficiency of a company's procurement.

The CPM is aimed at changing the approach to procurement, taking into account the specifics of a particular business area. The implemented changes contribute to reducing purchase prices, improving the quality of purchased goods, optimizing logistics costs, reducing inventory balances, etc.

The CPM advantage is that the key criterion for choosing a supplier can also be not only the purchase price, but also the total cost of all expenses incurred during the life cycle of a product, work or service from the moment of their procurement to full write-off / disposal.

The List of procurement categories of the Fund and its organizations

In 2021-2022, work was carried out to optimize procurement categories, as a result of which the new version of the List consisting of 21 categories was formed.

Results of the Fund PCS implementation:

№	Category name (strategy)	Benefits (KZT million)	
		2021	2022**
1	Passenger cars and buses	66.3	8
2	Health insurance*	651.2	102
3	Electricity*	1544.3	-
4	Cable and wire products*	389.8	2
5	Special shoes*	197.7	275
6	Communication services*	158.8	-
7	IT equipment and communication equipment	143.4	-
8	IT software	190.8	230
9	Oils and lubricants*	-150.7	3
10	Special clothing	433.8	416
11	Trucks and special equipment*	120.1	405
12	Fuel*	0.1	93
Total		3745.5	1,299.2

* The Management Board of the Fund by the decision dated June 30, 2022 (Minutes No. 36/22) declared the Fund PCSs null and void.

Development and implementation of procurement category strategies (PCS) of the Fund

In 2022, the Fund PCSs were updated for the "Special Clothing" and "IT Equipment" categories, and the PCS was developed and approved for the "Pipe Products" category.

Further development of the Unified Stock Item Catalogue of Goods, Works and Services

The total number of codes of the Unified Stock Item Catalogue of Goods, Works and Services as of December 31, 2022 is 52,363, including: goods – 49,982, works – 533, services – 1,848. In 2022, 13,118 applications for the addition of a new code were considered in the USIC GWS information system, 1,527 codes were approved by the USIC GWS Codes Consideration and Approval Commission, 11,591 applications were returned with the proposed code.

As part of the USIC GWS development and improvement, work was carried out on the formation of a list of high-cost goods purchased by the Fund companies (about 906 USIC GWS codes). In order to correctly apply the USIC GWS codes, templates of standard technical specifications for use in the Electronic Procurement Information System have been developed according to these codes. The implementation of the Pilot Project in procurement is expected in 2023, after the modification of the USIC GWS IS and EPIS.

Processes Digitization

For round-the-clock monitoring, identification and response to incidents related to information security of EPIS and USIC GWS, the infrastructure was connected to the operational Information Security Operational Center.

During 2022, according to the Property Realization Rules of JSC SWF Samruk-Kazyna, the

Web Portal for the Fund Property Realization information system was developed. In November 2022, a pilot implementation was launched in the perimeter of several Portfolio Companies of the Fund.

The Procurement Data Analysis and Visualization System based on the Qlik BI platform has also been developed and put into operation. This system enables analyzing and report on the indicators of procurement activities in an automated form online.

List of unreliable suppliers

SKC forms and maintains the List of Unreliable Suppliers.

In total, 1,045 applications for inclusion in the List of Unreliable Suppliers were considered in 2022, 972 of them were included in the List, 73 applications were refused.



Scientific Research Initiatives

Samgau Center for Scientific and Technological Initiatives

Center for Scientific and Technological Initiatives non-profit organization is a structure created for consolidating and systematizing the research and development work of subsoil users members of the Fund group.

The mission of the center is to support R&D and innovation through the creation of an effective and transparent ecosystem of scientific, technical and innovative activities for the formation of a knowledge-intensive economy that contributes to the welfare of the population.

The Center was set goals to build an effective and transparent system for the selection and implementation of research and innovation initiatives. It should be a transparent and understandable process - from the moment of the application submission to the project completion. The selection effectiveness is ensured by an in-depth examination of projects, transparency of the process – access to information about the status of the project at all stages of selection and implementation.

The Center sets the task of creating practical mechanisms for interaction between the scientific and innovative community and industry.

Increasing the competitiveness of the domestic industry is directly related to the need to introduce innovative, high-tech technologies at enterprises. The scientific and intellectual potential of research organizations in Kazakhstan should be concentrated to solve technological problems in order to optimize production processes,

increase productivity and technological equipment.

The Center is in fact an integrated part of the National Innovation and Research System, building interaction with public authorities, development institutions, research organizations and universities, industry and financial institutions.

The Center activities are designed to provide synergy with all existing tools to support scientific and innovative activities.

In December 2022, the Center for Scientific and Technological Initiatives was re-registered at the site of Astana International Financial Center by transforming to Samgau Center for Scientific and Technological Initiatives non-profit organization.

Corporate R&D and Innovation Standard of Samruk-Kazyna JSC

In November 2022, the new version of the Corporate R&D and Innovation Standard was approved.

The Standard establishes uniform requirements for R&D and innovation activities of the Fund and its group of companies, and defines the procedure for their interaction.

The purpose of the Corporate Standard is to increase the efficiency and ensure transparency of R&D carried out in the Fund group of companies through qualitative selection and examination of applications.

According to the Corporate Standard, the projects are financed according to the decision of the Scientific

and Technical Council of the Fund based on the results of the relevant examinations of the application.

The Center is tasked with ensuring systematic cooperation of the Fund and its Portfolio Companies with the scientific community for the introduction of scientific developments into production, promotion and support of scientific projects and domestic science in general.

Financial and non-financial support tools are being gradually applied in order to increase the scientific and innovative activity of representatives of science and industry.

Performance of Samgau Center for Scientific and Technological Initiatives for 2022

By the end of 2022, the Samgau Center has considered more than 120 R&D applications. Of this number, 70 projects totaling KZT8.5 billion were approved and recommended for implementation at meetings of the Scientific and Technical Council of the Fund.

The projects dealt with the issues of reducing environmental impact, geological exploration, geotechnology and expanding the mineral base of the uranium industry, processing of extracted raw materials.

The approved and recommended projects include 51 projects of Kazatomprom, 12 projects of KMG, 4 projects of Samruk-Kazyna Ondeu LLP, 2 projects of Samruk-Energy JSC and 1 project of JSC NMC Tau-Ken Samruk.



Shared Service Center

Samruk-Kazyna Business Service LLP (hereinafter referred to as the SK Business Service) has been acting as the general service center of the Fund since July 2020.

Due to the need to increase the efficiency of the key business by optimizing expenses not related to the implementation of the key activities of the Fund and the group of companies. On May 28, 2020, the Modernization Council of the Samruk-Kazyna JSC group of companies decided to approve the transformation program in order to implement measures on Centralizing

Operational Functions into a shared service center based on SK Business Service.

The Company is the SAP Customer Expertise Center, the Compliance Competence Center, the Operator for the Assets Transfer to the Competitive Environment and the Centralized Archival Storage of Documents project.

SK Business Service has a 51% stake in the authorized capital of the subsidiary - QazCloud LLP.

QazCloud LLP is a service company that renders services for the support, maintenance and modernization of IT infrastructure, rental of virtual IT resources, protection of information data of the Samruk-Kazyna group of companies.

The company's activity is conditioned by the need to create an infrastructure service provider for the Fund group. In 2020, a unified service center for IT functions was established based on QazCloud LLP as part of the implementation of the Transformation Program of Samruk-Kazyna JSC.

Key performance results

financial indicators, KZT million

	2021	2022
income	14 126.8	11 359.3
cost	11 753	10 184.3
general administrative expenses	884.6	1,070.5
financial income/expenses	116.8	158.8
net profit	1 120.3	61
dividends paid	165.3	245

SSC activities

Since the beginning of the SSC activity, contracts have been concluded with the Fund group of companies, including the Fund, in the following areas of activity:

- administrative and economic support;
- written translations;
- transportation of employees;
- maintenance of the managers activity;
- procurement;
- HR service;
- accounting and tax accounting
- legal support
- safety
- IT security
- Compliance functions;
- and other functions.

In 2022, the quality management system of services rendered according to the standard of ST RK ISO 9001 – 2016 (ISO 9001-2015) was certified.

Centralized archival storage of documents

In 2020, the Modernization Council of the Fund group of companies by its decision determined SK Business Service to be the operator for the implementation of the Centralized Archival Storage of Documents project (CASD), the perimeter of which included 61 PCs/Subsidiaries of the Fund.

In 2021-2022, the Company rendered services in two of the areas of the

project - scientific and technical processing of documents and services for scanning and digitizing archival documents.

For the full implementation of the CASD project, the Electronic Archive information system was transferred to the authorized capital of SK Business Service LLP according to the decision of the Management Board of the Fund dated December 09, 2022.

The IS transfer made it possible to initiate the start of a full-fledged implementation of the CASD project. The total amount of concluded service contracts amounted to KZT130 million.

SAP Customer Expertise Center

The Company enters into contracts with PCs for the distribution and technical support of the SAP LPO owned by Samruk-Kazyna JSC on the basis of Agreement on Granting Rights to Use and Render Software Maintenance Services.

The perimeter of the Agreement includes 22 Portfolio Companies of the Fund.

The SAP Customer Expertise Center performs the following main functions:

- Support Service;
- Licensing management;
- Contract Administration;
- Consulting support;
- Coordination of requests for software revision/modification;
- Information management;
- Conclusion and maintenance / execution of lease agreements with PCs.

The total amount of contracts amounted to KZT13 billion.

Single Operator for the Assets Transfer to the Competitive Environment

According to the Rules for the assets transfer to the competitive environment, the company is defined as a Single Operator. The Automated Realized and Realizable Assets Database information system (ARRAD IS) has been developed and put into operation. The Fund and all Sectorial Companies have been granted access to the ARRAD IS to fill in data on assets. By the end of 2022, general information on 66 assets specified in the Decree of the Government of the Republic of Kazakhstan "On Some Issues of Privatization for 2016-2020" dated December 2020 was entered into the system.

Plans for 2023

In 2023, the Company plans to:

- Maintaining and developing current activities while improving the quality of services rendered;
- Automation of the services rendering processes to Customers, including using mobile services;
- Introduction of EA IS in the Fund companies with the implementation of the integration function as part of the Horizontal Monitoring project;
- Strengthening control over transparency and legality of transactions on the transfer of assets to the competitive environment;
- Distribution of licenses among the Fund group of companies, including potentially new organizations included in the SAP agreement.

04

SUSTAINABLE DEVELOPMENT

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COMMITMENT TO SDG PRINCIPLES

The Fund is aware of its importance in the economy of the Republic of Kazakhstan and strives to ensure sustainable development and create long-term value through effective management of a diversified portfolio of assets and business support in the interests of the people of the Republic of Kazakhstan.

The key factors of long-term sustainable development should be the well-being of people, ecological balance and, at the same time, ensuring long-term financial stability based on best business practices and corporate governance principles, which are possible based on the implementation of ESG principles.

Therefore, the sustainable development and implementation of ESG principles is one of the main strategic goals of the Fund.

The Foundation fully shares the values of the UN Sustainable Development Agenda. The Foundation recognizes the importance of all 17 UN SDGs and, as part of its activities, strives to make a feasible contribution to their achievement. Due to the specifics of the activity, The Fund has identified 11 UN SDGs to which it makes the most significant contribution.



ESG-rating of the Fund group
70 percentile by 2032

Increasing the proportion of women in the management bodies of the Fund's companies

30% by 2030

The share of independent directors in the Board of Directors of the Fund and portfolio companies

Maintaining at 50%

CORPORATE GOVERNANCE



Reducing the energy intensity of production activities

-10% by 2027

RESOURCE SAVING



Building human resources, strengthening competence in new areas

HUMAN CAPITAL DEVELOPMENT



Ensuring the principle of "zero injuries"

Achieving LTIFR 0.14

2023

Training of 100% of production personnel on safety culture

2023

H&S BEST PRACTICES

For strategic goals in the ESG directions, 5 UN SDGs have been identified:



Reduction of direct
and indirect greenhouse
gas emissions
(level 1 and level 2)

≥ [-10%] by 2032

Increasing the share
of low-carb generation
in the purchase
of electricity

45% by 2032

DECARBONIZATION



Formation of a portfolio
of offset projects

5.8 million tons
of CO₂-eq by 2032

The share of renewable energy
and hydroelectric
power plants in electricity
production
26 % by 2032

"GREEN" FINANCING



Certification of anti-corruption
compliance systems
for compliance with the
requirements of international
standards ISO 37001:2016
"Anti-bribery Management
Systems" and ISO 37301:2021
"Compliance Management
System"

OPENNESS, TRANSPARENCY AND COMPLIANCE

The Foundation's principles in the field of sustainable development are openness, accountability, transparency, ethical behavior, respect for the interests of stakeholders, legality, respect for human rights, intolerance to corruption, inadmissibility of conflicts of interest, personal example.

SUSTAINABILITY PRIORITY

Our strategy

The Fund, based on the principles of ESG, as an integral component in achieving its strategic and operational goals, sets itself the following tasks in the field of sustainable development:

- **Strengthening corporate governance** by increasing the role of the Board of Directors and the qualitative formation of their composition, portfolio companies' management based on the principles of good corporate governance, as well as the introduction of the world's best practices;
- **Ensuring openness, transparency and compliance** by involving stakeholders, ensuring transparency of reporting and preventing corruption offenses;
- **Strengthening social responsibility** through improving the working conditions of

employees, safety measures and other social aspects to improve people's well-being. The Fund will continue to contribute to the social development of the country through charitable activities and corporate sponsorship, as well as the promotion of corporate volunteering.

- **Implementation of H&S best practices** that reduce injuries in the Fund's group on the principle of "zero tolerance", improvement of work to ensure personal safety and trouble-free production using innovative and digital solutions;
- **Development of human capital** by building human resources, strengthening competencies in new areas and continuous professional development of employees, based on the best international practices;

- **Resource conservation** due to the efficient use of resources, including fuel and energy and water, modernization of equipment, the use of modern technologies in the implementation of new investment projects;
- **Decarbonization** through the revision of business models and technological transformation with an emphasis on low-carbon development with the achievement of carbon neutrality by 2060.
- **Development of "green" financing instruments** through the financing of projects corresponding to the "green" taxonomy, the issuance of "green" bonds tied to environmental and climate targets, the use of the R&D mechanism for innovative projects for the transition to the "green" economy.

SUSTAINABILITY GOVERNANCE STRUCTURE

On the way to achieving the Sustainable Development Goals, the Fund relies on a strong and clear internal management system.

All employees and officials at all levels contribute to sustainable development, implement principles and activities in the field of sustainable development through personal behavior and compliance with relevant policies and standards.

The Board of Directors, with the assistance of its constant committees, provides strategic guidance and supervision of activities in the field of SD, considers issues and results in strategic areas, approves the Low-carbon Development Concept, ESG Policy. Since 2016, the Fund has been publishing an annual sustainability report according to the standards of the Global Reporting Initiative (GRI). The report is reviewed by the Audit Committee of the Fund's Board of Directors and approved by the Board of Directors.

The Audit Committee controls the procedures ensuring compliance by the Fund with the requirements of legislation, ethical standards, monitors risk management, including SD, for the quality and reliability of financial and non-financial information and reporting.

The Fund's executives responsible for solving economic issues, as well as issues of sustainable development, are members of the Management Board.

It should be noted that in 2022, the Fund underwent structural changes aimed at implementing ESG principles. A separate structural unit has been created – the ESG Department under the leadership of the Managing Director for Strategy and Asset Management, coordinating work in this direction.

Since 2019, the H&S Committee has been operating under the Management Board and since 2021 the Committee on Sustainable Development, whose goal is to increase the efficiency and coordinate the activities of the PC in the field of sustainable development. In addition, the H&S Committee has been functioning under the Management Board since 2019, which coordinates and monitors

the implementation of measures in the field of industrial safety. The activities of the Committees make it possible to manage centrally the risks and opportunities of sustainable development and serve as an indicator of the Fund's involvement in sustainable development issues and recognition of the strategic importance of this activity for the Fund's group of companies.

RESULTS OF 2022 IN THE FOLLOWING AREAS:



CORPORATE GOVERNANCE

- standards in state-owned enterprises are as close as possible to the requirements of leading listed exchanges, OECD regulations, recommendations of the International Finance Corporation (IFC), Institute of Directors (IoD);
- the criteria for selection to the members of the Board of Directors have been increased, in terms of independence and compliance with the balance of skills, experience, elements of diversity and inclusiveness, industry specifics;
- unnecessary links have been eliminated, additional mechanisms have been created to improve the efficiency, optimization and efficiency of the implementation of business processes of interaction between the Fund and portfolio companies;
- the share of independence in the BoD for the Fund group has been increased to 43%;
- the share of women in the BoD in the Fund group was 15%.



OPENNESS, TRANSPARENCY AND COMPLIANCE

- A self-assessment report on the Fund's compliance with the Santiago Principles: The 24 Generally Accepted Principles and Practices for sovereign wealth funds) has been prepared, which is sent to the International Fund of Sovereign Wealth Fund (IFSFW);
- ESG principles have been implemented, including disclosure of information in the annual report and the Sustainability Report;
- the Fund's group of companies has 77 independent compliance services and 44 divisions entrusted with the execution of anti-corruption compliance functions.



SOCIAL RESPONSIBILITY

- 43 projects were implemented for a total amount of KZT10 billion allocated from the charity budget;
- salaries have been increased from 5 to 48% for low-paid positions and production personnel;
- free creative, sports and educational clubs have been organized for low-income families of the capital within the framework of the Zamandas project;
- doctors and medical workers of the medical trains "Zhardem" and "Salamatty Kazakhstan", equipped with modern diagnostic equipment and "operating rooms on wheels", throughout the year provided free medical care to people in separated rural regions of Kazakhstan who do not have access to quality medical care;
- launch of the Comfortable Schools project to build 401 schools by 2025.



HEALTH & SAFETY

- development of top-level internal regulatory documents on industrial safety (Policy and Corporate Standard);
- development of the corporate course "Culture of Safe Work", which has been approved by the Institute for Safety and Health of the UK IOSH;
- the practice of using proactive accident prevention tools, such as behavioral audits/safety dialogues; identification, registration and investigation of dangerous conditions, dangerous actions, potentially dangerous Near Miss incidents; application of the right of employees to stop or refuse unsafe types of work has been introduced into the activities of portfolio companies;
- cross-audits of subsidiaries and affiliates with participation of experts from portfolio companies, during which more than 600 inconsistencies were identified, potentially being prerequisites for uncountable cases;
- reduction in the number of victims of industrial accidents by 16%;
- the LTIF coefficient was 0.16;
- decrease in the FAR by 11%.

**HUMAN CAPITAL**

- approval of the new HR Policy of the Fund;
- staff turnover was 8%;
- the share of production personnel was 93%;
- the share of women was 28%;
- the number of applicants on the unified online recruiting portal QSamruk.kz . increased by 60%;
- the number of vacancies closed by external candidates through qsamruk.kz in 2022 is 7249 (1,795 in 2021).

**RESOURCE SAVING**

- The share of RES and HPP in electricity production is 6%;
- The Resource and Energy Saving Program has been approved;
- The Fund began to implement elements of Smart Grid technology, using the example of KEGOC JSC (for more details, see page XX);
- Construction of a maneuverable combined-cycle gas plant (CCGT) in Turkestan has begun;
- Portfolio Companies of Samruk-Energy JSC and JSC NC KazMunayGas plan to introduce additional RES (including hydroelectric power plants) with a total installed capacity of about 2.3 GW by 2027;
- It is planned to put into operation a wind power plant with a capacity of 1 GW from 2026 (in 2025 – 100, in 2026 +100 MW, in 2027 - +300 MW);
- Qazaq Green Power PLC is registered in the jurisdiction of the AIFC to manage "green" assets (RES, HPP).

**DECARBONIZATION**

- The Low-carbon Development Concept of the Fund was approved, including the Plan for the Transition to the Low-carbon Business Model;
- The Plan for transition to the low-carbon business model has been approved, which contains 53 activities in four directions;
- 9 PCs have approved their own Low-Carbon Development Programs.

**"GREEN" FINANCING**

- Samruk-Energy JSC made its debut offering of green bonds by public subscription on the stock exchange of the Astana International Financial Center - Astana International Exchange in the amount of KZT18.4 billion with a coupon rate of 11.4% per annum and a circulation period of 6.5 years;
- JSC NC KazMunayGas has acquired international renewable energy certificates;
- FWPS LLP registered 136 thousand tonnes of CO₂-eq as offset;
- Offset projects of Energiya Semirechiya LLP for 180 thousand tonnes of CO₂-eq and Samruk-Green Energy LLP for 17 thousand tonnes of CO₂-eq are at the registration stage;
- The successful placement of "green" bonds of JSC "KEGOC" on the trading platform of JSC "Kazakhstan Stock Exchange" (KASE) with a total volume of 16.1 billion tenge with a margin of 3% took place.

More detailed information on all ESG components is available in the Sustainability Report for 2022.

05

CORPORATE GOVERNANCE

- 112 • Corporate Governance System
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- 137 • Compliance Service
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Statement on Compliance with the Provisions of the Corporate Governance Code of Samruk-Kazyna JSC

In order to ensure compliance with the highest standards of corporate governance in 2012, the Sole Shareholder of Samruk-Kazyna JSC adopted the Decree of the Government of the Republic of Kazakhstan **"On Approval of the Corporate Governance Code of Joint Stock Company "Sovereign Wealth Fund "Samruk-Kazyna" (hereinafter - the Code).**

The international practice of corporate governance is not static and the revision of the principles of the Code is a standard process of improving the corporate governance system. In this regard, amendments to the Code were developed in the reporting year to bring the Fund in line with the best international practice in the field of corporate governance. The new version of the Code has been developed in accordance with provisions of the legislation of the Republic of Kazakhstan, given the principles of the UK and OECD Corporate Governance Code. The Board of Directors of the Fund by the decision dated December 14, 2022, approved the draft of the new Code and recommended for submission to the Sole Shareholder of the Fund.

By Resolution The Government of the Republic of Kazakhstan No. 590 of July 14, 2023 approved the Corporate Governance Code JSC "Samruk-Kazyna" in the new edition.

The Fund is obliged to carry out its activities in accordance with the basic principles of the Code, and in cases of non-compliance, provide explanations of the reasons for non-compliance. The Board of Directors may, for certain reasons, conclude that certain provisions of this Code are inapplicable or impossible to comply with. Control over the implementation of the Code is entrusted to the Board of Directors of the Fund.

Particular attention is paid to the issues of proper quality compliance with this Code in order to achieve sustainable success in the long term. The report on compliance/non-compliance with its principles and provisions is submitted for consideration and subsequent approval of the Board of Directors of the Fund on an annual basis.

Samruk-Kazyna JSC strives to comply with the highest standards of corporate governance, since it considers this to be one of the most important conditions for high efficiency and business sustainability, as well as the basis for socially responsible management of the Fund group.

In 2022, the main provisions of the Code for their compliance were analyzed. In the reporting year, the Fund basically complied with all the principles set out in the Code. Detailed information is provided in Annex 2.

CORPORATE GOVERNANCE SYSTEM

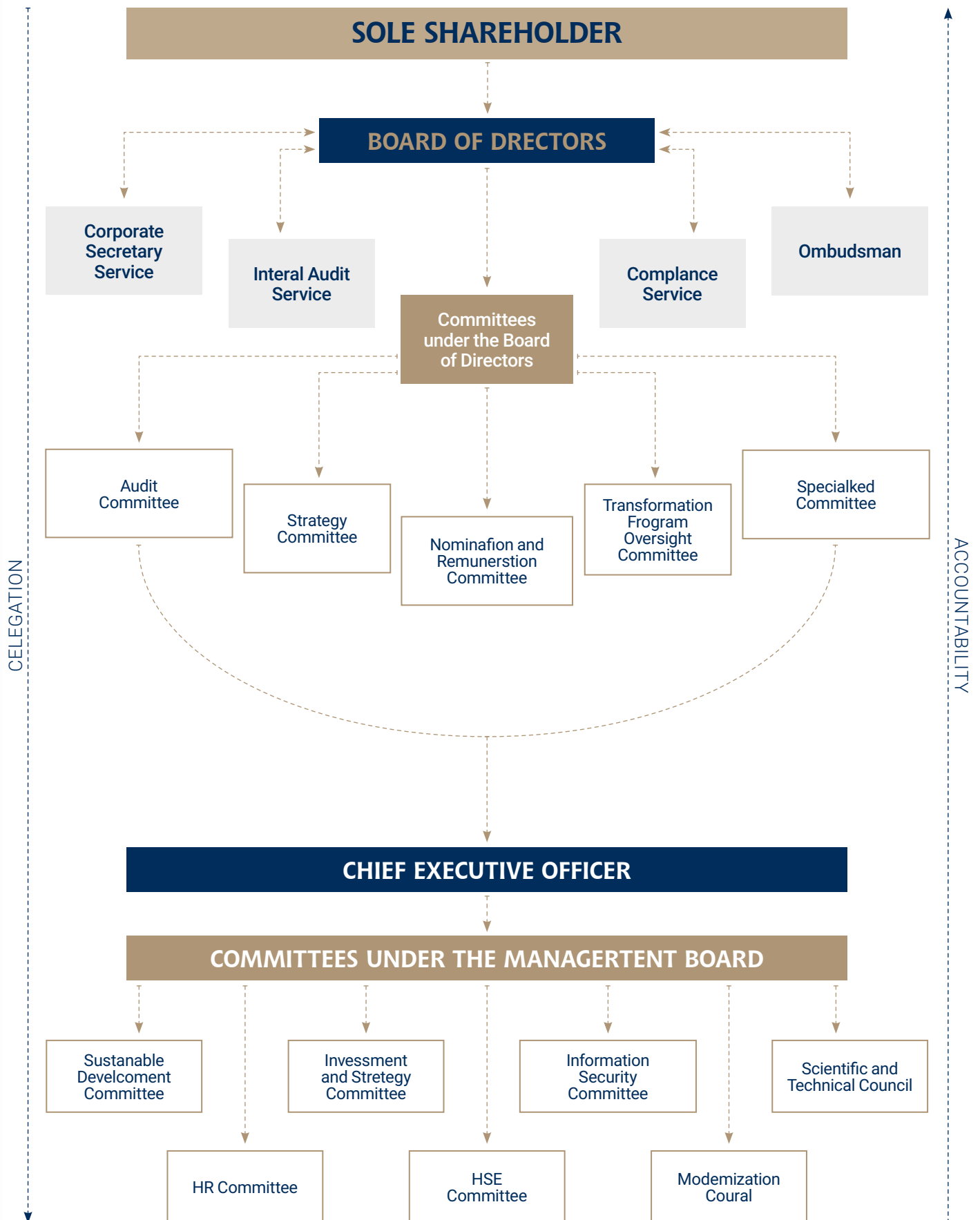
We confirm the commitment of the Fund group to follow the standards of good corporate governance with a focus on improving corporate governance practices, as well as ensuring transparency and accountability of our activities.

The Fund operates an efficient corporate governance system that

meets international standards. The corporate governance system of the Fund is a set of processes that ensure the management and control over the

Fund activities, as well as the system of relationships between the Sole Shareholder, the Board of Directors, the Management Board and stakeholders, and is aimed

at increasing long-term value and sustainable development. The Board of Directors regularly considers matters of improving the effectiveness of this system of relationships. The competence of the bodies and the procedure on decision-making are clearly defined and enshrined in the Charter.



SOLE SHAREHOLDER

The Government of the Republic of Kazakhstan is the Sole Shareholder of the Fund. The Government governs the Fund and the Organisations solely through exercising its powers of the Sole Shareholder of the Fund, as provided by the Law on the Fund and the Fund's Charter, as well as through its representation on the Fund's Board of Directors. The main principles and issues of interaction between the Government and the Fund are regulated by the Agreement on Cooperation.

The Government of the Republic of Kazakhstan segregates its powers of the Sole Shareholder of the Fund from its powers related to state regulatory functions. The Government governs the Fund to enhance the national welfare of the Republic of Kazakhstan through achieving growth in the long-term value and through managing the assets of the Fund and the Organisations effectively.

The Government provides the Fund and the Organizations with full operational independence and

does not permit interference by the Government and public authorities in the current and investment activities of the Fund and the Organizations, except in cases provided for by laws and acts of the President of the Republic of Kazakhstan. The Fund's Management Board, the Chief Executive Officer, and bodies of the the Organisations are fully autonomous and independent in their decisions and any actions within their competence.

The Sole Shareholder of the Fund has a list of tasks, decisions on which must be taken directly by the Sole Shareholder. An overview of issues referred to the exclusive competence of the Sole Shareholder is given below. These questions are fundamental to the Fund in summing up the strategic and financial results:

- Approval of the Fund's Charter;
- Approval of the annual financial statements of the Fund;
- Approval of the Development Plan of the Fund;
- Approval of the Fund's Corporate Governance Code;

- Determination of the Fund's dividend policy, taking a decision on the distribution of the Fund net income based on the results of the reporting period, taking a decision on the payment of dividends;
- Taking decisions on voluntary reorganization or liquidation of the Fund;
- Determination of the quantitative composition, term of office of the Board of Directors of the Fund, election of its members and early termination of their powers;
- Appointment and early dismissal of the Chief Executive Officer;
- Alienation of shares of companies according to the list determined by the Sole Shareholder of the Fund, as well as transfer of these shares to trust management;
- Decision-making on liquidation, reorganization of companies according to the list determined by the Sole Shareholder of the Fund.

A full list of issues referred to the exclusive competence of the Sole Shareholder is disclosed in the Charter of the Fund at www.sk.kz

BOARD OF DIRECTORS AND ITS COMMITTEES

The leading role of the Board of Directors

The Board of Directors of the Fund is a governing body accountable to the Sole Shareholder, providing strategic guidance and control over the activities of the Management Board of the Fund. The Board of Directors ensures the implementation of all provisions of the Corporate Governance Code of the Fund.

The performance of the Board of Directors is based on the principles of efficiency and responsibility, maximum alignment and implementation of the interests of the Sole Shareholder and the Fund, as well as protection of rights of the Sole Shareholder and responsibility for the operations of the Fund.

The Board of Directors is self-sustaining and independent in taking decisions and performing any actions within its competence in accordance with the Law on the Fund, the Code and the Charter.

The Board of Directors is not entitled to take decisions on issues that, in accordance with the legislative acts of the Republic of Kazakhstan and the Charter, are referred to the exclusive

competence of the Sole Shareholder (unless otherwise provided by the legislative acts of the Republic of Kazakhstan) and the Executive Body of the Fund, as well as take decisions that contradict decisions of the Sole Shareholder.

During 2022, the Board of Directors did not have any contradictions with these requirements.

The Board of Directors has sufficient authorities to manage the organization and control over the activities of the Management Board. The board of directors carries out its functions under the charter and pays special attention to the following:

- *Determining the development plan and integrating the ESG goals;*
- *Setting and monitoring the key performance indicators as part of the action plan;*
- *Organising and controlling the effectiveness of risk management and internal control systems;*
- *Approving and monitoring the effective execution of major investments and other key strategic projects within the competence of the Board of Directors;*
- *election of members of the Management Board (except for the Chief Executive Officer), remuneration, succession planning and supervision of the activities of the CEO and members of the Management Board;*
- *Meeting the provisions of the Corporate Governance Code and corporate standards of the Fund.*

A complete list of issues referred to the exclusive competence of the Board of Directors is determined by the Law of the Republic of Kazakhstan "On Sovereign Wealth Fund" and is disclosed in the Charter of the Fund at <http://www.sk.kz>

The members of the Board of Directors properly perform their duties and ensure growth of the long-term value and sustainable development of the organization.

When performing their duties, members of the Board of Directors comply with the following principles:

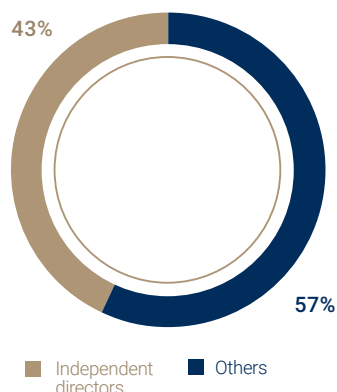
- **Act within their competence** - members of the Board of Directors make decisions and act within their powers specified in the Charter;
- **Commit sufficient time for taking part in meetings** of the Board of Directors, its Committees and preparing for the meetings - a member of the Board of Directors may not hold simultaneous membership of more than four legal entities or simultaneous Chairmanship in more than two Boards of Directors;
- **Promote the Organisation's growth in long-term value and Sustainable Development** - members of the Board of Directors act in the interests of the Organisation, treat all Shareholders fairly and follow the principles of Sustainable Development. The influence of decisions and actions of the Board of Directors members may be assessed through the following questions: what are the long-term consequences of the decision/action? What are the social and environmental impacts of the Organisation's activities? Will all Shareholders be treated fairly? What is the impact on the Organisation's reputation and high ethical standards? What is the impact on Stakeholders' interests? (While essential, this list of questions is not exhaustive);
- **Maintain high standards of business ethics** - in their actions, decisions and behaviour, members of the Board of Directors comply

with high standards of business ethics and act as role models for employees of the Fund and the Organisation;

- **Avoid conflicts of interest** - a member of the Board of Directors prevents situations in which their personal interest may affect the proper performance of their duties as members of the Board of Directors. If a conflict of interest affects or may potentially affect impartial decision-making, the members of the Board of Directors give advance notice to the Chairman of the Board of Directors and should not take part in the respective decision-making. This requirement also applies to the Board of Directors member's other actions that affect directly or indirectly the proper performance of their duties;
- **Act reasonably, skilfully and with due diligence** - members of the Board of Directors are recommended to develop their knowledge in terms of the Board of directors competence regularly and performing their duties in the Board of Directors and Committees. This may include such areas as law, corporate governance, risk management, finance and audit, Sustainable Development, industry knowledge and features of the Organisation's business. To understand issues related to the Organisation's business, members of the Board of Directors regularly visit key sites and meet employees of the Organisation.

COMPOSITION OF THE BOARD OF DIRECTORS¹¹

Share of Independent Directors on the Board of Directors in the Fund group

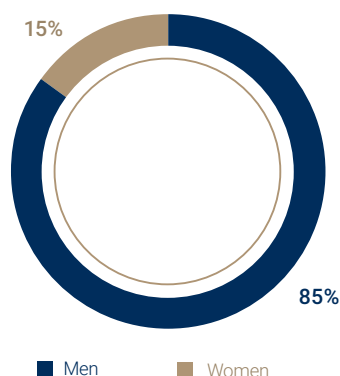


**ALIKHAN
SMAILOV**

**Chairman of the Board of Directors,
Prime Minister of the Republic of Kazakhstan**

Election date: January 2023

Gender diversity of members of the Board of Directors in the Fund group



Education:

- Al-Farabi Kazakh State National University - Applied Mathematics;
- Kazakhstan Institute of Management, Economics and Forecasting under the President of the Republic of Kazakhstan - Master of Public Administration.

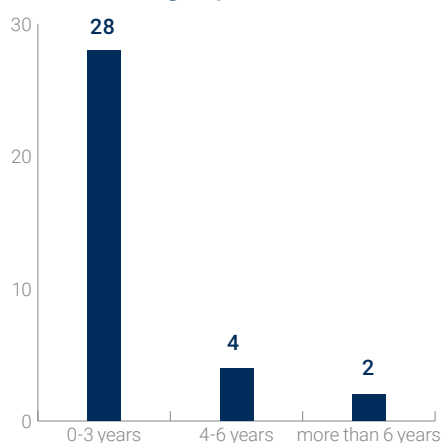
Experience:

In the period from 1993 to 1999, Alikhan Askhanovich worked as the Chief Specialist in A-Invest Investment and Privatization Fund; Deputy Head of the Department, Head of the Department of the National Statistical Agency of the Republic of Kazakhstan; Deputy Chairman of the Statistics and Analysis Committee of the Agency for Statistical Planning and Reforms of the Republic of Kazakhstan; Chief Expert, Head of the Economic Sector of the Department, State Inspector of the Executive Office of the President of the Republic of Kazakhstan.

In 1999-2003, he served as the Chairman of the Statistics Agency of the Republic of Kazakhstan. In 2003-2006, he took the position of the Vice-Minister of Foreign Affairs of the Republic of Kazakhstan, Chief Executive Officer of State Insurance Company for Export Credits and Investments Insurance JSC. In 2006-2009, he was the Vice-Minister of Finance of the Republic of Kazakhstan, President of JSC NMH KazAgro. In 2009-2014, he held the position of the Chairman of the Statistics Agency of the Republic of Kazakhstan. In 2014-2015, he served as the Chairman of the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan. In 2015-2018, he worked as the Aide to the President of the Republic of Kazakhstan. From September 2018 to February 2019, he fulfilled the duties of the Minister of Finance. On February 25, 2019, the President of the Republic of Kazakhstan by the Decree was appointed him the First Deputy Prime Minister - Minister of Finance. On January 18, 2021, the President of the Republic of Kazakhstan by the Decree reassigned him to this position. On January 11, 2022, the President of the Republic of Kazakhstan by the Decree appointed him to the post of Prime Minister of the Republic of Kazakhstan. On March 30, 2023, the President of the Republic of Kazakhstan by the Decree reassigned him to the post of Prime Minister of the Republic of Kazakhstan.

He was awarded with Yeren Yenbegi Ushin medal and other medals.

Tenure of independent directors on the Board of Directors in the Fund group



¹¹ As of May 2023, the composition of the Board of Directors of the Fund is presented as follows.



**TIMUR
SULEIMENOV**

**Member of the Board of Directors,
First Deputy Head of the Executive Office
of the President of the Republic of Kazakhstan**

Election date: January 2022

Education:

- S. Toraighyrov Pavlodar State University – Economics and Management in the Social sphere;
- S. Toraighyrov Pavlodar State University – Jurisprudence;
- University of Maryland (USA) – Master of Business Administration in the Bolashak program, Master of Business with a specialization in Finance.

Experience:

Timur Muratovich started working in 1999-2000 as the Economist Manager of family outpatient clinic No. 3 in Pavlodar. In 2002-2006 he worked as the Consultant, Chief Consultant of Ernst & Young Kazakhstan in Almaty. From 2006 to 2009, he served as the Director of the Tax Accounting and Tax Planning Department of KazMunayGas Exploration and Production JSC. From 2009 to 2010, he took the position of the Vice-Minister of Economy and Budget Planning of the Republic of Kazakhstan. From 2010 to 2012, he held the post of the Vice-Minister of Economic Development and Trade of the Republic of Kazakhstan. From 2012 to 2016, he was a member of the Board of the Eurasian Economic Commission (Minister) for Economy and Financial Policy. In 2016-2019, he worked as the Minister of National Economy of the Republic of Kazakhstan. In 2017-2019, he was the member of the Board of Directors of JSC NMH KazAgro. Since April 2019, he took the position of the member of the Board of Directors of JSC NMH Baiterek. From February to March 2019, he worked as Deputy Chief Executive Officer of the National Bank of the Republic of Kazakhstan. From March to July 2019, he took the position of the Assistant to the President of the Republic of Kazakhstan. From July 2019 to January 2022, he worked as a Deputy Chief of Staff of the President of the Republic of Kazakhstan. On January 13, 2022, by the Decree of the Head of State, he was appointed First Deputy Chief of Staff of the President of the Republic of Kazakhstan.

He was awarded with Kurmet and Yeren Yenbegi Ushin orders and other medals.



**ALIBEK
KUANTYROV**

**Member of the Board of Directors,
Minister of National Economy of the Republic of Kazakhstan**

Election date: January 2022

Education:

- Tomsk State University - "Finance and Credit" and "Linguistics and Intercultural Communication";
- University of Michigan – Master of Applied Economics in the Bolashak program.

Experience:

He started his career in 2005 as the Leading Specialist of the Internal Administration Department, the International Relations Department of the Ministry of Economy and Budget Planning of the Republic of Kazakhstan. In 2006-2010 he worked as the Expert, Chief Expert of the Investment Policy and Planning Department of the Ministry of Economy and Budget Planning and the Ministry of Economic Development and Trade of the Republic of Kazakhstan. In November 2010, he was the Head of the Strategic Development Department of the Strategic Planning and Analysis Department of the Ministry of Economic Development and Trade of the Republic of Kazakhstan. From 2010 to 2013, he occupied the position of Deputy Director of the Budget Policy and Planning Department and the Budget Planning and Forecasting Department of the Ministry of Finance of the Republic of Kazakhstan. From February to June 2013, he worked as the Deputy Chairman of the Geology and Subsoil Use Committee of the Ministry of Industry and New Technologies of the Republic of Kazakhstan. In 2013-2019, he took the position of the Deputy Head of the Center for Strategic Research and Analysis, Deputy Head of the Social Economic Monitoring Department of the Executive Office of the President of the Republic of Kazakhstan. In 2019-2021, he fulfilled the duties of the Deputy Head of the Chancellery of the First President – Yelbasy of the Republic of Kazakhstan. In 2021-2022, he worked as the Vice Minister of National Economy of the Republic of Kazakhstan. The Head of State by the Decree dated January 11, 2022, appointed him the Minister of National Economy of the Republic of Kazakhstan. On April 04, 2023, the Head of State by the Decree reassigned him to the position of the Minister of National Economy of the Republic of Kazakhstan.

Awards: the Yeren Yenbegi Ushin medal and several jubilee medals.



**BOLAT
ZHAMISHEV**

Member of the Board of Directors – Independent Director

Election date: July 2022

Education:

- Candidate of Economic Sciences.

Experience:

In different years he held the positions of Vice-Minister of Labor and Social Protection of the Population of the Republic of Kazakhstan (November 1997 - March 1999), Vice-Minister of Finance of the Republic of Kazakhstan (March 1999 - June 2001), Vice-Minister of Internal Affairs of the Republic of Kazakhstan (June 2001 - February 2002), Vice-Minister of Finance of the Republic of Kazakhstan (February 07, 2002 - February 2003), Deputy Chairman of the National Bank (February 2003 - January 2004), Chairman of the Agency of the Republic of Kazakhstan for Regulation and Supervision of the Financial Market and Financial Organizations (January 2004 - January 2006), Deputy CEO of Eurasian Development Bank (EDB) (June 2006 - November 2007), Minister of Finance of the Republic of Kazakhstan (November 2007 - November 2013), Minister of Regional Development of the Republic of Kazakhstan (November 2013 - August 2014), CEO of Development Bank of Kazakhstan JSC (August 2014 - April 2019), Chairman of the Board of Directors of Social Health Insurance Fund NJSC (from April 2020 - August 2022).

On October 30, 2020, he was appointed Chairman of the Board of Directors of Bank RBK JSC.

On January 15, 2022, he was elected CEO of Kazakhstan Khalkyna Public Fund.

On February 17, 2022, he was elected Chairman of the Samruk-Kazyna JSC Public Council.

Awards: Kurmet, Parasat orders, Jubilee medal “10 years of Astana”.



**LUCA
SUTERA**

Member of the Board of Directors – Independent Director

Election date: July 2020

Education:

- Bocconi University (Italy) – Master’s degree in Business Economics
- IE Business School International School (Spain) - MBA Program for top executives of Global Executive MBA
- Chartered Accountant (CPA)
- Certified Director (CloD)

Experience:

Mr Sutera is an experienced finance and investment executive with 25 years of post-graduate experience, of which 17 years serving as CFO for global energy companies and Sovereign Wealth Funds in Europe, Russia and the Middle East. Mr Sutera is currently Operating Partner of Asterion Industrial Partners, a leading European Investment Management Firm focused on European Infrastructure and Group Chief Financial Officer of Energy Asset Group, a leading UK-based integrated utility company. Prior to joining Energy Asset Group, from 2015 to 2020, Mr Sutera served as Chief Financial Officer of the Nebras Power Group, a Qatar-based state-owned global energy company. From 2011 to 2015 Mr. Sutera served as Chief Financial Officer of the global Power & Water Business of TAQA, Abu Dhabi-based state-owned global energy company.



**JON
DUDAS**

Member of the Board of Directors – Independent Director

Election date: December 2019

Education:

- University of the Witwatersrand (South Africa) - Bachelor of Science (Mining Engineering);
- University of the Witwatersrand (South Africa) - Master of Science (Mineral Economics);
- Heriot-Watt University (UK) – MBA.

Experience:

Mr Dudas began his working career at Rand Mines Ltd in 1984 and has held a variety of senior managerial and executive positions across a number of commodities and functions at companies including BHP, where he was CEO of the global Aluminum division. Since 2012, Mr Dudas has been working as an independent corporate adviser to multinational mining and professional service companies. From November 2015 to December 2019, was a member of the Board of Directors of JSC NAC Kazatomprom and elected Chairman of the Board of Directors in 2018,

By the decision of the Sole Shareholder dated December 6, 2019 (Decree of the Government of the Republic of Kazakhstan No.907), he was elected to the composition of the Board of Directors of Samruk-Kazyna JSC as an independent director.

The Board of Directors by decision dated February 06, 2020, No.167 appointed him to the position of the Chairman of the Board of Directors of the Fund.

Due to the election of the Prime Minister of the Republic of Kazakhstan to the post of the Chairman of the Board of Directors of the Fund, according to the decision of the Sole Shareholder dated January 16, 2023 (Decree of the Government of the Republic of Kazakhstan No. 19), he was elected the Member of the Board of Directors of the Fund as an Independent Director.

Jon Dudas prematurely terminated his powers on the basis of his application from May 01, 2023.



**NURLAN
ZHAKUPOV**

Member of the Board of Directors, Chief Executive Officer of Samruk-Kazyna JSC

Election date: April 2023

Education:

- Moscow State Institute of International Relations of the Ministry of Foreign Affairs of the Russian Federation, Faculty of International Economic Relations (1996-2001) - Bachelor of Economics, Master of Economics, Candidate of Economic Sciences

Experience:

In 2001-2003, Nurlan Karshagovich worked as the Financial Analyst at the Eurasian Industrial Association (ENRC). In 2003-2004, he held the position of the Business Manager at Chambishi Metals PLC (Zambia, Kitwe) and 2004 - 2007 - the Project Manager at Research, Investment and Development Ltd. In 2007-2009, he worked as the Analyst for the value of the company's shares traded on the stock exchange, the Credit Suisse basic materials team. In 2009-2011, he worked as the Managing Director, Member of the Management Board of JSC "National Mining Company "Tau-Ken Samruk". In 2011-2012, he became the Director of the Investment Banking Department, the Head of the Representative Office in Astana of JSC "Subsidiary Bank "RBS (Kazakhstan)". In 2012-2016, he took the position of the Executive Director of the Investment Banking Department, Head of the Representative Office in Astana of UBS AG Almaty Representative Office. In 2016-2017, he was the Managing Director for Development and Investment - Member of the Management Board of JSC "NAC "Kazatomprom". In 2017-2019, he served as the CEO of JSC SEC Astana. In 2019-2020, he was the Representative in Kazakhstan of Rothschild & Co. From 2020 to April 2023, he worked as CEO of Kazakhstan Investment Development Fund (KIDF) Management Company Ltd.

On April 04, 2023, he was appointed CEO of JSC "Sovereign Wealth Fund "Samruk-Kazyna"

Changes in the composition of the Board of Directors of the Fund for 2022-2023

Date	Member of the Board of Directors	Event
January 28, 2022	Kanat Bozumbayev	Early termination of powers of a member of the Board of Directors
January 28, 2022	Vyacheslav Kim	Early termination of powers of a member of the Board of Directors
January 28, 2022	Daniyar Akishev	Early termination of powers of a member of the Board of Directors
February 19, 2022	Ong Boon Hwee	Early termination of powers of a member of the Board of Directors
July 01, 2022	Bolat Zhamishev	Elected a member of the Board of Directors as the Independent Director
January 16, 2023	Alikhan Smailov Prime Minister of the Republic of Kazakhstan (ex officio)	Elected Chairman of the Board of Directors
April 04, 2023	Almassadam Satkaliyev	Early termination of powers of a member of the Board of Directors
April 04, 2023	Nurlan Zhakupov Chief Executive Officer of the Fund (ex officio);	Elected the member of the Board of Directors
May 01, 2023	Jon Dudas	Early termination of powers of a member of the Board of Directors

Work of the Board of Directors in 2022

In the reporting period, the Board of Directors Fund was focused on solving tasks within its competence through the prism of strategic goals. The list of issues and decisions are reflected in the corresponding Minutes and decisions of the Board of Directors meetings. The meetings of the Board of Directors were held in accordance with the Work Plan of

the Board of Directors of the Fund. Meetings of the Board of Directors and its Committees were held by means of in-presence or absentee voting.

As part of measures taken by the Board of Directors to increase the long-term value and sustainable development of the organization, 18 meetings of the Board of Directors of the Fund were held in 2022, of which 12 in-presence meetings and

8 absentee meetings. In total, 121 issues were considered, on which 208 instructions were given.

Based on results of the comparative analysis of the activities of the Board of Directors of the Fund for the period 2018 - 2022, there is increase in the number of issues considered in 2022, as well as decrease in the number of absentee meetings, which meets the best global corporate governance practices.

Indicator	2018	2019	2020	2021	2022
Number of meetings	11 (8 in-presence/ 3 absentee)	10 (6 in-presence/ 4 absentee)	15 (5 in-presence/ 10 absentee)	10 (8 in-presence/ 2 absentee)	18 (12 in-presence/ 6 absentee)
Number of issues	111	88	101	116	121

Issues considered by the Board of Directors in 2022, by categories:

Strategic issues	<ul style="list-style-type: none"> • Approval of the Development Plan of the Fund for 2023-2032 • Approval of the Low-carbon Development Concept (the Plan for the Transition to the Low-carbon Business Model) • Transfer of assets of the Fund to the competitive environment, determination of the method of transfer of the Fund companies • Withdrawal of shares of Joint Stock Company "National Company "KazMunayGas" for IPO • Acquisition of shares in the authorized capital of other organizations
Issues in economy and finance	<ul style="list-style-type: none"> • Determination of the audit organization that performs the audit of the Fund for 2022-2024 • Preliminary approval of the annual financial statements (consolidated and separate) of the Fund for 2021, the order of distribution of net income, taking a decision on the payment of dividends on ordinary shares and approving the amount of the dividend per ordinary share • Approval of the Annual Budget and Action Plan for 2023-2027 • Raising loan for the sum exceeding one percent of the amount of the equity capital of the Fund and determining the terms of the bond issue of the Fund. • Increase in the Fund liabilities by the size amounting to ten percent or more of its own capital through entering related-party transactions of the Fund, which are of a strategic nature
Reports	<ul style="list-style-type: none"> • Reports of the Chief Executive Officer and the Managing Director for Economics and Finance on performance indicators • HSE Reports and Prevention of the COVID-19 Spread in Portfolio Companies of Samruk-Kazyna JSC • Progress Report of the Agreement on Cooperation between the Government of the Republic of Kazakhstan and the Fund • Reports on the status of critical risks of the Fund and Portfolio Companies • Annual Report of the Fund for 2021 • Sustainability Report of the Fund for 2021 • Operating Reports of the Board of Directors and its Committees of the Fund for 2021 • Annual report on the implementation of the Fund's Charity Program for 2020 • Report on the Results of the Corporate Governance Diagnostics of the Fund (in the self-assessment format).
Issues of subsidiaries and affiliates of the Fund	<ul style="list-style-type: none"> • Placement of the Fund shares within the announced shares, determination of the method, quantity and price of their placement • Conclusion of related-party transactions of the Fund • Establishment of the consolidated limit of the Fund and formation of requirements for foreign companies • Amending the Charity Program of the Fund group in terms of determining the amounts for charitable needs (social projects)
Corporate governance issues	<ul style="list-style-type: none"> • Report on compliance/non-compliance with the principles and provisions of the Corporate Governance Code of the Fund • Approval of the risk map/register and risk appetite • Updating the composition of Committees of the Board of Directors and the Management Board of the Fund • Giving consent for members of the Management Board of the Fund to occupy positions of a member of the Board of Directors and a member of the Supervisory Board in some companies of the Fund group and other organizations • Amending the Corporate Governance Code of the Fund
Approval/ updating of internal regulatory documents	<ul style="list-style-type: none"> • Procurement Procedure by the Fund and Legal Entities, Fifty Percent or More of the Voting Shares (Interest) of which is Directly or Indirectly Owned by the Fund on the Right of Property or Trust Management • HR Policy of the Fund • Policy on Settlement of the Conflict of Interests of the Fund • Internal Credit Policy of the Fund group • Rules for the Transfer to the Competitive Environment of the Assets of the Fund and organizations, at least fifty percent of the voting shares (equity interests) of which is directly or indirectly owned by the Fund on the right of property • Terms of Remuneration and Bonuses Payment to the Chief Executive Officer and Members of the Management Board of the Fund • Rules for Labor Payment, Remuneration, Performance Evaluation and Social Support of the Ombudsman, the Corporate Secretary and employees of the Internal Audit Service of the Fund

Strengthening Corporate Governance for the Fund Group

Strengthening corporate governance is one of the fundamental aspects to increase the long-term value of the companies. For all PCs, regardless of the plans and timing of the IPO, the goal is to significantly improve corporate governance practices to the level of listing requirements of leading international exchanges in terms of compliance, disclosure, decision-making transparency, procurement and other aspects of corporate governance.

Implementation of the best international practices of corporate governance will increase the level of perception of the company by shareholders and investors, reduce the cost of borrowed capital, and ultimately will increase the long-term value of the company.

In 2022, the Fund has taken systematic measures to ensure the effectiveness of the Board of Directors in Portfolio Companies and further improve corporate governance by:

- **maximum approximation of standards to the requirements of leading listed exchanges**, OECD regulations, recommendations of the Financial Conduct Authority, Institute of Directors. In all PCs, the Charters and Regulations on the Board of Directors have been updated in terms of delineating the competencies and powers of the Board of Directors and the Management Board, the procedure for holding meetings and the format of materials for meetings of the Board of Directors have been unified;
- **strengthening the role of the Board of Directors** of Portfolio Companies and ensuring the adoption of independent, objective

decisions of the Board of Directors by attracting highly professional independent directors. The selection criteria for members of the Board of Directors have been increased, in terms of independence and compliance with the balance of skills, experience, elements of diversity and inclusiveness, sectorial specifics (relevant requirements have been introduced in the Code, the share of Independent Directors on the Board of Directors for the Fund group has been increased to 43%, the share of women in the Fund group – up to 15%);

- **de-bureaucratization of processes**, elimination of unnecessary links, creation of additional mechanisms to increase efficiency, optimize and speed up the implementation of business processes of interaction between the Fund and Portfolio Companies when reviewing and approving documents. Amendments and additions have been made to the Manual on Engagement with Portfolio Companies;
- **qualitative disclosure of information**. The approaches to the formation of the annual report and the Sustainability Report have been revised, a self-assessment report of the Fund on compliance with the Principles of Santiago was prepared, sent to the International Group of Sovereign Wealth Fund Managers (IFSWF);
- **Introduction of ESG principles**. The Code has been updated regarding the implementation of ESG principles. Integrated EGS Implementation Plans have been approved in Portfolio Companies. KAP, KMG and KTZh have received ESG ratings, preparatory work is underway in other Portfolio Companies.

Increasing the Role of the Board of Directors. Independence of Directors and Conflict of Interests

The structure of the Board of Directors composition will be formed given the requirements to the formation of the full-fledged and effective committees that are key working bodies of the Board of Directors. The Fund will support the work with the succession of the composition of the PC Board of Directors. For this purpose, high-quality work will be ensured to maintain the Fund's talent pool for potential members of the PC Board of Directors, as well as to select and hire directors who meet the target profile.

The role of the Board of Directors in the Fund governance is increasing on an ongoing basis, with a focus on the opinion of independent directors. The Fund will strive to maintain the share of independent directors in the PCs at the level of 50%.

The Boards of Directors of the Fund group include Independent Directors. The number of Independent Directors should provide for independence in decision-making and fair treatment of all stakeholders.

An Independent Director is a person that has sufficient expertise and autonomy to make independent and objective decisions, and be free from the influence of any Shareholder, the Executive Body and other Stakeholders.

The criteria for Director independence are specified in legislation of the Republic of Kazakhstan and the Organisation's Charter.

In addition to the requirements established by the legislation of the Republic of Kazakhstan, in 2022 the **Fund strengthened the criteria for independence** in compliance with

instructions of the UK Corporate Governance Code:

- whether he/she is or has been an employee of the company or group for the past three years;
- whether he/she has or has had for the last three years a material business relationship with the company directly or as a partner, shareholder, director or general manager of the body maintaining such a relationship with the company;
- whether he/she has received or is receiving additional remuneration from the company in addition to the director's remuneration, participates in an option on the company's shares or in a performance-based payment scheme, or is a participant in the company's pension scheme;
- whether he/she has membership in the Board of Directors or has connections with other directors through participation in other companies or bodies;
- whether he/she represents a major shareholder;
- whether he/she has served on the Board of Directors for more than nine years since first appointment.

The Independent Director monitors its independence and notifies the Chairman of the Board of Directors as soon as they detect a potential loss of independence.

During 2022, the Fund continued to work to ensure compliance with the independence status of the directors of the Fund group.

Risk management issues considered by the Board of Directors

In compliance with the current Risk Management and Internal Control Policy, the Board of Directors plays an important role in forming the

appropriate leadership culture to support and develop a risk management system, as well as in implementing mechanisms to ensure that this leadership culture is reflected throughout the Fund group. The Board of Directors takes an active part in discussing issues within the framework of the risk management, internal control and audit system, provides recommendations on the effectiveness and improvement of relevant business processes.

The Board of Directors has defined the principle of "three lines of defense" in order to effectively manage risks. The first line of defense is the direct owners of business processes, who play a key role in minimizing risks. The second line of defense is the control functions, including the Risk Management and Internal Control Department, Compliance Service, Security Service, responsible for the overall organization of the risk management system and providing methodological support for the first line of defense. The third line of defense is the Internal Audit Service, which provides an objective and independent evaluation of the effectiveness of the risk management system.

The Board of Directors considers reports on the status of critical risks of the Fund and Portfolio Companies, risk management measures, approves risk maps/risk registers, risk appetite for the upcoming period on a quarterly basis. Based on results of a thorough analysis and discussions, decisions are taken to further eliminate risks and improve the corporate risk management system.

All key risks, including the risks of accidents, the risks of significant investment projects, the risks of social instability, financial risks, the litigation risks, the reputation risks,

the risk of the impact of sanctions legislation, the privatization program risks were in constant focus of attention and control of the Board of Directors.

Performance Evaluation of the Board of Directors

In 2022, the assessment of corporate governance was carried out, including a self-assessment of the activities of the Board of Directors, by questioning members of the Board of Directors and key structural subdivisions of the Fund in the context of the following five areas:

- 1) Effectiveness of the Board of Directors and the Management Body;
- 2) Risk management, internal control and audit;
- 3) Sustainable development;
- 4) Rights of the Sole Shareholder;
- 5) Transparency.

The assessment scope has covered the period from July 01, 2021, to September 30, 2022.

The overall corporate governance rating of the Fund based on the results of the self-assessment has increased as compared to the rating of 2021, which was issued based on the results of the independent assessment of PricewaterhouseCoopers LLP. The increase in the rating was influenced by a significant improvement in measures in such areas as risk management, sustainable development and transparency.

Based on results of the diagnostics, key recommendations were given for further improving the efficiency of corporate governance. As part of these recommendations, the Fund will continue to improve the quality of corporate governance.

Information on the participation of members of the Board of Directors in meetings in 2022

№ Member of the Board of Directors, position	Attendance at meetings of the Board of Directors
1. Dudas J. - Chairman of the Board of Directors, Independent Director	83%
2. Suleimenov T.M. - Member of the Board of Directors, First Deputy Head of the Executive Office of the President of the Republic of Kazakhstan	94%
3. Kuantyrov A.S. - Member of the Board of Directors, Minister of National Economy of the Republic of Kazakhstan	83%
4. Zhamishev B.B. – Independent Director	100%
5. Sutura L. - Independent Director	89%
6. Ong B.H. - Independent Director*	100%
7. Satkaliyev A.M. - Member of the Board of Directors, Chief Executive Officer of the Fund	100%

*On February 19, 2022, he resigned from the Board of Directors of the Fund

Note: The members of the Board of Directors did not participate in the meetings of the Board of Directors of the Fund for valid reasons.

Committees under the Board of Directors

Decisions of the Board of Directors are taken by a simple majority of votes, after in-depth consideration by the relevant Committees, which devote sufficient time to discuss and analyze each issue.

The Committees promote in-depth and thorough consideration of issues within the competence of the Board of Directors and improve

the quality of decisions taken, especially in such areas as audit, risk management, proper and effective application of policies of the Fund, sustainable development, including issues of occupational safety and environmental protection.

Committees are established to perform in-depth analysis and formulate recommendations on the

most important matters before they are considered at the meeting of the Board of Directors. The Committees shall not exclude liability of the members of the Board of Directors for the decisions made within its authority. The committee Chairmen prepare the Operating Report of the Committee and report to the Board of Directors on the results of their activities for the year.



Audit Committee

The Committee Role

The Audit Committee is a consulting and advisory body of the Board of Directors of the Fund and was established to assist the Board of Directors of the Fund in performing its control functions over the integrity of financial statements, effectiveness of the internal control and risk

management systems, as well as compliance with the principles of corporate governance and legislation. The Audit Committee also makes recommendations to the Board of Directors of the Fund on the appointment or reappointment of an external auditor.

In accordance with requirements of the Corporate Governance Code, the Audit Committee consists exclusively of Independent Directors with in-depth knowledge and practical experience in accounting and auditing, risk management, and internal control.

Changes in the Composition of the Audit Committee

On February 19, 2022, Ong Boon Hwee, Independent Director, resigned from the Board of Directors and the Audit Committee. The Board of Directors of Samruk-Kazyna JSC by decision dated April 08, 2022, No. 195, elected Dudas Jon, Independent Director of Samruk-Kazyna JSC, a member of the Audit Committee.

The Board of Directors of Samruk-Kazyna JSC by decision dated August 25, 2022, No. 200, elected Zhamishev Bolat Bidakhmetovich a member of the Audit Committee.

Work of the Audit Committee for 2022

During the year, the Audit Committee has considered 54 issues of external and internal audit, internal control and risk management systems, financial reporting, corporate governance and compliance. In order to improve the quality of materials, as well as recommendations provided to the Board of Directors of the Fund, the Audit Committee paid special attention to the planning and preparation of meetings to allocate enough time for consideration and discussion of each agenda item, given the number of attending participants.

On External Audit

- Consideration of the selection and appointment process of the audit organization that performs the audit of Samruk-Kazyna JSC for 2022-2024;
- Consideration of the Audit Planning Report of Samruk-Kazyna JSC for 2021;
- Consideration of results of the audit of the consolidated and separate financial statements of Samruk-Kazyna JSC for the year ended December 31, 2021, and conviction of the independence of the auditors;
- Consideration of the results of the limited review procedures of the interim condensed consolidated

and separate financial statements of Samruk-Kazyna JSC for the six-month period ended on June 30, 2022;

- Consideration of information on the scope of audit and non-audit services rendered by audit organizations to the Samruk-Kazyna JSC group in 2021, and approval of the publication on the corporate Internet resource of the Fund information on remuneration paid by Samruk-Kazyna JSC to the external auditor for rendering audit and non-audit services for 2021;
- Consideration of issues on approval of rendering consulting non-audit services for Samruk-Kazyna JSC and its Subsidiaries by the audit organization of Samruk-Kazyna JSC.

On Internal Audit

- Consideration of the Annual Audit Plan of the Internal Audit Service, including amendments and additions;
- Consideration of the quarterly audit reports in accordance with the approved Annual Audit Plan, and consideration of reports on unscheduled audits;
- Performance evaluation of the Internal Audit Service employees, as well as assessment of the individual development plans of the Internal Audit Service employees;
- In order to increase the independence of Internal audit and the availability of sufficient resources, the Audit Committee approved the introduction of a separate budget for the Internal Audit Service subject to consideration and approval of the Board of Directors;
- During the year, significant efforts were made to promote value-oriented audits aimed at improving the efficiency of business processes and creating added value.

On Compliance Service

- Consideration of the semi-annual report of the Compliance Service for 2022;

- Consideration and submission of recommendations to the Board of Directors on approval of amendments and additions to the Conflict of Interest Settlement Policy of Samruk-Kazyna JSC;
- Consideration and approval of the appointment of the Compliance Service employees of Samruk-Kazyna JSC based on proposals of the Head of the Compliance Service;
- Consideration of results of a third-party-operated Hotline for anonymous reporting of compliance violations and unethical behavior.

On Internal Control and Risk Management

- Consideration and submission of the consolidated quarterly and annual risk reports of the Fund group for 2021 and 2022 to the Board of Directors;
- Consideration and giving recommendations on the preliminary plan for the development of the second line of defense within the framework of the internal control system of Samruk-Kazyna JSC;
- During the year, the Audit Committee devoted considerable time to discussing risk issues and interacting with risk owners, promoting open and transparent communication, as well as high-quality discussion of key risks.
- Additionally, the Audit Committee provided recommendations on the timing and quality of the preparation of risk reports, on the classification of risks, on their impact on the financial condition of the company, as well as on risk management measures.

On Financial Statements

- Consideration and submission of the Separate and Consolidated Financial Statements of Samruk-Kazyna JSC for the year ended December 31, 2021, to the Board of Directors for approval;
- Consideration of the interim condensed consolidated and separate financial statements of

Samruk-Kazyna JSC for M3 and M6 ended on March 30 and June 30, 2022;

- Detailed consideration and discussion with management and the external audit representative of:
 - key indicators included in the financial statements, especially those related to the impairment of non-current assets;
 - business continuity and liquidity;
 - compliance with credit covenants;
 - the impact of the January events and sanctions against the Russian Federation on the activities of the Fund group.
- In addition, the Audit Committee provided a recommendation to accelerate the process of automation and digitalization of business processes, as well as financial reporting systems.

On Corporate Governance

- Consideration of the report on compliance/non-compliance with the principles and provisions of the Corporate Governance Code of Samruk-Kazyna JSC, approved by Government Decree

of the Republic of Kazakhstan of November 05, 2012, No.1403;

- Consideration and submission of the Annual Report and sustainability report of Samruk-Kazyna JSC for 2021 to the Board of Directors for approval;
- In order to increase confidence to the sustainability report, the investment image and the trust of stakeholders, the Audit Committee recommended considering the possibility of the independent external audit of the sustainability report of Samruk-Kazyna JSC next year.
- Consideration and recommendation to the Board of Directors of Samruk-Kazyna JSC to submit the issue "On Amending Decree of the Government of the Republic of Kazakhstan of November 05, 2012, No.1403, "On Approval of the Corporate Governance Code of Joint Stock Company "Sovereign Wealth Fund "Samruk-Kazyna" for consideration of the Sole Shareholder of Samruk-Kazyna JSC.

In 2022, the Audit Committee held a total of 18 meetings, including 7 in-

presence and 11 absentee meetings. In total, the Audit Committee considered 54 issues in various areas within its competence, of which 74% of the issues were considered at the in-presence meetings and 26% of the issues were considered at the absentee meetings.

It should be noted that the absentee meetings were devoted to the approval of non-audit services rendered by the external auditor according to the policy of the Fund and in order to ensure the preservation of the independence of the external audit organization.

In addition, a number of meetings were organized with the participation of the Audit Committee members with the Head of the Internal Audit Service, the Head of the Compliance Service and the management of the Fund beyond the meetings of the Audit Committee to discuss issues of internal and external audit, risk management and internal control, corporate governance and compliance.

Participation of Committee members at meetings in 2022

Nº	Member of the Audit Committee	Position	Attendance of Committee meetings
1.	Luca Sutera	Independent Director, member of the Board of Directors of the Fund, Committee Chairman	100%
2.	Ong Boon Hwee*	Independent Director, member of the Board of Directors of the Fund, Committee Member	100%
3.	Jon Dudas	Independent Director, member of the Board of Directors of the Fund, Committee Member	100%
4.	Bolat Zhamishev	Independent Director, member of the Board of Directors of the Fund, Committee Member	100%

**On February 19, 2022, he resigned from the Board of Directors of the Fund*

Strategy Committee

The Committee Role

The Board of Directors of the Fund by the decision dated December 13, 2018, established the Strategy Committee, whose competence includes pre-consideration and development of recommendations to the Board of Directors of the Fund on issues affecting the strategic directions of the Fund activities.

Changes in the Composition of the Strategy Committee

The Committee consists of at least three members, one of whom must be an Independent Director. The tenure of Committee members aligns with their tenure as members of the Board of Directors of the Fund.

In the period up to January 06, 2022, Asset Armanovich Irgaliyev, who held the position of Minister of National Economy of the Republic of Kazakhstan, was elected to the position of the Chairman of the Strategy Committee. On January 11, 2022, the President of the Republic of Kazakhstan by the Decree appointed Alibek Kuantyrov to the post of the Minister of National Economy of the Republic of Kazakhstan.

During 2022, the authorities of the following members of the Strategy Committee under the Board of Directors of the Fund were terminated prematurely:

- the Board of Directors of the Fund by decision of February 18, 2022, No. 192, terminated prematurely

authorities of Kim Vyacheslav Konstantinovich, the Independent Director, based on his application for early termination of his authorities as the member of the Board of Directors of the Fund with the entry into force of the decision from January 17, 2022;

- the Board of Directors of the Fund by decision of August 25, 2022, No. 200, terminated prematurely authorities of Ong Boon Hwee, the Independent Director, based on his application for early termination of his authorities as the member of the Board of Directors of the Fund with the entry into force of the decision from January 19, 2022.

Due to changing the composition of the Board of Directors of the Fund, Zhamishev Bolat Bidakhmetovich, the Independent Director, was elected as a member of the Strategy Committee according to decision of the Board of Directors of the Fund of

August 25, 2022, No. 200, with entry into force from the date of the decision.

As of December 31, 2022, the Strategy Committee consisted of the following persons:

Kuantyrov Alibek Sakenovich - the Minister of National Economy of the Republic of Kazakhstan - Chairman of the Committee;

Dudas Jon - Independent Director;

Zhamishev Bolat Bidakhmetovich – Independent Director.

Work of the Strategy Committee for 2022

In 2022, 7 in-presence meetings of the Strategy Committee were held.

The Committee meetings were held on a regular basis in accordance with the Work Plan of the Committee for 2022, which in turn included the priority and most important issues of the Committee's activities for 2022. The following issues were considered and discussed at the Committee meetings:

- approval of the 10-year strategic plan and the medium-term action plan for the 5-year planning period;
- approval of the forecast of final macroeconomic indicators for use in the Action Plans of the Fund and its Portfolio Companies for the planned period 2023-2027, as well as for 2022-2026 due to the adjustment of the Action Plan for the specified period;
- Monitoring of the medium-term Action Plan;
- Monitoring of major investment projects, as well as the status of implementation of 13 priority projects.
- Approval of the Concept for the Transition to Low-Carbon Development of the Fund, including the Plan for the Fund transition to a low-carbon business model;
- Approval of the Work Plan of the Committee and submission of the annual operating report of the Committee to the Board of Directors.

Participation of Committee members at meetings in 2022

Nº	Member of the Strategy Committee	Position	Participation in Committee meetings (%)
1.	Alibek Kuantyrov	Minister of National Economy of the Republic of Kazakhstan, Member of the Board of Directors of the Fund, Committee Chairman	100%
2.	Jon Dudas	Independent Director, Chairman of the Board of Directors of the Fund, Committee Member	100%
3.	Bolat Zhamishev	Independent Director, member of the Board of Directors of the Fund, Committee Member	100%

Nomination and Remuneration Committee

The Committee Role

The Nomination and Remuneration Committee is responsible for providing recommendations and formulating proposals on the issues of attracting qualified specialists to the Board of Directors, the Management Board, the position of Corporate Secretary, approval of remuneration of independent directors, terms of remuneration and bonus payments paid to members of the Management Board and Corporate Secretary.

The Nomination and Remuneration Committee should comprise a majority of Independent Directors to make objective and independent decisions and prevent the influence of stakeholders on the Committee's decision-making.

Changes in the composition of the Nomination and Remuneration Committee

In accordance with Decree of the Government of the Republic of Kazakhstan of January 28, 2022, No.34 "On Amendments and Additions to Some Decrees of the Government of the Republic of Kazakhstan and Instructions of the Prime Minister of the Republic of Kazakhstan", Suleimenov T.M., First Deputy Head of the Executive Office of the President of the Republic of Kazakhstan was elected a member of the Board of Directors of the Fund.

In view of the above-mentioned change in the composition of the Board of Directors of the Fund, the Board of Directors of the Fund by decision of February 18, 2022, No.192, revised the composition of the Nomination and Remuneration Committee, including election of Suleimenov T.M. to the Committee with entering the decision into force from the date of the decision-making by the Sole Shareholder of the Fund on his election as a member of the Board of Directors of the Fund.

As of December 31, 2022, the Committee consisted of the following persons:

- Jon Dudas - an Independent Director - Chairman of the Committee;
- Suleimenov Timur Muratovich – First Deputy Head of the Executive Office of the President of the Republic of Kazakhstan, Committee Member;
- Sutera Luca – Independent Director - Committee Member.

Work of the Nomination and Remuneration Committee for 2022

In 2022, 7 (seven) meetings of the Nomination and Remuneration Committee of the Board of Directors of the Fund were held, of which 4 in-presence and 3 absentee meetings.

The Committee meetings were held on a regular basis according to the Work Plan of the Committee for 2022.

The following issues were considered and discussed at the Committee meetings:

- formation of proposals for the Board of Directors on the election of members of the Management Board;
- consideration of amendments and additions to internal regulatory documents, including those related to the HR Policy, remuneration of management and employees accountable to the Board of Directors;
- consideration of the corporate key performance indicators of the Fund in the form of the Fund KPIs Chart and performance evaluation of members of the Management Board;
- approval of the goals of the Corporate Secretary, the Ombudsman and results of their achievement;
- Approval of the Work Plan of the Committee and submission of the annual operating report of the Committee to the Board of Directors.

In 2022, 7 (seven) meetings of the Nomination and Remuneration Committee of the Board of Directors of the Fund were held via videoconference, of which 4 in-presence and 3 absentee meetings. 20 (twenty) issues were considered in accordance with the Work Plan.

Participation of Committee members at meetings in 2022

Nº	Transformation Program Oversight Committee members	Position	Participation in Committee meetings (%)
1.	Jon Dudas	Independent Director, Chairman of the Board of Directors of the Fund, Committee Chairman	100%
2.	Timur Suleimenov	First Deputy Chief of Staff of the President of the Republic of Kazakhstan, Member of the Board of Directors of the Fund, Committee Member	71%
3.	Bolat Zhamishev	Independent Director, member of the Board of Directors of the Fund, Committee Member	100%

Transformation Program Oversight Committee

The Committee Role

The Transformation Program Oversight Committee is a consultative and advisory body of the Board of Directors of Samruk-Kazyna JSC and was established to carry out the task of monitoring and assessing the implementation of the Fund's Transformation Program, consideration of the assets privatization and restructuring issues and preparing the necessary recommendations to the Board of Directors of the Fund.

Changes in the Committee Composition

In accordance with Decree of the Government of the Republic of Kazakhstan of January 28, 2022, No.34 "On Amendments and Additions to Some Decrees of the Government of the Republic of Kazakhstan and Instructions of the Prime Minister of the Republic of Kazakhstan", Suleimenov T.M., First Deputy Head of the Executive Office of the President of the Republic of Kazakhstan was elected a member of the Board of Directors of the Fund. The authorities of Bozumbayev K.A., the member of the Board of Directors of the Fund, were prematurely terminated by the specified Decree of the Government of the Republic of Kazakhstan.

In view of the above-mentioned change in the composition of the Board of Directors of the Fund, the Board of Directors of the Fund by decision dated February 18, 2022, No. 192, revised the composition of the Transformation Program Oversight Committee, including:

- the authorities of Bozumbayev K.A., the Committee member, were terminated prematurely with the entry into force of the decision from the date of the decision by the Sole Shareholder of the Fund on the early termination of his authorities as the member of the Board of Directors of the Fund;
- the authorities of Kim V.K., the Committee member - Independent Director, were terminated prematurely based on his application for early termination of his authorities as the member of the Board of Directors of the Fund with the entry into force of the decision dated January 17, 2022;
- Suleimenov T.M. was elected the Committee member with the entry into force of the decision from the date of the decision of the Sole Shareholder of the Fund on his election as the member of the Board of Directors of the Fund.

Due to changing the composition of the Board of Directors of the Fund, Zhamishev Bolat Bidakhmetovich, the

Independent Director, was elected as a Committee member according to decision of the Board of Directors of the Fund of August 25, 2022, No. 200, with entry into force from the date of the decision.

As of December 31, 2022, the Oversight Committee consisted of the following persons:

- Jon Dudas - an Independent Director -Chairman of the Committee;
- Suleimenov Timur Muratovich – First Deputy Head of the Executive Office of the President of the Republic of Kazakhstan, Committee Member;
- Zhamishev Bolat Bidakhmetovich – Independent Director, the Committee member.

Work of the Committee for 2022

In 2022, six meetings of the Transformation Program Oversight Committee under the Board of Directors of the Fund were held, of which 3 in-presence and 3 absentee meetings.

The following issues were discussed and considered at the meetings of the Committee in 2022:

- on the realization of the Fund assets, including those related to the IPO of JSC NC KazMunayGas and

the determination of the method of transferring up to 100% of the shares of JSC QAZAQ AIR to the competitive environment;	• Amendments and Additions to the Rules for the Transfer to the Competitive Environment of the Assets of Joint Stock Company "Sovereign Wealth Fund "Samruk-Kazyna" and organizations, at least fifty percent of the voting shares (equity interests) of which is directly	or indirectly owned by Samruk-Kazyna JSC on the right of property;
• the Progress Report on Assets Withdrawal of Samruk-Kazyna JSC and its Subsidiaries;		• Approval of the Work Plan of the Committee and submission of the annual operating report of the Committee to the Board of Directors.

Participation of Committee members at meetings in 2022

Nº	Transformation Program Oversight Committee members	Position	Participation in Committee meetings (%)
1.	Jon Dudas	Independent Director, Chairman of the Board of Directors of the Fund, Committee Chairman	100%
2.	Timur Suleimenov	First Deputy Chief of Staff of the President of the Republic of Kazakhstan, Member of the Board of Directors of the Fund, Committee Member	83%
4.	Bolat Zhamishev	Independent Director, member of the Board of Directors of the Fund, Committee Member	100%

Specialized Committee

The Specialized Committee carries out a comprehensive and objective analysis of the impact of the activities of organizations owned by the Fund Group on the development of the economy or a particular branch of the economy, except for issues related to their use of the funds of the National Fund of the Republic of Kazakhstan, the Republic Budget, as well as guarantees and assets of the state.

Management Board and its Committees

The Management Board is the collegial -executive body of the Fund, which manages its current activities and is -responsible for implementing the development strategy and development plan, as well as decisions taken by the Board of Directors and the Sole Shareholder of the Fund. The Management Board of the Fund carries out its activities in accordance with the legislation of the Republic of Kazakhstan, the Charter of the Fund, decisions of the Sole Shareholder and the Board of Directors of the Fund, the Regulations on the Management Board and other internal documents of the Fund.

The Chief Executive Officer is appointed by the decision of the Sole Shareholder. Members of the Management Board are elected by the decision of the Board of Directors of the Fund.

In their activities, the Management Board and the Chief Executive Officer are accountable to the Sole Shareholder and the Board of Directors of the Fund. The competence of the Management Board includes, inter alia, the following:

- *Taking decisions on issues referred in accordance with the legislation of the Republic of Kazakhstan and (or) the Charter to the competence of the general meeting of shareholders (participants), another body of the company or other legal entity in relation to which the Fund is a shareholder, participant or has the right to a share in the property, except for decisions on issues taken by the Sole Shareholder or the Board of Directors of the Fund in accordance with the Law "On Sovereign Wealth Fund";*
- *Taking prompt actions in respect of companies to prevent disruptions in the completeness and deadline of*

the implementation of investment decisions and investment projects;

- *Formation of a unified (including by industry sectors of companies) financial, investment, production and economic, scientific and technical, money management, HR, social and other policies in relation to companies;*
- *Approval of the rules for the development, approval, adjustment, execution and monitoring of the implementation of companies' development plans;*
- *Approval of the staff size, staff schedule and organizational structure of the Fund;*
- *Hearing on an annual basis the results of the Portfolio Companies activities and reporting on the results of companies' activities to the Board of Directors of the Fund;*
- *Taking decisions on issues of the Fund's internal activities.*

The complete list of issues referred to the exclusive competence of the Fund's Management Board is disclosed in the Charter of the Fund at www.sk.kz.

COMPOSITION OF THE MANAGEMENT BOARD OF THE FUND¹²



**NURLAN
ZHAKUPOV**

**Member of the Board of Directors,
Chief Executive Officer of Samruk-Kazyna JSC**

Election date: April 2023

Education:

- Moscow State Institute of International Relations of the Ministry of Foreign Affairs of the Russian Federation, Faculty of International Economic Relations (1996-2001) - Bachelor of Economics, Master of Economics, Candidate of Economic Sciences

Experience:

In 2001-2003, Nurlan Karshagovich worked as the Financial Analyst at the Eurasian Industrial Association (ENRC). In 2003-2004, he held the position of the Business Manager at Chambishi Metals PLC (Zambia, Kitwe) and 2004 - 2007 - the Project Manager at Research, Investment and Development Ltd. In 2007-2009, he worked as the Analyst for the value of the company's shares traded on the stock exchange, the Credit Suisse basic materials team. In 2009-2011, he worked as the Managing Director, Member of the Management Board of JSC "National Mining Company "Tau-Ken Samruk". In 2011-2012, he became the Director of the Investment Banking Department, the Head of the Representative Office in Astana of JSC "Subsidiary Bank "RBS (Kazakhstan)". In 2012-2016, he took the position of the Executive Director of the Investment Banking Department, Head of the Representative Office in Astana of UBS AG Almaty Representative Office. In 2016-2017, he was the Managing Director for Development and Investment - Member of the Management Board of JSC "NAC "Kazatomprom". In 2017-2019, he served as the CEO of JSC SEC Astana. In 2019-2020, he was the Representative in Kazakhstan of Rothschild & Co. From 2020 to April 2023, he worked as CEO of Kazakhstan Investment Development Fund (KIDF) Management Company Ltd. On April 04, 2023, he was appointed CEO of JSC "Sovereign Wealth Fund "Samruk-Kazyna".



**YERNAR
ZHANADIL**

**Managing Director for Development and Privatization -
Member of the Management Board**

Election date: September 2017

Education:

- Kazakhstan Institute of Management, Economics and Forecasting, (KIMEP), majoring in "Accounting";
- Manchester Business School, University of Manchester, UK, Master's Degree in Accounting and Finance.

Experience:

Over the years, Yernar Beisenuly has worked for Philip Morris Kazakhstan, and PricewaterhouseCoopers, the international auditing firm. In 2016, he was appointed to the position of Financial Controller of Samruk-Kazyna JSC with subsequent approval as Managing Director for Finance and Operations and Co-Managing Director for Economy and Finance - a member of the Management Board of Samruk-Kazyna JSC. At the moment, he is the Managing Director for Development and Privatization - a member of the Management Board of Samruk-Kazyna JSC.

¹² As of May 2023, the composition of the Management Board of the Fund is presented as follows.



**NAZIRA
NURBAYEVA**

**Managing Director for Economics and Finance -
Member of the Management Board**

Election date: May 2021

Education:

- University of Wisconsin Richland Center, USA, specialty "Business Administration".

Experience:

Nazira Nurtuleuovna began her career in 1998 at the PriceWaterhouse Branch. From 2002 to 2003, she worked as the Senior Consultant in tax services. From 2003 to 2004, she took the position of the Senior Tax Advisor at LUKOIL Overseas Services, Ltd. From 2004 to 2014, she served as the Senior Manager in PriceWaterhouseCoopers Tax & Advisory LLP. From 2014 to 2020, she held the position of the Director of PriceWaterhouseCoopers Tax & Advisory LLP. From June 2020 to April 2021, she worked as the Partner at Deloitte TCF LLP. Since April 2021, she has been appointed to the position of Managing Director for Economy and Finance of Samruk-Kazyna JSC - a member of the Management Board of Samruk-Kazyna JSC.



**YERNAT
BERDIGULOV**

**Managing Director for Strategy and Asset
Management - Member of the Management Board**

Election date: March 2022

Education:

- 2007-2010 University of Toronto, Canada, Public Policy and International Studies;
- 2015-2018 University of Warwick, UK, Master of Business Administration.

Experience:

Yernat Kudaibergenovich began his career in 2011 in Samruk-Kazyna JSC. In the period from 2013 to 2018, he held the positions of Director of various Departments and Adviser to the Chief Executive Officer of Samruk-Energy JSC. From 2019 to 2021, he worked at Whiteshield Partners as the Project Manager. Since 2021, he took the position of Co-Managing Director for Strategy, Sustainable Development and Digitalization of Samruk-Kazyna JSC. Since February 2022, he has been Managing Director for Strategy and Asset Management - member of the Management Board of Samruk-Kazyna JSC.



**NIKOLAI
KAZUTIN**

Managing Director for Legal Support, Counseling and Risks - Member of the Management Board

Election date: March 2022

Education:

- T. Ryskulov Kazakh University of Economics, majoring in Accounting & Audit.

Experience:

Nikolai Yurievich began his career in 2001 and worked in insurance companies as a financial analyst until 2005. In the period from 2006 to 2016, he worked at Pricewaterhousecoopers Tax and Advisory LLP. From 2016 to 2020, he held the positions of the Director of the Internal Audit Service and Adviser to the Chief Executive Officer of Kokshetau Mineral Waters JSC and East Kazakhstan Regional Energy Company JSC. From 2020 to 2022, he worked as the Deputy Chairman of the State Revenue Committee of the Ministry of Finance of the Republic of Kazakhstan. Since February 2022, he has been working as the Managing Director for Legal Support, Counselling and Risks.



**YELZHAS
OTYNSHIYEV**

Co-Managing Director for Strategy and Asset Management - Member of the Management Board

Election date: April 2023

Education:

- Moscow Institute of Physics and Technology in the specialty "System Integration and Management"

Experience:

Yelzhas Muratovich started his career in 2007 and worked in the consulting company "E&Y" in Moscow as an analyst until 2009. In the period from 2009 to 2012 he held the position in National Mining Company "Tau-Ken Samruk" JSC, and from 2012 to 2014, he worked for Samruk-Kazyna JSC in the Investment Projects Department. From 2014 to 2016 he took the position of the Director of the Project Analysis Department of the Fund's Investment Activities in Samruk-Kazyna Invest LLP. From 2016 to 2019, he worked as the Project Director of the New Projects Development Department, then as the Head of the Mining Assets Development Sector of the Asset Development Department of Samruk-Kazyna JSC. In the period from 2019 to 2021 Yelzhas Muratovich held the position of the Deputy General Director for Investment and Development in PlanetCare Management LLP. From May 2021 to April 2023, he served as the Deputy CEO of Kazakhstan Investment Development Fund (KIDF) Management Company Ltd.

Performance Report of the Management Board

In 2022, 70 meetings of the Management Board were held, 55 of them in-presence and 15 absentee meetings. 381 issues were considered, 365 of them in in-presence format.

The most important issues considered by the Management Board of the Fund are as follows:

- Approval of the annual financial statements of the Fund's Portfolio Companies for 2021;
- Election of the Boards of Directors and Supervisory Boards of the Fund's Portfolio Companies;
- Coordination and/or appointment of the CEOs of the Fund's Portfolio Companies;
- Replenishment of the authorized capital of the Fund's Portfolio Companies;

- Amendments to the Charters and other internal regulatory documents of Portfolio Companies of the Fund;
- Pre-approval and submission of issues for consideration of the Board of Directors of the Fund;
- Approval and/or amendments to the internal regulatory documents of the Fund;
- Changing the organizational structure and staffing of the Fund;
- Fund's budget adjustment;
- Privatization issues;
- Approval of the related-party transactions of the Fund.

Plans for 2023

In 2023, it is planned to consider:

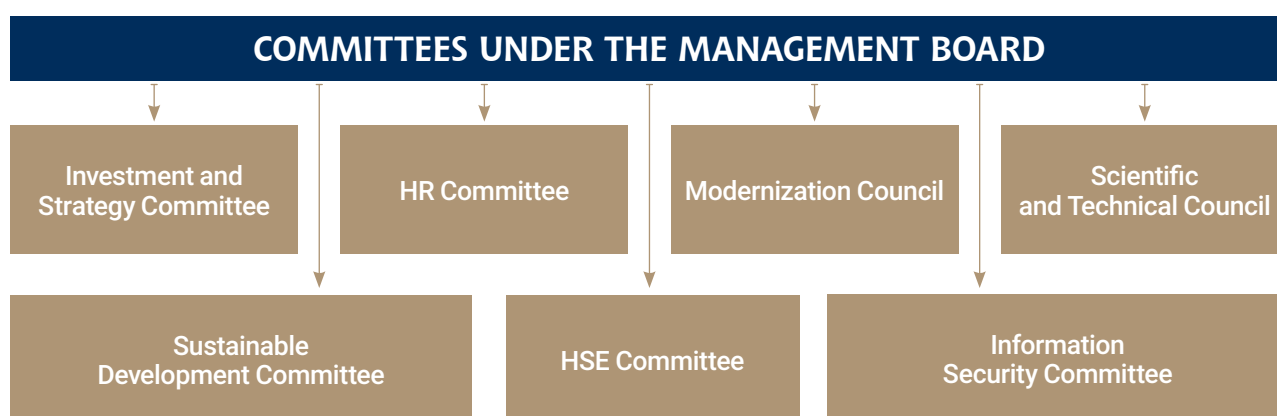
- Issues of the Fund current activities;
- Fund transactions (related-party and/or large transactions);
- HR issues of the Fund (organizational structure, staffing);
- Issues of Portfolio Companies (appointments, election of supervisory boards/boards of directors, annual financial statements, internal regulatory documents, increase in the authorized capital/number of shares, issues of participation in other legal entities, etc.);
- Approval or amendments to internal regulatory documents of the Fund;
- Reports (reports of the structural subdivisions of the Fund and reports submitted to the Board of Directors of the Fund).

Committees under the Management Board

In order to improve the effectiveness of decisions taken by the Management Board, there are seven committees: Investment and Strategy

Committee; HR Committee; Labor Protection, Occupational Safety and Environmental Protection Committee; Sustainable Development Committee;

Information Security Committee; Scientific and Technical Council and Modernization Council.



Investment and Strategy Committee

The objective of the Investment and Strategy Committee is to assist in increasing efficiency in decision-making when managing the Fund's Asset Portfolio to achieve the Fund's strategic KPIs by presenting a platform for discussion, developing recommendations and proposals

on the following issues (including ensuring taking risk-based decisions):

- Strategic Development of the Fund and Portfolio Companies;
- Management of the Fund's portfolio of assets and the portfolio of investment projects of the Fund and Portfolio Companies;
- Risk management (financial, investment and operational);

- Implementation of the Investment Policy, Credit Policy, Debt Management and Financial Sustainability Policy;
- Implementation of Corporate Standards for investment activities, strategic and business planning, management of large capital projects.

In 2022, 70 meetings of the Investment and Strategy Committee were held.

HR Committee

The purpose of the HR Committee is to ensure the coordination and implementation of the Fund's HR Policy, preparation of recommendatory decisions on human resource management, and providing of methodological and expert and analytical support in the field of HR for the Fund Group.

The composition of the HR Committee is determined by the decision of the Management Board of the Fund and consists of at least five permanent members, including the Chairman of the HR Committee. Representatives of the Working Body and the Secretary of the Committee (without the voting right) take part in the work of the HR Committee.

In 2022, 9 meetings of the HR Committee of the Fund were held, of which 7 in-presence meetings and 2 absentee meetings. In total, 30 issues were considered, on which 59 decisions were taken.

In particular, the following issues were considered at these meetings:

- issues of assessment of positions (grades) of individual employees of the Fund;
- issues of evaluation of individual employees of the Fund based on results of H1 2022;
- issues of training and professional development of employees of the Fund;
- issues on remuneration of employees of the Fund group on the Independence Day of the Republic of Kazakhstan and the Republic Day of the Republic of Kazakhstan.

Modernization Council

The main purpose of the Modernization Council is to manage and coordinate activities aimed at implementing the Transformation

Program in the Fund Group and introducing advanced practices, technologies and standards for effective management of Companies.

The Council is a collegial consultative and advisory body under the Management Board of the Fund, the decisions of which should be taken into account when implementing the Transformation Program.

The main tasks of the Modernization Council are:

- determination of the content, main directions, financing issues, key performance indicators, coverage and timing of the implementation of the Transformation Program;
- coordination of the introduction of the Transformation Program in the functional areas of the Fund and the Companies;
- ensuring communication between the participants of the Transformation Program in the Fund and the Companies;
- control over compliance with unified quality requirements for the introduction of the Transformation Program;
- monitoring the implementation of the Transformation Program, assessing, analyzing the results of the introduction of changes, adjusting the Program itself;
- prompt consideration of issues and problems arising during the implementation of the Transformation Program, including issues and problems of a general nature for several Companies;
- initiating the submission of issues for consideration of the relevant bodies of the Fund and state bodies of the Republic of Kazakhstan within the framework of the implementation of the Transformation Program.

Scientific and Technical Council

The Scientific and Technical Council of Samruk-Kazyna JSC was established in 2019. The main role of the Council consists of a collegial and transparent decision-making

process, selection, accounting, monitoring and control over R&D and innovation projects to ensure national welfare.

In 2022, 5 meetings of the Scientific and Technical Council were held, as a result of which 70 promising projects were approved. In general, more than 120 applications for research and development were considered.

The Corporate Standard for R&D and Innovation of Samruk-Kazyna JSC has been approved in the new version, which regulates a unified approach to the management of R&D and innovation portfolio of the Fund group.

HSE Committee

The purpose of the work of the HSE Committee is to develop recommendations for the Management Board of the Fund and representatives of the Fund on the PC Boards of Directors, as well as to coordinate the activities of Portfolio Companies in the field of occupational safety aimed at improving the work to ensure personal safety and trouble-free production in the group of the Fund companies.

The HSE Committee has been successfully serving for three years as a platform for dialogue on discussing problematic issues, exchanging experience, as well as submitting strategic initiatives and ideas in the field of occupational safety (hereinafter - OS) for consideration.

In 2022, 5 HSE Committee meetings were held, during which the following topical issues were discussed:

- progress and results of PC activities in the field of occupational safety, including monitoring of the status of implementation of the Health & Safety Action Plan within the framework of the announced "Year of Safety and Labor Protection" in

the group of Samruk-Kazyna JSC companies;

- Results of accident investigations and measures taken;
- unification and development of internal regulatory documents based on best practices;
- consideration of a number of solutions for the OS processes digitalization.

Thus, the activities of the HSE Committee in 2022 were aimed at reducing injuries in the group of the Fund Companies. The number of injured persons in 2022 as a result of industrial accidents decreased by 16% from 133 to 111 people as compared to 2021 through the functioning of the HSE Committee. The LTIF coefficient was 0.16 decrease in the FAR (Fatal Accident Rate) fatality rate by 11%.

Sustainability Committee

The purpose of creation of the Sustainability Committee is to elaborate recommendations for the Management Board of the Fund and

its representatives on the PC Boards of Directors, as well as to coordinate measures carried out by Portfolio Companies in the field of sustainable development, namely:

- Introduction of the system of systematic and continuous adherence to the sustainable development principles;
- Development of the effective system of interaction with stakeholders, confirmation of the Company's commitment to sustainable development standards;
- Ensuring the achievement of the strategic goals of the Fund and the PCs without compromising their sustainability in the long term, considering interests of stakeholders.

In 2022, one meeting of the Sustainable Development Committee was held on topical issues of sustainable development for the Fund group of companies, including energy and resource conservation.

Information Security Committee

The purpose of creation of the Information Security Committee is to develop recommendations for the Management Board of the Fund, on the construction and development of a unified information security system in the Fund Group, as well as the organization of interaction with state bodies, PC information technology subdivisions and other persons on information security issues.

During the reporting period, meetings of the Information Security Committee were held within the framework of the IT Council, at which recommendations were developed on issues of ensuring information security in Portfolio Companies. The strategies of information security of Portfolio Companies and projects to improve the level of security information are also considered.

REMUNERATION POLICY

In accordance with the Charter of the Fund and the Law of the Republic of Kazakhstan "On Sovereign Wealth Fund", the amount of remuneration for Independent Directors is determined by the Sole Shareholder.

Independent Directors are paid remuneration and reimbursed for expenses related to the responsibilities they perform in the framework of their functions.

The amount of the official salary, terms of remuneration and bonus payment of the Chief Executive Officer and members of the Management Board of the Fund are determined by the Board of Directors of the Fund. The Nomination and Remuneration Committee of the Board of Directors of the Fund plays a key role in determining their remuneration.

The remuneration system for the Chief Executive Officer and members of the Management Board of the Fund is determined in accordance with the Terms for Remuneration and Bonuses of the Chief Executive Officer and Members of the Management Board of the Fund, approved by the decision of the Board of Directors of the Fund, and includes an official salary, performance-based remuneration for the relevant period, as well as a one-time bonus for the Independence Day of the Republic Kazakhstan.

Performance-based remuneration for the relevant period is paid depending on the results of performance evaluation of the Chief Executive Officer and a member of the Management Board for the purpose of material encouragement for the

successes achieved and improving the efficiency of work.

The main condition for the payment of remuneration is the availability of consolidated final profit for the reporting year.

In 2022, the total amount of remuneration paid to key management personnel included in general and administrative expenses amounted to KZT 730 million. The specified amount includes remuneration of Independent Directors of members of the management body – the Board of Directors and remuneration paid to members of the executive body.

INTERNAL AUDIT SERVICE

The Fund has the independent Internal Audit Service, which is subordinate and accountable to the Board of Directors of the Fund and is supervised by the Audit Committee of the Board of Directors of the Fund. The Board of Directors determines the composition of the Internal Audit Service, the amount of remuneration of employees, approves internal audit policies and procedures, as well as the annual audit plan and budget.

In carrying out its activities, the Service is guided by the legislation of the Republic of Kazakhstan, the Charter, decisions of the Fund bodies, the Regulations, the annual audit plan approved by the Board of Directors of the Fund, and other internal regulatory documents governing the work of the Internal Audit Service of the Fund.

The main purpose of the Internal Audit Service is to provide the Board of Directors of the Fund with independent and objective guarantees and consultations aimed at improving the risk management systems, internal control and corporate governance in the Fund.

In 2022, the annual audit plan of the Internal Audit Service was completed by 106%, taking into account unscheduled inspections during the year. Based on the results of audits, the Internal Audit Service issued recommendations, including proposals to improve existing internal control and risk management systems, processes, principles and methods of conducting activities. Information on the results of monitoring the implementation of

the recommendations issued was provided to the Board of Directors of the Fund on a quarterly basis. Additionally, as part of the consulting work, employees of the Internal Audit Service participated in synergetic audits of individual Subsidiaries of the Fund, as well as individual representatives of the Fund on the Boards of Directors of Companies were provided with consulting work.

In 2022, no facts were recorded that negatively affect the independence or individual objectivity of internal auditors. The reports of the Internal Audit Service were considered and discussed at meetings of the Audit Committee and the Board of Directors of the Fund on a quarterly basis.

COMPLIANCE SERVICE

The Compliance Service is the structural subdivision of the Fund that ensures compliance with the anti-corruption legislation of the Republic of Kazakhstan, defines anti-corruption policy, monitors the implementation of anti-corruption measures, as well as forms the internal corporate culture based on transparency and honesty, conducts business in compliance with the legislation of the Republic of Kazakhstan, best international practices and internal documents of the Fund.

The Service generally coordinates and interacts with Compliance Services of Portfolio Companies, including providing recommendations on the development of centralized compliance controls, reviewing periodic reports of Compliance Services of the Fund group of companies, preparing consolidated reports on existing compliance risks, training in order to form an anti-

corruption culture and other relevant issues in the field of compliance.

In its activities, the Compliance Service is guided by the Law of the Republic of Kazakhstan "On Combating Corruption", the Anti-Corruption Policy, the Code of Conduct and other internal documents of the Fund.

According to the results of 2022 the Compliance Service:

- Considered 855 appeals received by the Hotline;
- conclusions were issued on the materials reviewed, including on the materials submitted to the Management Board and the Board of Directors of the Fund;
- The reliability of 380 candidates was verified, including:
 - 128 audits on candidates to the Board of Directors/Supervisory Board of Portfolio Companies in terms of compliance or non-compliance with their

requirements, for election as directors;

- 252 audits on candidates for vacant positions in the Fund for the circumstances preventing the admission of a candidate for a job.

As part of the methodology development in 2022:

- development and approval of the Corporate Compliance Function Standard in Portfolio Companies of Samruk-Kazyna JSC, which defines the methodological basis for the development and implementation of effective compliance systems and programs in Portfolio Companies of the Fund, by the decision of the Management Board of the Fund;
- approval of documents regulating the procedure for verifying counterparties before establishing business relations.

In the reporting period, the Compliance Service assessed the existing anti-corruption processes for compliance with the requirements of ISO 37001 "Anti-bribery Management Systems". The Action Plan has been developed for the subsequent certification of the Fund based on the results of the evaluation.

As part of the processes automation, the information system for comprehensive verification of the reliability of third parties, including for affiliation with employees of the Fund and the group of companies, has been developed and implemented.

A model for assessing the maturity of the compliance function was developed in 2022 and a pilot project was implemented to assess

the maturity of anti-corruption compliance systems in individual Portfolio Companies of Samruk-Kazyna JSC.

The strategic directions of compliance development for 2023 in the framework of combating corruption and increasing transparency of activities in the companies of the Fund Group are:

1. The development of the compliance function according to best international practice, including such areas as sanctions, listing, ESG and other types of compliance.
2. Certification of anti-corruption compliance systems for compliance with the requirements of international standards ISO 37001:2016 "Anti-bribery

Management Systems" and ISO 37301:2021 "Compliance Management System".

3. Automation of individual elements of the compliance program at the level of a group of companies.

According to the approved plans, work is underway to create an information system for automating individual elements of the compliance program, such as third-party trustworthiness verification, proactive information, identification and resolution of conflicts of interest, etc. This system will allow specialists in the field of compliance of the Fund group of companies to more effectively implement their tasks, as well as to carry out centralized control and collect the necessary information.

RISK MANAGEMENT AND INTERNAL CONTROL

The risk management system is designed to provide reasonable assurance about the achievement of strategic, operational goals, goals in the field of preparing reliable reporting and compliance objectives with applicable laws and internal requirements. Internal control is focused on achieving operational goals, goals in the field of preparing reliable reporting, compliance with applicable laws, internal requirements of the Fund and its Portfolio Companies.

The tasks of the Corporate Risk Management and Internal Control System are:

- improving risk culture and integrating risk management and internal control into all aspects of the Fund's activities;
- reducing the volatility of performance results by increasing the Fund's ability to prevent situations that threaten goal achievement, effectively respond to possible negative events and soften their consequences, if they occur, to an acceptable level;

- ensuring usage of opportunities to increase the value of assets and profitability of the Fund in the long term.

The key principles and approaches to the organization of risk management and internal control in the Fund Group are reflected in the Fund's Risk Management and Internal Control Policy. This Policy was compiled taking into account "Conceptual framework for risk management of organizations: integration with strategy and performance indicators" COSO recommendations and is designed to strengthen the responsibility of risk owners for risk management at all levels of the Fund, to increase the integration of risk management into all processes of the Fund.

According to the Policy, the Board of Directors and the Management Board of the Fund, in performing their functions, rely on the "Three lines of defense" model, where the first line of defense (business functions) is represented by structural subdivisions represented by each employee, who,

within their competence, directly identify, manage risks and perform control procedures. The second line of defense (monitoring functions) is represented, inter alia, by the Risk Management and Internal Control Department and Compliance Service of the Fund, which are responsible for monitoring the introduction by business functions of effective risk management and internal control practices, compliance with legislation and internal regulatory documents of the Fund. The third line of defense (independent assurance) is provided by the Fund's Internal Audit Service, conducts an independent assessment of the effectiveness of the risk management and internal control system and contributes to their improvement.

In the Fund and in Portfolio Companies of the Fund, the risk appetite, risk register and risk map are approved on an annual basis; management reporting on significant areas of activity is provided for consideration of the Boards of Directors / Supervisory Boards of

Portfolio Companies and the Fund on a regular basis.

A corporate risk reinsurance program is being implemented under the administration of the Fund's captive, which provides shareholders with confidence in the quality of reinsurance protection for the risks of the Fund companies.

Work continued on building an effective internal control system by documenting control procedures in the internal regulatory documents of the Fund and compliance with internal regulatory documents in the field of risk management and internal control.

Non-exhaustive list of risks of the Fund and Portfolio Companies is as follows:

Strategic risks:

Risks of significant investment projects are subject to internal and external factors. In addition to the classic project risks such as the failure of the project implementation deadlines and increase in capital expenditures, external factors such as high inflation, exchange rate changes and logistical issues negatively affect the indicators of projects. Work is being carried out on an ongoing basis to identify potential and realized risks, and measures are being developed to minimize them.

Reputation risk is a risk associated with a negative perception of the Fund and Portfolio Companies by clients, counterparties, shareholders, investors, creditors, market analysts, supervisory authorities and the general public. To manage this risk, interaction with Portfolio Companies takes place on an ongoing basis in order to build a unified image and communication policy of the Fund Group, measures are taken to ensure compliance with legal requirements and established ethical standards of behavior by the employees of the Fund and Portfolio Companies.

Financial risks:

Liquidity risks and violations of the covenant/listing requirements are risks associated with the inability of the company to finance its activities, timely and fully meet its obligations. As part of the management of these risks, limits on the degree of debt burden of the Fund and Portfolio Companies are established and monitored, various measures are taken to ensure the fulfillment of covenants by Portfolio Companies and to increase the financial stability of the Fund Group.

Operational risks:

Risk of social instability is the risk associated with the social tension of various groups of employees of the Fund and Portfolio Companies. The Center for Social Interaction and Communications analyzes the level of social stability in the Fund Group's workforce on an annual basis to monitor the state of social stability risk. Complaints and appeals of employees of the Fund Group are also monitored to control over and regulate social and labor relations. The Fund, together with Portfolio Companies, republican and local authorities, is working on systematic measures to improve the welfare of employees and resolve emerging issues.

The accidents risk is one of the key risks for production Portfolio Companies of the Fund. In 2022, the Fund group of companies set a course for the occupation safety development. Thus, 2022 was declared the "Year of Occupational Safety and Health". Within the framework of joining the international Vision Zero concept in 2022 and following the principle of "zero tolerance", the Fund, together with Portfolio Companies, has done significant work in accordance with the approved Health & Safety 2022 Plan: within the HSE Committee, work was carried out on the exchange of best practices between PCs, as well as with industry leaders; the practice of cross-audits with the participation of PC experts has been introduced; regular work is underway to improve HS management systems and introduce

the best world practices in accordance with the industry specifics of each PC.

The risk of the impact of sanctions legislation is the risks associated with the negative indirect impact of sanctions on the activities of the Fund and Portfolio Companies. The Fund group of companies is not included in any sanctions lists. However, due to the high degree of integration of the Kazakhstan and Russian economies, the introduction of a sanctions regime may have a significant impact on the activities and financial performance of the Fund group of companies. Risk mitigation is carried out by implementing the following measures: monitoring counterparties and partners for presence on sanctions lists; sanctions clauses are included in existing and new agreements; if there is a probability of the risk of violation of sanctions legislation, international law firms are involved; interaction with public authorities and other organizations is carried out in order to exchange experience on minimizing the impact of sanctions restrictions; throughout the Fund group of companies, compliance, risk management and/or legal affairs units carry out constant monitoring of compliance with sanctions restrictions when considering any issues submitted to the authorized bodies of the Fund and PCs.

Legal risks:

Litigation risk is the risk of the Fund and the Portfolio Companies being involved in major litigation. Measures are being taken to minimize these risks by prior settlement of disputes through negotiations, monitoring the Fund's obligations under existing agreements, clarifying the regulatory legal acts governing the Fund's activities, and other legal actions to protect the interests of the Fund's Group.

PUBLIC COUNCIL

The Public Council of the Fund is an advisory, supervisory body formed by the Fund in order to represent the interests of civil society and to take into account the opinion of the public when discussing and taking decisions, to increase accountability and transparency of the activities of the Fund and national companies of the Fund group.

The Government of the Republic of Kazakhstan by Decree dated November 22, 2021, No. 828, approved the Regulations on the Public Council of the Fund.

The Chief Executive Officer of Samruk-Kazyna JSC by Order dated December 28, 2021, No. 170-П, approved the composition of the Public Council of the Fund: 10 persons, including 3 representatives of the Fund, 7 representatives from civil society.

Representatives from civil society:

Chairman of the Public Council:

Zhamishev Bolat Bidakhmetovich

Members of the Public Council of the Fund:

- Bulavkina Olga Aleksandrovna – Deputy of the Senate of the Parliament of the Republic of Kazakhstan;
- Sairov Yerlan Biyakhmetovich – Deputy of the Majilis of the Parliament of the Republic of Kazakhstan;
- Zhunussova Lyazzat Olzhabayevna – First Deputy CEO of Khabar Agency JSC;
- Kazybayev Aidar Kalymtayevich – Chairman of the National ESG Club;
- Zholdybalina Alua Serikovna – Deputy Director of Kazakhstan Institute for Strategic Studies under the President of the Republic of Kazakhstan;
- Tazhibayeva Irina Lashkarovna – Deputy Director of Institute of

Atomic Energy of the National Nuclear Center of the Republic of Kazakhstan.

Representatives of Samruk-Kazyna JSC:

- Nurbayeva Nazira Nurtuleuovna – Managing Director for Economics and Finance - Member of the Management Board of Samruk-Kazyna JSC.
- Kazutin Nikolay Yuriyevich – Managing Director for Legal Support, Counseling and Risks - Member of the Management Board of Samruk-Kazyna JSC;
- Zhanadil Yernar Beisenuly – Managing Director for Development and Privatization – Member of the Management Board of Samruk-Kazyna JSC.



BOLAT ZHAMISHEV

The public official of the Republic of Kazakhstan, Candidate of Economic Sciences.

Experience:

Chief Executive Officer of the "Kazakhstan Khalkyna" Public Fund, Member of the Board of Directors, Independent Director, Chairman of the Public Council of Samruk-Kazyna JSC, Chairman of the Board of Directors of Bank RBK JSC.

In different years he held the positions of Vice-Minister of Labor and Social Protection of the Population of the Republic of Kazakhstan, Vice-Minister of Finance of the Republic of Kazakhstan, Vice-Minister of Internal Affairs of the Republic of Kazakhstan, Deputy Chairman of the National Bank, Chairman of the Agency of the Republic of Kazakhstan for Regulation and Supervision of the Financial Market and Financial Organizations, Deputy CEO of Eurasian Development Bank (EDB), Minister of Finance of the Republic of Kazakhstan, Minister of Regional Development of the Republic of Kazakhstan, CEO of Development Bank of Kazakhstan JSC, Chairman of the Board of Directors of Social Health Insurance Fund NJSC.



OLGA BULAVKINA

Deputy of the Senate of the Parliament of the Republic of Kazakhstan, member of the Committee on Agrarian Issues, Environmental Management and Rural Development.

Experience:

Before the civil service, she worked in the field of education, private entrepreneurship. From 2002-2014, she held the position of the economist, accountant, Chief of Staff of the Akim of Shemonaikha district of East Kazakhstan region, Deputy Akim of Shemonaikha district of East Kazakhstan region, in 2014-2016. She served as the Deputy CEO of the East Kazakhstan Region branch of the Nur-Otan Party, in 2016-2019. She held the position of the Deputy Akim of Ust-Kamenogorsk, East Kazakhstan Region, in 2019-2020. She worked as the Akim of Borodulikha district of East Kazakhstan region. Since August 2020, she has been a Deputy of the Senate of the Parliament of the Republic of Kazakhstan.



YERLAN SAIROV

Deputy of the Majilis of the Parliament of the Republic of Kazakhstan, member of the Committee on Social Cultural Development.

Experience:

Public official, Candidate of Political Sciences. He is the author of 30 scientific articles, 3 books on political modeling and information technologies. Member of the National Council of Public Trust under the President of the Republic of Kazakhstan.



AIDAR KAZYBAYEV

Chairman of the National ESG Club.

Experience:

Candidate of Economic Sciences. Over the years, he worked in the Ministry of National Economy of the Republic of Kazakhstan, the Ministry of Industry and Trade of the Republic of Kazakhstan, Small-sized Enterprise Development Fund JSC, the National Bank of the Republic of Kazakhstan, the Administration of the Astana International Financial Center. Commissioner General of the Republic of Kazakhstan at EXPO-2008, EXPO-2010, EXPO-2012, EXPO-2015.



IRINA TAZHIBAEVA

Executive Director of the Nuclear Technology Safety Center

Experience:

Doctor of Physical and Mathematical Sciences, Professor. Scientific activity is related to research on the safety of nuclear and thermonuclear energy, structural and functional materials of fission and fusion reactors, decommissioning of nuclear power facilities, development of draft normative legal acts in the field of nuclear and radiation safety. At the moment, she is the Executive Director of Scientific and Technical Center for the Safety of Nuclear Technologies (TCSNT) ALE in the form of the Association, Chief Executive Officer of the Nuclear Society of Kazakhstan (NCK), Chief Researcher of the branch of the IAE of the National Research Center of the Republic of Kazakhstan. From 2009 to the present, she is the official representative of Kazakhstan in the IAEA Scientific Council on Thermonuclear Energy, was an expert from Kazakhstan in the NATO Scientific Committee "Science for Peace and Security", representative of Kazakhstan in the IAEA working group on fast reactors. Member of the Public Council of the Ministry of Energy of the Republic of Kazakhstan from 2015 to the present. Winner of the 2017 "Altyn Adam" award - Person of the Year in Kazakhstan" in the nomination "Scientist".



ALUA ZHOLDYBALINA

Deputy Director of the Kazakhstan Institute for Strategic Studies under the President of the Republic of Kazakhstan

Experience:

Professor of the National School of Public Policy of the Academy of Public Administration under the President of the Republic of Kazakhstan. Member of the Republican Educational and Methodological Council (REMC) in the direction of "Political Science". Member of the National Scientific Council (NSC) in the direction of "Social and Humanitarian Research". Ph.D, Master of Political Science.



LYAZZAT ZHUNUSSOVA

First Deputy CEO of Khabar Agency JSC

Experience:

In different years she worked as the Financial Director, Deputy CEO of Kazakhstan Republican TV and Radio Corporation JSC, Director of Television News Agency LLP, General Director of Eurasia + ORT LLP, General Director of Managing Company "Kazmedia Ortalagi" LLP.



NAZIRA NURBAYEVA

Managing Director for Economics and Finance - Member of the Management Board

Experience:

She started her career in 1998 at the PriceWaterhouse Branch. From 2002 to 2003, she worked as the Senior Consultant in tax services. From 2003 to 2004, she took the position of the Senior Tax Advisor at LUKOIL Overseas Services, Ltd. From 2004 to 2014, she served as the Senior Manager in PriceWaterhouseCoopers Tax & Advisory LLP. From 2014 to 2020, she held the position of the Director of PriceWaterhouseCoopers Tax & Advisory LLP. From June 2020 to April 2021, she worked as the Partner at Deloitte TCF LLP. Since April 2021, she has been appointed to the position of Managing Director for Economy and Finance of Samruk-Kazyna JSC - a member of the Management Board of Samruk-Kazyna JSC.



YERNAR ZHANADIL

Managing Director for Development and Privatization - Member of the Management Board

Experience:

Over the years, Yernar Beisenuly has worked for Philip Morris Kazakhstan, ElitSroy LLP, and PricewaterhouseCoopers, the international auditing firm. After joining Samruk-Kazyna JSC, he was responsible for the activities of the Internal Audit Service, and served as the Secretary of the Audit Committee and the Transformation Program Oversight Committee under the Board of Directors of the Fund and was a member of the Audit Committees under the Board of Directors of a number of Fund's subsidiaries. In 2016, he was appointed to the position of Financial Controller of Samruk-Kazyna JSC with subsequent approval as the Managing Director for Finance and Operations and the Co-Managing Director for Economy and Finance - Member of the Management Board of Samruk-Kazyna JSC. Later he was appointed the Managing Director for Investments, Privatization and International Cooperation – Member of the Management Board of Samruk-Kazyna JSC. At the moment, he is the Managing Director for Development and Privatization – a member of the Management Board of Samruk-Kazyna JSC.



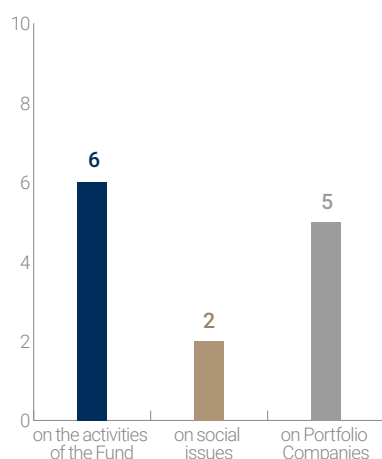
NIKOLAI KAZUTIN

Managing Director for Legal Support, Counseling and Risks - Member of the Management Board

Experience:

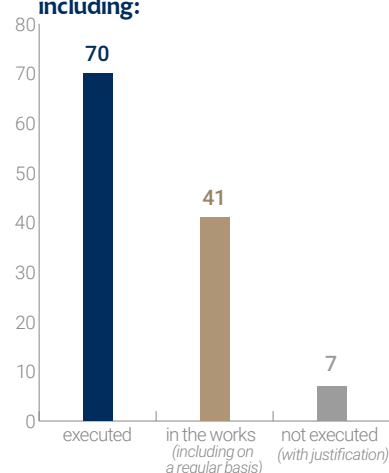
Experience: Nikolai Yurievich started his career in 2001 and worked in insurance companies as a financial analyst until 2005. In the period from 2006 to 2016, he worked at PricewaterhouseCoopers Tax and Advisory LLP. From 2016 to 2020, he held the positions of the Director of the Internal Audit Service and Adviser to the Chief Executive Officer of Kokshetau Mineral Waters JSC and East Kazakhstan Regional Energy Company JSC. From 2020 to 2022, he worked as the Deputy Chairman of the State Revenue Committee of the Ministry of Finance of the Republic of Kazakhstan. Since February 2022, he has been working as the Managing Director for Legal Support, Counselling and Risks.

In 2022, 13 meetings were held, including:



In addition to members of the Public Council of the Fund, external experts (230 participants) were involved in the meetings – these are opinion leaders, public figures, industry experts, representatives of associations and NGOs for comprehensive and expert consideration of issues. 118 recommendations were given, 70 of them have been implemented to date, 37 are in the works (including on a permanent basis), 7 have not been implemented for justified reasons.

Based on the results of 2022, 118 recommendations were given, including:



Each meeting of the Public Council of the Fund is covered by its own information resources (website, telegram channel of the Fund), also all accredited media participate in the meeting, events are covered both in online publications and on television.

The Work Plan of the Public Council of the Fund for 2023 is submitted given opinions and proposals of the members of the Public Council and posted on the official website of the Fund.

It is planned to consider issues related to the Comfortable School National Project, social and labor relations and the development of social partnership principles (including charity issues), public control of national companies, ESG issues, and it is also planned to hear the Operating Report of the Fund itself.

INFORMATION SECURITY

Information security (cybersecurity) is the state of security of electronic information resources, information systems and information and communication infrastructure from external and internal threats.

Information security includes strategies, methods and processes for protecting information and IT assets from unauthorized access and risks that may violate the

confidentiality, integrity or availability of information.

Corporate security extends to the security of data transmitted over a connected network, servers and end users. It covers technologies, people and processes related to maintaining a secure environment for digital assets, additionally focuses on regulatory requirements for the protection of assets and data owned by an organization.

Ensuring the security of cyberspace and protecting the information and communication infrastructure is the most important task of the state in the modern digital world. That is why information security is an integral part of national security. On behalf of the First President of the Republic of Kazakhstan, the implementation of the Cybersecurity Concept “Cyber Shield of Kazakhstan” has been launched in the country since 2017.



How is Cybersecurity Ensured in the Fund Group of Companies

According to legislative requirements of the Republic of Kazakhstan, one of the directions of the Fund operational activities is to ensure information security of the Fund information and communication infrastructure, as well as coordination of information security subdivisions of Portfolio Companies of the Fund.

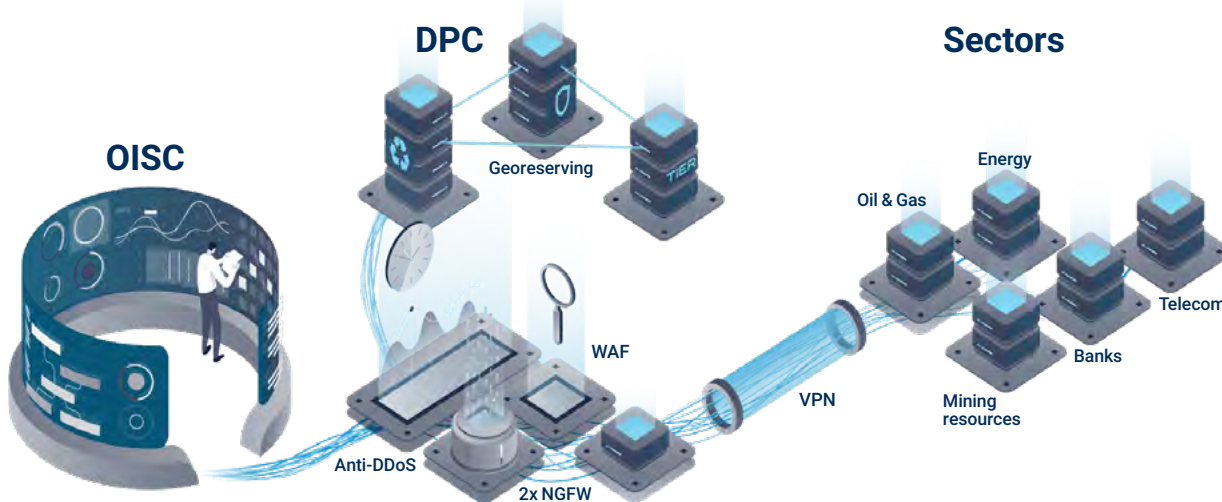
The main objectives of the Fund in this field of activity are to ensure the availability, integrity, confidentiality and fault tolerance of information.

Achieving these goals is possible through the implementation of the following tasks:

Firstly, it is the creation of a legal framework for the formation of a unified policy in the field of information security of both the Fund itself and its portfolio, subsidiaries and dependent organizations with the support of appropriate monitoring.

Secondly, ensuring the information security of the Fund and coordinating the activities of this area in all its structures.

Operational Information Security Center of the Fund



The regulation and management of coordinating the business of Portfolio Companies, subsidiaries and dependent organizations is carried out according to the Corporate Information Security Standard approved by the decision of the Management Board of the Fund.

The protection of the external perimeter and monitoring of the analysis of information security events of the Fund group of companies are provided based on the operational information security center of QazCloud LLP.

Four information security audits of the IT infrastructure of Portfolio Companies, subsidiaries and dependent organizations were held in 2022.

In total, 38 critical incidents were identified in the Fund group in 2022, for which investigations were held with the participation of digital forensics

specialists and measures were taken to protect the IT infrastructure.

Solving these issues will ensure a continuous process of improving and analyzing the security of the IT infrastructure of the Fund Group.

Considering the trend of cyber threats, the Fund has begun to develop the Information Security Development and Provision Strategy for 2023-2027.

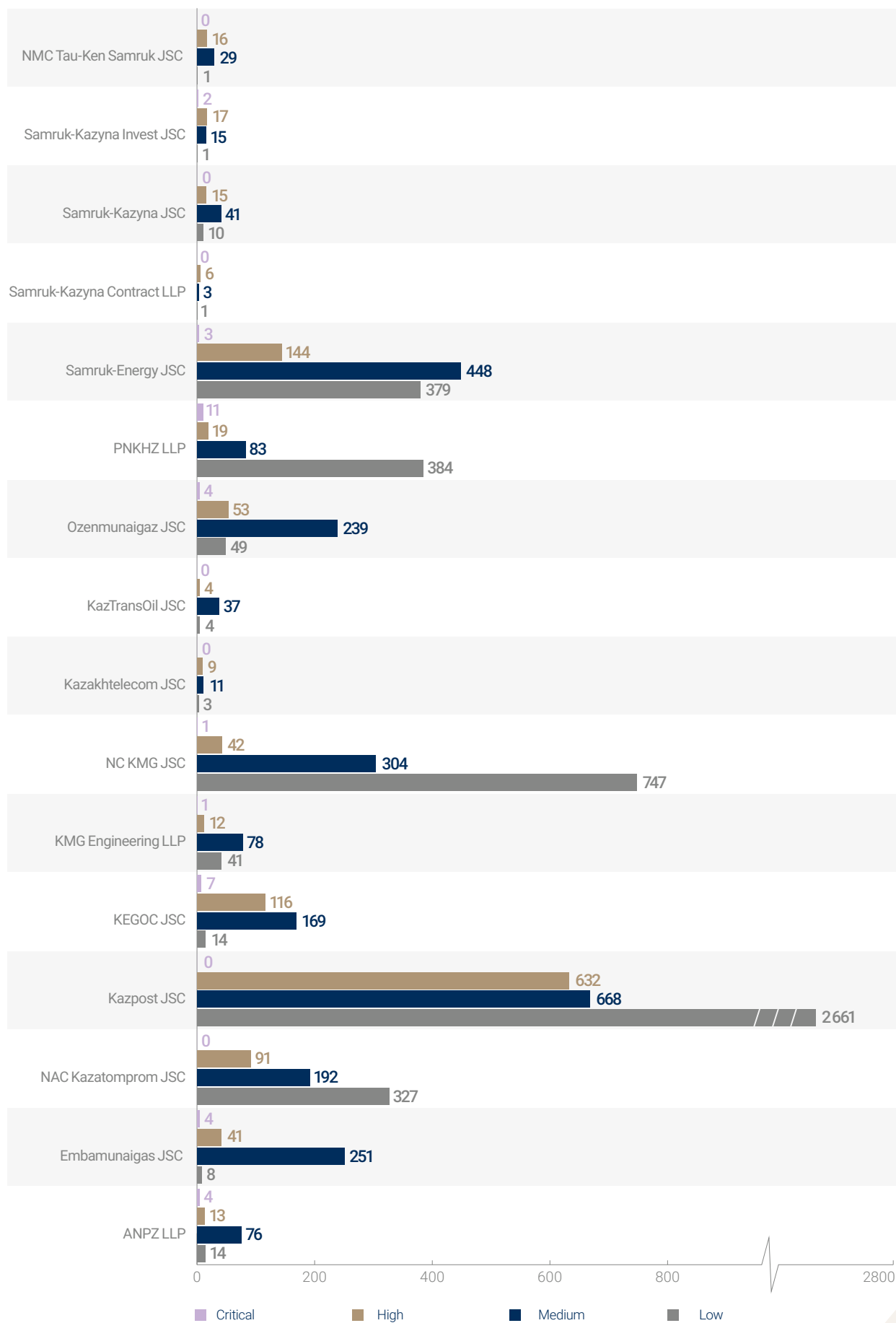
As part of the Strategy, it is planned to form a set of specific actions to counter cyber threats in the Fund and ensure the information security of its Portfolio Companies, plan the purchase of appropriate software, develop information security requirements, motivate employees to strictly comply with the norms of corporate culture and ensure cyber hygiene.

However, for the effectiveness of activities in this direction, it is necessary to solve a number of issues that are a condition for creating the Strategy.

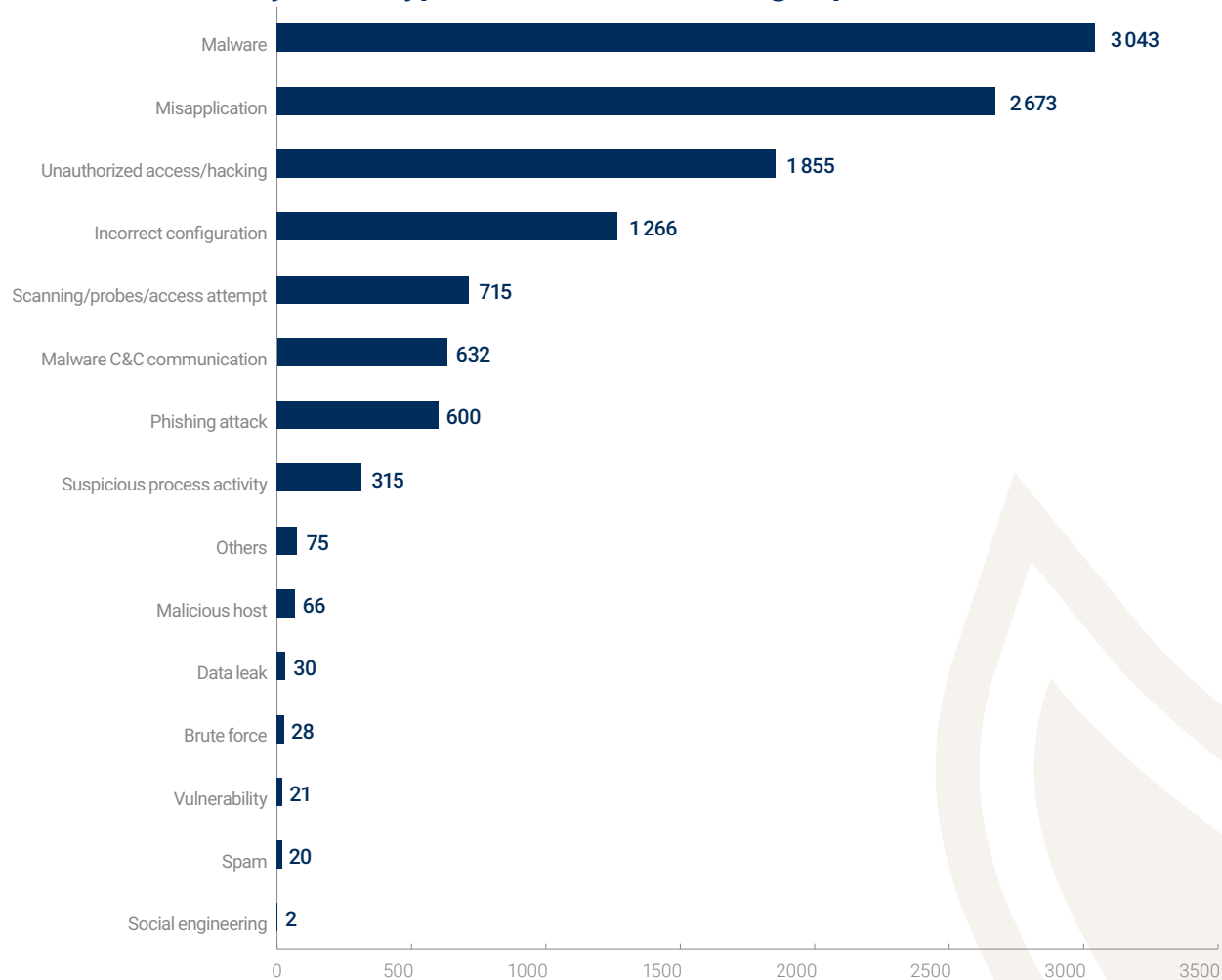
First, to form a unified information security architecture for the entire group of the Fund companies. Secondly, it is necessary to focus on improving the level of information security in the Fund, including critical information and communication infrastructure facilities. Thirdly, to implement the requirements of the international standard ISO/IEC 27001 27001 in the Fund, followed by obtaining the appropriate certificate

Solving these issues will ensure a continuous process of improving and analyzing the security of the IT infrastructure of the Fund group.

Incident statistics for 2022 in the Fund group



Incident statistics by threat types for 2022 in the Fund group



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ANNEX 1.

CONSOLIDATED FINANCIAL STATEMENTS

“Sovereign Wealth Fund “Samruk-Kazyna” JSC **Consolidated financial statements**

For the year ended December 31, 2022, with the report of the independent auditor

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Independent Auditor's Report

To the Shareholder, Board of Directors and Management of "Sovereign Wealth Fund "Samruk-Kazyna" JSC

Opinion

We have audited the consolidated financial statements of "Sovereign Wealth Fund "Samruk-Kazyna" JSC and its subsidiaries (hereinafter - the Group), which comprise the consolidated statement of financial position as at 31 December 2022, and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2022 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' (IESBA) International Code of Ethics for Professional Accountants (Including International Independence Standards) (IESBA Code) together with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Republic of Kazakhstan, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.



Key audit matter

How our audit addressed the key audit matter

Impairment of non-current assets

We considered this matter to be one of the matters of the most significance in our audit due to the high level of subjectivity in respect of assumptions underlying impairment analysis of non-current assets and significant judgements and estimates made by the management. In addition, increased cost of debt and uncertainty regarding future economic growth affects the Group's business prospects and triggers potential impairment of the Group's assets.

Significant assumptions included discount rates, commodities prices, tariffs forecasts, inflation and exchange rate forecasts. Significant estimates included production forecasts, future capital expenditures and commodity reserves available for development and production.

Information on non-current assets and the impairment tests performed is disclosed in Note 4 to the consolidated financial statements.

We obtained management's impairment analysis, including analysis of impairment indicators and impairment test models.

We involved our internal business valuation specialists in the testing of the impairment analysis and calculation of recoverable amounts performed by the management. We analysed the assumptions underlying management forecast. We compared natural resource and commodity prices used in the calculation of recoverable amounts to available market forecasts. We compared the discount rate and long-term growth rates to general market indicators and other available information. We tested the mathematical accuracy of the impairment models and assessed their sensitivity to changes in assumptions.

We analysed the disclosures made in the consolidated financial statements in respect of the impairment of non-current assets.

Compliance with loan covenants

In accordance with the terms of certain financing arrangements, the Group should comply with certain loan covenants. Breaching covenants could result in significant fines and penalties along with funding shortages. In addition, cross default provisions are in place under many of the Group's financing arrangements. Compliance with covenants was one of the matters of most significance in our audit since it can have a major impact on the going concern assumption used in the preparation of the consolidated financial statements, and on classification of interest-bearing liabilities in the consolidated statement of financial position.

Information on compliance with covenants is disclosed in Note 19 to the consolidated financial statements.

We examined the terms of financing arrangements on covenants including additional clauses on cross default conditions.

We compared data used in the calculations with the consolidated financial statements and with the financial statements of subsidiaries.

We assessed arithmetic accuracy of financial covenants calculations.

We analysed the forecast made in approved budgets as of 31 December 2022, to assess if a breach is likely to occur in the next 12 months, we obtained and analysed management's analysis for the potential impact on going concern.

We analysed communication with creditors in respect of compliance with covenants as at 31 December 2022.

We also analysed the information disclosed in the consolidated financial statements.



Responsibilities of management and the Audit Committee for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The Audit Committee is responsible for overseeing the Group's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- ▶ Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- ▶ Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- ▶ Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- ▶ Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.



- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The partner in charge of the audit resulting in this independent auditor's report is Adil Syzdykov.

Ernst & Young LLP



Adil Syzdykov
Auditor

Auditor Qualification Certificate
No. МФ - 0000172 dated 23 December 2013

050060, Republic of Kazakhstan, Almaty
Al-Farabi ave., 77/7, Esentai Tower

20 April 2023



Rustamzhan Sattarov
General Director
Ernst & Young LLP

State audit license for audit activities on the territory of the Republic of Kazakhstan: series МФО-2 No. 0000003 issued by the Ministry of finance of the Republic of Kazakhstan on 15 July 2005

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As of December 31

In millions of tenge	Note	2022	2021
Assets			
Non-current assets			
Property, plant and equipment	7	14,385,944	14,264,058
Intangible assets	8	1,945,362	2,004,032
Exploration and evaluation assets	9	294,300	278,949
Investment property		36,529	37,014
Investments in joint ventures and associates	10	6,734,581	5,681,234
Amounts due from credit institutions	12	270,568	104,803
Loans issued and net investment in finance lease	11	151,726	357,413
Other non-current financial assets	13	739,611	667,832
Other non-current assets	14	473,725	578,190
Deferred tax assets	33	88,968	69,148
		25,121,314	24,042,673
Current assets			
Inventories	15	865,484	728,897
VAT receivable		203,658	168,889
Income tax prepaid		124,947	55,513
Trade accounts receivable	16	1,081,402	1,024,892
Amounts due from credit institutions	12	1,433,305	671,859
Loans issued and net investment in finance lease	11	66,889	46,703
Other current financial assets	13	347,700	506,895
Other current assets	16	250,022	209,986
Cash and cash equivalents	17	2,940,203	2,810,730
		7,313,610	6,224,364
Assets classified as held for sale or distribution to the Shareholder	6	1,140,071	42,721
		8,453,681	6,267,085
Total assets		33,574,995	30,309,758

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31

In millions of tenge	Note	2022	2021
Equity and liabilities			
Equity attributable to equity holder of the Parent			
Share capital	18.1	5,268,819	5,268,580
Currency translation reserve	18.7	2,220,063	1,894,545
Revaluation reserve of investments at fair value through other comprehensive income		35,519	32,694
Hedging reserve	18.8	(5,900)	(48,906)
Other capital reserves	18.9	(16,986)	(16,984)
Retained earnings		9,738,130	8,125,704
		17,239,645	15,255,633
Non-controlling interests	18.6	2,504,016	1,917,459
Total equity		19,743,661	17,173,092
Non-current liabilities			
Borrowings	19	5,400,163	6,908,483
Loans from the Government of the Republic of Kazakhstan	20	679,844	569,105
Provisions	21	407,211	442,394
Lease liabilities	22	482,968	379,985
Employee benefit liabilities		126,476	125,455
Other non-current liabilities	23	178,680	187,843
Deferred tax liabilities	33	1,654,216	1,333,617
		8,929,558	9,946,882
Current liabilities			
Borrowings	19	1,267,512	954,209
Loans from the Government of the Republic of Kazakhstan	20	3,760	10,264
Provisions	21	155,101	100,348
Income taxes payable		79,110	16,766
Trade and other payables	24	1,125,978	1,118,055
Lease liabilities	22	138,192	129,676
Employee benefit liabilities		13,472	14,981
Other current liabilities	24	1,073,558	845,485
		3,856,683	3,189,784
Liabilities associated with assets classified as held for sale or distribution to the Shareholder	6	1,045,093	-
		4,901,776	3,189,784
Total liabilities		13,831,334	13,136,666
Total equity and liabilities		33,574,995	30,309,758

Managing Director for Economy and Finance –
Member of the Management Board

Nazira Nurbayeva

Chief accountant

Almaz Abdрахmanova

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (continued)

For the year ended December 31

In millions of tenge	Note	2022	2021
Revenue	25	14,785,284	11,709,658
Government grants		53,392	54,614
		14,838,676	11,764,272
Cost of sales	26	(11,281,525)	(8,794,057)
Gross profit		3,557,151	2,970,215
General and administrative expenses	27	(482,482)	(443,619)
Transportation and selling expenses	28	(906,869)	(728,331)
Expected credit losses on financial assets, net		(19,386)	(4,341)
Impairment loss, net	29	(71,682)	(131,315)
(Loss)/gain on disposal of subsidiaries	6	(1,882)	2,203
Operating profit		2,074,850	1,664,812
Finance costs	30	(653,989)	(555,537)
Finance income	31	320,100	174,898
Other non-operating loss		(114,924)	(51,327)
Other non-operating income		74,603	95,242
Share in profit of joint ventures and associates, net	32	1,449,260	1,142,082
Net foreign exchange loss, net		(9,898)	(777)
Profit before income tax		3,140,002	2,469,393
Income tax expenses	33	(771,118)	(561,036)
Net profit for the year		2,368,884	1,908,357

In millions of tenge	Note	2022	2021
<i>Other comprehensive income</i>			
Other comprehensive income to be reclassified to profit or loss in subsequent periods		522,650	151,889
Exchange differences on translation of foreign operations		522,650	151,889
Unrealized loss on debt instruments at fair value through other comprehensive income		(1,945)	(389)
Share of the other comprehensive income of associates and joint ventures	10	5,188	2,382
Gain on transactions with hedge instruments	18.8	45,812	15,888
Net realized gain on debt instruments at fair value through other comprehensive income		66	840
Tax effect on transactions of OCI components		(37,141)	(12,620)
<i>Other comprehensive income to be reclassified to profit or loss in subsequent periods, net of tax</i>		534,630	157,990
Other comprehensive income not to be reclassified to profit or loss in subsequent periods		319	462
Share of the other comprehensive loss of associates and joint ventures	10	(18)	(169)
Actuarial gain/(loss) on defined benefit plans		9,145	(412)
Tax effect on transactions of OCI components		319	462
Other comprehensive loss not to be reclassified to profit or loss in subsequent periods		9,446	(119)
Other comprehensive income for the year, net of tax		544,076	157,871
Total comprehensive income for the year, net of tax		2,912,960	2,066,228
Net profit for the year attributable to:			
Equity holder of the Parent		1,921,509	1,629,216
Non-controlling interests		447,375	279,141
		2,368,884	1,908,357
Total comprehensive income for the year, attributable to:			
Equity holder of the Parent		2,430,394	1,774,115
Non-controlling interests		482,566	292,113
		2,912,960	2,066,228
Earnings per share – tenge			
Basic and diluted	18.10	680.33	548.07

Managing Director for Economy and Finance –
Member of the Management Board

Nazira Nurbayeva

Chief accountant

Almaz Abdrakhmanova

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Attributable to the equity holder of the Parent

In millions of tenge	Note	Share capital	Revaluation reserve of investments at fair value through other comprehensive income	Currency translation reserve
Balance as at December 31, 2020		5,258,657	31,464	1,763,499
Net profit for the year		–	–	–
Other comprehensive income for the year		–	1,230	130,449
Total comprehensive income for the year		–	1,230	130,449
Issue of shares	18.1	9,923	–	–
Dividends	18.2	–	–	–
Other transactions with the Shareholder		–	–	–
Other distributions to the Shareholder	18.3	–	–	–
Transfer of assets to the Shareholder	6	–	–	–
Discount on loans from the Government	18.4	–	–	–
Disposal of subsidiaries		–	–	–
Change in ownership interests of subsidiaries – disposal of interest that does not result in the loss of control	18.5	–	–	–
Other equity movements		–	–	597
Balance as at December 31, 2021		5,268,580	32,694	1,894,545
Net profit for the year		–	–	–
Other comprehensive income for the year		–	2,825	453,184
Total comprehensive income for the year		–	2,825	453,184
Issue of shares	18.1	239	–	–
Equity contribution to subsidiary		–	–	–
Dividends	18.2	–	–	–
Other transactions with the Shareholder	4	–	–	–
Other distributions to the Shareholder	18.3	–	–	–
Discount on loans from the Government	18.4	–	–	–
Acquisition of joint venture	5	–	–	–
Change in ownership interests of subsidiaries – disposal of interest that does not result in the loss of control	18.5	–	–	(128,297)
Other equity movements		–	–	631
Balance as at December 31, 2022		5,268,819	35,519	2,220,063

Managing Director for Economy and Finance –
Member of the Management Board

Nazira Nurbayeva

For the year ended December 31

Hedging reserve	Other capital reserves	Retained earnings	Total	Non-controlling interests	Total
(60,416)	(16,984)	6,502,544	13,478,764	1,672,851	15,151,615
-	-	1,629,216	1,629,216	279,141	1,908,357
11,960	-	1,260	144,899	12,972	157,871
11,960	-	1,630,476	1,774,115	292,113	2,066,228
-	-	-	9,923	5,759	15,682
-	-	(88,337)	(88,337)	(92,511)	(180,848)
-	-	6,286	6,286	-	6,286
-	-	(65,582)	(65,582)	-	(65,582)
-	-	(37,434)	(37,434)	-	(37,434)
-	-	(278)	(278)	-	(278)
-	-	-	-	1,225	1,225
-	-	177,907	177,907	36,680	214,587
(450)	-	122	269	1,342	1,611
(48,906)	(16,984)	8,125,704	15,255,633	1,917,459	17,173,092
-	-	1,921,509	1,921,509	447,375	2,368,884
43,365	-	9,511	508,885	35,191	544,076
43,365	-	1,931,020	2,430,394	482,566	2,912,960
-	-	-	239	-	239
-	-	-	-	433	433
-	-	(170,024)	(170,024)	(186,073)	(356,097)
-	-	(4,201)	(4,201)	-	(4,201)
-	-	(212,644)	(212,644)	-	(212,644)
-	-	68,684	68,684	-	68,684
-	-	9,937	9,937	1,052	10,989
272	(2)	(9,470)	(137,497)	288,571	151,074
(631)	-	(876)	(876)	8	(868)
(5,900)	(16,986)	9,738,130	17,239,645	2,504,016	19,743,661

Chief accountant

Almaz Abdrakhmanova

CONSOLIDATED STATEMENT OF CASH FLOWS

In millions of tenge	Note	2022	2021
Cash flows from operating activities			
Receipts from customers		16,570,087	12,528,322
Payments to suppliers		(9,696,953)	(7,397,233)
Payments to employees		(1,459,091)	(1,114,920)
Other taxes and payments		(2,114,087)	(1,717,500)
Receipts from suppliers under the arbitration decision		–	112,058
Operations with financial instruments		12,548	13,690
Short-term lease payments and variable lease payments		(95,791)	(49,012)
Proceeds from subsidized interest rates on financial liabilities		29,276	–
Return of VAT from the budget		143,866	241,670
Other payments		(244,566)	(100,811)
Income taxes paid		(512,154)	(347,423)
Interest paid		(607,858)	(557,366)
Interest received		213,899	114,565
Net cash flows received from operating activities		2,239,176	1,726,040
Cash flows from investing activities			
Acquisition of property, plant and equipment, and exploration and evaluation assets and other non-current assets		(1,298,462)	(1,295,235)
Acquisition of intangible assets		(29,416)	(31,994)
Proceeds from sale of property, plant and equipment		6,849	36,956
Proceeds from sale of other non-current assets		42,565	47,662
Dividends received from joint ventures and associates	10	734,518	547,447
Acquisition of subsidiaries, net of cash acquired with the subsidiary		–	89
Issuance of bank deposits		(2,239,910)	(1,066,385)
Redemption of bank deposits		1,345,573	737,951
Loans issued		(20,935)	(17,541)
Proceeds from sale of subsidiaries, net of cash of disposed subsidiaries		(2,869)	(27,819)
Proceeds from sale/(acquisition) of joint ventures and associates, net		44	12,181
Additional contributions to share capital of joint ventures and associates without change in ownership	10	(15,418)	(1,926)
Repayment of loans issued		239,040	30,480
Acquisition of debt instruments		(1,136,781)	(728,299)
Proceeds from sale/repayment by issuers of debt instruments		1,045,138	722,163
Other payments		(40,957)	(36,916)
Net cash flows used in investing activities		(1,371,021)	(1,071,186)

For the year ended December 31

In millions of tenge	Note	2022	2021
Cash flows from financing activities			
Proceeds from borrowings	19, 20	1,341,055	1,462,347
Repayment of borrowings	19, 20	(1,618,738)	(1,171,065)
Reservation of cash for payment of borrowings	19	(152)	(292,258)
Repayment of lease liabilities	22	(153,822)	(121,314)
Contributions to the share capital by the Equity holder of the Parent	18.1	–	9,923
Contributions by non-controlling interests		50	792
Distributions to the Shareholder		(132,204)	(67,568)
Dividends paid to non-controlling interests of subsidiaries	18.2	(184,145)	(92,076)
Disposal of interest that does not result in the loss of control	18.5	153,860	247,474
Dividends paid to the Shareholder	18.2	(170,024)	(88,337)
Bonds early extinguishment premium and fees paid	19	7,370	–
Other payments		(3,939)	(2,120)
Net cash flows used in financing activities		(760,689)	(114,202)
Net increase in cash and cash equivalents		107,466	540,652
Effects of exchange rate changes on cash and cash equivalents		102,497	41,984
Changes in cash and cash equivalents disclosed as part of assets held for sale		(80,760)	979
Change in allowance for expected credit losses		270	(554)
Cash and cash equivalents at the beginning of the year		2,810,730	2,227,669
Cash and cash equivalents at the end of the year	17	2,940,203	2,810,730

Managing Director for Economy and Finance –
Member of the Management Board

Nazira Nurbayeva

Chief accountant

Almaz Abdrakhmanova

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2022

1. General information

Corporate information

"Sovereign Wealth Fund "Samruk-Kazyna" JSC (the "Fund" or "Samruk-Kazyna") was established on November 3, 2008 in accordance with the Decree of the President of the Republic of Kazakhstan dated October 13, 2008 and the Resolution of the Government of the Republic of Kazakhstan dated October 17, 2008. The formation was enacted by the merger of "Sustainable Development Fund "Kazyna" JSC ("Kazyna") and "Kazakhstan Holding Company for State Assets Management "Samruk" JSC ("Samruk") and the additional transfer to the Fund of interests in certain entities owned by the Government of the Republic of Kazakhstan (the "State" or the "Government"). The Government is the sole shareholder of the Fund (the "Shareholder" or the "Parent").

During this process the Government's overall objective was to increase management efficiency and to optimise organisational structures for them to successfully achieve their strategic objectives as set in the respective Government programs.

The Fund is a holding company combining companies listed in Note 34 (the "Group"). Prior to February 1, 2012, the Fund's activities were governed by the Law of the Republic of Kazakhstan *On National Welfare Fund* No. 134-4 dated February 13, 2009 and were aimed to assist in provision of stable development of the state economy, modernization and diversification of economy, and improvement of the Group companies' efficiency. According to the Law of the Republic of Kazakhstan enacted on February 1, 2012 *On Sovereign Wealth Fund* No. 550-4, the Fund's activity is focused on improving sovereign wealth of the Republic of Kazakhstan by increasing the long-term value of the Group companies and by effective management of the Group assets.

For management purposes, the Group is organized into organizational business units based on their products and services, and has 8 (eight) reportable operating segments as follows (Note 38):

- Oil-and-gas and petrochemical segment includes operations related to exploration and production of oil and gas, transportation of oil and gas, refining and trading of crude oil, gas and refined products, and production of oil-and-gas and petrochemical products;
- Transportation segment includes operations related to railway and air transportation of cargo and passengers.
- Communication segment includes operation of fixed line communication, including local, long-distance intercity and international telecommunication services (including CIS and non-CIS countries); and also renting out of lines, data transfer services and wireless communication services.
- Energy segment includes operations related to production and distribution of electricity, the function of oversight over the input of electricity into the energy system and consumption of imported electricity, the function of centralized operation and dispatch of facilities in the Unified Energy System of Kazakhstan.
- Mining segment includes exploration, mining, processing, sales of mineral resources and geological exploration.
- Industrial segment includes industry enterprises and projects of chemical industry.
- Corporate center segment covers Fund's investing and financing activities, including provision of loans to related and third parties.
- Other segment includes operations related to assisting the Government in increasing housing availability by investing into residential development and other operations.

These consolidated financial statements were authorised for issue by the Managing Director for Economy and Finance – Member of the Management Board and Chief accountant of the Fund on April 20, 2023 and preliminary approved by the Audit Committee of the Board of Directors of the Fund. These consolidated financial statements should be further approved by the Board of Directors and the Sole Shareholder.

Privatization plan

On April 30, 2014 the Government approved the initial Complex privatization plan for 2014-2016. On December 30, 2015 the Government approved the new 2016-2020 Complex privatization plan (replacing previous 2014-2016 Complex privatization plan) and the list of all state owned assets to be privatized, including certain Fund subsidiaries.

On December 29, 2020, by the Resolution of the Government of the Republic of Kazakhstan No. 908 *On Some Issues of Privatization for 2021-2025*, a new comprehensive Complex privatization plan for 2021-2025 was approved, which includes a new list of state owned organizations and assets of the Fund's group to be transferred to a competitive environment.

2. Basis of preparation

These consolidated financial statements have been prepared on a historical cost basis, except as described in the accounting policies and the notes to these consolidated financial statements.

These consolidated financial statements are presented in Kazakhstan tenge ("tenge") and all monetary amounts are rounded to the nearest million tenge except when otherwise indicated.

Statement of compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by International Accounting Standard Board ("IASB").

The preparation of consolidated financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in *Note 4*.

The consolidated financial statements were prepared on a going concern basis.

Foreign currency translation

Functional and presentation currency

Items included in these consolidated financial statements of each of the Group's entities are measured using the currency of primary economic environment in which the entity operates ("the functional currency"). The consolidated financial statements are presented in tenge, which is the Group's presentation currency.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at the reporting date exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in profit and loss.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as at the dates of initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined.

Group entities

Gains, losses and financial position of all of the Group's subsidiaries, joint ventures and associates (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each statement of financial position presented are translated at the closing rate at that reporting date;
- Income and expenses for each statement of comprehensive income are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates; in which case income and expenses are translated at the rate on the dates of the transactions); and
- All resulting exchange differences are recognized as a separate component of other comprehensive income.

Exchange rates

Weighted average currency exchange rates established by the Kazakhstan Stock Exchange ("KASE") are used as official currency exchange rates in the Republic of Kazakhstan.

The following table presents currency exchange rates to tenge:

	December 31, 2022	December 31, 2021	Weighted average for 2022	Weighted average for 2021	April 20, 2023
United States dollar ("USD")	462.65	431.80	460.93	426.06	455.63
Euro ("EUR")	492.86	489.10	485.29	503.96	499.37
Russian ruble ("RUR")	6.43	5.76	6.92	5.78	5.58

For the year ended December 31, 2022, the Group had foreign exchange loss of 9,114,106 million tenge and foreign exchange gain of 9,104,208 million tenge, due to fluctuations in foreign exchange rates to tenge.

The war in Ukraine

The war in Ukraine, which began in 2022, has resulted in a number of IFRS accounting pronouncements affecting financial reporting.

Many countries have already imposed and continue to impose new sanctions on certain Russian entities and Russian citizens. The situation itself, as well as potential fluctuations in commodity prices, exchange rates, import and export restrictions, availability of local materials and services and access to local resources have directly affected the significant volumes of operations within the CIS.

Management is unable to predict either the extent or duration of developments in the Kazakhstan economy or assess their potential impact on the Group's future financial position. Management believes it is taking all necessary measures to support the sustainability and growth of the Group's business in the current circumstances.

Renegotiation of loans in the context of IBOR reform

In the context of IBOR reform, some financial instruments have already been amended or will be amended as they transition from IBORs to risk free rates (further RFR). In addition to the interest rate of a financial instrument changing, there may be other changes made to the terms of the financial instrument at the time of transition. For financial instruments measured at amortised cost, the Group first applies the following practical expedients:

- A practical expedient to require contractual changes, or changes to cash flows that are directly required by the reform, to be treated as changes to a floating interest rate, equivalent to a movement in a market rate of interest;
- Permit changes required by IBOR reform to be made to hedge designations and hedge documentation without the hedging relationship being discontinued;
- Provide temporary relief to entities from having to meet the separately identifiable requirement when an RFR instrument is designated as a hedge of a risk component.

Second, for any changes not covered by the practical expedient, the Group applies judgement to assess whether the changes are substantial and if they are, the financial instrument is derecognized and a new financial instrument is recognized. If the changes are not substantial, the Group adjusts the gross carrying amount of the financial instrument by the present value of the changes not covered by the practical expedient, discounted using the revised effective interest rate.

3. Summary of significant accounting policies

New and amended standards and interpretations

The accounting policies adopted in the preparation of the consolidated financial statements are consistent with those followed in the preparation of the Group's annual consolidated financial statements for the year ended December 31, 2021, except for the adoption of new standards and interpretations effective as of January 1, 2022.

The following amendments applicable for the Group were applied for the first time in 2022:

- *Onerous Contracts – Costs of Fulfilling a Contract – Amendments to IAS 37*. The amendments specify that when assessing whether a contract is onerous or loss-making, an entity needs to include costs that relate directly to a contract to provide goods or services including both incremental costs (e.g., the costs of direct labour and materials) and an allocation of costs directly related to contract activities (e.g., depreciation of equipment used to fulfil the contract and costs of contract management and supervision). General and administrative costs do not relate directly to a contract and are excluded unless they are explicitly chargeable to the counterparty under the contract. These amendments had no impact on the consolidated financial statements of the Group.
- *Reference to the Conceptual Framework – Amendments to IFRS 3*. The amendments replace a reference to a previous version of the IASB's Conceptual Framework with a reference to the current version issued in March 2018 without significantly changing its requirements. The amendments add an exception to the recognition principle of IFRS 3 Business Combinations to avoid the issue of potential 'day 2' gains or losses arising for liabilities and contingent liabilities that would be within the scope of IAS 37 Provisions, Contingent Liabilities and Contingent Assets or IFRIC 21 Levies, if incurred separately. The exception requires entities to apply the criteria in IAS 37 or IFRIC 21, respectively, instead of the Conceptual Framework, to determine whether a present obligation exists at the acquisition date. The amendments also add a new paragraph to IFRS 3 to clarify that contingent assets do not qualify for recognition at the acquisition date. These amendments had no impact on the consolidated financial statements of the Group as there were no contingent assets, liabilities or contingent liabilities within the scope of these amendments that arose during the period.
- *Property, Plant and Equipment: Proceeds before Intended Use – Amendments to IAS 16 Leases*. The amendment prohibits entities from deducting from the cost of an item of property, plant and equipment, any proceeds of the sale of items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognises the proceeds from selling such items, and the costs of producing those items, in profit or loss.
- The subsidiary of the Fund, "Kazakhstan Petrochemical Industries Inc." LLP, started test production and sale of polypropylene products. These products were obtained by bringing the integrated gas chemical complex into a condition required for its operation in accordance with the intentions of management. Revenue from realization of test products was recognized within other income, and cost of sales of test products was recognized within other expenses.
- *IFRS 9 Financial Instruments – Fees in the '10 per cent' test for derecognition of financial liabilities*. The amendment clarifies the fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf. There is no similar amendment proposed for IAS 39 Financial Instruments: Recognition and Measurement. These amendments had no impact on the consolidated financial statements of the Group as there were no modifications of the Group's financial instruments during the period. The Group intends to apply the amendments in the future periods if they become applicable.

Standards that have been issued but not yet effective

The new and amended standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's financial statements are disclosed below. The Group intends to adopt these new and amended standards and interpretations, if applicable, when they become effective.

These amendments and interpretations did not have an impact on the consolidated financial statements of the Group:

- IFRS 17 Insurance Contracts;
- Amendments to IAS 1 *Presentation of Financial Statements* named *Classification of Liabilities as Current or Non-current*;
- Amendments to IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* named *Definition of Accounting Estimates*;
- Amendments to IAS 1 *Presentation of Financial Statements* and IFRS Practice Statement 2 *Making Materiality Judgements* named *Disclosure of Accounting Policies*;
- Amendments to IFRS 16 named *Lease Liability in a Sale and Leaseback*;
- Amendments to IAS 12 *Income Taxes* named *Deferred Tax Related to Assets and Liabilities arising from a Single Transaction*.

The Group does not plan for early adoption in respect of above-mentioned new standards and amendments to existing standards to which this option is available.

The Group has not early adopted any standard, interpretation or amendment that has been issued but is not yet effective.

Basis of consolidation

These consolidated financial statements comprise the financial statements of the Fund and its controlled subsidiaries (Note 34).

Subsidiaries

Subsidiaries are the entities controlled by the Group. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if, and only if, the Group has:

- Power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
- Exposure, or rights, to variable returns from its involvement with the investee;
- The ability to use its power over the investee to affect its returns.

Generally, there is a presumption that a majority of voting rights results in control. To support this presumption and when the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- The contractual arrangement with the other vote holders of the investee;
- Rights arising from other contractual arrangements;
- The Group's voting rights and potential voting rights.

The Group re-assesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control. Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control over the subsidiary.

Assets, liabilities, revenue and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated financial statements from the date the Group gains control until the date the Group ceases to control the subsidiary.

Except for acquisition in transactions between entities under common control, subsidiaries are consolidated from the date when control is obtained by the Group and are de-consolidated from the date when control ceases. At the acquisition

of the subsidiary, acquisition cost is distributed between assets and liabilities based on their fair value as at the date of acquisition. Financial statements of the subsidiaries are prepared for the same reporting period as those of the Fund, using consistent accounting policies.

All intra-group balances and transactions, including unrealized gains resulting from intra-group transactions are eliminated in full. Unrealized losses are eliminated in the same manner as unrealized gains, except that they are eliminated to the extent that there is no evidence of impairment.

Non-controlling interests represents a portion of equity in subsidiaries, which is not owned by the Group, and is recorded separately in equity in the consolidated statement of financial position separately from the equity attributable to the Parent. Losses within a subsidiary are attributed to the non-controlling interests even if that results in its deficit balance.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. If the Group loses control over a subsidiary, it:

- Derecognises the assets (including goodwill) and liabilities of the subsidiary;
- Derecognises the carrying amount of any non-controlling interests;
- Derecognises the cumulative translation differences recorded in equity;
- Recognises the fair value of the consideration received;
- Recognises the fair value of any investment retained;
- Recognises any surplus or deficit in profit or loss;
- Reclassifies the Parent's share of components previously recognised in OCI to profit or loss or retained earnings, as appropriate, as would be required if the Group had directly disposed of the related assets or liabilities.

Business combinations

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as an aggregate of the consideration transferred, measured at acquisition date fair value and the amount of any non controlling interests in the acquiree. For each business combination, the acquirer measures the non-controlling interests in the acquiree either at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition costs incurred are expensed and included in general and administrative expenses.

When the Group acquires a business, it assesses the financial assets acquired and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes an analysis of the need of separation of embedded derivatives in host contracts by the acquiree.

If the business combination is achieved in stages, equity interest previously held by the Group in the acquiree is remeasured to fair value at the acquisition date through profit or loss.

Any contingent consideration to be transferred by the acquirer will be recognised at fair value at the acquisition date. Contingent consideration classified as an asset or liability that is a financial instrument and within the scope of IFRS 9 Financial Instruments: Recognition and Measurement, is measured at fair value with changes in fair value recognised in the statement of profit or loss in accordance with IFRS 9. If the contingent consideration is not within the scope of IFRS 9, it is measured at fair value through profit and loss. Contingent consideration that is classified as equity is not remeasured and subsequent settlement is accounted for within equity.

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred and the amount recognised for non-controlling interests, and any previous interest held, over the net identifiable assets acquired and liabilities assumed. If the fair value of the net assets acquired is in excess of the aggregate consideration transferred, the Group re-assesses whether it has correctly identified all of the assets acquired and all of the liabilities assumed and reviews the procedures used to measure the amounts to be recognised at the acquisition date. If the reassessment still results in an excess of the fair value of net assets acquired over the aggregate consideration transferred, then the gain is recognised in profit or loss.

After initial recognition, the goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date of an entity by the Group,

allocated to each of the Group's cash-generating units that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units.

Where goodwill forms part of a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the operations disposed off is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. Goodwill disposed off in this circumstance is measured on the basis of the relative values of the operation disposed off and the portion of the cash-generating unit retained.

Business combinations achieved in stages

The acquisition date fair value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date through profit or loss.

In a business combination achieved in stages the acquirer recognises goodwill as of the acquisition date measured as the excess of (a) over (b) below:

- (a) The aggregate of:
 - (i) The consideration transferred measured in accordance with this IFRS 3 Business Combinations, which generally requires acquisition-date fair value;
 - (ii) The amount of any non-controlling interests in the acquiree measured in accordance with IFRS 3; and
 - (iii) The acquisition-date fair value of the acquirer's previously held equity interest in the acquire;
- (b) The net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed.

Acquisition of subsidiaries from parties under common control

Acquisition of subsidiaries from parties under common control (entities under the Government's control) is accounted for using the pooling of interest method.

Assets and liabilities of the subsidiary transferred under common control are recorded in these consolidated financial statements at the carrying amounts of the transferring entity (the "Predecessor") at the date of the transfer. Related goodwill, if any, inherent in the Predecessor's original acquisition is also recorded in these consolidated financial statements. Any difference between the total book value of net assets, including the Predecessor's goodwill, and the consideration paid is accounted for in these consolidated financial statements as an adjustment to equity.

These consolidated financial statements are presented as if the subsidiary had been acquired by the Group on the date it was originally acquired by the Predecessor.

Change in ownership interests in subsidiaries

In transactions where part of the interest in existing subsidiary is either sold or acquired, but control is retained, the differences between the carrying amounts of net assets attributable to interests in subsidiaries acquired or disposed and the consideration given or received for such increases or decreases are charged or credited to retained earnings.

Joint operations

A joint operation is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities, relating to the arrangement. In relation to its interests in joint operations, the Group recognizes its: Assets, including its share of any assets held jointly; Liabilities, including its share of any liabilities incurred jointly; Revenue from the sale of its share of the output arising from the joint operation; Share of the revenue from the sale of the output by the joint operation; Expenses, including its share of any expenses incurred jointly.

Investment in joint ventures and associates

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but which does not comprise control or joint control over those policies.

A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control. Under contractual arrangement that establishes joint control the Group may own less than 50% of shares in joint ventures.

The considerations made in determining significant influence or joint control are similar to those necessary to determine control over subsidiaries.

The Group has interests in joint ventures which are jointly controlled entities, whereby the venturers have a contractual arrangement that establishes joint control over the economic activities of the entities. Also, the Group has interests in associates, in which it exercises significant influence over the economic activities of the entities. The Group's investment in its joint ventures and associates are accounted for using the equity method.

Under the equity method, investment in joint venture / associate is carried in the consolidated statement of financial position at cost plus post acquisition changes in the Group's share of net assets of the joint venture / associate. Goodwill relating to a joint venture / associate is included in the carrying amount of the investment and is neither amortised nor individually tested for impairment.

The consolidated statement of comprehensive income reflects the share of the results of operations of the joint venture / associate. Where there has been a change in net assets recognized directly in the equity of the joint venture / associate, the Group recognises its share of any changes and discloses this, when applicable, in the consolidated statement of changes in equity. Unrealised gains and losses resulting from transactions between the Group and joint venture / associate are eliminated to the extent of the Group's interest in the joint venture / associate.

The share in profit of joint ventures / associates is shown on the face of the consolidated statement of comprehensive income. This is the profit attributable to equity holders of the joint venture / associate and therefore is profit after tax and non-controlling interests in the subsidiaries of the joint ventures / associates.

Financial statements of the joint venture / associate are prepared for the same reporting period as those of the Parent. Where necessary, adjustments are made to bring their accounting policies in line with those of the Group.

After application of the equity method, the Group determines whether it is necessary to recognise an additional impairment loss on the Group's investment in its joint ventures / associates. The Group determines at each reporting date whether there is any objective evidence that the investment in the joint venture / associate is impaired. If this is the case the Group calculates the amount of impairment as the difference between the recoverable amount of investment in the joint venture / associate and its carrying amount and recognises impairment loss in the consolidated statement of comprehensive income.

Upon loss of joint control over the joint venture and significant influence over associate, the Group measures and recognises any retaining investment at its fair value. Any difference between the carrying amount of the investment in the joint venture / associate upon loss of joint control / significant influence and the fair value of the retained investment and proceeds from disposal is recognized in profit or loss.

Current versus non-current classification

The Group presents assets and liabilities in the consolidated statement of financial position based on current/non-current classification. An asset is classified as current when it is:

- Expected to be realized or intended to be sold or consumed in normal operating cycle;
- Held primarily for the purpose of trading;
- Expected to be realized within 12 (twelve) months after the reporting period; or
- Cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 (twelve) months after the reporting period.

All other assets are classified as non-current.

A liability is current when:

- It is expected to be settled in normal operating cycle;
- It is held primarily for the purpose of trading;
- It is due to be settled within 12 (twelve) months after the reporting period; or
- There is no unconditional right to defer the settlement of the liability for at least 12 (twelve) months after the reporting period.

The Group classifies all other liabilities as non-current. Deferred tax assets and liabilities are always classified as non-current assets and liabilities.

Assets classified as held for sale and discontinued operations

Assets and disposal groups classified as held for sale are measured at the lower of carrying amount and fair value less costs to sell. Assets and disposal groups are classified as held for sale if their carrying amounts will be recovered through a sale transaction rather than through the continuing use. This condition is regarded as met only when the sale is highly probable and the asset or disposal group is available for immediate sale in its present condition. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within 1 (one) year from the date of classification.

In the consolidated statement of comprehensive income for the reporting period, and for the prior year comparable period, incomes and expenses from discontinued operations are reported separately from normal income and expenses, even when the Group retains a non-controlling interests in the subsidiary after sale. The resulting profit or loss (net of tax) is reported separately in the consolidated statement of comprehensive income.

Property, plant and equipment and intangible assets once classified as held for sale are not depreciated.

Oil and natural gas exploration, evaluation and development expenditure

Costs incurred before obtaining subsoil use rights (licenses)

Costs incurred before obtaining full subsoil use rights (licenses) are expensed in the period in which they are incurred, except when costs are incurred after signing preliminary agreements with the Government of the Republic of Kazakhstan, in such cases costs incurred after this date are capitalized.

Expenditures for acquisition of subsurface use rights

Expenditures for acquisition of subsurface use rights (exploration and production) comprise signature bonuses, historical costs, obligatory expenditures for ecological and social programs and are capitalized within intangible assets as subsurface use rights at exploration and evaluation phase.

Expenditures for acquisition of subsurface use rights are accounted for on a field-by-field basis. Each field is tested for impairment on an annual basis. If no future activity is planned, the remaining balance of the acquisition costs is written off. Starting from the commercial production on fields subsurface use rights (remaining costs) shall be transferred to the property, plant and equipment and shall be amortized using unit-of-production method on actual production based on total proved reserves.

Exploration and evaluation expenditures (construction in progress)

Exploration and evaluation expenditures include geological and geophysical costs; costs directly related to exploration drilling; stripping activities; overhead and other expenses on exploration and evaluation, which could be related to a certain field. These costs include employee remuneration, materials and fuel used, rig costs and payments made to contractors. Except for geological and geophysical costs, exploration and evaluation expenditures are capitalized within exploration and evaluation assets, accounted for by subsurface use contracts and are not amortized. If mineral or hydrocarbon resources are not found, this could be an indication of impairment. All capitalized costs are subject to technical, commercial and management review at least once a year to confirm the continued intent to develop or otherwise extract value from the discovery. When this is no longer the case, the costs are written off. If mineral or hydrocarbon resources are determined and development is sanctioned, relevant costs are then transferred to oil and gas or mining assets subclasses.

Development and production expenditures (oil and gas and mining assets)

Development and production expenditures comprise previously capitalized (and reclassified in commencement of production) expenditures for acquisition of subsurface use rights and exploration and evaluation costs; drilling of producing wells regardless of the drilling results; construction of landfills; development of surface technological facilities required for production, collection and preparation of hydrocarbons and mineral resources at fields; other costs incurred in the process of organization of commercial production at fields; capitalized discounted costs for wells and mines abandonment and site restoration.

Development and production expenditures are capitalized within property, plant and equipment (oil and gas and mining assets), and are accounted for on a field-by-field basis. Oil and gas and mining assets are depreciated using a unit-of-production method based on actual production from commencement of commercial production at fields. Certain oil and gas and mining assets (surface facilities and equipment) with useful lives significantly differing from those of the fields are depreciated on a straight-line basis over their useful lives. The cost of acquisition of subsurface use rights including discounted decommissioning costs are depreciated over total proved reserves. The other field development costs are amortized over proved developed reserves.

Property, plant and equipment (other than oil and gas and mining assets)

On initial recognition, property, plant and equipment is measured at cost. Subsequently, property, plant and equipment are stated at cost less accumulated depreciation, depletion and impairment. The cost of self-constructed assets includes the cost of materials, direct labour and an appropriate proportion of production overheads.

Property, plant and equipment, other than oil and gas and mining assets, principally comprise the following classes of assets, which are depreciated on a straight-line basis over the expected useful lives:

Unified power system assets	8-100 years
Refinery assets	4-100 years
Pipelines	2-30 years
Buildings and premises	2-100 years
Railway tracks and infrastructure	10-80 years
Machinery, equipment and vehicles	2-50 years
Other	2-20 years

In cases when items of property, plant and equipment are subject to major inspection, the cost is recognized in the carrying amount of property, plant and equipment as a replacement of component if the recognition criteria set out in IAS 16 are satisfied.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of an asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the reporting period the asset is derecognised.

Residual values, useful lives and methods of depreciation are reviewed, and adjusted if appropriate, at each financial year end.

Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is fair value as at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment loss. Internally generated intangible assets, excluding capitalised development costs, are not capitalised and expenditure is charged against profits in the year in which the expenditure is incurred.

The useful lives of intangible assets are assessed to be either finite or indefinite. Intangible assets with finite lives are amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at least at each financial year-end. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the intangible asset is accounted for by changing the amortisation period or method, as appropriate, and treated as changes in accounting estimates.

The amortisation expense on intangible assets with finite lives is recognized in the consolidated statement of comprehensive income in the expense category consistent with the function of the intangible asset.

Intangible assets with the finite useful life principally comprise the following classes of assets which are amortised on a straight-line basis over the expected useful lives:

Licenses	3-20 years
Software	1-14 years
Other	2-15 years

Indefinite lives intangible assets are not amortized, but tested for impairment annually or whenever there are indications of impairment and, if necessary, written down to the recoverable amount.

Investment properties

Investment property is initially measured at cost, including transaction costs.

Since the Group adopted cost model, after initial recognition, investment property is accounted for in accordance with the cost model as set out in IAS 16 Property, Plant and Equipment, that is, at cost less accumulated depreciation and less accumulated impairment losses.

The depreciation is calculated based on straight line method basis over the expected remaining useful average life of 2 100 years.

Investment property is derecognised (eliminated from the consolidated statement of financial position) on its disposal or when the investment property is permanently withdrawn from use and no future economic benefits are expected in the future. The difference between the net inflows arisen from the disposal and carrying amount of the asset is recognised in the consolidated statement of comprehensive income for the period in which it was derecognized.

Impairment of non-financial assets

The Group assesses non-financial assets or groups of assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Individual assets are grouped for impairment assessment purposes at the lowest level at which there are identifiable cash inflows that are largely independent of the cash inflows of other groups of assets. If any such indication of impairment exists or when annual impairment testing for an asset group is required, the Group makes an estimate of its recoverable amount.

An asset's or cash generating unit's (CGU's) recoverable amount is higher of its fair value less costs to sell and its value in use. Where the carrying amount of an asset or CGU exceeds its recoverable amount, the asset or CGU is considered impaired and an allowance is made to reduce the asset to its recoverable amount. In assessing value in use, the estimated future cash flows are adjusted for the risks specific to the asset or CGU and are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money. An assessment is made at each reporting date as to whether there is any indication that previously recognized impairment provision may no longer exist or may have decreased. If such indication exists, the recoverable amount is estimated.

A previously recognized impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment allowance was recognized. If that is the case, the carrying amount of the asset is increased to its recoverable amount.

That increased amount cannot exceed the carrying amount that would have been determined, net of depreciation/amortisation, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in profits and losses.

After such a reversal, the depreciation/amortisation charge is adjusted in future periods to allocate the asset's revised carrying amount, less any residual value, on a systematic basis over its remaining useful life.

The following process is applied in assessing impairment of goodwill:

- Goodwill is tested for impairment annually as at December 31, and when circumstances indicate that its carrying amount may be impaired;
- Impairment is determined for goodwill by assessing the recoverable amount of the cash-generating units, to which the goodwill relates. Where the recoverable amount of the cash-generating units is less than their carrying amount an impairment loss is recognized. Impairment losses relating to goodwill cannot be reversed in future periods.

Impairment of exploration and evaluation assets

Exploration and evaluation assets are tested for impairment when reclassified to oil and gas development tangible or intangible assets or whenever facts and circumstances indicate impairment. One or more of the following facts and circumstances indicate that the Group should test exploration and evaluation assets for impairment (the list is not exhaustive):

- The period for which the Group entity has the right to explore and appraise in the specific area has expired during the period or will expire in the near future, and is not expected to be renewed;
- Substantive expenditure on the further exploration for and evaluation of hydrocarbon resources in the specific area is neither budgeted nor planned;
- Exploration for and evaluation of hydrocarbon resources in the specific area have not led to the discovery of commercial viable quantities of hydrocarbon resources and the Group entity has decided to discontinue such activities in the specific area;
- Sufficient data exist to indicate that, although a development in the specific area is likely to proceed, the carrying amount of the exploration and evaluation asset is unlikely to be recovered in full from successful development or by sale.

Financial assets

Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income (FVOCI), and fair value through profit or loss (FVPL).

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under IFRS 15.

In order for a financial asset to be classified and measured at amortised cost or FVOCI, it needs to give rise to cash flows that are "solely payments of principal and interest (SPPI)" on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognised on the trade date, i.e., the date that the Group commits to purchase or sell the asset.

Subsequent measurement

For purposes of subsequent measurement, financial assets are classified in three categories:

- Financial assets at amortised cost (debt instruments);
- Financial assets at fair value through other comprehensive income;

- Financial assets at fair value through profit or loss.

Financial assets at amortised cost (debt instruments)

The Group measures financial assets at amortised cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows; and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest (EIR) method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

The Group's financial assets at amortised cost include trade and other receivables, loans due from third and related parties, debt securities of third and related parties and bank deposits.

Financial assets at fair value through other comprehensive income

The Group measures financial assets at FVOCI if both of the following conditions are met:

- The financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. Interest consists of consideration for the time value of money, and for the credit risk associated with the principal amount outstanding during a particular period of time.

The Group's financial assets at FVOCI include mainly debt securities of third and related parties.

Financial assets at fair value through profit or loss

Financial assets at FVPL include certain loans due from related parties, which contain embedded derivative financial instruments, and coupon bonds included in other financial assets mandatorily required to be measured at fair value. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at FVPL, irrespective of the business model. Notwithstanding the criteria for debt instruments to be classified at amortised cost or at FVOCI, as described above, debt instruments may be designated at FVPL on initial recognition if doing so eliminates, or significantly reduces, an accounting mismatch.

Financial assets at FVPL are carried in the consolidated statement of financial position at fair value with net changes in fair value recognised in the consolidated statement of comprehensive income.

The Group's financial assets at FVPL include mainly loans issued, debt and equity securities of third and related parties.

Derecognition

A financial asset is primarily derecognised (removed from the consolidated statement of financial position) when:

- The rights to receive cash flows from the asset have expired; or
- The Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass-through" arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset; or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Group continues to recognise the transferred asset to the extent of its continuing involvement. In that case, the Group also

recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

Impairment of financial assets

The Group recognises an allowance for expected credit losses (ECLs) for all debt instruments not held at fair value through profit or loss.

ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate.

The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For trade and other receivables the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Group considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Hedge accounting

The Group designates certain hedging instruments in respect of foreign currency risk, as either hedges of net investments in foreign operations or cash flow hedges.

At the inception of the hedge relationship, the Group documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument is highly effective in offsetting changes in fair values of foreign operations or cash flows of the hedged item attributable to the hedged risk.

Amounts previously recognized in other comprehensive income and accumulated in equity are reclassified to profit or loss in the periods when the hedged item affects profit or loss, in the same line as the recognized hedged item.

Hedge accounting is discontinued:

- When the Group revokes the hedging relationship;
- When the hedging instrument expires or is sold, terminated, or exercised; or
- When it no longer qualifies for hedge accounting.

Any gain or loss recognized in other comprehensive income and accumulated in equity at that time remains in equity and is recognized when the forecast transaction is ultimately recognized in profit or loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognized immediately in profit or loss. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss.

Investments in foreign operations hedge

Foreign currency gain or loss arising on items that are designated as part of the hedge of the Group's net investment in foreign operations are recognized in consolidated statement of comprehensive income within currency translation reserve.

Cash flow hedges

Foreign currency gain or loss arising from financial instruments that are designated and qualify as cash flow hedges is recognized in consolidated statement of comprehensive income within hedge reserve.

Inventories

Inventories are valued at cost or net realisable value, whichever is lower. Costs comprise charges incurred in bringing inventory to its present location and condition. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and estimated costs necessary to sell. The same cost formula is used for all inventories having a similar nature and use. Inventories of oil and gas and energy operating segments are valued on a first-in first-out ("FIFO") basis. All other inventories are valued on the weighted-average cost basis.

Cash and cash equivalents

Cash and cash equivalents are defined as cash on hand, demand deposits, short-term and highly liquid investments with original maturity of not more than 3 (three) months readily convertible to known amounts of cash and subject to insignificant risk of change in value.

Financial liabilities**Initial recognition and measurement**

Financial liabilities are classified, at initial recognition, as financial liabilities at FVPL, loans borrowings and payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognized initially at fair value and in the case of loans and borrowings, plus directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, loans and borrowings and derivative financial instruments.

Subsequent measurement

The measurement of financial liabilities depends on their classification as follows:

Financial liabilities at fair value through profit or loss

Financial liabilities at FVPL includes financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss.

Financial liabilities are classified as held for trading if they are acquired for the purpose of selling in the near term. This category includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by IFRS 9. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognized in profit or loss.

The Group has not designated any financial liabilities upon initial recognition as at FVPL.

Trade and other payables

Trade payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest rate (EIR).

Loans and borrowings

After initial recognition, interest bearing loans and borrowings are subsequently measured at amortized cost using the EIR. Gains and losses are recognized in the consolidated statement of comprehensive income when the liabilities are derecognized as well as through the EIR amortization process.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fee or costs that are an integral part of the EIR. The EIR amortization is included in finance costs.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 (twelve) months after the reporting date. Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalized as part of the cost of that asset. Other borrowing costs are recognized as an expense when incurred.

Financial guarantee contracts

Financial guarantee contracts issued by the Group are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. Financial guarantee contracts are recognised initially as a liability at fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequently, the financial guarantee contracts after initial recognition at the higher of the amount initially recognized less, when appropriate, the cumulative amount of income/amortization in accordance with the principles of IFRS 15 Revenue from Contracts with Customers and the amount of the estimated allowance for expected credit losses.

Derecognition of financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in profit or loss.

Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount reported in the consolidated statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

Fair value of financial instruments

The fair value of financial instruments that are traded in active markets at each reporting date is determined by reference to quoted market prices or dealer price quotations (bid price for long positions and ask price for short positions), without any deduction for transaction costs.

For financial instruments not traded in an active market, the fair value is determined using appropriate valuation techniques. Such techniques may include:

- Using recent arm's length market transactions;
- Reference to the current fair value of another instrument that is substantially the same;
- A discounted cash flow analysis or other valuation models.

An analysis of fair values of financial instruments and further details as to how they are measured are provided in *Note 36*.

Leases

Determining whether the agreement is a lease or whether it contains evidence of a lease is based on an analysis of the content of the agreement at the date of the commencement of the lease. The agreement is a lease or contains signs of a lease if the implementation of the agreement depends on the use of a particular asset (or assets), and the right to use the

asset or assets as a result of this agreement is transferred from one party to the other, even if this asset (or these assets) is not indicated (not specified) in the agreement explicitly.

The Group as lessee

For the lease contracts (or separate components of the contracts), under which the Group is granted the right to control the use of an identified asset (as defined by IFRS 16 Leases) for a certain period of time in exchange for consideration, the Group recognizes a right-of-use asset and a corresponding lease liability at the inception of the contract. Non-lease components of the contracts are accounted for in accordance with other relevant standards.

In accordance with IFRS 16 Leases, the Group applies practical expedient for not recognising the lease for the lease contracts with lease term of less than 12 months at lease inception and without purchase option, for the leases with variable lease rates that do not depend on an index or rate and for the leases of low value assets.

The Group recognizes short-term leases and leases of low value assets as expense on a straight-line basis over the term of the lease. The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date. Lease payments are discounted by using the Group incremental borrowing rate, except when the rate is implicit in the lease and can be readily determined.

The Group remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- The lease term has changed or there is a significant event or change in circumstances resulting in a change in the assessment of exercise of a purchase option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate;
- The lease payments change due to changes in an index or rate or a change in expected payment under a guaranteed residual value, in which cases the lease liability is remeasured by discounting the revised lease payments using an unchanged discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case a revised discount rate is used);
- A lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification..

At the commencement date, the Group measures the right-of-use asset at cost that includes the amount of the initial measurement of the lease liability, any lease payments made at or before the commencement date less any lease incentives received, any initial direct costs incurred by the lessee. The right-of-use asset is subsequently measured according to the accounting policy that is applied for own assets, including for depreciation and amortization and impairment measurement.

The recognised right-of-use asset is depreciated over the shorter period of expected useful life of the underlying asset or lease term.

The Group presents lease liabilities in the consolidated statement of financial position as a separate line (*Note 22*), while right-of-use assets are presented within the same line item as that within which the corresponding underlying assets would be presented if they were owned, i.e. within property, plant and equipment (*Note 7*).

In accordance with the requirements of IFRS 16, the Group classifies repayment of principal in cash flows from financial activities. In accordance with the Group's accounting policy, interest paid is classified as part of the cash flows from operating activities. Payments on short-term leases, leases of low value assets and variable rental payments not included in the valuation of the lease liability are presented as part of operating activities.

The Group as lessor

The Group enters into lease agreements as a lessor with respect to some of its property, plant and equipment items.

Leases for which the Group is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases. Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease.

Provisions

Asset retirement obligation (decommissioning)

Provision for decommissioning is recognized in full, on a discounted cash flow basis, when the Group has an obligation to dismantle and remove a facility or an item of property, plant and equipment and to restore the site on which it is located, and when a reasonable estimate of that provision can be made.

The amount recognized is the present value of the estimated future expenditure determined in accordance with local conditions and requirements. A corresponding addition to the carrying amount of the related item of property, plant and equipment in the amount equivalent to the provision is also recognized. This amount is subsequently depreciated as part of the capital costs of the production and transportation facilities in accordance with respective depreciation method.

Changes in the measurement of an existing decommissioning provision that result from changes in the estimated timing or amount of the outflow of resources embodying economic benefits required to settle the obligation, or change in the discount rate, is accounted for so that:

- Changes in the provision are added to, or deducted from, the carrying amount of the related asset in the current period;
- The amount deducted from the cost of the asset shall not exceed its carrying amount. If a decrease in the provision exceeds the carrying amount of the asset, the excess is recognized immediately in the consolidated statement of comprehensive income; and
- If the adjustment results in an addition to the cost of an asset, the Group considers whether this is an indication that the new carrying amount of the asset may not be fully recoverable. If it is such an indication, the Group tests the asset for impairment by estimating its recoverable amount, and accounts for any impairment loss, in accordance with IAS 36.

Other provisions

Provisions are recognized in the consolidated financial statements when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Where the Group expects a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain.

If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognized as a finance cost.

Employee benefits

Contributions to pension funds

The Group withholds 10% from the salary of its employees limited to certain annual amounts as the employees' contribution to their designated pension funds. Under the legislation, employees are responsible for their retirement benefits payable by that pension funds and the Group has no present or future obligation to further compensate its employees upon their retirement in relation to these arrangements.

Social tax

The Group pays social tax on salaries payable to employees according to the current statutory requirements of the Republic of Kazakhstan. Social tax is expensed as incurred.

Defined benefit plan

In accordance with the Collective Agreements signed with trade unions and other benefit regulations, some subsidiaries of the Group provide certain benefits to its employees upon their retirement ("Defined Benefit Plan").

The Group recognises actuarial gains and losses arising from the reassessment of the employee benefit liability in the period they are identified in OCI and profits and losses, and recognises benefit costs and obligations based on estimates determined in accordance with IAS 19 Employee Benefits.

The obligation and cost of benefits under the defined benefit plan are determined using the projected unit credit method. This method considers each year of service as giving rise to an additional unit of benefit entitlement and measures each unit separately to build up the final obligation. The cost of providing benefits is charged to profit and loss, so as to attribute the total benefit cost over the service lives of employees in accordance with the benefit formula of the defined benefit plan. This obligation is measured at the present value of estimated future cash flows using a discount rate that is similar

to the interest on government bonds where the currency and terms of these bonds are consistent with the currency and estimated terms of the defined benefit plan obligation. The defined benefit plans of Group's subsidiaries are unfunded.

Equity

Share capital

Common shares are classified as equity. External costs directly attributable to the issue of new shares, other than on a business combination, are shown as a deduction from the proceeds in equity. Any excess or deficiency of the fair value of consideration received over the par value of shares issued is recognized as an increase or decrease in the retained earnings.

Non-controlling interests

Non-controlling interests are presented in the consolidated statement of financial position within equity, separately from the equity attributable to the equity holders of the Parent. Losses of subsidiaries are attributed to the non-controlling interests even if this results in a deficit balance.

Dividends

Dividends are recognized as a liability and deducted from equity at the reporting date only if they are declared before or on the reporting date. Dividends are disclosed in the consolidated financial statements when they are proposed before the reporting date or proposed or declared after the reporting date but before the consolidated financial statements are authorised for issue.

Other distributions to the Shareholder

Other distributions to the Shareholder recognized as deductions from retained earnings are represented by expenses incurred or asset distribution made at the discretion of the Shareholder, including property, plant and equipment, interest in another entities, other disposal groups, cash and other assets in accordance with accounting policy of the Group.

Revenue recognition

Revenue is recognized when it is probable that the economic benefits will flow to the Group and the amount of revenue can be reliably measured.

Sale of goods

Revenues are recognized when (or as) the Group satisfies a performance obligation by transferring a promised good or service (i.e. an asset) to a customer. An asset is transferred when (or as) the customer obtains control of that asset, which usually occurs when the title is passed, provided that the contract price is fixed or determinable and collectability of the receivable is reasonably assured. For export sales, title generally passes at the border of the Republic of Kazakhstan. Revenue is measured at the fair value of the consideration received or receivable taking into account the amount of any trade discounts, volume rebates and reimbursable taxes.

Sales of support services are recognized as services are performed provided that the service price can be determined and no significant uncertainties regarding the receipt of revenues exist.

Rendering of services

Revenue from rendering of services is recognized when the services have been performed.

In respect of services related to transportation, revenue is recognized with reference to the stage of completion of the transportation at the reporting date provided that the stage of completion of transportation and the amount of revenue can be measured reliably. Prepayments received from customers relating to transportation services that have not been started yet are recognized upon receipt as "advances received from customers". Deferred income is credited to current revenue, as the service is provided.

The Group's revenue in the energy, communications and transportation segments is primarily recognized over a period of time, while the rest of the Group's revenue is primarily recognized at a point in time.

Sale and lease back transactions

The Group accounts for a transfer of an asset in a sale and leaseback transaction as a sale only if the transfer meets the requirements of IFRS 15 Revenue from Contracts with Customers.

If, under IFRS 15, a sale is to be recognised by the seller-lessee, then the right-of-use asset leased back is measured at the proportion of the previous carrying amount of the asset that relates to the right of use retained by the seller-lessee. The seller-lessee recognises only the amount of any gain or loss that relates to the rights transferred to the buyer-lessor.

If the transfer of an asset by the seller-lessee does not satisfy the requirements of IFRS 15 to be accounted for as a sale of the asset, the seller-lessee continues to recognize the transferred asset and recognizes a financial liability equal to proceeds for the transfer by applying IFRS 9 Financial Instruments.

Interest income

For all financial instruments measured at amortised cost and interest-bearing financial assets classified as investments held at FVOCI, interest income is recorded using the effective interest rate (EIR). EIR is the rate that exactly discounts the estimated future cash payments or receipts over the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset or liability.

Trade receivables

Accounts receivable represent the Group's right to the consideration amount, which is unconditional (i.e., only the passage of time is required before payment of the consideration is due).

Contract liabilities from contracts with customers

A contract liability is recognised if a payment is received or a payment is due (whichever is earlier) from a customer before the Group transfers the related goods or services. Contract liabilities are recognised as revenue when the Group performs under the contract (i.e., transfers control of the related goods or services to the customer).

Costs to obtain a contract

The Group pays commission to sales agents for new connected subscribers in the communication segment. The commission to sales agents is capitalized within other non-current assets in the consolidated statements of financial position. Costs to obtain a contract are amortized over the period the service is provided to the customer.

Establishment of tariffs

A number of subsidiaries of the Group are subject to regulation by the Committee for regulation of natural monopolies of the Republic of Kazakhstan ("CRNM"). This Committee is responsible for approval of the methodology for tariff calculation and tariff rates, under which the subsidiaries derive a significant portion of their revenues.

Government grants

Due to the fact that the Government of the Republic of Kazakhstan is the sole shareholder of the Fund, the Group analyses all transactions with the Government to assess its role: where the Government acts primarily in its capacity of the Shareholder or where it acts as a regulator.

If it is determined that in a specific transaction the Government acts in capacity of the Shareholder any gains or losses incurred by the Group as a result of such transaction are reflected directly in equity as either a contribution or withdrawal of equity by the Shareholder.

If it is determined that in a specific transaction the Government does not act in capacity of the Shareholder such transactions are accounted for using provisions of IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance*. In such circumstances, government grants are recognized at their fair value where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the grant relates to an expense item, it is recognized as income over the period necessary to match the grant on a systematic basis to the costs that it is intended to compensate. Where the grant relates to an asset, the fair value is credited to a deferred income account and is released to the consolidated statement of comprehensive income over the expected useful life of the relevant asset by equal annual instalments. Grants related to income are presented separately in the consolidated statement of comprehensive income within revenues from operating activities.

Expense recognition

Expenses are recognized as incurred and are reported in the consolidated statement of comprehensive income in the period to which they relate on the accrual basis.

Income tax

Income tax for the year comprises current and deferred tax. Income tax is recognized in the profits and losses, except to the extent that it relates to items charged or credited to other comprehensive income or equity, in which case it is recognized in other comprehensive income. Current tax expense is the expected tax payable on the taxable income for the year and any adjustment to tax payable in respect of previous years.

Excess profit tax ("EPT") is treated as an income tax and forms part of income tax expense. In accordance with the subsurface use contracts, the Group accrues and pays EPT, at specified rates of after tax profit which has been adjusted for specific deductions in accordance with the applicable subsurface use contracts, when certain internal rates of return are exceeded.

Deferred tax is calculated with respect to both corporate income tax ("CIT") and EPT. Deferred EPT is calculated on temporary differences for assets allocated to subsurface use contracts at the expected rate of EPT to be paid under the contract.

Deferred tax is provided using the statement of financial position method, in relation to temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The temporary differences arising due to the following are not provided for:

- The initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither accounting profit nor taxable profit or loss; and
- In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled based on the tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

A deferred tax asset is recognized only to the extent that it is probable that future taxable profits will be available against which the asset can be utilized. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

Value added tax (“VAT”)

Tax authorities permit the settlement of sales and purchases VAT on a net basis. VAT receivable represents VAT on domestic purchases net of VAT on domestic sales. Export sales are zero rated.

Related parties

Related parties include the Group’s Shareholder, key management personnel, associates, joint ventures and entities in which a substantial interest in the voting power is owned, directly or indirectly, by the Group’s shareholders or key management personnel.

Contingent liabilities and contingent assets

Contingent liabilities are not recognised in the consolidated financial statements. They are disclosed in the notes to the consolidated financial statements (*Note 37*) unless the possibility of an outflow of resources embodying economic benefits is remote.

Contingent assets are not recognized in the consolidated financial statements. Where an inflow of economic benefits is probable, they are disclosed in the notes.

Subsequent events

Post-year-end events that provide evidence of conditions that existed at the reporting date (adjusting events) are reflected in the consolidated financial statements. Post-year-end events that are not adjusting events are disclosed in the notes when material.

4. Significant accounting estimates and judgements

The preparation of the consolidated financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and contingent assets and liabilities at the reporting date and reported amounts of assets, liabilities, revenues, expenses and contingent assets and liabilities during the reporting period. Actual outcomes could differ from these estimates.

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below:

Recoverability of oil and gas assets, downstream, refining and other assets

The Group assesses assets or CGU for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Where an indicator of impairment exists, a formal estimate of the recoverable amount is made, which is considered to be the higher of the fair value less costs to sell and value in use. These assessments require the use of estimates and assumptions such as long-term oil prices, discount rates, future capital requirements, operating performance (including production and sales volumes) that are subject to risk and uncertainty. Where the carrying amount of an asset or CGU exceeds its recoverable amount, the asset/CGU is considered to be impaired and is written down to its recoverable amount. In assessing recoverable values, the estimated future cash flows are adjusted for the risks specific to the asset group and are discounted to their present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Fair value less costs to sell is identified as the price that would be received to sell the asset in an orderly transaction between market participants and does not reflect the effects of factors that may be specific to the entity and not applicable to entities in general.

Under IAS 36, one of the possible impairment indicators is the presence of significant changes that had negative consequences for the Group that occurred during the year or are expected in the near future in the technological, market, economic or legal environment in which the Group operates or in the market for which the asset is used.

Impairment testing assumptions

The Group's long-term assumptions for Brent oil prices, KZT/USD exchange rate and inflation projections have been revised and are based on externally sourced forecasts and rates of the independent research organizations considering long-term market expectations. Production volumes estimates are based on proved developed and undeveloped reserves for subsidiaries, and on proved and probable reserves for significant investments in joint ventures and associates.

Production period is either based on subsoil use contracts' expiration date or on extended license period, to which the Group has strong intention to extend its licenses. Estimated production volumes are based on the Group's production plans that are mostly used for the purposes of application filing for extension of subsoil use contracts.

Discount rates were estimated on the weighted average cost of capital of the individual cash generating unit and ranged between 12.01-17.09% depending on the functional currency, production period, size, equity risk premium, beta and gearing ratio of the relevant CGU.

The long-term price assumptions applied were derived from Bloomberg consensus; so did the near-term commodity price assumptions, a summary of which, in real 2022 terms, is provided below:

	2023	2024	2025	2026	2027
Brent oil (ICE Brent \$/bbl)	93.94	88.00	85.00	80.05	81.65

In "Oil-and-gas and petrochemical segment" net impairment charges were 18,006 million tenge for 2022. Impairment charges mainly relate to the exploration and evaluation assets in the amount of 8,895 million tenge of Southern Urikhtau project, in the amount of 5,893 million tenge of six sites and 3 deposits of QazaqGas Exploration and Production LLP, the subsidiary of National Company "QazaqGas" JSC, "QazaqGas" Exploration and Production" LLP, and in the amount of 3,172 million tenge of Isatay project (Note 29).

Headroom of the majority of oil and refining assets are sensitive to changes in price or other assumptions. The changes within next financial periods may result in recoverable amount of these assets above or below the current carrying amounts and therefore there is a risk of impairment reversals or charges in those periods.

In 2021 the Group recognized impairment loss of 12,751 million tenge. Impairment charges mainly relate to partial impairment of refining assets of KMG International N.V. (further KMGI) of 8,298 million tenge (Note 29) and barges of Kazmortransflot LLP of 4,453 million tenge (Note 29). The recoverable amounts of the barges were based on value-in-use calculations and recoverable amount of KMGI assets for impairment testing purposes was determined based on fair value less cost to disposal.

Oil and gas reserves

Oil and gas reserves are a material factor in the Group's computation of depreciation, depletion and amortization expenses. The Group estimates its oil and gas reserves in accordance with the methodology of the Society of Petroleum Engineers (SPE). In estimating its reserves under SPE methodology, the Group uses long-term planning prices. Using planning prices for estimating proved reserves removes the impact of the volatility inherent in using year-end spot prices. Management believes that long-term planning price assumptions, which are also used by management for their business planning and investment decisions are more consistent with the long-term nature of the upstream business and provide the most appropriate basis for estimating oil and gas reserves.

All reserve estimates involve some degree of uncertainty. The uncertainty depends mainly on the amount of reliable geological and engineering data available at the time of the estimate and the interpretation of this data.

The relative degree of uncertainty can be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Proved reserves are more certain to be recovered than unproved reserves and may be further sub-classified as developed and undeveloped to denote progressively increasing uncertainty in their recoverability.

Estimates are reviewed and revised annually. Revisions occur due to the evaluation or re-evaluation of already available geological, reservoir or production data, availability of new data, or changes to underlying price assumptions. Reserve estimates may also be revised due to improved recovery projects, changes in production capacity or changes in development strategy. Proved developed reserves are used to calculate the unit of production rates for depreciation, depletion and amortization in relation to oil and gas production assets. The Group has included in proved reserves only those quantities that are expected to be produced during the initial subsoil use contract period. This is due to the uncertainties surrounding the outcome of such renewal procedures, since the renewal is ultimately at the discretion of the Government. An increase in the Group's subsoil use contract periods and corresponding increase in reported reserves would generally lead to lower depreciation, depletion and amortization expense and could materially affect earnings.

A reduction in proved developed reserves will increase depreciation, depletion and amortization expense (assuming constant production), reduce income and could also result in an immediate write-down of the property's book value. Given the relatively small number of producing fields, it is possible that any changes in reserve estimates year on year could significantly affect prospective charges for depreciation, depletion and amortization.

Please refer Note 29 for details on annual impairment test results.

Mining reserves

Mining reserves are a critical component of the projected cash flow estimates that are used to assess the recoverable values of assets and to determine depreciation and amortisation expense in mining segment.

Group entities usually estimate reserves based on results of detailed mine exploration, which is evaluated and approved by State Reserves Commission (SRC) of Kazakhstan Geology Committee. Normally upon stripping during production actual reserves of each area are greater or lesser than geological reserves approved by SRC.

Uranium reserves (estimate)

Uranium reserves are a critical component of the Group's projected cash flow estimates that are used to assess the recoverable values of relevant assets as well as depreciation and amortisation expense. Estimates of uranium reserves also determine the life of mines, which in turn affect asset retirement obligation calculations.

On an annual basis the Group engages an independent consultant to assess the Group's ore reserves and mineral resources in accordance with the Australasian Code for reporting on geological exploration works, mineral resources and ore reserves (hereinafter JORC Code). Independent assessment of reserves and resources was carried out as of December 31, 2022 and 2021. The consultant reviewed all key information upon which the reported mineral resource and ore reserve statements for the mining assets of the Group are based.

The consultant's reports contain an assessment of the tonnes of uranium contained in ore which has the potential to be extracted by the existing and planned mining operations (the mineral resource), and also the tonnes of uranium contained in ore currently planned to be extracted as envisaged by the respective life-of-mine plans (the ore reserve). The Group used the ore reserves data for calculation of impairment of long-term assets, unit of production depreciation for each of the Group's mines as well as asset retirement obligation calculations.

Goodwill

KMGI CGU, including goodwill

As at December 31, 2022 and 2021, the Group performed its annual impairment tests for goodwill and downstream, refining and other assets due to existence of impairment indicators at the CGUs of KMGI. As the result of the impairment analysis, recoverable amount of KMGI CGUs exceeded their carrying values.

Pavlodar refinery, goodwill

As of December 31, 2022 and 2021 the Group has goodwill of 88,553 million tenge related to acquisition of Pavlodar oil chemistry refinery LLP (further Pavlodar refinery), the subsidiary of National Company "KazMunayGas" JSC. The Group performed annual impairment test for the Pavlodar refinery goodwill using the current tolling business scheme employed by Pavlodar refinery in December 2022 and 2021. The Group considered the forecast for oil tolling volumes, oil tolling tariffs, capital expenditures, among other factors, when reviewing for indicators of impairment. The recoverable amount is calculated using a discounted cash flow model. In 2022, the discount rate of 12.86% (2021: 12.06%) was calculated based on the pre-tax weighted average cost of capital. The inherent risk was included by applying an individual beta factor. The beta factor was estimated based on the publicly available market data. Forecasted cash flows till to 2031 were based on five-years business plan of Pavlodar refinery 2023-2027 (2021: 2022-2026 years), which assumes current management estimates on potential changes in operating and capital costs. As at December 31, 2022 and 2021 the recoverable amount of goodwill, which was determined based on value-in-use, exceeded its book value, as such no impairment of Pavlodar refinery goodwill was recognized.

Sensitivity to changes in assumptions

Results of the assessment of recoverable amount of Pavlodar refinery goodwill are sensitive to changes in key assumptions, in particular, assumptions related to changes in discount rate and target EBITDA in terminal period. Increase in discount rates by 1.0% to 13.86% (2021: 13.06%) and decrease of target EBITDA in terminal period by 1% would not result decrease of the recoverable amount of CGU Pavlodar refinery to its carrying value.

National Company “Kazakhstan Temir Zholy” JSC (“NC KTZh”)

The management assesses the recoverability of goodwill annually as of December 31 or every time when impairment indicators of the single CGU appear.

For the analysis of goodwill impairment, management has used the detailed calculation of value in use of the single cash-generating unit as at 31 December 2022. A number of subjective factors, both operational and financial, using the best evidence available, had been used to estimate cash flows.

The Group applied the cash flows forecast period of 10 years, as the Group prepares its Development Strategy for 10 year period and makes forecasts within the framework of this strategy, projecting an increase in freight turnover based on GDP growth rates of the Republic of Kazakhstan and neighbouring regions, since such dependence was noted in the past. Given the availability of forecasts for GDP growth rates over a 10-year horizon, the Group’s management believes it can reliably forecast its cash flows over a 10-year period. The level of tariffs for access to the mainline railway network used in the forecast period is based on the tariffs approved by the CRNM for 2021-2025, while in subsequent periods the tariffs were adjusted taking into account the forecasted inflation rate. The transit rates have been adjusted based on the forecasted Swiss Franc to tenge exchange rate. The long-term growth rate in terminal period is 4%.

Operational assumptions used in the test reflect expected volumes of transportation services, including transit volumes, based on projected demand and historical growth dynamic of transit freight transportation volumes.

Financial assumptions include significant estimates associated with tariff forecasts and growth rates, discounts, and projected tenge to Swiss Franc exchange rates, in which the revenue from transit transportation is denominated. The discount rate (WACC) used in calculating the value in use of the Group amounted to 12.61%.

Management concluded that the recoverable amount of the goodwill exceeds its carrying amount as of December 31, 2022.

The Group performed a sensitivity analysis and concluded that when using the following reasonably possible changes in the key assumptions individually and unchanged remaining parameters, the fair value of property, plant and equipment, intangible assets and goodwill will equal its carrying value:

- Freight transportation volumes – A decrease of the volumes by 12.53% compared to the calculation;
- Discount rate (WACC) – An increase of the discount rate from 12.61% to 14.58%.

However, with more significant changes in any of the above key assumptions or simultaneous adverse impact of several factors, could result in the carrying amount of Group non-current assets being higher than their recoverable amount, and the requirement to recognise impairment in the future.

DP Ortalyk LLP, JV Akbastau JSC and Karatau LLP

Goodwill relates to business combinations in prior periods being: 5,166 million tenge relates to subsurface use operations of DP Ortalyk LLP at the area Central on Mynkuduk mine, 24,808 million tenge relates to Karatau LLP and 18,520 million tenge relates to JV Akbastau JSC, which independently perform subsurface use operations at the Budenovskoye mine. At least annually, goodwill is tested for impairment. The carrying value of goodwill applicable to each of these entities is allocated to their respective cash generating units and the recoverable amount was determined on a value in use basis from forecast cash flows over the term of subsurface use contracts. Forecast cash flows are based on the approved volume of proven reserves, estimated volumes of production and sales over a life of mine plan approved by management, using a discount rate of 18.49% for 2022 year (2021: 12.97%). Production volumes are consistent with those agreed with the competent authority and independent consultant’s report and are based on the production capacity of the cash-generating units.

Key assumptions used in calculations include forecast sales prices, production costs and capital expenditures. Sales prices used in developing forecast cash flows were determined using an independent official source Ux Consulting LLC published in the fourth quarter of 2022. Production costs and capital expenditures are based on approved budgets for 2023-2027 and growth of 6.16% which approximates long-term average inflation rates. The estimated values in use significantly exceed the carrying amounts of the non-current assets of the three cash-generating units, including goodwill, and therefore even reasonably possible changes in key assumptions would not lead to impairment losses being recognised.

Khan Tengri Holding B.V., Kcell JSC and IP TV

On September 30, 2022, the Group (sole owner of all issued and paid-up equity of Khan Tengri Holding B.V.) decided to liquidate Khan Tengri Holding B.V. According to the Distribution Act, all assets, including 100% of the share in Mobile Telecom-Service LLP, were transferred to Kazakhtelecom JSC. Accordingly, goodwill acquired through business combinations of purchase of Khan Tengri Holding B.V. was allocated to 100% of the share in Mobile Telecom-Service LLP.

For impairment testing, goodwill related to Communication segment acquired through business combinations was allocated to three unites (further "CGUs") ("Mobile Telecom Service LLP", "Kcell JSC", "IP TV")

The carrying amount of goodwill allocated to each of CGUs was as follows:

	In millions of tenge	2022	2021
Mobile Telecom-Service LLP		96,206	96,206
Kcell JSC		53,490	53,490
IP TV		2,706	2,706
		152,402	152,402

The Group performed its annual impairment test in December 2022 and 2021.

Mobile Telecom-Service LLP

The recoverable amount of the Mobile Telecom-Service LLP (further "MTS") CGU has been determined based on a discounted cash flow model as it was deemed to produce a more reliable result. This valuation method was based on unobservable inputs (discounted cash flows), which represent Level 3 of the fair value hierarchy.

The discount rate of 2022 was 16.33% (2021: 21.09%), and it was calculated on the weighted average cost of capital before taxes. The weighted average cost of capital takes into account both borrowed funds and own equity. Forecasted cash flows till to 2027 were based on five-years business plan of MTS 2023-2027, which assumes current management estimates on potential changes in operating and capital costs. The significant part of those cash flows after 2028 was forecasted by applying expected inflation rate of 2022: 1.5% (2021: 1.5%).

Kcell JSC

The recoverable amount of the Kcell JSC (hereinafter – "Kcell") CGU has been determined based on a discounted cash flow model as it was deemed to produce a more reliable result. This valuation method was based on unobservable inputs (discounted cash flows), which represent Level 3 of the fair value hierarchy. The discount rate of 2022 was 16.33% (2021: 19.56%), and it was calculated on the weighted average cost of capital before taxes. The weighted average cost of capital takes into account both borrowed funds and own equity. Forecasted cash flows till to 2027 were based on five-years business plan of Kcell JSC 2023-2027, which assumes current management estimates on potential changes in operating and capital costs. The significant part of those cash flows after 2028 was forecasted by applying expected inflation rate of 2022: 1.5% (2021: 1.5%).

IP TV

The recoverable amount of IP TV CGU has been determined based on a value in use calculation using cash flow projections from financial budgets approved by senior management covering a five-year period.

The pre-tax discount rate applied to the cash flow projections is 14.97% (2021: 16.94%), and cash flows beyond the five year period are extrapolated using a 1.5% growth rate (2021: 1.5%).

The calculation of value-in-use for IPTV, MTS and Kcell CGUs is most sensitive to the following assumptions:

- Customer base over the forecast period and average revenue per customer with direct impact on revenue growth rates;
- The level of capital investments included in the financial plan;
- EBITDA margin included in the financial plan;
- Growth rate for cash flow extrapolation beyond the forecast period;
- Discount rate.

As a result of the analysis, management did not identify an impairment for these CGUs as at December 31, 2022.

Sensitivity to changes in assumptions – MTS

Although the management expects that the market share owned by the Group would grow over the forecast period, according to the financial plan, slowing growth of customer base or decrease in the average revenue per customer, leading to a decrease in revenue from current business plan by more than 16% (2021: 6.67%), would result in a loss from impairment in MTS CGU for 1,066 million tenge (2021: 389 million tenge).

Increase in capital investments by more than 94% (2021: 45%) would result in loss from impairment in MTS CGU for 2,295 million tenge (2021: 3,481 million tenge).

Decrease in EBITDA margin by more than 16% (2021: 8%) would result in loss from impairment in MTS CGU for 2,075 million tenge (2021: 2,211 million tenge).

An increase in discount rate by 82% from 29.72% to 45.72% (2021: by 31% from 21.09% to 27.63%) would result in impairment loss in MTS CGU for 168 million tenge (2021: 35 million tenge).

Sensitivity to changes in assumptions – Kcell JSC

Although the management expects that the market share of mobile telecommunications owned by the Group would grow over the forecast period, according to the financial plan, slowing growth of customer base or decrease in the average revenue per customer, leading to a decrease in revenue from current business plan by more than 14.10% (2021: 11.87%), would result in a loss from impairment in Kcell CGU for 180 million tenge (2021: 177 million tenge).

Increase in capital investments by more than 93% (2021: 154%) would result in loss from impairment in Kcell CGU for 337 million tenge (2021: 249 million tenge).

Decrease in EBITDA margin by more than 13% (2021: 15%) would result in loss from impairment in Kcell CGU for 4,111 million tenge (2021: 247 million tenge).

An increase in discount rate by 88% from 16.33% to 30.70% (2021: by 38.8% from 19.56% to 27.15%) would result in loss from impairment in Kcell CGU for 1,379 million tenge (2021: 445 million tenge).

Sensitivity to changes in assumptions – IP TV

Although the management expects that the market share owned by the Group would grow over the forecast period, according to the financial plan, slowing growth of customer base or decrease in the average revenue per customer, leading to a decrease in revenue from current business plan by more than 8.40% (2021: 8.08%), would result in a loss from impairment in IP TV GCU for 82 million tenge (2021: 59 million tenge).

Increase in capital investments by more than 255% (2021: 240%) would result in loss from impairment in IP TV CGU for 16 million tenge (2021: 3 million tenge).

Management recognises that the speed of technological change and the possibility of new entrants can have a significant impact on growth rate assumptions. A reduction in the long-term growth rate in IP TV CGU would not result in impairment loss.

An increase in discount rate by 23% from 14.97% to 18.42% (2021: increase by 23,56% from 16.33% to 26.62%) would result in impairment loss in IP TV CGU for 152 million tenge (2021: 48 million tenge).

Power generating assets**Impairment of non-financial assets**

At each reporting date management assesses whether there is any indication of impairment of separate assets or groups of assets, and whether there is any indication that an impairment loss recognised in prior periods for separate assets or groups of assets other than goodwill may no longer exist or may have decreased.

Please refer Note 29 for details on impairment test results.

Analysis of the impairment indicators of property, plant and equipment – production of electricity and heat based on coal, transmission and distribution of electricity

The Group's management performed the analysis of the impairment indicators of property, plant and equipment of subsidiaries JSC "Almaty Electric Stations" ("AIES"), Ekibastuz GRES-1 named after Bulat Nurzhanov LLP ("EGRES-1"), Alatau Zharyk Company JSC ("AZhK") and JSC "Station Ekibastuzskaya GRES-2" (hereinafter "SEGRES-2") in accordance with IAS 36 "Impairment of Assets".

The principal facts and assumptions used in the analysis of the impairment indicators are:

- Lack of negative changes in the economic efficiency of subsidiaries for the reporting period;
- Increase in marginal tariffs for electricity for energy producing organizations from July 1, 2022 in accordance with Order of the Minister of Energy of the RoK dated June 30, 2022 No. 226, with the possibility of adjusting tariffs with an increase in basic costs, in accordance with the Rules for approving the marginal tariff for electrical energy, approved by Order of the Minister of Energy of the RoK dated February 27, 2015 No. 147;
- A change in interest rates on loans will not have a significant impact on the recoverable amount of assets, since an increase in the debt financing rate will be similarly reflected in the WACC rate when calculating the rate of return, in the next validity period of the cap tariffs, according to the methodology for determining the rate of return taken into account when approving the cap tariffs for electricity, as well as a fixed profit for balancing, taken into account when approving cap tariffs for balancing electricity approved by Order of the Minister of Energy of the RoK dated May 22, 2020 No. 205, the cost part of the tariff also includes interest expenses for the previous period;
- A change in inflation rates will not have a significant impact, since the cost part of the tariff includes costs taking into account actual inflation for the previous year, as well as amendments to the Law "On Natural Monopolies" dated December 27, 2018 No. 204-VI ZRK stipulate additional conditions for adjusting tariffs approved for 5 years for the transmission of electricity before its expiration (change in the approved investment program in connection with the implementation of national projects, receipt on the balance sheet or in trust management of networks, change in the average monthly nominal wage);
- Lack of significant changes having adverse consequences for subsidiaries, which occurred during the period or may presumably occur in the nearest future;
- Projected growth in the medium term in demand for electricity in the northern and southern zones of the Republic of Kazakhstan.

Additional facts and assumptions used in the analysis of impairment indicators for AIES:

- Increase in the tariff for heat energy from September 1, 2022 with the possibility of adjusting tariffs when changing the type and cost of strategic goods, according to the Law of RoK "On natural monopolies";
- It is planned to modernize the two main power plants of AIES (Almaty CHP-2 and CHP-3). The residual value of the existing assets of the coal-fired power units of these plants, subject to conservation or dismantling, by the time the new gas turbine/combined cycle power units are put into operation will be equal to zero;
- No significant changes that have occurred during the period, or are expected to occur in the near future and can have a material effect on the asset's recoverable amount.

Modernisation of Almaty CHP-2 with the minimization of the environmental impact

The project is being implemented as part of the execution of the order of the President of the Republic of Kazakhstan to ensure the construction of a new combined cycle gas plant at the Almaty CHP-2 to reduce emissions of harmful substances into the atmosphere, ensure the reliability and efficiency of energy and heat supply through the use of modern environmentally clean technologies.

The project is included in the national project "Sustainable economic growth aimed at improving the welfare of Kazakhstan's" approved by Decree of the Government of the Republic of Kazakhstan dated October 12, 2021.

The conclusion of an investment agreement and the receipt of an individual capacity tariff to finance the project of converting CHP-2 to gas is expected by the end of 2023. The project for the modernization of CHP-2 provides for the conservation of the existing capacities of CHP-2 after the commissioning of a new gas-fired plant. The Group's management plans to complete the project of converting CHP-2 to gas by December 31, 2026. In 2021, the Group recognized a provision for impairment in the amount of 20,737 million tenge of the core assets of CHP-2, including coal-fired power units subject to conservation or dismantling after commissioning of the combined-cycle gas plant (Note 29). Accordingly, the residual value of these assets will be zero by the time the new combined-cycle power units are put into operation.

Reconstruction of Almaty CHP-3

AIES developed a feasibility study "Reconstruction of the Almaty CHP-3 (with construction of a CCGT unit with a capacity of at least 450 MW)" (the "Project"). The project implementation period: 2022-2025. The purpose of the Project: Reconstruction of the Almaty CHP-3 provides for the replacement of the existing pulverized coal-fired equipment with modern environmentally friendly combined cycle power units, the construction of a new CHP plant of greater capacity with a cycling service on the existing site, to partially cover the shortage of maneuverable capacities in the southern zone of Kazakhstan.

On October 10, 2022, AIES received a positive opinion of a comprehensive non-departmental expertise on the feasibility study of the Project. On December 14, 2022, AIES took part in the auction, and per the results, AIES was declared the winner of the auction (9,788,700 tenge/MW*month excluding VAT). The committed capacity is 480 MW.

On January 27, 2023, AIES sent to "Financial Settlement Centre for Support of Renewable Energy Sources" LLP a signed Agreement on the purchase of a service to maintain the readiness of electric power during the construction of newly commissioned generating plants with a cycle generation mode.

The Almaty CHP-3 reconstruction project provides for the replacement of the existing equipment, the fleet life of which will be exhausted by the time the new plant is commissioned, with modern environmentally friendly combined cycle power units, as well as fully depreciated, so the Group's management did not identify any significant changes having negative consequences for the Group, which are expected in the near future.

Additional facts and assumptions used in the analysis of impairment indicators for AZhK:

- Overfulfillment of the plan in terms of key operational and financial performance indicators at December 31, 2022;
- Projected growth in the medium term in demand for electricity in the Almaty city and the Almaty region;
- Increase in the tariff for electricity transmission from September 1, 2022 per joint order of the DCRNM of the Ministry of National Economy of the Republic of Kazakhstan for Almaty and Almaty Region dated August 18, 2022;
- Law of the Republic of Kazakhstan dated December 30, 2022 amended Law of RoK "On Natural Monopolies" dated December 27, 2018 allowing to adjust the tariffs for electricity transmission approved for 5 years before expiration.

Results of analysis of the impairment indicators of property, plant and equipment – production of electricity and heat based on coal, transmission and distribution of electricity

As a result of the analysis of external and internal impairment indicators, the Group's management concluded that there were no impairment indicators at the date of the analysis. Accordingly, the Group's management has elected not to test for impairment of property, plant and equipment and intangible assets of these subsidiaries and investments in the joint venture at December 31, 2022.

Analysis of indications of impairment of property, plant and equipment - green energy production

In connection with the restructuring of green energy assets associated with the registration of a new subsidiary of Samruk Energy JSC, Qazaq Green Power PLC and the subsequent transfer of a full stake in Moynakskaya HPP JSC, and a stake in First Wind Power Plant LLP, Samruk-Green Energy LLP, the Group carried out a fair value assessment, which revealed that for Samruk-Green Energy LLP the carrying amount of the assets exceeds the fair value at December 31, 2022. For Moynakskaya HPP JSC and First Wind Power Plant LLP, the fair value of the assets was significantly higher than the carrying amount. When analyzing impairment indicators for the remaining groups of green energy assets, the Group identified indicators of impairment for Semirechya Energy LLP and Ereymentau Wind Power LLP and performed an impairment test for property, plant and equipment and intangible assets under IAS 36 *Impairment of Assets*.

The recoverable amount of property, plant and equipment and intangible assets was determined based on the measurement of estimated future cash inflows and outflows from the use of the assets, the discount rate and other indicators.

Management classifies property, plant and equipment and intangible assets of each subsidiary mentioned above as a single cash-generating unit as it is the smallest identifiable group of assets that generates cash inflows that are substantially independent of the cash flows generated by other assets and the lowest level at which each the subsidiary controls the recovery of the value of the assets. Management has estimated the recoverable amount of property, plant and equipment based on value in use, defined as the sum of the estimated discounted future cash flows that the Group expects to receive from their use.

Samruk-Green Energy LLP

The cash flows under the Samruk-Green Energy LLP's model were calculated up to 2051 based on the remaining useful life of the assets.

The key assumptions used by management in the financial model in determining value in use are the following:

Forecast volumes and tariffs for the sale of electricity:

The sales price of Samruk-Green Energy LLP is set at fixed tariffs under Law of the Republic of Kazakhstan dated July 4, 2009 "On supporting the use of renewable energy sources and subject to annual indexation in accordance with the Rules for determining fixed tariffs and maximum auction prices dated March 27, 2014.

The sales forecast is based on information from previous years and management's expectations in accordance with the Group's Development Plan for 2023-2027.

	2023	2024	2025	2026	2027
Volume of sales of electricity million kWh	19,930	19,887	19,858	19,829	19,800

The volume of sales for 2028-2051 was determined at the level of the volumes of the Group Development Plan for 2023-2027.

The cash flows were discounted using an after-tax interest rate of 17.33% per annum, which was determined based on the weighted average cost of capital of Samruk-Green Energy LLP. As a result of the test, the Group recognized an impairment loss of 2,721 million tenge.

Semirechya Energy LLP

As a result of the test, the investment in Semirechya Energy LLP, the associate, was completely impaired, as the value in use of the investments was zero. The Group recognized an impairment loss on investments of 1,529 million tenge.

Ereymenau Wind Power LLP

The cash flows under Ereymenau Wind Power LLP's model were calculated up to 2044 based on the useful life of assets that are planned to be put into operation in the second half of 2024.

The key assumptions used by management in the financial model in determining value in use are:

Forecast volumes and tariffs for the sale of electricity:

The electricity price was determined as the average of commercial offers received by similar companies of the Group, from a number of potential consumers, taking into account annual indexation for forecast inflation.

Commissioning dates are based on the management's expectations, the volumes and period of electricity generation by wind turbines are based on the technical documentation of the project (design estimates, contract with the contractor, etc.).

	2024	2025	2026	2027	2044
Electricity sales volume, thousand kWh	88,688	212,850	212,850	212,850	124,163
Tariffs Tenge/kWh	19.07	20.19	21.27	22.28	38.83

The volume of sales for 2028-2044 was determined at the level of the volumes of the Group Development Plan for 2023-2027.

The cash flows were discounted using an after-tax interest rate of 16.97% per annum, which was determined based on the weighted average cost of capital of Ereymenau Wind Power LLP. As a result of the test, the Group recognized an impairment loss of 6,220 million tenge.

Sensitivity of impairment test - for Green energy production

In millions of Tenge	(Decrease)/increase in material assumptions	(Decrease)/increase in value in use
Electricity tariff	-10%	(2,317)
	+10%	2,336
Sales volume	-10%	(2,791)
	+10%	2,791
WACC	-1%	1,394
	+1%	(1,255)

JV Alaigyr LLP

As at December 31, 2022, the Group carried out an assessment of the value of the use of the net assets of the subsidiary of National Mining Company "Tau-Ken Samruk", JV Alaigyr LLP. When assessing the following key assumptions were used:

- Discount rate (cost of equity) in the amount of 11.84%;
- The launch of the factory and the output to the design capacity of 900 thousand tonnes are planned in 2024;
- Project implementation period until 2038;
- The projected price for lead-silver ore is 2,240 us dollars per ton and is indexed in the forecast period.

For the year ended December 31, 2022, the Group recognised an impairment loss on property, plant and equipment of JV Alaigyr LLP in the amount of 13,296 million tenge (Note 29).

Assets of Polymer Production

As at December 31, 2022, the Group performed the assessment of the recoverable amount of assets of Polymer Production and identified the impairment indicators. The main indicator of impairment is that the sum of the current period and future periods' budgets for property, plant and equipment show an operating loss or net cash outflow. As a result of the impairment test the Group recognized the impairment loss of 7,096 million tenge (Note 29).

Gas turbine power plant and water treatment assets (Karabatan Utility Solutions LLP)

The Group analysed the availability of indicators of impairment of property, plant and equipment of subsidiary of "Samruk-Kazyna Ondeu" JSC, Karabatan Utility Solutions LLP (further "KUS"), as at December 31, 2022. Approval of tariff and tariff estimates for regulated services on water supply through distribution networks and wastewater removal and treatment was determined as the main indicator of impairment of property, plant and equipment. Accordingly, the Group performed an impairment test of property, plant and equipment as at December 31, 2022. As a result of assessment of the recoverable amount of non-current assets performed by the management of the Group the impairment was recognised in the amount of 14,077 million tenge, part of which in the amount of 9,877 million tenge was recognised in the consolidated statement of comprehensive loss and the balance of 4,201 million tenge was recognised in equity as Other transactions with the Shareholder, as part of assets related to assets of General Plant Infrastructure ("GPI"), which are subject to impairment (Note 29). As at December 31, 2022 the carrying value of property, plant and equipment, construction in progress and advances paid for non-current assets amounted to 110,280 million tenge and the recoverable amount of these assets was 96,203 million tenge.

KUS calculates the recoverable amount using a discounted cash flow model. Discount rate of 13.46% was derived from the Group's post-tax weighted average cost of capital. The business plan approved by the Group for the period 2023-2027 is the main source of information as it contains projections of production volumes, sales volumes, revenues, costs and capital expenditure.

Various assumptions such as electricity and water sales price forecasts, inflation rates take into account existing prices, foreign currency exchange rates and other macroeconomic factors, and historical trends and fluctuations. Estimated cash flows were limited to the end of the useful life date of property, plant and equipment in 2051. Costs up to 2027 were projected based on KUS budget and business plan, as well as current estimates by KUS management of potential changes in operating and capital expenditures.

Most cash flows beyond that period have been projected by applying an assumed inflation rate, except for capital expenditure, which was based on management's best estimate available at the valuation date.

Sensitivity of property, plant and equipment impairment test to significant assumptions

Key assumptions required for estimation of recoverable amount are inflation rate, discount rate and tariff and tariff estimates for regulated services of water supply through distribution network and wastewater removal and treatment. The sensitivity to changes in the key assumptions has been assessed. 1% increase in discount rate would result in an increase in impairment loss by 7,064 million tenge.

Decrease in tariff for regulated services of water supply through distribution network and wastewater removal and treatment by 10% from the forecast tariff of 2,241 tenge excluding VAT per 1 m³ and 2,254 tenge excluding VAT per 1 m³ respectively will lead to increase in impairment loss by 8,851 million tenge.

Assets related to uranium production

Assets related to uranium mines include property, plant and equipment, mine development assets, mineral rights, exploration and evaluation assets, investments in associates, investments in joint ventures, and other investments.

For the purpose of impairment testing assets are grouped at the lowest levels for which there are separately identifiable cash inflows that are largely independent of the cash inflows from other assets or groups of assets (termed as 'cash generating units'). The Group has identified each mine (contract territory) as a separate cash-generating unit unless several mines are technologically connected with single processing plant in which case the Group considers such mines as one cash-generating unit.

As at December 31, 2022, management conducted an analysis and did not find any impairment indicators of assets (cash generating units) associated with the production of uranium products.

Assets retirement obligations

Oil and gas production facilities

Under the terms of certain subsoil use contracts, legislation and regulations the Group has legal obligations to dismantle and remove tangible assets and restore the land at each production site. Specifically, the Group's obligation relates to the ongoing closure of all non-producing wells and final closure activities such as removal of pipes, buildings and recultivation of the contract territories, and also obligations to dismantle and remove tangible assets and restore territory at each production site. Since the subsoil use contract terms cannot be extended at the discretion of the Group, the settlement date of the final closure obligations has been assumed to be the end of each subsoil use contract period. The extent of the Group's obligations to finance the abandonment of wells and for final closure costs depends on the terms of the respective subsoil use contracts and current legislation.

Where neither subsoil use contracts nor legislation include an unambiguous obligation to undertake or finance such final abandonment and closure costs at the end of the subsoil use contract term, no liability has been recognized. There is some uncertainty and significant judgment involved in making such a determination. Management's assessment of the presence or absence of such obligations could change with shifts in policies and practices of the Government or in the local industry practice.

The Group calculates asset retirement obligations separately for each contract. The amount of the obligation is the present value of the estimated expenditures expected to be required to settle the obligation adjusted for expected inflation and discounted using average long-term risk-free interest rates for emerging market sovereign debt adjusted for risks specific to the Kazakhstan market.

At each reporting date the Group reviews site restoration provisions, and adjusts them to reflect the current best estimate in accordance with IFRIC 1 *Changes in Existing Decommissioning, Restoration and Similar Liabilities*.

Estimating the future closure costs involves significant estimates and judgments by management. Most of these obligations are many years in the future and, in addition to ambiguities in the legal requirements, the Group's estimate can be affected by changes in asset removal technologies, costs and industry practice. The Group estimates future well abandonment cost using current year prices and the average long-term inflation rate.

The long-term inflation and discount rates used to determine the obligation in the consolidated statement of financial position across the Group entities at December 31, 2022 were in the range from 2.09% to 15.05% and from 6.42% to 12.38%, respectively (December 31, 2021: from 2.23% to 8.10% and from 3.80% to 10.25%, respectively). As at December 31, 2022 the carrying amounts of the Group's asset retirement obligations relating to decommissioning of oil and gas facilities were 88,163 million tenge (December 31, 2021: 174,913 million tenge) (Note 21).

Major oil and gas pipelines

According to the Law of the RK On Major Pipelines which was made effective on July 4, 2012 and and the Environmental Code of the Republic of Kazakhstan the Group has legal obligation to decommission its major oil and gas pipelines at the end of their operating life and to restore the land to its original condition. Asset retirement obligation is calculated based on estimate of the work to decommission and rehabilitate. As at December 31, 2022, the carrying values of the Group's asset retirement obligations relating to decommissioning of pipelines, compressor stations and land were 105,430 million tenge (December 31, 2021: 126,685 million tenge).

Assets related to uranium production

In accordance with environmental legislation and the subsurface use contracts, the Group has a legal obligation to remediate damage caused to the environment from its operations and to decommission its mining assets and landfills and restore landfill sites after closure of mining activities. Provision is made based upon the net present values of estimated site restoration and retirement costs as soon as the obligation arises from past mining activities.

The provision for asset retirement obligations is estimated based upon the Group's interpretation of current environmental legislation in the Republic of Kazakhstan and the Group's related programme for liquidation of subsurface use consequences on the contracted territory and other operations supported by the feasibility study and engineering research in accordance with the applicable restoration and retirement standards and techniques.

Provisions for asset retirement obligations are subject to potential changes in environmental regulatory requirements and the interpretation of the legislation. Provisions for mining assets and landfills retirement obligations are recognised when there is a certainty of incurring of such liabilities and when it is possible to measure the amounts reliably. The scope of work stipulated by the legislation and included in the calculations of the asset retirement obligations contains the dismantling of facilities and infrastructure (pumping, injection and observation wells, technological units for acidification and distribution of solutions, pipelines, access roads, technological sites, landfills, buildings and other facilities) and subsequent restoration of land.

The calculation of the provision for production assets retirement as at December 31, 2022 was performed by the Group's internal specialists and reviewed by an independent consultant.

Principal assumptions used in such estimations include the estimate of discount rate and the amount and timing of future cash flows. The discount rate is applied to the nominal costs that management expects to spend on mining site restoration in the future.

Management's estimates based on current prices are inflated using the expected long-term inflation rate of 5.99% in 2022 (2021: 5.12%), and subsequently discounted using a rate that reflects the current market estimates of the time value of money and those risks specific to the liability not reflected in the best estimate of the costs. The discount rate is based on a risk-free rate determined as interest rates on government bonds with the maturity as the average of Group subsoil use contracts. The discount rate used by the Group's companies for calculation of the provision as at December 31, 2022 is 11.55% (2020: 9.85%).

At 31 December 2022, site restoration provision for mining assets was 38,116 million tenge (2021: 31,431 million tenge). The increase is mainly attributable to the update of prices for liquidation works that reflect the current economic environment, as well as the impact of introducing a unified calculation methodology across the Group mining entities that resulted in re-estimates of required liquidation works, including low radioactive waste management, dismantlement of process units and handling of construction debris.

Decommissioning of the Ulba plant facility

The Group has previously recognised an obligation only for the disposal of radioactive waste, landfill restoration and asset remediation for Ulba Metallurgical Plant JSC, the subsidiary of "National Atomic Company "Kazatomprom" JSC. In 2021 the Environmental Code of the Republic of Kazakhstan (the Code) came into effect. The Code stipulates that operators of assets that are considered to have a negative impact on the environment have an obligation to decommission such assets in accordance with the requirements of the legislation. Liquidation measures will depend on the assets' nature and the degree of their impact on the environment.

The Group has recognised for the first time a decommissioning provision as of December 31, 2022 of Tenge 7,624 million based on its current interpretation of the relevant legislation and technical analysis performed. The liability recognised includes dismantlement of facilities and infrastructure located at production facility sites (technological sites, landfills, buildings and other facilities), radioactive waste disposal and subsequent land restoration.

Principal assumptions used in the estimations include:

- Current prices are inflated using the expected long-term inflation rate (of 7.7% for assets with liquidation term until 2027, 4.6% for assets with liquidation term until 2042, 3.93% for assets with liquidation term after 2044), and subsequently discounted;
- The discount rate for calculation of the provision as at 31 december 2022 is 14.4% for assets with liquidation term until 2027, 11.3% for assets with liquidation term until 2042, 10% for assets with liquidation term after 2044;
- The discounting period equates to the remaining useful life of buildings and constructions, of not less than 50 years. All buildings and constructions are subject to annual technical reviews to determine required capital and operating expenditure requirements.

Total provision for the Ulba Metallurgical Plant JSC as of December 31, 2022 amounted to 9,243 million tenge (2021: 1,339 million tenge).

Based on the Group's analysis of current regulation, management concluded that certain other Ulba metallurgical plant's assets should be excluded from asset retirement obligations as of December 31, 2022 since there is no reasonable calculation method for these types of assets and/or the potential amount of such liabilities is not significant. This judgement is based on the following:

- Such assets do not have a significant negative impact on the environment and ecological legislation does not require financial provision for the assets;
- Production processes involving these assets do not lead to consequences that would require dismantlement and recultivation works to mitigate the negative environmental impact.

As the requirements of the Environmental Code are relatively new, there is no practice of applying these requirements and there are ambiguities in the legislation, management has applied significant judgment in terms of assessing liabilities and their amounts. In case of changes in environmental legislation, its interpretation and practice of its application, as well as in the judgments and in the Group's estimates, such liabilities may be revised in the future.

Assets retirement obligations related to the power generating facilities

The Group's management performed an analysis of the existence and necessity of recognizing obligations for the decommissioning, dismantling and reclamation of the territory of the Group's production assets.

In particular, the Group's management analyzed the requirements of the Environmental Code of the Republic of Kazakhstan that, after the cessation of operation of facilities that have a negative impact on the environment, facility operators are required to ensure the elimination of the consequences of the operation of such facilities per the requirements of the legislation of the Republic of Kazakhstan. In accordance with the provisions of the Code, liquidation measures depend on the nature of facilities and the degree of their impact on the environment, in particular, the code regulates the classification of facilities into categories that reflect the degree of impact on the environment.

The Group conducted an analysis of the requirements, received appropriate explanations from government authorities, determined the approach and method of evaluation and, based on the Group's interpretation, per the provisions of the Environmental Code of the Republic of Kazakhstan, the legislation on electric power industry of the Republic of Kazakhstan, as well as the Group's accounting policy, recognized provisions for liabilities of subsidiaries "Ekibastuzskaya GRES-1 named after Bulat Nurzhanov" LLP, "Almaty Electric Stations" JSC, "First Wind Power Plant" LLP and "Samruk-Green Energy" LLP, and SEGRES-2 to ensure the liquidation consequences of operation of the facilities at 31 December 2022.

The provisions were determined based on the interpretation of the group of the current environmental legislation of the Republic of Kazakhstan, supported by a feasibility study and/or engineering studies per the current standards and methods of liquidation (dismantling), reclamation work, the level of technology and prices.

The following judgments were applied by the Group in determining the amount of the obligation to eliminate the consequences of the operation of the facilities as at 31 December 2022:

- Calculation of obligations to eliminate the consequences of the operation of the facilities as of 31 December 2022 was performed by the Group based on the results of assessments carried out by independent and internal specialists. The scope of work provided for by law and included in the calculation included the dismantling and disposal of the main equipment and mechanisms directly involved in the production of electrical and thermal energy (steam boilers, turbines, generators, fuel supply, etc.), engineering systems and structures intended for removal of combustion products, as well as equipment of fuel oil facilities and chemical reagents warehouse, which have a negative impact on the environment and the safety of life and/or health of people;
- There are assets (administrative buildings and other structures) on the balance sheet of facility operators in the Group, which in the future are very likely to be converted, and also have a minimal adverse impact on the environment, for which there is no need to recognize obligations to eliminate the consequences of their operation;
- For thermal power plants, referred to the I category, the amount of reserves is determined based on the expected costs that will be incurred by the facilities during the liquidation of the main equipment and mechanisms directly involved in the production of electrical and thermal energy (steam boilers, turbines, generators, fuel supply, etc.), engineering systems and structures designed to remove combustion products, as well as equipment for fuel oil facilities and a chemical reagents warehouse, as well as facilities and equipment of the fuel oil economy, which really have an adverse impact on the environment;
- The Group's management applied the judgment that the deadline for the liquidation of category I facilities of EGRES-1 and SEGRES-2, which have a negative impact on the environment, is in 2055 and 2053, respectively, based on the useful lives of the assets. These useful lives are justified by the fact that the residual fleet life of the main and auxiliary equipment and engineering structures of the main equipment will be extended through major repairs or reconstruction until the end of filling the existing ash dumps. Deadlines for closing ash dumps are applied in accordance with the approved working projects for closing ash dumps per the "Rules for the formation of liquidation funds for waste disposal sites" approved by Decree of the Government of the rok dated July 10, 2007 No. 591. Coal reserves are sufficient to continue the work on these stations. These periods were determined based on the need to ensure the country's energy security in response to a predicted shortage of electricity in the rok;
- For Almaty Electric Stations JSC, the deadlines for the liquidation of CHPP-2 and CHPP-3 facilities were applied taking into account the timing of implementation, commissioning and technical parameters of the projects "Modernization of Almaty CHPP-2 with minimization of environmental impact" and "Reconstruction of Almaty CHPP-3";
- Hydroelectric power plants of the Group belong to category II facilities. the Shardara hydroelectric power station, as a strategic complex structure, which is an integral part of the hydrotechnical complex of the Shardara hydroelectric complex on the Syrdarya River, which has a direct purpose for flood control and irrigation, due to the specifics of its activity, does not eliminate embankments / dams and adjacent hydraulic structures; at the same time, in the opinion of the station's management, the liquidation work of the Company may be limited to the dismantling of the equipment of hydroelectric units and some surface utility facilities, and the provision to cover them is not significant at the reporting date;
- For the Moinakskaya HPP JSC, in accordance with the legislation, the Group's management applied the judgment that the useful lives of the main hydraulic structures, as structures of I and II classes, in the conditions of timely overhauls amount to 60 years. After the expiration of useful lives of the main building of the hydroelectric power plant, the diversion tunnel and the halfway, in accordance with the norms of the "Methodological recommendations on the procedure for extending the life of the safe operation of technical devices, equipment and structures at hazardous production facilities," further use of these structures as a hydrological post and mudflow holders during the flood period is expected on the Sharyn River. At the same time, in the opinion of the plant's management, the liquidation work of the Company may be limited to the dismantling of the equipment of hydroelectric units and some surface utility facilities, and the provision for their coverage is not material at the reporting date;
- Azhk facilities in III and IV categories. Due to the fact that azhk's production facilities have an insignificant minimum negative impact on the environment, the Group has not accrued obligations for liquidation of the consequences of activities in these consolidated financial statements, as there is currently no reasonable calculation method for these types of assets, and the Group has received confirmation from government authorities on the absence of obligations to eliminate the consequences for the environment;
- Wind and solar power plants recognize provisions for dismantling and removal of generating and technological equipment, further, the liquidation terms are determined by the technical specifications of equipment and structures.

In view of the above, the estimated future costs of facilities for remediation are determined at current prices, increased using the estimated long-term inflation rate for the Republic of Kazakhstan and discounted.

Key assumptions in making such estimates include estimates of the discount rate, amount and timing of future cash flows. The discount rate is based on the risk-free rate defined as the yield on government bonds with maturities that coincide with the liquidation of the facilities.

As of December 31, 2022 provision for assets retirement obligations related to the power generating facilities amounted to 23,365 million tenge (as of December 31, 2021: 0).

Provision for environmental remediation

The Group also makes judgments and estimates in establishing provisions for environmental remediation obligations. Environmental expenditures are capitalized or expensed depending upon their future economic benefit. Expenditures that relate to an existing condition caused by past operations and do not have a future economic benefit are expensed.

Liabilities are determined based on current information about costs and expected plans for remediation and are recorded on discounted basis. The Group's environmental remediation provision represents management best estimate based on an independent assessment of the anticipated expenditure necessary for the Group to remain in compliance with the current regulatory regime in Kazakhstan and Europe. The Group has classified this obligation as non-current except for the portion of costs, included in the annual budget for 2023. For environmental remediation provisions, actual costs can differ from estimates because of changes in laws and regulations, public expectations, discovery and analysis of site conditions and changes in clean-up technology. Movements in the provision for environmental remediation obligations are disclosed in *Note 21*.

Provision for taxes

Uncertainties exist with respect to the interpretation of complex tax regulations, changes in tax laws, and the amount and timing of future taxable income. Given the wide range of the Group's international business relationships and the long-term nature and complexity of existing contractual agreements, differences arising between the actual results and the assumptions made, or future changes to such assumptions, could necessitate future adjustments to taxable profits and expense already recorded. The Group establishes provisions, based on reasonable estimates, for possible consequences of audits by the tax authorities of the respective countries in which it operates.

The amount of such provisions is based on various factors, such as experience of previous tax audits and differing interpretations of tax regulations by the taxable entity and the responsible tax authority. Such differences of interpretation may arise on a wide variety of issues depending on the conditions prevailing in the respective Group company's domicile.

In assessing tax risks, management considers to be probable obligations the known areas of non-compliance with tax legislation, which the Group would not appeal or does not believe it could successfully appeal, if additional taxes are charged. Such determinations inherently involve significant judgment and are subject to change as a result of changes in tax laws and regulations, amendments to the taxation terms of the Group's subsurface use contracts, the determination of expected outcomes from pending tax proceedings and current outcome of ongoing compliance audits by tax authorities. The provision for taxes disclosed in *Note 21* relates to the Group's other taxes. Provisions and contingent liabilities related to income tax are included or disclosed as income tax liabilities or contingencies (*Note 33*). Further uncertainties related to taxation are disclosed in *Note 37*.

Provision for construction of social objects

The Government assigns various sponsorship and financing obligations to the Group. Management of the Group believes that such Government's assignments represent constructive obligations of the Group and require recognition on the basis of respective resolution of the Government of the Republic of Kazakhstan. Furthermore, as the Government is the ultimate controlling party of the Group, the expenditures on these assignments are recognized as "other distributions to the Shareholder" directly in the equity.

Useful lives of items of property, plant and equipment

The Group assesses remaining useful lives of items of property, plant and equipment at least at each financial year-end. If expectations differ from previous estimates, the changes are accounted for prospectively as a change in an accounting estimate in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*.

VAT recoverability

The Group conducts an assessment of the recoverability of VAT and, if required, makes provisions for doubtful VAT recoverable at each reporting date. The provision for doubtful VAT recoverable is determined based on the management's anticipated VATable turnovers and the likelihood of cash refunds for VAT. As at December 31, 2022, an amount of 203,658 million tenge related to VAT recoverable has been recognized as a current asset (as at December 31, 2021: 168,889 million tenge). The Group anticipates that this amount will either be refunded by the tax authorities or utilized to offset future VAT liabilities in 2023.

Deferred tax assets

Deferred tax assets are recognized for all allowances and unused tax losses to the extent that it is probable that taxable temporary differences and business nature of such expenses will be proved. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and level of future taxable profits together with future tax planning strategies. The carrying amount of recognized deferred tax assets as at December 31, 2022 was equal to 88,968 million tenge (December 31, 2021: 69,148 million tenge). Further details are contained in Note 33.

Fair value of financial instruments

Where the fair value of financial assets and financial liabilities recorded in the consolidated statement of financial position cannot be derived from active markets, they are determined using valuation techniques including the discounted cash flows model. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgment is required in establishing fair values.

The judgments include considerations of inputs such as liquidity risk, credit risk and volatility. Changes in assumptions about these factors could affect the fair value of financial instruments reported in the consolidated financial statements. Further details are disclosed in Note 36.

Employee benefit liability

The Group uses actuarial valuation method for measurement of the present value of defined employee benefit liability and related current service cost. This involves use of demographic assumptions about the future characteristics of current and former employees who are eligible for benefits (mortality, both during and after employment, rates of employee turnover, etc.) as well as financial assumptions (discount rate, future annual financial assistance, future annual minimum salary and future average railway ticket price).

Due to the complexity of the valuation, the underlying assumptions and its long-term nature, a defined benefit obligation is highly sensitive to changes in these assumptions. All assumptions are reviewed at each reporting date.

Estimation of expected credit losses

The measurement of impairment losses under IFRS 9 across all categories of financial assets requires judgement, in particular, the estimation of the amount and timing of future cash flows and collateral values when determining impairment losses and the assessment of a significant increase in credit risk. These estimates are driven by a number of factors, changes in which can result in different levels of allowances.

The Group's ECL calculations are outputs of complex models with a number of underlying assumptions regarding the choice of variable inputs and their interdependencies. Elements of the ECL models that are considered accounting judgements and estimates include:

- The Group's credit grading model, which assigns PDs to the individual grades;
- The segmentation of financial assets when their ECL is assessed on a collective basis;
- Development of ECL models, including the various formulae and the choice of inputs;
- Determination of associations between macroeconomic scenarios and, economic inputs, such as oil price with one year lag, and the effect on PDs, EADs and LGDs.

Accounting treatment of financing arrangements with Industrial Development Fund JSC

The Group, represented by Passenger Transportation JSC and Tulpar Wagon Construction Plant LLP, entered into a number of trilateral purchase-sale and finance lease agreements with Industrial Development Fund JSC, which is under the common control of the Shareholder, to renew its passenger carriage fleet. Under the agreements, Industrial Development Fund JSC finances Tulpar Wagon Construction Plant LLP's construction of passenger carriages on a 100% prepayment basis for ownership with a further finance lease to Passenger Transportation JSC.

Management of the Group concluded that the transaction between Tulpar Wagon Construction Plant LLP and Industrial Development Fund JSC does not meet the requirements of IFRS 15 Revenue from Contracts with Customers to account for the asset sale at the Group level, as control over passenger carriages is not transferred to Industrial Development Fund JSC, but remains with the Group.

Industrial Development Fund JSC finances the construction of the carriages, but is limited in its ability to direct the subsequent use of and obtain all of the remaining benefits from the asset. Accordingly, the Group recognises the obligation to Industrial Development Fund JSC as a financial liability (borrowing) according to IFRS 9 Financial Instruments and recognises passenger carriages and work-in-progress as property, plant and equipment items and construction in progress in accordance with IFRS 16.103 Leases.

Since financing was provided at preferential interest rates and the terms were provided exclusively to finance the upgrade of the Passenger transportation JSC passenger carriage fleet based on a Kazakhstan Government Resolution, the Group considers these transactions as transactions with the Shareholder and recognises fair value adjustments of the loans received at below market rate through equity within retained earnings as other contributions.

Swap transactions

The Group sells part of its uranium products under swap transactions with separate agreements with the same counterparty, being for sales and purchase of the same volume of uranium for the same price at different delivery points or different timeframes. Effectively, this results in the exchange of own uranium (produced or purchased from the Group's entities) with purchased uranium.

Normally, under a swap transaction, the Group delivers physical uranium to one destination point, and purchases the same volume of uranium at a third-party converter for sale to end customers. Swap transactions are entered into primarily to reduce transportation costs for uranium delivery from Kazakhstan to end customers.

Despite the fact that swap agreements are not formally related to each other, management concluded that these transactions are in substance linked and would not have occurred on an isolated basis, driven by the existing market demand and supply forces. In management's view, supply of the same volume of homogeneous product (uranium) for the same price represents an exchange of products, which should be presented on a net basis in the consolidated financial statements, reflecting the economic substance of the transaction. Interpretation of terms and approach to the accounting for swap transactions requires judgement.

In 2022, the Group did not recognise sales revenue from swap transactions of 195,958 million tenge and related cost of sales of 207,789 million tenge. In 2021, the Group did not recognise sales revenue from swap transactions of

146,910 million tenge, and cost of sales of 135,158 million tenge. The Group has recognised liabilities under swap transactions in the amount of 4,709 million tenge as of 31 December 2022 (2021: 15,355 million tenge) for the volume of uranium that would be returned under swap transactions post balance date (*Note 24*).

5. Acquisition of joint venture

PETROSUN LLP (further – Petrosun)

On July 1, 2022, in accordance with the minutes of the meeting of the commission under the chairmanship of the Prime-Minister of RK for the demonopolization of the economy, namely the market of fuels and lubricants, the Group acquired 49% interest in Petrosun, that specializes in the sale of liquefied petroleum gas and petroleum products. The acquisition price was 1 tenge. The difference between the consideration paid and the fair value of identifiable assets and liabilities of Petrosun at the date of acquisition was presented in the line «Acquisition of joint venture» in consolidated statement of changes in equity in the amount of 10,989 million tenge based on instruction in minutes above.

49% interest in Petrosun is recognized as a joint venture and accounts for using the equity method in accordance with IAS 28 Investments in Associates and Joint Ventures. CNPC INTERNATIONAL IN KAZAKHSTAN LLP (the second owner of Petrosun) and the Group have joint control over Petrosun where decisions about the relevant activities of Petrosun require the unanimous consent.

These consolidated financial statements include share in Petrosun's profits for the six months since the acquisition date in the amount of 23,184 million tenge (Note 32).

The fair values of the identifiable assets and liabilities of Petrosun as at the date of acquisition are as presented below:

In millions of tenge

Non-current assets	35
Current assets, including:	103,762
Inventories	33,770
Advanced paid	54,930
Current liabilities, including:	(81,371)
Contract liabilities	(34,237)
Borrowings	(38,198)
Total identifiable net assets at fair value	22,426
Share of ownership	49%
The Group's share in net assets at fair value	10,989
Purchase consideration transferred	–
Difference between consideration and fair value of the investment in joint venture recognized in equity	10,989

6. Disposals and assets classified as held for sale or distribution to the shareholder

Disposals in 2022

PSA LLP (further PSA)

On December 20, 2022, the Group transferred to Corporate fund Samruk-Kazyna Trust 100% interest in PSA for 1 tenge. Samruk-Kazyna Trust is a non-commercial company, and the Group does not have control over it. As a result, the Group lost control over PSA.

The results of PSA for the period ended December 20, 2022 are presented below:

In millions of tenge	January 1, 2022 – December 20, 2022
General and administrative expenses	(8,950)
Finance costs	(58)
Net foreign exchange loss	(39)
Loss for the period	(9,047)

The net cash flows incurred by PSA period ended December 20, 2022 are as follows:

In millions of tenge	January 1, 2022 – December 20, 2022
Operating	(7,702)
Investing	(28)
Financing	11,871
Net increase in cash and cash equivalents	4,141

At the date of loss of control net assets of PSA were as follows:

In millions of tenge	Net assets at the date of loss of control
Assets	
Property, plant and equipment	36
Intangible assets	64
Right-of-use assets	255
VAT receivable	12
Other current assets	109
Cash and cash equivalents	4,137
Total assets	4,613
Liabilities	
Lease liabilities	286
Trade accounts payable	1,736
Other current liabilities	709
Total liabilities	2,731
Net assets directly associated with disposal group	1,882

Disposals in 2021

Financial Settlement Center of Renewable Energy LLP

In December 2021, in accordance with the Resolution of the Government of the Republic of Kazakhstan dated November 30, 2021, the Group transferred shares of Financial Settlement Center of Renewable Energy LLP to the State property and privatization committee of the Ministry of Finance of Republic of Kazakhstan with the net assets of 37,122 million tenge free of charge. This transaction was recognized as transfer of assets to the Shareholder in consolidated statement of changes in equity.

Net assets of Financial Settlement Center of Renewable Energy LLP as at the transfer date are as follows:

In millions of tenge	At the date of transfer
Assets	
Property and equipment	28
Intangible assets	15
Deferred tax assets	235
Inventories	155
Trade receivables	25,792
Amounts due from credit institutions	38
Other current financial assets	5,113
Other current assets	2
Cash and cash equivalents	38,848
Assets transferred to the Shareholder	70,226
Liabilities	
Trade and other payables	31,602
Income taxes payable	261
Other non-current and current liabilities	1,241
Liabilities directly associated with the assets transferred to the Shareholder	33,104
Net assets directly associated with the disposal group	37,122

Vostokmashzavod JSC

On December 30, 2020 the Group, represented by its subsidiary Repair Corporation Kamkor LLP, entered into a sale agreement with a third party to sell shares of Vostokmashzavod JSC. The Group classified the assets and liabilities of Vostokmashzavod JSC as at December 31, 2020 as assets held for sale measured at the lower of carrying amount and fair value less costs to sell. On January 8, 2021 the Group completed sale transaction of the shares of Vostokmashzavod JSC, and, as a result, lost control over the subsidiary.

Assets and liabilities in the separate statements of Vostokmashzavod JSC at the date of disposal amounted 6,656 million tenge and 9,980 million tenge, respectively.

The result of disposal of the subsidiary is as follows:

In millions of tenge	
Advance received previously	100
Disposed net liabilities	3,324
Disposed non-controlling interests	(849)
Adjustment to fair value of loans receivable and receivables from a former subsidiary	(2,575)
Net result from disposal of Vostokmashzavod JSC	–

As at the date of disposal Vostokmashzavod JSC had loans and trade payables due to the Group with a carrying value of 5,529 million tenge and 938 million tenge, respectively. Under the transaction for the acquisition of share in Vostokmashzavod JSC, the buyer guaranteed the repayment of this debt. Therefore, as a result of disposal, the Group recognized loans receivable and receivables at their fair value of 3,251 million tenge and 641 million tenge, respectively, reflecting the adjustment to fair value in the reconciliation above.

As a result, the disposal of Vostokmashzavod JSC in 2021 did not have an impact on the financial result.

Shokpar-Gagarinskoye LLP

At December 31, 2020, assets and liabilities of a subsidiary Shokpar-Gagarinskoye LLP were classified as an assets held for sale and liabilities directly associated with the assets held for sale and were equal to 2,056 million tenge and 1 million tenge.

On July 9, 2021, the Group completed the sale of 100% shares of Shokpar-Gagarinskoye LLP to a third party for 4,185 million tenge.

Net assets of Shokpar-Gagarinskoye LLP as at the disposal date are as follows:

In millions of tenge	At the date of disposal
Assets	
Property and equipment	2,056
Cash and cash equivalents	1
Assets held for sale	2,057
Liabilities	
Trade payables	2
Other current liabilities	10
Liabilities directly associated with the assets held for sale	12
Net assets directly associated with the disposal group	2,045

Net cash inflow from disposal of a subsidiary was as follows:

In millions of tenge	
Cash consideration received	2,953
Advance received previously	1,286
Less: cash and cash equivalents of disposed subsidiary	(1)
Total cash inflow	4,238

The resulting gain on disposal of Shokpar-Gagarinskoye LLP amounted to 2,140 million tenge.

KT Cloud Lab LLP

On June 17, 2019, the Group concluded an agreement on sale of KT Cloud Lab LLP. At December 31, 2020, assets and liabilities of KT Cloud Lab LLP were classified as an assets held for sale and liabilities directly associated with the assets held for sale and were equal to 1,872 million tenge and 895 million tenge.

In accordance with the agreement, payments shall be made in 3 tranches (the first tranche in the amount of 30% of the purchase price within 30 days after agreement signing date, the second tranche in the amount of 35% of the purchase price within 12 months after signing date and the third tranche in the amount of 35% of the purchase price within 24 months after signing date).

On July 14, 2021, the buyer made the first tranche under the purchase agreement in the amount of 30% of the purchase price. The buyer's intention to exercise his right to early repurchase the remaining stake in KT Cloud Lab LLP allowed the Group to recognize the disposal of KT Cloud Lab LLP from the moment of receipt of the first tranche and to recognize the payment arrears from the winner of the tender in full.

On October 20, 2021, the buyer repaid the remaining part of the purchase price ahead of the repayment schedule.

Net assets of KT Cloud Lab LL as at the disposal date are as follows:

In millions of tenge	At the date of disposal
Assets	
Property and equipment	526
Intangible assets	484
Other non-current financial assets	77
Inventories	9
Trade receivables	916
Other current financial assets	164
Other current assets	39
Cash and cash equivalents	448
Assets held for sale	2,663
Liabilities	
Deferred tax liabilities	11
Trade payables	146
Other current liabilities	645
Liabilities directly associated with the assets held for sale	802
Net assets directly associated with the disposal group	1,861

Following is a schedule of consideration received from the disposal of KT Cloud Lab LLP:

In millions of tenge	
Cash consideration received	1,435
Less: cash disposed	(448)
Total cash consideration received	987

As a result of disposal the Group has recognized loss from disposal of the subsidiary of 426 million tenge.

On June 10, 2021 the Group signed an agreement for the sale of the Group's entire interest in Kazakhstan Solar Silicon LLP. The sale was completed on July 12, 2021 upon receipt of full payment of 323 million tenge. At the date of loss of control net assets of Kazakhstan Solar Silicon LLP amounted to 85 million tenge.

On July 16, 2021 the Group signed an agreement for the sale of the Group's entire interest in Astana Solar LLP and on August 23, 2021 signed the act of acceptance after receiving full payment under the contract. The payment received amounted to 380 million tenge. At the date of loss of control net assets of Astana Solar LLP amounted to 115 million tenge.

On October 26, 2021, an agreement for the sale of the Group's entire interest in MK Kazsilicon LLP was signed. On November 19, 2021 after receiving full payment under the contract the Group signed an act of acceptance certificate. The payment received amounted to 652 million tenge. At the date of loss of control net liabilities of MK Kazsilicon LLP amounted to 136 million tenge.

Total proceeds from sales of KazPV entities was 1,355 million tenge less 16 million tenge cash and cash equivalents of disposed entities at the disposal date. Net income from disposal of KazPV subsidiaries amounted 1,291 million tenge.

Assets classified as held for sale or distribution to the Shareholder

Assets classified as held for sale or distribution to the Shareholder comprised the following:

In millions of tenge	Segment	December 31, 2022	December 31, 2021
Assets classified as held for sale, including		1,139,967	42,617
<i>Kazakhstan Petrochemical Industries Inc. LLP</i>	<i>Oil-and-gas and petrochemical</i>	1,092,783	–
<i>Railway Passenger Coach Construction Plant LLP</i>	<i>Transportation</i>	45,825	–
<i>Other</i>		1,359	42,617
Assets classified as held for distribution to Shareholder		104	104
		1,140,071	42,721

Liabilities associated with assets classified as held for sale or distribution to the Shareholder comprised the following:

In millions of tenge	Segment	December 31, 2022	December 31, 2021
Liabilities associated with assets classified as held for sale		(1,045,093)	–
<i>Kazakhstan Petrochemical Industries Inc. LLP</i>	<i>Oil-and-gas and petrochemical</i>	(1,045,062)	–
<i>Railway Passenger Coach Construction Plant LLP</i>	<i>Transportation</i>	(31)	–
		(1,045,093)	–

Kazakhstan Petrochemical Industries Inc. LLP (hereinafter - KPI)

In its consolidated financial statements, the Group had 99% share in KPI during 2022 and as at 31 December 2022 (KPI was a joint venture between two subsidiaries of the Fund, each holding per 49.5% share). On November 7, 2022, the Group signed the contract on sales of 40% share in KPI with the third party for the consideration of 180,000 thousand US dollars (equivalent to 83,601 million tenge) to be paid in installments until November 30, 2026. The sales transaction has not been completed by end of 2022 as certain conditions precedent were not met, therefore the Group retained control over KPI as at 31 December 2022. Upon completion of the transaction the control over KPI will be lost and the investment will be recognized as an investment in joint venture, as decisions about the relevant activities of KPI will require the unanimous consent of the parties sharing control.

Since this subsidiary does not represent a separate major line of business for the Group, the Group did not classify the financial performance of the subsidiary as a discontinued operation. The management of the Group expects the transaction will be completed within 12 months after the reporting date, therefore the assets and respective liabilities were reclassified into assets held for sale as at 31 December 2022.

The assets and liabilities of KPI are presented as follows:

In millions of tenge	December 31, 2022*
Assets	
Property, plant and equipment	896,180
Intangible assets	38,265
Other non-current assets	57,448
Inventories	12,590
Income tax prepaid	475
Other current financial assets	23
Other current assets	7,182
Cash and cash equivalents	80,620
Assets classified as held for sale	1,092,783
Liabilities	
Borrowings	941,587
Trade and other payables	68,161
Other non-current liabilities	26,350
Deferred tax liabilities	8,964
Liabilities associated with assets classified as held for sale	1,045,062
Net assets held for sale	47,721

* Assets and liabilities are presented after eliminations of intergroup transactions.

Railway Passenger Coach Construction Plant LLP

During 2022, the Group reorganised its subsidiary Tulpar Wagon Construction Plant LLP by spinning off a new legal entity - Railway Passenger Coach Construction Plant LLP with a part of Tulpar Wagon Construction Plant LLP property and employees. On 13 December 2022, the Group, represented by the subsidiary of NC KTZh, Kaztemirtrans JSC, entered into a sale agreement with a third party for a 100% interest in the charter capital of Railway Passenger Coach Construction Plant LLP. As at 31 December 2022, the Group classified the assets and liabilities of Railway Passenger Coach Construction Plant LLP in a disposal group held for sale at the lower of their carrying amount and fair value less costs to sell. Since this subsidiary does not represent a separate major line of business for the Group, the Group did not classify the financial performance of the subsidiary as a discontinued operation. The control over Railway Passenger Coach Construction Plant LLP was lost in January 2023 upon completion of the sales transaction.

The assets and liabilities of Railway Passenger Coach Construction Plant LLP are presented as follows:

In millions of tenge	December 31, 2022*
Assets	
Property, plant and equipment	5,700
Other current assets	40,049
Cash and cash equivalents	76
Assets classified as held for sale	45,825
Liabilities	
Trade and other payables	17
Other non-current liabilities	14
Liabilities associated with assets classified as held for sale	31
Net assets held for sale	45,794

* Assets and liabilities are presented after eliminations of intergroup transactions.

Chemplus LLP

In December 2022 the Group decided to transfer infrastructure assets of Chemplus LLP (further "Chemplus"), the subsidiary of the "Samruk-Kazyna Odeu" LLP, with the carrying value of 12,901 million tenge, to the state free of charge. The Group reclassified the infrastructure assets to assets held for sale and recognized impairment loss of 12,901 million tenge in the consolidated statement of comprehensive income.

Property, plant and equipment classified as held for sale

On May 31, 2022, the Group sold the "Aral" gas compressor station to Beineu-Shymkent Pipeline LLP with carrying value of 40,378 million tenge for consideration of 42,726 million tenge. As a result of the sale of this asset, the Group recognized net income from the disposal of assets held for sale in the amount of 1,174 million tenge, net of elimination of unrealized gain of 1,174 million tenge.

KOREM JSC

On April 14, 2021 in accordance with the Resolution of the Government of the Republic of Kazakhstan dated March 17, 2021 the Group transferred shares of KOREM JSC to the State property and privatization committee of the Ministry of Finance of the Republic of Kazakhstan with net assets of 312 million tenge free of charge. This transaction was recognized as transfer of assets to the Shareholder in consolidated statement of changes in equity.

7. Property, plant and equipment

In millions of tenge	Oil and gas assets	Pipelines and refinery assets	Buildings and premises
Net book value at January 1, 2021	4,455,419	1,986,120	1,176,291
Foreign currency translation	98,734	8,465	1,522
Changes in estimates	11,268	2,710	(2,040)
Additions	55,688	5,238	10,921
Additions through lease agreements	3,570	32,599	6,445
Capitalized repair works on right-of-use assets	–	–	–
Lease modifications	–	(625)	3,949
Disposals	(38,685)	(49,215)	(16,789)
Depreciation charge	(283,824)	(176,588)	(73,995)
Depreciation and impairment on disposals	23,604	20,352	12,224
Impairment, net of reversal of impairment	(3,940)	(8,279)	(15,278)
Reversal of provision under an onerous contract	–	–	–
Transfer from/(to) assets classified as held for sale or distribution to the Shareholder, net	–	(24)	(11,608)
Transfers from/(to) exploration and evaluation assets, investment property, net	16,674	–	2,314
Transfer from/(to) inventories, net	46	1,511	146
Other transfers and reclassifications	163,579	146,890	55,329
Other changes	(5,123)	–	(1)
Net book value at December 31, 2021	4,497,010	1,969,154	1,149,430
Historical cost	6,536,027	3,781,994	1,817,250
Accumulated depreciation and impairment	(2,039,017)	(1,812,840)	(667,820)
Net book value at December 31, 2021	4,497,010	1,969,154	1,149,430
Including right-of-use assets under lease agreements			
Net book value at January 1, 2021	40,947	6,253	69,501
Foreign currency translation	868	148	730
Changes in estimates	–	–	85
Additions through lease agreements	3,570	32,599	6,445
Capitalized repair works	–	–	–
Lease modifications	–	(625)	3,949
Disposals	(11,296)	(9)	(2,992)
Depreciation charge	(6,494)	(32,200)	(16,590)
Depreciation and impairment on disposals	–	9	995
Transfer from property, plant and equipment	–	–	–
Other transfers and reclassifications	–	–	(18)
Net book value at December 31, 2021	27,595	6,175	62,105
Historical cost of right-of-use assets under lease agreements	39,203	39,146	110,231
Accumulated depreciation and impairment of right-of-use assets under lease agreements	(11,608)	(32,971)	(48,126)
Net book value at December 31, 2021	27,595	6,175	62,105

Railway tracks and infra-structure	Machinery,	Mining assets	Other	Construc-tion in progress	Total
1,161,613	3,315,856	154,747	198,742	1,255,097	13,703,885
19	9,795	-	2,585	4,725	125,845
-	1,219	5,474	1	-	18,632
55	125,910	38,510	5,391	1,144,165	1,385,878
-	89,991	-	4,320	-	136,925
-	8,788	-	-	-	8,788
-	1,001	-	(3,532)	-	793
(4,296)	(63,503)	(950)	(7,094)	(1,378)	(181,910)
(37,228)	(349,006)	(34,186)	(21,869)	-	(976,696)
4,076	53,785	1	6,284	419	120,745
(618)	(28,203)	199	383	16,604	(39,132)
-	-	-	-	1,125	1,125
-	(33,561)	-	(451)	(35)	(45,679)
-	89	1,033	(22)	-	20,088
(4,383)	1,487	7,690	1,463	2,120	10,080
90,669	369,461	2,271	8,266	(836,465)	-
-	(41)	-	(16)	(20,128)	(25,309)
1,209,907	3,503,068	174,789	194,451	1,566,249	14,264,058
1,516,829	6,319,236	385,966	387,546	1,661,461	22,406,309
(306,922)	(2,816,168)	(211,177)	(193,095)	(95,212)	(8,142,251)
1,209,907	3,503,068	174,789	194,451	1,566,249	14,264,058
-	355,064	-	30,137	-	501,902
-	7,691	-	734	-	10,171
-	-	-	-	-	85
-	89,991	-	4,320	-	136,925
-	8,788	-	-	-	8,788
-	1,001	-	(3,532)	-	793
-	(7,665)	-	(507)	-	(22,469)
-	(69,070)	-	(5,007)	-	(129,361)
-	6,944	-	380	-	8,328
-	483	-	-	-	483
-	-	-	18	-	-
-	393,227	-	26,543	-	515,645
-	680,191	-	36,413	-	905,184
-	(286,964)	-	(9,870)	-	(389,539)
-	393,227	-	26,543	-	515,645

7. Property, plant and equipment (continued)

In millions of tenge	Oil and gas assets	Pipelines and refinery assets	Buildings and premises
Net book value at January 1, 2022	4,497,010	1,969,154	1,149,430
Foreign currency translation	277,367	23,332	8,885
Changes in estimates	(106,566)	(51,243)	(3,476)
Additions	86,533	2,044	47,447
Additions through lease agreements	1,907	111,361	7,343
Capitalized repair works on right-of-use assets	-	-	-
Lease modifications	6,134	88	446
Disposals	(54,583)	(37,281)	(18,671)
Loss of control over subsidiaries (Note 6)	-	-	-
Depreciation charge	(269,733)	(162,932)	(67,009)
Depreciation and impairment on disposals	48,339	36,650	14,662
Impairment, net of reversal of impairment (Note 29)	909	(2,366)	(19,499)
Use of provision under an onerous contract	-	-	-
Transfer from/(to) assets classified as held for sale or distribution to the Shareholder, net	-	-	(15,499)
Transfers from/(to) exploration and evaluation assets, investment property, net	3,253	-	(150)
Transfer from/(to) inventories, net	37	(55)	(12)
Other transfers and reclassifications	176,669	96,853	56,832
Other changes	(669)	-	-
Net book value at December 31, 2022	4,666,607	1,985,605	1,160,729
Historical cost	7,013,924	4,006,573	1,908,673
Accumulated depreciation and impairment	(2,347,317)	(2,020,968)	(747,944)
Net book value at December 31, 2022	4,666,607	1,985,605	1,160,729
Including right-of-use assets under lease agreements			
Net book value at January 1, 2022	27,595	6,175	62,105
Foreign currency translation	1,963	410	1,748
Additions through lease agreements	1,907	111,361	7,343
Capitalized repair works	-	-	-
Lease modifications	6,134	88	446
Disposals	(7,994)	(31,884)	(12,084)
Loss of control over subsidiaries (Note 6)	-	-	-
Depreciation charge	(5,825)	(22,637)	(11,581)
Depreciation and impairment on disposals	3,863	31,884	8,643
Impairment, net of reversal of impairment	-	-	-
Transfer from/(to) property, plant and equipment, net	-	-	2,346
Other transfers and reclassifications	-	-	(945)
Net book value at December 31, 2022	27,643	95,397	58,021
Historical cost of right-of-use assets under lease agreements	41,945	119,188	100,695
Accumulated depreciation and impairment of right-of-use assets under lease agreements	(14,302)	(23,791)	(42,674)
Net book value at December 31, 2022	27,643	95,397	58,021

As at December 31, 2022 property, plant and equipment with net book value of 822,711 million tenge was pledged as collateral for some of the Group's borrowings (December 31, 2021: 898,485 million tenge).

As at December 31, 2022 the cost of fully amortised property, plant and equipment of the Group was equal to 1,360,113 million tenge (December 31, 2021: 1,228,077 million tenge).

Railway tracks and infra-structure	Machinery,	Mining assets	Other	Construction in progress	Total
1,209,907	3,503,068	174,789	194,451	1,566,249	14,264,058
83	27,281	-	6,690	9,227	352,865
-	(2,311)	1,643	(393)	-	(162,346)
324	110,781	51,572	6,367	1,311,389	1,616,457
-	112,259	-	5,411	-	238,281
-	2,688	-	-	-	2,688
-	102	-	4,343	-	11,113
(178)	(46,414)	(4,444)	(6,071)	(5,169)	(172,811)
-	-	-	(291)	-	(291)
(39,499)	(374,673)	(42,045)	(21,943)	-	(977,834)
166	43,779	-	5,400	725	149,721
(92)	(6,590)	(4,528)	3,363	(12,914)	(41,717)
-	-	-	-	(1,125)	(1,125)
-	(5,922)	-	(1,113)	(891,697)	(914,231)
-	-	-	-	-	3,103
(3,601)	(124)	17,204	388	4,046	17,883
128,393	351,228	2,789	8,559	(821,323)	-
-	9	-	-	790	130
1,295,503	3,715,161	196,980	205,161	1,160,198	14,385,944
1,633,474	6,880,884	450,202	413,550	1,263,122	23,570,402
(337,971)	(3,165,723)	(253,222)	(208,389)	(102,924)	(9,184,458)
1,295,503	3,715,161	196,980	205,161	1,160,198	14,385,944
-	393,227	-	26,543	-	515,645
-	20,836	-	1,133	-	26,090
-	112,259	-	5,411	-	238,281
-	2,688	-	-	-	2,688
-	102	-	4,343	-	11,113
-	(5,030)	-	(399)	-	(57,391)
-	-	-	(255)	-	(255)
-	(84,743)	-	(5,197)	-	(129,983)
-	4,949	-	356	-	49,695
-	-	-	(834)	-	(834)
-	-	-	(9)	-	2,337
-	945	-	-	-	-
-	445,233	-	31,092	-	657,386
-	836,993	-	46,546	-	1,145,367
-	(391,760)	-	(15,454)	-	(487,981)
-	445,233	-	31,092	-	657,386

In 2022 the Group capitalized borrowing costs at an average interest rate of 6.89% in the amount of 74,087 million tenge (Note 19) (2021: at an average interest rate of 6.14% in the amount of 48,624 million tenge).

8. Intangible assets

In millions of tenge	Licenses	Subsur-face use rights
Net book value at January 1, 2021	711,045	832,147
Foreign currency translation	13,110	5,219
Additions	8,287	2,918
Disposals	(3,227)	-
Amortization charge	(43,399)	(39,215)
Accumulated amortization and impairment on disposals	3,196	-
(Impairment)/reversal of impairment, net (Note 29)	(566)	-
Transfer from/(to) assets classified as held for sale or distribution to the Shareholder, net	-	-
Transfers from/(to) exploration and evaluation assets, net	-	9,665
Transfers from/(to) other non-current assets, net	2,158	-
Other transfers and reclassifications	1,045	-
Other changes	508	5,123
Net book value at December 31, 2021	692,157	815,857
Foreign currency translation	36,279	14,390
Additions	9,404	1,077
Disposals	(2,805)	-
Loss of control over subsidiaries (Note 6)	-	-
Amortization charge	(43,754)	(36,227)
Accumulated amortization and impairment on disposals	2,775	-
(Impairment)/reversal of impairment, net (Note 29)	93	-
Transfer from/(to) assets classified as held for sale or distribution to the Shareholder, net	(336)	-
Transfers to other non-current assets, net	-	-
Other transfers and reclassifications	1,025	-
Other changes	132	669
Net book value at December 31, 2022	694,970	795,766
Historical cost	946,815	977,169
Accumulated amortization and impairment	(251,845)	(181,403)
Net book value at December 31, 2022	694,970	795,766
Historical cost	894,480	957,749
Accumulated amortization and impairment	(202,323)	(141,892)
Net book value at December 31, 2021	692,157	815,857

Goodwill	Marketing related intangible assets	Software	Other	Total
315,981	24,825	63,930	74,096	2,022,024
284	642	126	685	20,066
-	-	21,495	3,039	35,739
-	-	(2,449)	(1,932)	(7,608)
-	-	(20,858)	(3,354)	(106,826)
-	-	2,285	1,930	7,411
-	-	(3,602)	5	(4,163)
-	-	26	-	26
-	-	-	-	9,665
-	-	231	-	2,389
-	-	5,014	(6,059)	-
-	-	8,267	11,411	25,309
316,265	25,467	74,465	79,821	2,004,032
807	1,819	398	1,896	55,589
-	-	6,141	16,853	33,475
-	-	(4,139)	(910)	(7,854)
-	-	-	(64)	(64)
-	-	(20,669)	(8,082)	(108,732)
-	-	4,165	404	7,344
-	-	35	(139)	(11)
-	-	(6,156)	(31,773)	(38,265)
-	-	(22)	-	(22)
-	-	11,083	(12,108)	-
-	-	1,268	(2,199)	(130)
317,072	27,286	66,569	43,699	1,945,362
432,277	70,041	233,058	122,439	2,781,799
(115,205)	(42,755)	(166,489)	(78,740)	(836,437)
317,072	27,286	66,569	43,699	1,945,362
431,470	65,371	222,313	158,331	2,729,714
(115,205)	(39,904)	(147,848)	(78,510)	(725,682)
316,265	25,467	74,465	79,821	2,004,032

9. Exploration and evaluation assets

In millions of tenge	Tangible	Intangible	Total
Net book value at January 1, 2021	339,742	27,651	367,393
Foreign currency translation	4,822	–	4,822
Change in estimate	15	–	15
Additions	13,069	831	13,900
Disposals	(5,842)	(5,397)	(11,239)
Impairment/write-off, net of reversal of impairment (Note 29)	(76,869)	(2,214)	(79,083)
Depreciation and impairment on disposals	5,842	4,970	10,812
Transfers from/(to) property, plant and equipment, net	(17,707)	–	(17,707)
Transfers from/(to) intangible assets, net	–	(9,665)	(9,665)
Transfer from/(to) inventories, net	(299)	–	(299)
Net book value at December 31, 2021	262,773	16,176	278,949
Foreign currency translation	13,683	–	13,683
Change in estimate	(195)	–	(195)
Additions	22,606	510	23,116
Disposals	(120)	(173)	(293)
Impairment/write-off, net of reversal of impairment (Note 29)	(16,312)	(1,694)	(18,006)
Depreciation and impairment on disposals	120	173	293
Transfers from/(to) property, plant and equipment, net	(3,253)	–	(3,253)
Transfer from/(to) inventories, net	6	–	6
Net book value at December 31, 2022	279,308	14,992	294,300
Historical cost	309,934	19,891	329,825
Accumulated impairment	(30,626)	(4,899)	(35,525)
Net book value at December 31, 2022	279,308	14,992	294,300
Historical cost	284,201	19,381	303,582
Accumulated impairment	(21,428)	(3,205)	(24,633)
Net book value at December 31, 2021	262,773	16,176	278,949

As at December 31, 2022 and 2021 the exploration and evaluation assets are represented by the following projects:

In millions of tenge	2022	2021
Kashagan	206,007	191,463
NAC KAP projects	26,543	24,378
Zhenis	18,310	4,692
JSC "NC "QazaqGaz" projects	16,475	19,567
Embamunaigas JSC	14,084	16,357
Urikhtau	4,889	13,726
Other	7,992	8,766
	294,300	278,949

10. Investments in joint ventures and associates

As at December 31 investments in joint ventures and associates comprised the following:

In millions of tenge	Main activity	Place of business
Joint ventures		
Tengizchevroil LLP	Oil and gas exploration and production	Kazakhstan
Asia Gas Pipeline LLP	Construction and operation of the gas pipeline	Kazakhstan
Beineu-Shymkent Pipeline LLP	Construction and operation of the gas pipeline	Kazakhstan
Mangistau Investments B.V.	Oil and gas development and production	Kazakhstan
Forum Muider B.V.	Production of coal	Kazakhstan
KazRosGas LLP	Processing and sale of natural gas and refined gas products	Kazakhstan
Kazakhstan – China Pipeline LLP	Oil transportation	Kazakhstan
JV Kazgermunai LLP	Oil and gas exploration and production	Kazakhstan
Ural Group Limited BVI	Oil and gas exploration and production	Kazakhstan
Other		
Total joint ventures		
Associates		
Caspian Pipeline Consortium JSC	Transportation of liquid hydrocarbons	Kazakhstan/Russia
Kazzinc LLP	Mining and processing of metal ores, production of refined metals	Kazakhstan
JV KATCO LLP	Exploration, production,	Kazakhstan
PetroKazakhstan Inc. ("PKI")	Exploration, production and processing of oil and gas	Kazakhstan
Other		
Total associates		

2022		2021	
Carrying amount	Percentage ownership	Carrying amount	Percentage ownership
3,825,053	20.00%	3,105,942	20.00%
710,273	50.00%	504,807	50.00%
238,236	50.00%	200,338	50.00%
164,716	50.00%	207,410	50.00%
68,159	50.00%	53,747	50.00%
58,812	50.00%	54,317	50.00%
37,138	50.00%	25,355	50.00%
32,070	50.00%	32,289	50.00%
31,490	50.00%	41,453	50.00%
202,832		149,934	
5,368,779		4,375,592	
521,882	20.75%	473,880	20.75%
491,846	29.82%	548,879	29.82%
113,920	49.00%	85,123	49.00%
94,635	33.00%	84,905	33.00%
143,519		112,855	
1,365,802		1,305,642	
6,734,581		5,681,234	

10. Investments in joint ventures and associates (continued)

The following tables illustrate summarized financial information of significant joint ventures, based on IFRS financial statements of these entities for 2022, reflecting equity method accounting adjustments:

In millions of tenge	Tengizchevroil LLP	Asia Gas Pipeline LLP	Beineu-Shymkent Pipeline LLP
Joint ventures			
Non-current assets	25,713,747	1,165,474	623,036
Current assets, including	3,046,293	707,366	183,695
Cash and cash equivalents	1,905,924	466,658	60,340
Non-current liabilities, including	7,808,607	241,387	273,406
Non-current financial liabilities	4,163,850	59,026	261,063
Current liabilities, including	1,826,167	210,907	93,130
Current financial liabilities	-	185,590	46,858
Equity	19,125,266	1,420,546	440,195
Share of ownership	20.00%	50.00%	50.00%
Consolidation adjustments	-	-	18,139
Carrying amount of investment	3.825.053	710.273	238.236
Revenue	10,949,194	912,711	188,975
Depreciation, depletion and amortization	(1,129,895)	(77,695)	(26,893)
Finance income	36,076	5,108	2,901
Finance costs	(99,857)	(24,809)	(16,207)
Income tax expenses	(1,591,414)	(140,490)	-
Profit/(loss) for the year	3,713,299	553,306	101,674
Other comprehensive income/(loss)	1,114,004	(477)	-
Total comprehensive income/(loss)	4,827,303	552,829	101,674
Dividends received	244,579	70,949	11,765

	Mangistau Investments B.V.	Forum Muider B.V.	KazRosGas LLP	Kazakhstan – China Pipeline LLP»	JV Kazgermunai LLP	Ural Group Limited BVI
	464,868	175,947	40,100	137,004	71,787	275,714
	111,126	75,715	99,637	42,103	53,303	1,851
	28,622	7,687	59,000	17,871	46,729	1,704
	144,698	74,123	269	58,417	21,559	171,042
	-	72,071	-	32,197	-	133,544
	99,344	41,221	21,844	46,415	39,392	3,543
	-	8,772	-	33,900	-	-
	331,952	136,318	117,624	74,275	64,139	102,980
	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
	(1,260)	-	-	-	-	(20,000)
	164.716	68.159	58.812	37.138	32.070	31.490
	910,069	113,612	192,427	86,319	150,039	223
	(26,647)	(9,018)	(323)	(10,269)	(22,550)	(26)
	594	7,417	2,765	357	791	-
	(9,404)	(1,052)	-	(4,593)	(994)	(8,387)
	(38,267)	(8,180)	(4,040)	(8,703)	(39,783)	(3,005)
	96,971	29,231	1,107	33,566	41,061	(22,939)
	1,784	(408)	7,884	-	4,115	2,746
	98,755	28,823	8,991	33,566	45,176	(20,193)
	92,071	-	-	5,000	22,826	-

10. Investments in joint ventures and associates (continued)

The following tables illustrate summarized financial information of significant joint ventures, based on IFRS financial statements of these entities for 2021, reflecting equity method accounting adjustments:

In millions of tenge	Tengizchevroil LLP	Asia Gas Pipeline LLP	Beineu-Shymkent Pipeline LLP
Joint ventures			
Non-current assets	21,900,722	1,266,161	588,673
Current assets, including	1,454,491	551,179	159,038
Cash and cash equivalents	331,602	394,184	26,064
Non-current liabilities, including	6,307,907	608,534	304,146
Non-current financial liabilities	3,886,200	404,571	282,759
Current liabilities, including	1,517,597	199,192	81,515
Current financial liabilities	60,529	173,173	64,738
Equity	15,529,709	1,009,614	362,050
Share of ownership	20.00%	50.00%	50.00%
Consolidation adjustments	–	–	19,313
Carrying amount of investment as at December 31, 2021	3,105,942	504,807	200,338
Revenue	6,793,158	857,998	200,362
Depreciation, depletion and amortization	(894,739)	(81,135)	(23,996)
Finance income	2,341	1,082	1,894
Finance costs	(62,409)	(35,232)	(14,916)
Income tax expenses	(946,429)	(128,361)	–
Profit/(loss) for the year	2,208,327	507,108	131,067
Other comprehensive income/(loss)	393,933	765	–
Total comprehensive income/(loss)	2,602,260	507,873	131,067
Dividends received	208,397	40,216	20,700

Mangistau Investments B.V.	Forum Muider B.V.	KazRosGas LLP	Kazakhstan – China Pipeline LLP»	JV Kazgermunai LLP	Ural Group Limited BVI
480,741	165,165	45,961	149,828	65,184	254,152
160,802	28,498	80,907	80,675	54,869	911
101,431	6,907	31,428	58,398	49,531	830
138,617	53,600	225	122,857	18,405	129,822
–	48,235	–	94,393	–	95,775
86,154	32,569	18,009	56,937	37,070	2,335
–	1,803	–	44,617	–	–
416,772	107,494	108,634	50,709	64,578	122,906
50.00%	50.00%	50.00%	50.00%	50.00%	50.00%
(976)	–	–	–	–	(20,000)
207,410	53,747	54,317	25,355	32,289	41,453
763,148	103,081	196,978	74,019	118,071	–
(66,434)	(8,218)	(221)	(10,119)	(59,318)	(61)
181	3,805	2,908	226	743	–
(9,296)	(798)	–	(4,750)	(1,752)	(3,918)
(55,667)	(6,838)	(12,467)	(6,889)	(27,785)	(171)
160,308	22,822	41,903	26,927	12,216	(22,120)
18	(57)	4,394	(1)	1,596	3,995
160,326	22,765	46,297	26,926	13,812	(18,125)
15,338	72	45,532	1,800	7,441	–

10. Investments in joint ventures and associates (continued)

The following tables illustrate summarized financial information of significant associates, based on IFRS financial statements of these entities for 2022 and 2021, reflecting equity method accounting adjustments:

In millions of tenge	2022		
	Caspian Pipeline Consortium JSC	Kazzinc LLP	JV KATCO LLP
Associates			
Non-current assets	2,240,723	1,383,099	132,022
Current assets	292,198	797,108	132,298
Non-current liabilities	35,730	218,044	20,139
Current liabilities	196,152	312,897	8,822
Equity	2,301,039	1,649,266	235,359
Share of ownership	20.75%	29.82%	49.00%
Goodwill	44,416	-	68
Unrecognized gain on transactions with associates	-	-	(10,592)
Additional allocation of profits	-	-	9,118
Impairment of the investment	-	-	-
Carrying amount of investment	521,882	491,846	113,920
Revenue	976,076	1,632,251	146,304
Profit/(loss) for the year	567,533	(21,889)	82,891
Other comprehensive income	185,893	-	-
Total comprehensive income/(loss)	753,426	(21,889)	82,891
Other	-	-	(2,141)
Dividends received	108,975	88,819	18,796

All of the above joint ventures and associates are strategic for the Group's business.

2021				
Petro-Kazakhstan Inc.	Caspian Pipeline Consortium JSC	Kazzinc LLP	JV KATCO LLP	Petro-Kazakhstan Inc. ("PKI")
224,559	2,050,452	1,487,330	85,480	255,912
116,827	229,939	848,662	125,413	88,537
18,489	32,699	302,288	9,873	20,905
15,586	163,712	193,195	10,192	45,717
307,311	2,083,980	1,840,509	190,828	277,827
33.00%	20.75%	29.82%	49.00%	33.00%
-	41,454	-	68	-
-	-	-	(8,451)	-
-	-	-	-	-
(6,778)	-	-	-	(6,778)
94,635	473,880	548,879	85,123	84,905
140,901	925,320	1,484,652	116,791	113,185
19,702	438,091	224,656	61,016	24,369
9,782	60,033	-	-	3,149
29,484	498,124	224,656	61,016	27,518
-	-	-	(620)	-
2,890	107,614	63,274	-	2,763

10. Investments in joint ventures and associates (continued)

The following tables illustrate aggregate financial information of individually insignificant joint ventures (the Group's proportional interest):

In millions of tenge	2022	2021
Carrying amount of investments as at December 31	202,832	149,935
Net profit for the year	68,387	61,121
Other comprehensive loss	(1,263)	(295)
Total comprehensive income	67,124	60,826

The following tables illustrate aggregate financial information of individually insignificant associates (the Group's proportional interest):

In millions of tenge	2022	2021
Carrying amount of investments as at December 31	143,519	112,855
Net profit for the year	56,099	49,535
Other comprehensive income	5,075	569
Total comprehensive income	61,174	50,104

In 2022 dividends received from individually insignificant joint ventures and associates were equal to 67,848 million tenge (2021: 34,300 million tenge).

The following table summarizes the movements in equity investments in joint ventures and associates in 2022 and 2021:

In millions of tenge	2022	2021
Balance as at January 1	5,681,234	4,985,676
Share in profit of joint ventures and associates, net (Note 32)	1,449,260	1,142,082
Dividends received	(734,518)	(547,447)
Change in dividends receivable	4,838	(3,339)
Additional contributions without change in ownership	15,418	1,926
Acquisitions	11,445	1,618
Adjustment of unrealized income*	(3,301)	(6,294)
Disposals	-	(89)
Transfers to assets classified as held for sale or distribution to the Shareholder	(1,460)	-
Foreign currency translation	309,586	101,309
Other comprehensive income, other than foreign currency translation	5,170	2,213
Discount on loans issued	(2,431)	8,495
Impairment, net (Note 29)	(660)	(5,921)
Financial guarantees issued	-	672
Other changes in equity of joint ventures and associates	-	333
Balance as at December 31	6,734,581	5,681,234

* Adjustment of unrealized income represent unrealized income from sale of inventory from joint ventures to Group and capitalized borrowing costs on the loans provided by the Group to joint ventures.

As at December 31, 2022, the Group's share in unrecognized losses of joint ventures and associates was equal to 25 million tenge (December 31, 2021: 3,661 million tenge).

11. Loans issued and net investment in finance lease

As at December 31, loans issued and net investment in finance lease comprised the following:

In millions of tenge	2022	Weighted average effective interest rate	2021	Weighted average effective interest rate
Loans issued at fair value through profit or loss	117,511	3.5%+12M LIBOR +forex adjustment	123,161	3.5%+12M LIBOR +forex adjustment
Loans issued at amortized cost	64,371	24.07%	238,186	15.99%
Net investment in finance lease	54,017	12.14%	62,003	10.21%
Total loans and net investment in finance lease	235,899		423,350	
Less: allowance for expected credit losses	(17,284)		(19,234)	
Loans issued and net investment in finance lease, net	218,615		404,116	
Less: current portion	(66,889)		(46,703)	
Non-current portion	151,726		357,413	

Movements in the loan allowance for expected credit losses for the years ended December 31 were as follows:

In millions of tenge	2022	2021
Allowance at January 1	19,234	15,624
Charged, net	(1,373)	1,046
Disposal of subsidiary	-	2,564
Change in accounting estimates	(577)	-
Allowance at December 31	17,284	19,234

As at December 31 the components of net investment in finance lease are as follows:

In millions of tenge	2022	2021
Within one year	15,215	13,781
Later than one year, but not later than five years	31,436	36,952
After five years	30,787	45,055
Lease payments	77,438	95,788
Less: unearned finance income	(23,421)	(33,785)
Net investment in finance lease	54,017	62,003

In millions of tenge	2022	2021
Loans issued in US dollars	123,443	308,483
Loans issued and net investment in finance lease in tenge	95,172	94,525
Loans issued in other foreign currencies	-	1,108
	218,615	404,116

12. Amounts due from credit institutions

As at December 31 amounts due from credit institutions comprised the following:

In millions of tenge	2022	2021
Bank deposits	1,638,585	694,517
Loans to credit institutions	67,614	83,585
Less: allowance for expected credit losses	(2,326)	(1,440)
Amounts due from credit institutions, net	1,703,873	776,662
Less: current portion	(1,433,305)	(671,859)
Non-current portion	270,568	104,803

In millions of tenge	2022	2021
Rating from A+(A1) to A-(A3)	966,071	340,907
Rating from BBB+(Baa1) to BBB(Baa2)	213,729	103,874
Rating from BBB-(Baa3) to BB-(Ba3)	482,486	271,091
Rating from B+(B1) to B-(B3)	41,587	60,790
	1,703,873	776,662

In millions of tenge	2022	Weighted average effective interest rate	2021	Weighted average effective interest rate
Amounts due from credit institutions, denominated in US dollars	1,197,610	2.61%	646,484	0.35%
Amounts due from credit institutions, denominated in tenge	506,263	6.63%	130,177	5.66%
Amounts due from credit institutions, denominated in other currencies	-	-	1	4%
	1,703,873		776,662	

13. Other financial assets

As at December 31 other financial assets comprised the following:

In millions of tenge	2022	2021
Financial assets at fair value through other comprehensive income, including:	28,322	21,935
Corporate bonds	17,931	694
Treasury bills of the Ministry of Finance of the Republic of Kazakhstan	7,428	8,615
Bonds of Kazakhstan financial institutions	2,051	11,662
Treasury notes of foreign governments	839	904
Equity securities	73	60
Financial assets at amortized cost, including:	915,083	1,016,884
Bonds of Kazakhstan financial institutions	355,054	343,307
Notes of the National Bank of the Republic of Kazakhstan	176,715	96,393
Corporate bonds	115,125	114,685
Treasury bills of the Ministry of Finance of the Republic of Kazakhstan	12,966	–
Eurobonds of the Ministry of Finance of the Republic of Kazakhstan	1,988	1,869
Other financial assets at amortized cost, including:		
<i>Restricted cash</i>	225,060	183,044
<i>Other accounts receivable</i>	146,395	122,136
<i>Amounts due from employees</i>	9,948	10,447
<i>Dividends receivable</i>	630	6,685
<i>Reservation of cash for repayment of borrowings (Note 19)</i>	152	259,459
<i>Other</i>	12,364	11,507
Less: allowance for expected credit losses	(141,314)	(132,648)
Financial assets at fair value through profit or loss, including:	143,906	135,908
Equity securities	124,960	106,197
Guaranteed returns from a shareholder of a joint venture	13,178	11,750
Corporate bonds	3,192	2,993
Options	1,868	3,188
Forward and futures contracts	681	10,965
Currency swaps	27	–
Bonds of Kazakhstan financial institutions	–	815
Total financial assets	1,087,311	1,174,727
Less: current portion	(347,700)	(506,895)
Non-current portion	739,611	667,832

Restricted cash

Restricted cash includes payments of 32.3 million US Dollar, or 14,812 million tenge adjusted for foreign exchange gains and amounting to 14,956 million tenge as at 31 December 2022, made by the Group in March 2022 to a uranium enrichment service provider whose Russian bank was subsequently included in the list of legal entities that fell under the sanctions of the Office of Foreign Assets Control of the US Department of the Treasury (OFAC).

On 13 January 2023 the OFAC issued a license to return blocked funds. On 30 January 2023 the correspondent bank returned the funds in the amount of 32.7 million US Dollars (equivalent to 14,884 million tenge), including 0.4 million US Dollars (equivalent to 179 million tenge) of accrued interest.

On November 22, 2021, National Atomic Company “Kazatomprom” (hereinafter – “NAC KAP”), a subsidiary of the Group, signed a Framework Agreement with Genchi Global Limited to participate in ANU Energy OEC Ltd (hereinafter – “ANU Energy”), created on the Astana International Financial Center, and made an investment of 24.25 million dollars to ANU Energy in March 2022. The purpose of ANU Energy is to store physical uranium as a long-term investment. The Group does not have a representative on the Board of Directors of ANU Energy and does not take part in decision-making on key strategic issues of ANU Energy. Accordingly, the Group does not have significant influence on the management operations of ANU Energy, and therefore the Group recognizes this investment at fair value through profit or loss.

As at December 31 other financial assets by currency, except for derivatives, comprised:

In millions of tenge	2022	2021
Financial assets, denominated in tenge	765,060	742,117
Financial assets, denominated in US dollars	286,794	387,042
Financial assets, denominated in euro	15,772	24,804
Financial assets, denominated in rubles	301	12
Financial assets, denominated in other currency	16,808	6,599
	1,084,735	1,160,574

14. Other non-current assets

As at December 31 other non-current assets comprised the following:

In millions of tenge	2022	2021
Advances paid for non-current assets	259,196	361,269
Long-term VAT receivable	225,712	180,022
Prepaid expenses	16,882	19,300
Long-term inventories	12,676	54,655
Other	20,726	21,598
Less: impairment allowance	(61,467)	(58,654)
	473,725	578,190

15. Inventories

As at December 31 inventories comprised the following:

In millions of tenge	2022	2021
Uranium products (at lower of cost and net realizable value)	308,114	221,613
Production materials and supplies (at lower of cost and net realizable value)	77,570	65,354
Crude oil (at cost)	69,332	62,326
Work in progress (at lower of cost and net realizable value)	68,803	57,477
Oil refined products for sale (at lower of cost and net realizable value)	60,670	89,725
Oil and gas industry materials and supplies (at cost)	44,767	34,437
Goods for resale (at lower of cost and net realizable value)	41,139	34,193
Gas processed products (at cost)	33,518	34,538
Fuel (at lower of cost and net realizable value)	22,922	24,089
Railway industry materials and supplies (at cost)	21,738	17,300
Uranium industry materials and supplies (at lower of cost and net realizable value)	16,150	3,828
Aircraft spare parts (at cost)	15,647	14,744
Electric transmission equipment spare parts (at cost)	5,855	5,499
Telecommunication equipment spare parts (at cost)	2,248	2,069
Other materials and supplies (at lower of cost and net realizable value)	77,011	61,705
	865,484	728,897

Uranium products and goods for resale as at December 31, 2022 and December 31, 2021 include inventory received under inventory loans in the amount of 8,597 million tenge, which corresponds to the estimated fair value of consideration transferred on the transaction date. A liability corresponding to the obligation to return inventory was recognised in the same amount in other liabilities (Notes 23, 24) and further revalued in accordance with the changes of market prices for inventory.

As at December 31, 2022 carrying value of inventories under pledge as collateral amounted to 126,345 million tenge (December 31, 2021: 121,772 million tenge).

16. Trade accounts receivable and other current assets

As at December 31 trade accounts receivable comprised the following:

In millions of tenge	2022	2021
Trade accounts receivable	1,143,332	1,074,650
Less: allowance for expected credit losses	(61,930)	(49,758)
	1,081,402	1,024,892

As at December 31 other current assets comprised the following:

In millions of tenge	2022	2021
Advances paid and deferred expenses	141,348	114,163
Other prepaid taxes	97,018	86,740
Other non-financial current assets	19,986	21,930
Less: impairment allowance	(8,330)	(12,847)
	250,022	209,986

At December 31, 2022 the Group's receivables of 176,000 million tenge were pledged under certain Group borrowings (December 31, 2021: 131,120 million tenge).

Movements in the allowance for expected credit losses for trade accounts receivable for the years ended December 31 were as follows:

In millions of tenge	2022	2021
Allowance at January 1	49,758	47,221
Charged, net	14,271	5,873
Foreign exchange difference, net	1,006	(594)
Change in estimate	-	(4)
Transfers from/(to) assets classified as held for sale or distribution to the Shareholder, net	-	(1,157)
Write-off	(3,105)	(1,581)
Allowance at December 31	61,930	49,758

Movements in the impairment allowance for other current assets for the years ended December 31 were as follows:

In millions of tenge	2022	2021
Allowance at January 1	12,847	14,402
Charged, net	(2,065)	1,379
Foreign exchange difference, net	44	3
Change in estimate	268	(29)
Write-off	(2,764)	(2,908)
Allowance at December 31	8,330	12,847

17. Cash and cash equivalents

As at December 31 cash and cash equivalents comprised the following:

In millions of tenge	2022	2021
Bank deposits – US dollars	690,834	999,449
Bank deposits – tenge	602,992	661,752
Bank deposits – other currency	17,550	32,941
Current accounts with banks – US dollars	1,004,182	690,971
Current accounts with banks – tenge	363,014	221,834
Current accounts with banks – other currency	34,729	34,709
Reverse repurchase agreements and other treasury securities with contractual maturity of three months or less	164,541	141,035
Balances on brokerage accounts payable on demand	35,494	19,193
Cash in transit	18,258	2,290
Cash on hand	9,186	7,403
Less: allowance for expected credit losses	(577)	(847)
	2,940,203	2,810,730

Within the framework of diversification, the Group continues to place part of its free liquidity in money market instruments, such as automatic repurchase agreements secured by government securities.

Short-term bank deposits are placed for varying periods of between 1 (one) day and 3 (three) months, depending on immediate cash needs of the Group. As at December 31, 2022 the weighted average interest rates for short-term bank deposits were 14.17% in tenge, 1.63% in US dollars, 5.12% in other currency; and current accounts were 1.33% in tenge, 1.17% in USD dollars, 0.77% in other currency, respectively (December 31, 2021: the weighted average interest rates for short-term bank deposits were 8.34% in tenge, 0.26% in US dollars, 5.07% in other currency; and current accounts were 0.7% in tenge, 0.26% in USD dollars, 0.46% in other currency, respectively).

18. Equity

18.1 Share capital

During 2022 and 2021 the Fund issued common shares, which were paid as follows:

Payment for shares	Number of shares authorized and issued	Par value per share, in tenge	Share capital in millions of tenge
As of December 31, 2020	3,481,960,408		5,258,657
Cash contributions	1,000	9,923,089	9,923
As of December 31, 2021	3,481,961,408		5,268,580
Property contributions	1	239,265,541	239
As of December 31, 2022	3,481,961,409		5,268,819

As at December 31, 2022 3,481,961,409 shares of the Fund were fully paid (December 31, 2021: 3,481,961,408 shares).

Property contributions

On June 28, 2022, the Shareholder contributed property to the Fund's share capital in form of the movable property with a fair value of 239 million tenge. This property was transferred to the share capital of subsidiary NC KTZh.

Cash contributions

In August 2021, the Shareholder made cash contributions to the Fund's share capital of 9,923 million tenge. These amounts were aimed to finance the project "Construction of Infrastructure facilities on the territory of SEZ "National Industrial Petrochemical Technopark".

18.2 Dividends

Dividends attributable to equity holder of the Parent

In September and October 2022 the Fund declared and paid dividends to the Shareholder of 170,024 million tenge based on financial results for 2021 according to the Resolution of the Government dated September 22, 2022.

On November 30, 2021, the Fund declared and paid dividends to the Shareholder of 88,337 million tenge based on financial results of 2020 in accordance with the Resolution of the Government dated November 21, 2021.

Dividends attributable to non-controlling interests

During 2022 the Group declared dividends of 186,073 million tenge to the holders of non controlling interests in National Company "KazMunayGas" JSC ("NC KMG") group, Kazakhtelecom JSC ("KTC"), NAC KAP and Kazakhstan Electricity Grid Operating Company JSC ("KEGOC"). Total amount of dividends paid to the holders of non controlling interests during 2022 equaled 184,145 million tenge.

During 2021 the Group declared dividends of 92,511 million tenge to the holders of non controlling interests in NC KMG group, KTC, NAC KAP and KEGOC. Total amount of dividends paid to the holders of non controlling interests during 2021 equaled 92,076 million tenge.

18.3 Other distributions to the Shareholder

Social projects financing

During 2022 in accordance with the Shareholder's resolutions, the Fund recognised liabilities for financing of various social projects for the amount 23,978 million tenge as other distributions to the Shareholder in the consolidated statement of changes in equity. As at December 31, 2022, the Group made repayment of liabilities for financing of social projects in the amount of 23,978 million tenge.

During 2021 in accordance with the Shareholder's resolution, the Group provided funding for procurement of vaccines against COVID-19 for the total amount of 13,410 million tenge and recognised the funding as other distributions to the Shareholder in the consolidated statement of changes in equity. As of December 31, 2021 these liabilities were fully paid off.

Also, during 2021 in accordance with Shareholder's resolutions, the Fund recognised liabilities for financing of various social projects for the amount of 25,983 million tenge as other distributions to the Shareholder in the consolidated statement of changes in equity. As of December 31, 2021, the Group made repayment of liabilities of 29,878 million tenge.

Financing construction of social facilities

During 2022, in accordance with the Shareholder's resolutions, the Fund recognized liabilities for financing of the construction of National coordination center for emergency medicine in Astana city with 200 beds and National Scientific Center of infectious diseases in Almaty city with 350 beds in the amount of 166,867 million tenge. As of December 31, 2022, the Group made repayment of liabilities in the amount of 104,028 million tenge.

In addition, in accordance with the Shareholder's resolutions, the Fund recognized liabilities for financing of the construction of residential buildings for socially vulnerable segments of the population in Zhetysay region in the amount of 11,600 million tenge.

Also, during 2022, in accordance with the Shareholder's resolutions on the construction of a medical center in Zhana-ozen town and housing for the residents, living in Zhana-ozen town, the Group accrued liabilities and paid for 10,199 million tenge and 2,398 million tenge, respectively.

During 2021 in accordance with the Shareholder's resolutions, the Fund recognized liabilities for financing of the construction of the Center of Kazakhstan Gymnastics Federation in Nur-Sultan city and the construction of the park for the family rest in Nur-Sultan city in the amount of 18,000 million tenge and 8,500 million tenge, respectively. During 2022, the Group made repayment of liabilities in the amount of 1,800 million tenge.

In 2020 in accordance with the Shareholder resolution, the Fund recognized liabilities for financing of the construction of social medical facilities of 50,004 million tenge as other distributions to the Shareholder in the consolidated statement of changes in equity. As of December 31, 2021, the Group made repayment of this liability of 23,750 million tenge.

18.4 Discount on loans from the Government

In 2022, the Fund made partial early repayment of bond obligations to the National Bank in the amount of 137 million tenge (2021: 558 million tenge), and therefore recognized the amortization of the discount on loans from the Government in the amount of 78 million tenge (2021: 278 million tenge) in the consolidated statement of changes in equity.

In December 2022, the Fund placed bonds in the amount of 162,859 million tenge. The difference between nominal and fair value in the amount of 68,762 million tenge was recognized as a discount on loans from the Government in the consolidated statement of changes in equity (Note 20).

During 2021, the Group made partial early repayment of bonds with the nominal amount of 558 million tenge purchased by the National Bank of Republic of Kazakhstan. Due to the early redemption of obligations, the Group recognized the decrease in discount on loans from the Government of 278 million tenge in consolidated statement of changes in equity.

18.5 Change in ownership interests of subsidiaries – disposal of interest that does not result in the loss of control

On December 6, 2022, the Fund placed 3% shares of NC KMG on Kazakhstan Stock Exchange (KASE) and international Stock Exchange of Astana (AIX). The price per share is 8,406 tenge.

As a result of share issue, the Group received proceeds of 151,074 million tenge, net of transaction costs of 2,786 million tenge, non-controlling interests increased by 288,571 million tenge, and the difference of 128,297 million tenge and 9,470 million tenge was recognized as decrease of currency translation reserve and retained earnings attributable to the equity holder of the Parent, respectively.

Disposal of 49% interest in PE Ortalyk LLP

The Group and China General Nuclear Power Group, CGNPC, agreed to build a plant for the production of fuel assemblies, Ulba-FA LLP located on the territory of Ulba Metallurgical Plant JSC. CGNPC guaranteed the purchase of Ulba-FA LLP products, and in return the Group agreed to sell a 49% interest in DP Ortalyk LLP to CGNPC or its affiliate.

In April 2021 the parties signed a sale and purchase agreement, where the selling price of a 49% stake in DP Ortalyk LLP was determined in the amount of 435 million US dollars (equivalent to 186,437 million tenge) based on a fair value assessment determined by an independent appraiser.

On July 22, 2021 the sale of the interest in DP Ortalyk LLP was completed after obtaining all state permits and fulfilling all the preliminary conditions of the sale and purchase agreement. The re-registration has been completed and CGNM UK Limited (a subsidiary of CGNPC) became the owner of a 49% interest in DP Ortalyk LLP. The Group retains a 51% ownership interest. The management of the Group has determined that the Group retains control over DP Ortalyk LLP, because the Group has significant rights to manage the enterprise's production activities and influence the profits from them.

In millions of tenge

Selling price at the exchange rate as of April 22, 2021	186,437
Less: foreign exchange loss	(579)
Consideration received	185,858
Net assets of the subsidiary at the date of disposal of the interest	55,258
Non-controlling interests, 49%	20,389
Selling price at the exchange rate as of April 22, 2021	186,437
Less: non-controlling interests	(20,389)
Less: corporate income tax	(33,466)
Increase in equity attributable to equity holder of the Parent	132,582

Mutual cooperation between the Group and CGNM and its related entities involved (CGNM Group) is governed by commercial agreement that contains put and call options.

Call option grants the Group the right to demand CGNM Group to sell their interest in DP Ortalyk LLP and Ulba FA LLP after occurrence of any of the following events: (1) there is a deadlock situation for a decision made by the Group and CGNM Group as participants of DP Ortalyk LLP and Ulba-FA LLP, (2) CGNM Group ceases to own its interest in Ulba-FA LLP, (3) CGNM Group submits a notice of liquidation, (4) CGNM Group causes a material breach of commercial terms of Ulba-FA LLP that has not been addressed, (5) Ulba-FA LLP does not complete any of its planned activities on the specified date because of unfulfilled liabilities by the CGNM Group, including shipment of fuel tablets within 24 months after the first order placed. CGNM Group has 60 days to eliminate an event occurred before the option is exercised. Call option is exercised at fair value of shares as of the date the notice of option exercise.

Put option grants the CGNM Group the right to demand the Group to buy their interest in DP Ortalyk LLP and Ulba FA LLP after occurrence of any of the following events: (1) there is a deadlock situation for a decision made by the Group and CGNM Group as participants of DP Ortalyk LLP and Ulba-FA LLP, (2) CGNM Group ceases to own its interest in DP Ortalyk LLP, (3) the Group submits a notice of liquidation, (4) the Group causes a material breach of commercial terms of Ulba-FA LLP that has not been addressed, (5) Ulba-FA LLP does not complete any of its planned activities on the specified date because of unfulfilled liabilities by the Group, including shipment of fuel tablets within 24 months after the first order placed. The Group has 60 days to eliminate an event occurred before the option is exercised. Put option is exercised at fair value of shares as of the date the notice of option exercise. With respect of valuation of derivative instruments relating to above mentioned put and calls options the Group determined that such value is immaterial as the exercise price is set at the fair value of the shares.

The Group considered the impact of above mentioned call and put options on the financial statements, in particular the Group considered whether the existence of put option requires recognition of financial liabilities at the amount equal to net present value of the redemption amount pursuant to requirement of IAS 32. Consequently, as at the date of transaction and as at September 30, 2021 the Group has recognised a liability in the amount of 185,210 million tenge in accordance with the terms of the sale and purchase agreement of a 49% stake in DP Ortalyk LLP, which provides the right to CGNM to request the Group to buy back that entity's ownership interest in DP Ortalyk LLP at fair value on the date of purchase if DP Ortalyk LLP does not receive a new subsoil use contract on Zhaltapak field by December 31, 2021, the Group assessed that obtaining that subsoil use contract was outside of control of the Group. The subsoil use contract was received on December 14, 2021 and then the liability was derecognised in correspondence with equity amount. There was no material change to its fair value between initial recognition date and extinguishment date.

As of December 31, 2021 the Group has not recognised financial liability to purchase shares in DP Ortalyk LLP as required by IAS 32 because management believes that other conditions requiring purchase of shares listed above are under the Group's control, i.e. the Group does not have unavoidable obligation to pay cash.

Disposal of 24% of shares of Kcell JSC

On September 30, 2021, the Group, represented by its subsidiary KTC, sold 24% of shares of Kcell JSC through open trading on Kazakhstan Stock Exchange (KASE). As a result of disposal of shares, the Group recognized proceeds of 55,280 million tenge, non-controlling interests increased by 14,885 million tenge, and the difference of 40,395 million tenge was recognized as an increase in retained earnings.

18.6 Non-controlling interests

The following tables illustrate information of subsidiaries in which there is significant non-controlling interests as at December 31:

	Non-controlling interests			
	2022		2021	
	Share	Carrying amount	Share	Carrying amount
NC KazMunayGas JSC	12.58%	1,198,454	9.58%	700,873
NAC Kazatomprom JSC	25.00%	713,970	25.00%	644,719
Kazakhtelecom JSC	47.97%	393,372	47.97%	344,297
Air Astana JSC	49.00%	34,519	49.00%	13,536
KEGOC JSC	10.00% - 1	30,741	10.00% - 1	27,251
Other		132,960		186,783
		2,504,016		1,917,459

All significant subsidiaries with non-controlling interests are registered in Kazakhstan.

The following tables illustrate summarized financial information of subsidiaries, in which there are significant non-controlling interests as at December 31, 2022 and for the year then ended::

In millions of tenge	NC KazMunay-Gas JSC	Kazatomprom NAC JSC	Kazakhtelecom JSC	KEGOC JSC	Air Astana JSC
Summarized statement of financial position					
Non-current assets	13,515,455	1,274,813	939,567	441,251	408,965
Current assets	3,135,308	947,720	347,166	112,679	169,752
Non-current liabilities	5,174,219	254,627	335,083	187,040	323,207
Current liabilities	1,603,094	271,403	221,043	59,477	185,064
Total equity	9,873,450	1,696,503	730,607	307,413	70,446
Attributable to:	1,198,454	713,970	394,682	30,741	34,519
Equity holder of the Parent	8,674,996	982,533	335,925	276,672	35,927
Non-controlling interests	1,198,454	713,970	394,682	30,741	34,519
Summarized statement of comprehensive income					
Revenue	8,686,384	1,001,171	621,838	217,256	474,182
Profit for the year	1,317,319	472,963	128,753	65,140	37,583
Other comprehensive income/(loss)	468,745	(510)	(2,916)		5,240
Total comprehensive income for the year, net of tax	1,786,064	472,453	125,837	65,140	42,823
Attributable to:	1,058,204	283,859	242,989	80,679	145,845
Equity holder of the Parent	1,756,410	347,590	111,202	65,140	42,823
Non-controlling interests	29,654	124,863	14,635		
Dividends declared to non-controlling interests	(21,445)	(142,145)	(19,421)	(3,023)	
Summarised cash flow information					
Operating activity	1,058,204	283,859	242,989	80,679	145,845
Investing activity	(1,624,864)	(10,893)	(105,733)	(31,209)	(27,797)
Financing activity	287,753	(268,877)	(119,945)	(33,058)	(101,769)
Net (decrease)/increase in cash and cash equivalents	(278,907)	4,089	17,311	16,412	16,279

The following tables illustrate summarized financial information of subsidiaries, in which there are significant non-controlling interests as at December 31, 2021 and for the year then ended:

In millions of tenge	NC KazMunayGas JSC	Kazatomprom NAC JSC	Kazakhtelecom JSC	KEGOC JSC	Air Astana JSC
Summarized statement of financial position					
Non-current assets	10,545,725	1,179,748	927,854	439,045	330,035
Current assets	3,106,536	771,756	306,731	73,397	145,892
Non-current liabilities	4,121,296	255,581	403,493	194,250	290,765
Current liabilities	1,372,284	158,822	186,915	45,684	157,538
Total equity	8,158,681	1,537,101	644,177	272,508	27,624
Attributable to:					
Equity holder of the Parent	7,457,808	892,382	299,880	245,257	14,088
Non-controlling interests	700,873	644,719	344,297	27,251	13,536
Summarized statement of comprehensive income					
Revenue	6,546,903	691,011	581,495	186,443	321,139
Profit/(loss) for the year	1,197,340	220,026	97,444	75,494	15,486
Other comprehensive income	130,652	268	(6,304)	–	4,390
Total comprehensive income for the year, net of tax	1,327,992	220,294	91,140	75,494	19,876
Attributable to:					
Equity holder of the Parent	1,344,408	141,043	84,456	75,494	19,876
Non-controlling interests	(16,416)	79,251	6,684	–	–
Dividends declared to non-controlling interests	(10,980)	(63,668)	(13,711)	(4,152)	–
Summarised cash flow information					
Operating activity	618,090	118,729	237,180	83,869	96,954
Investing activity	(528,287)	(71,241)	(90,106)	(62,321)	(5,294)
Financing activity	(282,533)	(1,843)	(26,591)	(31,346)	(80,399)
Net (decrease)/increase in cash and cash equivalents	(192,730)	45,645	120,483	(9,798)	11,261

18.7 Currency translation reserve

The currency translation reserve is used to record exchange differences arising from the translation of financial statements of the subsidiaries, whose functional currency is not tenge and whose financial statements are included in the consolidated financial statements. In 2022 foreign translation difference amounted to 747,358 million tenge (2021: 245,256 million tenge).

Certain borrowings of the Group denominated in US dollars were designated as hedge instrument for the net investment in the foreign operations. As at December 31, 2022 unrealized foreign currency loss of 224,708 million tenge resulting from translation of these borrowings were transferred to currency translation reserve recognized in other comprehensive income (2021: loss of 93,367 million tenge).

18.8 Hedge reserve

NC KTZh

On August 7, 2015, the Group hedged cash flows to reduce the risk of changes in tenge equivalent revenue denominated in Swiss Francs. The principal from Eurobonds issued on June 20, 2014 on the Swiss stock exchange and maturing on June 20, 2022 is used as hedging instrument, which is separately identifiable and reliably estimated. A highly probable revenue stream forecast relating to transit transportation in Swiss Francs, in particular, first sales received in the period from January 1 to June 20, 2022, is the hedged item in this hedging relationship.

As at December 31, 2022, hedge accounting was discontinued due to the receipt of revenue from freight transportation in international (transit) route, which is the hedge item, accordingly, the cumulative deferred loss attributable to this hedging instrument was reclassified from other comprehensive loss to revenue from freight transportation in the amount of 54,442 million tenge.

For the year ended December 31, 2022, the effective portion of 2,445 million tenge was allocated to the hedging reserve in other comprehensive income in the form of a net loss on the hedging instrument (2021: 823 million tenge in the form of net profit).

Air Astana JSC

In 2015 Air Astana JSC entered into a cash flow hedge with finance lease obligations denominated in US dollars, to reduce the risk of changes in sales revenue expressed in US dollars. In connection with the transition of the functional currency to US dollar, this hedge ceased to be economically effective from December 31, 2017.

As a result of the change, the hedge relationship has been discontinued so that starting from January 1, 2018 no further foreign currency translation gains or losses are transferred from profit or loss to hedge reserve, and the hedge reserve recognized in equity as at December 31, 2022 shall remain in equity until the forecasted revenue cash flows are received.

During 2022 amount reclassified from the hedging reserve to foreign exchange loss from inception of the hedge was 5,687 million tenge before tax of 1,137 million tenge (2021: 5,010 million tenge before tax of 1,002 million tenge). Hedge income attributable to non-controlling interests comprised 2,787 million tenge (2021: 2,455 million tenge).

NC KMG

The Group buys crude oil from the market, refines it and later sells the finished products (e.g.: gasoline, diesel, jet fuel etc.). Throughout a given period, the volatility associated with the oil market, both in crudes and in finished products, is transmitted to the Group's refinery margin (difference between the purchase price of crude oil and the selling price of finished products). To reduce this volatility, the Group hedges the margin with a swap on a hedged basket as relevant for the period.

For the year ended December 31, 2022, the effective part of 11,872 million tenge was recorded in the cash flow hedging reserve through other comprehensive income as net fair value loss on cash flow hedging instruments (for the year ended December 31, 2021: 10,055 million tenge as net fair value gain on cash flow hedging instruments).

18.9 Other capital reserves

Other capital reserves include mainly remuneration of employees for the services rendered in the form of share-based payments with equity instruments of a subsidiary in which they are employed. The cost of equity-settled remunerations is recognized, together with a corresponding increase in other capital reserves, over the period in which performance and/or service conditions are fulfilled, ending on the date on which the relevant employees become fully entitled to the award.

18.10 Book value per share

In accordance with the decision of the Exchange Board of Kazakhstan Stock Exchange JSC ("KASE") dated October 4, 2010 financial statements shall disclose book value per share (common and preferred) as of the reporting date, calculated in accordance with the KASE rules.

In millions of tenge	2022	2021
Total assets	33,574,995	30,309,758
Less: intangible assets	(1,945,362)	(2,004,032)
Less: total liabilities	(13,831,334)	(13,136,666)
Net assets for common shares	17,798,299	15,169,060
Number of common shares as at December 31	3,481,961,409	3,481,961,408
Book value per common share, tenge	5,112	4,356
Earnings per share		
Weighted average number of common shares for basic and diluted earnings per share	3,481,961,408	3,481,960,762
Basic and diluted share in net profit for the period	680.33	548.07

* Presentation of book value per common share is a non-IFRS measure required by KASE.

19. Borrowings

As at December 31 borrowings, including interest payable, comprised the following:

In millions of tenge	2022	Weighted average effective rate	2021	Weighted average effective rate
Fixed interest rate borrowings	5,517,313		6,599,170	
Loans received	1,041,195	11.12%	1,804,252	13.41%
Debt securities issued	4,476,118	6.70%	4,794,918	8.56%
Floating interest rate borrowings	1,150,362		1,263,522	
Loans received	900,560	9.85%	1,159,936	10.79%
Debt securities issued	249,802	15.63%	103,586	9.79%
	6,667,675		7,862,692	
Less: amounts due for settlement within 12 months	(1,267,512)		(954,209)	
Amounts due for settlement after 12 months	5,400,163		6,908,483	
	6,667,675		7,862,692	

In millions of tenge	2022	2021
US dollar-denominated borrowings	3,859,503	5,037,496
Tenge-denominated borrowings	2,162,421	1,896,980
Other currency-denominated borrowings	645,751	928,216
	6,667,675	7,862,692

As at December 31, the bonds comprised:

In millions of tenge	Issuance amount	Redemption date	Effective interest rate	December 31, 2022	December 31, 2021
Bonds					
Bonds LSE 2018	1.5 billion USD	2048	6.375%	681,014	639,046
Bonds LSE 2018	1.25 billion USD	2030	5.375%	571,508	535,795
Bonds LSE 2017	1.25 billion USD	2047	5.75%	561,160	522,827
Bonds LSE 2017	1 billion USD	2027	4.75%	460,655	428,552
Bonds LSE 2020	750 million USD	2033	3.50%	340,415	317,667
Bonds LSE 2017	750 million USD	2027	4.375%	328,757	307,808
Bonds KASE 2019	0.3 billion KZT	2034	11.50%	308,433	308,433
Bonds LSE 2018	500 million USD	2025	4.75%	232,586	216,760
Bonds LSE 2021	500 million USD	2026	2.36%	229,241	213,291
Bonds LSE 2022	118.9 billion KZT	2024	TONIA Compounded 6M + 3% margin	128,216	–
Bonds KASE 2020	129 billion tenge	2023	10.90%	100,041	100,041
Bonds SIX Swiss Exchange 2018	170 million Swiss Francs	2023	3.25%	84,925	79,713
Bonds KASE 2019	70 billion KZT	2024	4%	84,161	78,503
Bonds KASE 2019	80 billion KZT	2026	11.86%	80,244	80,226
Bonds KASE 2018	75 billion KZT	2024	9.25%	76,831	76,831
Bonds KASE 2016	50 billion KZT	2026	Inflation rate + 2.52%	53,750	53,376
Bonds KASE 2016	47.5 billion KZT	2031	14.9%	51,630	50,209
Bonds LSE 2012	1,100 million USD	2042	6.95%	–	396,207
Bonds SIX Swiss Exchange 2014	185 million Swiss Francs	2022	3.638%	–	89,208
Bonds MOEX 2017	15 billion Russian roubles	2022	8.75%	–	86,832
Other	–			4,725,920	4,898,504
Total				4,725,920	4,898,504

Loans received

In January 2022, the Group made early full repayment of the loan from Eximbank for 604 million US dollars (equivalent to 259,459 million tenge), including accrued interest. For the repayment was used the cash reserved in November 2021 (Note 13).

In 2012, the Group paid an insurance premium to China Export & Credit Insurance Corporation in the amount of 85 million USD (equivalent to 12,820 million tenge) under a loan Agreement with Eximbank. In connection with the early repayment of the loan, China Export & Credit Insurance Corporation returned the part of the insurance premium in December 2022 in the amount of 16 million USD (equivalent to 7,370 million tenge).

In March 2022, the Group's management made a decision to early repay the principal debt of loans from VTB Bank PJSC and Sberbank SB JSC in the amount of 19,400 million Russian Roubles (equivalent to 93,681 million tenge) and 5,064 million tenge, respectively. In March 2022, the Group made an early repayment of principal and accrued interest on these loans.

In 2022, the Group partially redeemed Syndicated loan (Unicredit Tiriak Bank, ING Bank, BCR, Raiffeisen Bank) used to finance its working capital for the total amount of 191 million US dollars (equivalent to 88,258 million tenge).

In 2022, the Group, under the credit line Agreement with Halyk Bank of Kazakhstan JSC, concluded on 26 February 2015, received 118,000 million tenge with an interest rate of 14.5% to 16% and a maturity of up to 6 months. The Group has made full/partial early repayment of loans received in the total amount of 113,500 million tenge.

In 2022, the Group, concluded on October 22, 2022, received 82,310 million tenge. Interest is repaid quarterly at the interest rate of "base rate of the National Bank of the Republic of Kazakhstan + 2% margin". Principal is repayable in semi-annual installments until full repayment in 2032.

In 2022, the Group, under the credit line Agreement with Halyk Bank of Kazakhstan JSC, concluded on October 20, 2022, received 58,266 million tenge. Interest is repaid quarterly at the interest rate of "base rate of the National Bank of the Republic of Kazakhstan + 2% margin". Principal is repayable in semi-annual installments until full repayment in 2029.

Debt securities issued

In October-November 2022, the Group, made an early repayment of 2012 Eurobonds with a total nominal volume of 1,100 million US Dollars (residual balance of 882,978 thousand US Dollars after partial early repayment in 2020). The total repayment amount was 901,899 thousand US Dollars (equivalent to 419,998 million tenge), including interest accrued of 18,921 thousand US Dollars (equivalent to 8,839 million tenge). As a result of the repayment of the Eurobonds, the Group recognised the non-amortised portion of the transaction costs in the amount of 440 million tenge and the premium in the amount of 16,890 million tenge in finance costs and finance income, respectively.

The increase in carrying value of bonds in 2022, also is due to the effect of the foreign currency exchange rate on bonds placed at the London Stock Exchange (further LSE) and denominated in US dollars for 206,094 million tenge.

On July 22, 2022, the Group, replenished working capital by issuing bonds on Kazakhstan Stock Exchange in the amount of 118,945 million tenge with coupon rate TONIA Compounded 6M+3% margin and maturity date of July 22, 2024. The coupon is paid twice a year.

In June 2022, the Group redeemed the 2014 Eurobonds with a total par value of 185,000 thousand CHF. The amount of the payment was 83,437 million tenge.

State subsidy of the interest rate

In May 2020, the Group, entered into an agreement with the Transport Committee of the Ministry of Industry and Infrastructure Development of Kazakhstan to subsidise a part of the coupon rate in the amount of 307,194 million tenge for bonds issued in 2019 at a coupon rate of 11.5% per annum and used for the early repayment of 2017 Eurobonds in the amount of 780,000 thousand US Dollars, which in turn were attracted and utilised for infrastructure modernisation, updating locomotives and freight cars. The agreement stipulates that the amount of subsidy should be provided for under the Republican budget program "Subsidising the coupon rate on the carrier's Bonds issued for the development of the main railway network and rolling stock of railway transport" (hereinafter – "the Program"). Since the Program is available to all transportation companies that have the status of a "carrier" in accordance with the Law on Railway Transport, the Group's management accounts for the financing under this Program as a government grant recognised within finance income.

During 2022, the Group recognised income from government subsidies under the Program in the amount of 29,183 million tenge as a part of finance income (Note 31).

Covenants

Under the terms of some loan agreements, respective subsidiaries of the Group are obliged to comply with certain covenants. The Group reviews compliance with all the Group loan covenants at each reporting date.

Loan received from Halyk Bank of Kazakhstan JSC

In March 2022, the Group represented by its subsidiary JV Alaigyr LLP entered into a loan agreement with Halyk Bank of Kazakhstan JSC for a total amount of 56,000 thousand US dollars. According to the terms of the loan agreement, in 2022, the Group paid a commission for the provision of a loan in the amount of 560 thousand US dollars (equivalent to 277 million tenge). This commission is part of the effective interest rate and is subject to amortization during the term of the loan agreement. Repayment of interest and principal on the credit line is made monthly, while the principal debt is paid starting from 2024.

JV Alaigyr LLP has certain financial and non-financial covenants in accordance with the terms of the loan agreement. In accordance with the terms of the covenants, among other conditions, the lender has the right to demand repayment of loans in advance. As of December 31, 2022, the JV Alaigyr LLP did not comply with the covenant on maintaining the debt-equity ratio and reclassified long-term loans into short-term loans. The JV Alaigyr LLP notified the lender of the violation and, as of the date of these statements, did not receive a waiver letter from the fulfillment of financial covenants.

As collateral for the loan agreement, JV Alaigyr LLP pledged to Halyk Bank of Kazakhstan JSC for a period corresponding to the term of the loan agreement the right of subsurface use under Contract #4187 for the extraction of polymetallic ores in the Karaganda region at the Alaigyr deposit.

In 2022, JV Alaigyr LLP received tranches in total amount of 46,161 thousand US dollars (equivalent to 21,897 million tenge) net of commission actually received 45,601 thousand US dollars (equivalent to 21,620 million tenge).

During 2022, JV Alaigyr LLP paid interest in the amount of 1,865 thousand US dollars (equivalent to 863 million tenge).

On February 10, 2023, the JV Alaigyr LLP received a letter from the Bank stating that there were no violations and unfulfilled obligations under the covenants as at December 31, 2022. Since the letter was received after the reporting date, the long-term part of the loans was classified as short-term. Due to the fact that the letter confirms the absence of violations and non-fulfillment of the JV Alaigyr LLP's obligations under the covenants after the reporting date and considering that repayments on the principal debt under the loan agreement begin in 2024, the Group plans to classify loan obligations with the Bank into short-term and long-term starting from February 10, 2023.

Loan received from Bank VTB PJSC»

Within the framework of the credit agreement with Bank VTB PJSC, which stipulates compliance with specific financial covenants, such as net debt to EBITDA, interest coverage ratios and coverage ratios (including (a) ratio of total debtors' EBITDA to the Group EBITDA; (b) ratio of total debtors' revenue to the NC KTZ Group revenue; (c) the ratio of the total carrying amount of debtors' assets to the carrying amount of the NC KTZ Group assets) calculated on the basis of consolidated NC KTZ Group data, starting from December 31, 2021 and quarterly thereafter. As at December 31, 2021, these financial covenants had been met.

At the same time, on December 30, 2021, the Group received a waiver from Bank VTB PJSC waiving the right to consider as a breach the non-compliance with cross-default and insolvency terms of the loan agreement, if the value of the assets of any Group entity is less than its liabilities (taking into account contingent and prospective liabilities).

Loans received from Eurasian Development Bank

On December 30, 2016 the Group, represented by its subsidiary JV Alaigyr LLP, received a credit line for a period of 7 years from the EDB in the amount of 56 million US dollars for the construction of a mining and processing plant with interest repayment every six months and repayment of the principal amount of the loan at the maturity of loan agreement.

In accordance with the signed agreement, JV Alaigyr LLP must comply with the loan requirements for compliance with certain financial and non-financial covenants. As at December 31, 2021 and 2020, JV Alaigyr LLP did not comply with these covenants. The Group notified in 2020 about the non-fulfillment of the covenants and received a waiver letter from compliance with these covenants as at December 31, 2021 and 2020 and not to send the Group a claim for call of loan. The EDB resumed issuing new tranches on the credit line.

As of December 31, 2022 and as of December 31, 2021 the Group complied with all financial and non-financial covenants under loan agreements, except those mentioned above.

As at December 31 the carrying amount of borrowings of the Fund and the Group subsidiaries is presented below:

In millions of tenge	2022	2021
NC KMG and its subsidiaries	3,708,949	3,700,776
NC KTZh and its subsidiaries	1,098,347	1,448,443
The Fund	519,370	578,552
Qazaq Gaz and its subsidiaries	492,188	484,709
Kazakhtelecom and its subsidiaries	205,305	237,916
Samruk-Energy and its subsidiaries	190,790	223,755
KEGOC and its subsidiaries	156,352	171,199
NAC KAP and its subsidiaries	138,270	89,017
EGRES-2	97,834	99,678
National Mining Company "Tau-Ken Samruk" and subsidiaries	52,319	21,201
Kazakhstan Petrochemical Industries Inc.	-	756,605
Other subsidiaries of the Fund	7,951	50,841
Total borrowings	6,667,675	7,862,692

Changes in borrowings are as follows:

In millions of tenge	2022	2021
Balance as at January 1	7,862,692	7,459,200
Received by cash	1,178,196	1,462,347
Interest accrued	487,882	448,533
Discount	(332)	(8,486)
Interest capitalized (Note 7)	74,087	48,624
Interest paid	(540,453)	(505,303)
Repayment of principal	(1,618,601)	(1,170,506)
Purchase of property plant and equipment financed by borrowings	5,706	27,705
Transfer to assets classified as held for sale or distribution to the Shareholder (Note 6)	(941,587)	-
Amortization of discount	17,347	18,320
Return of insurance premium in cash	7,370	-
Repayment of principal and interest by reserved cash	(259,459)	(32,799)
Foreign currency translation	406,629	120,106
Other	(11,802)	(5,049)
Balance as at December 31	6,667,675	7,862,692

20. Loans from the government of the Republic of Kazakhstan

As at December 31 loans from the Government of the Republic of Kazakhstan comprised the following::

In millions of tenge	Redemption date	Effective interest rate	2022	2021
Bonds acquired by the National Bank of the Republic of Kazakhstan using the assets of the National Fund	2035-2063	5.56-13.99%	672,208	558,982
Loans from the Government of the Republic of Kazakhstan	2029-2046	5.15-9.6%	11,396	20,387
			683,604	579,369
Less: amounts due for settlement within 12 months			(3,760)	(10,264)
Amounts due for settlement after 12 months			679,844	569,105

The change in loans from the Government of the Republic of Kazakhstan are represented as follows:

In millions of tenge	2022	2021
Balance as at 1 January	579,369	593,221
Received by cash	162,859	–
Interest accrued	17,364	17,445
Discount	(68,684)	278
Interest paid*	(17,448)	(17,530)
Repayment of principal	(10,776)	(34,454)
Amortisation of discount	20,920	20,409
Balance as at 31 December	683,604	579,369

* Cash repayments of certain borrowings obtained by the Fund are included within cash flows from operating activities because these borrowings are part of the Fund's main activity of assets management.

Bonds acquired by the National Bank of the Republic of Kazakhstan

In February 2022, in accordance with the corporate decisions made by the Fund and with the edition of the Rules on proceeds to the National Fund of the Republic of Kazakhstan from transfer of assets of national managing holdings, national holdings, national companies and their subsidiaries, affiliates and other legal entities affiliated with them to the competitive environment approved by the Resolution of the Government of the Republic of Kazakhstan No. 323 dated 4 June 2018, effective on the redemption date, the Fund made a partial early redemption of bonds at par value in the amount of 137 million tenge which was carried out within the eleventh bond issue of the Fund purchased by the National Bank of the Republic of Kazakhstan (2021: 558 million tenge). In this regard, the Fund recognized amortization of discount on loans from the Government in the amount of 78 million tenge in the consolidated statement of changes in equity (2021: 278 million tenge) (Note 18).

In December 2022, Fund's bonds issue in the amount of 542,863 million tenge with an annual coupon of 7.37% per annum was registered. On December 30, 2022, the Fund's bonds were placed in the amount of 162,859 million tenge. The bonds were purchased by the National Bank of the Republic of Kazakhstan at the expense of the National Fund. The funds received from the sale of these bonds were used to provide a loan to NC KTZ in order to finance the construction of the second tracks of the Dostyk-Moiynty railway section with a total length of 836 km, aimed at increasing the transit and export potential of the country. The fair value of consideration received was 94,097 million tenge. The difference between nominal and fair value of the bond in the amount of 68,762 million tenge was recognized as a discount on loan from the government in a consolidated statement of changes in equity (Note 18)

21. Provisions

As at December 31 provisions comprised the following:

In millions of tenge	Asset retirement obligations	Provision for environmental remediation	Provision for taxes	Provision for aircraft maintenance	Other	Total
Provision at January 1, 2021	306,100	68,679	10,435	34,965	47,722	467,901
Foreign currency translation	3,082	1,087	118	1,194	940	6,421
Change in estimate	20,317	(4,494)	-	(227)	(327)	15,269
Unwinding of discount	17,728	4,021	-	-	180	21,929
Provision for the year	1,041	5,678	5,138	26,127	9,016	47,000
Use of provision	(519)	(6,776)	(1,834)	(7,149)	(9,402)	(25,680)
Reversal of unused amounts	(1,329)	(1)	(748)	-	(1,908)	(3,986)
Other changes	-	-	4,618	-	9,270	13,888
Provision at December 31, 2021	346,420	68,194	17,727	54,910	55,491	542,742
Foreign currency translation	9,164	3,286	238	4,030	2,928	19,646
Change in estimate	(162,695)	4,514	(3,169)	(947)	2,644	(159,653)
Unwinding of discount	21,440	5,892	-	-	224	27,556
Provision for the year	60,973	12,084	3,740	38,146	48,828	163,771
Use of provision	(161)	(5,594)	(2,937)	(8,402)	(12,021)	(29,115)
Reversal of unused amounts	(61)	(392)	(1,327)	-	(855)	(2,635)
Provision at December 31, 2022	275,080	87,984	14,272	87,737	97,239	562,312

Current portion and non-current portion of provisions are presented as follows:

In millions of tenge	Asset retirement obligations	Provision for environmental remediation	Provision for taxes	Provision for aircraft maintenance	Other	Total
	4,844	7,683	17,727	17,579	52,515	100,348
Current portion	4,844	7,683	17,727	17,579	52,515	100,348
Non-current portion	341,576	60,511	-	37,331	2,976	442,394
Provision at December 31, 2021	346,420	68,194	17,727	54,910	55,491	542,742
Current portion	8,795	10,829	14,272	33,165	88,040	155,101
Non-current portion	266,285	77,155	-	54,572	9,199	407,211
Provision at December 31, 2022	275,080	87,984	14,272	87,737	97,239	562,312

The Group has completed the analysis of changes in the Environmental Code and, based on the results, recognized the additional asset retirement obligations amount of 56,695 million tenge as of December 31, 2022.

22. Lease liabilities

The Group has leases for various items of property, plant and equipment, mainly aircraft.

From 2012 to 2014, Air Astana JSC (further - Air Astana), a subsidiary of the Group, acquired 10 (ten) aircraft on a fixed-rate lease basis with a transfer of ownership at the end of the lease term. The lease term for each aircraft is 12 (twelve) years. Air Astana has the option of purchasing each aircraft at a nominal price at the end of the lease term. Most aircraft leases are for eight years with no option to purchase at the end of the lease term.

Loans provided by financial institutions to the lessor in respect of 5 (five) new Airbus were guaranteed by European Export Credit Agencies, 3 (three) Boeing 767 aircraft were guaranteed by US Export Import Bank.

Air Astana pledged the leased assets with carrying amount of 330,418 million tenge to secure lease liabilities (December 31, 2021: 279,848 million tenge).

The Group's leases are subject to certain covenants. These covenants impose restrictions in respect of certain transactions, including, but not limited to restrictions in respect of indebtedness. These requirements have been met during 2022 and 2021.

As at December 31, 2022 interest calculation was based on effective interest rates ranging from 8% to 17.3% (December 31, 2021: from 4.01% to 15.62%).

As at December 31 future minimum lease payments under leases together with the present value of the net minimum lease payments comprised the following:

In millions of tenge	Minimum lease payments		Present value of minimum lease payments	
	2022	2021	2022	2021
Within one year	176,622	153,253	138,192	129,676
Two to five years inclusive	474,013	352,881	361,654	275,509
After five years	197,364	178,637	121,314	104,476
	847,999	684,771	621,160	509,661
Less: amounts representing finance costs	(226,839)	(175,110)		-
Present value of minimum lease payments	621,160	509,661	621,160	509,661
Less: amounts due for settlement within 12 months			(138,192)	(129,676)
Amounts due for settlement after 12 months			482,968	379,985

The Air Astana lease obligations are denominated in US dollars.

Changes in lease liabilities are as follows:

In millions of tenge	2022	2021
Balance as at January 1	509,661	515,319
Interest paid	(48,040)	(33,999)
Repayment of principal	(153,822)	(121,314)
Interest accrued (Note 30)	53,565	37,903
Foreign currency translation	23,279	7,853
Additions of leases	230,622	119,229
Lease agreement termination	(7,856)	(12,588)
Other	13,751	(2,742)
Balance as at December 31	621,160	509,661

23. Other non-current liabilities

As at December 31 other current liabilities comprised the following:

In millions of tenge	2022	2021
Other financial liabilities		
Obligations under guarantee agreements	33,924	36,527
Accounts payable	10,440	11,139
Historical costs associated with obtaining subsoil use rights	7,741	10,891
Other	14,514	16,016
Other non-financial liabilities		
Contract liabilities to customers	56,578	52,404
Advances received and deferred income	30,290	27,872
Government grant liability	20,690	14,596
Liabilities under inventory loan agreements	–	13,461
Other	4,503	4,937
	178,680	187,843

Liabilities under inventory loan agreements

In 2020 the Group obtained uranium under commodity loans totalling 21.9 million US Dollars. A liability was initially recognised to return inventory at a cost of 8,597 million tenge. This liability is subsequently remeasured in accordance with changes in market prices for these goods. As of 31 December 2022, the Group reclassified inventory loans from long-term to short-term, as the repayment period is up to May and June 2023. The Group intends to extend the repayment period.

On 19 May 2022 the Group obtained a uranium loan totalling 113.5 million US Dollars from ANU Energy that was concluded under the Framework Agreement between the Group and Genchi Global Limited (Note 13). A liability was initially recognised to return inventory at a cost of 49,089 million tenge and subsequently measured at fair value in accordance with changes in market prices for these goods and foreign exchange rates – the revaluation loss for the year ended December 31, 2022 amounted to 4,712 million tenge. On December 20 the Group returned the inventory, the fair value of which amounted to 53,802 million tenge on the date of return, which was greater than the cost of inventory returned for 8,251 million tenge.

Losses from revaluation of uranium loans to fair value as well as net gain from disposal of the loan returned to ANU Energy are recognised in profit and loss and presented as other loss.

Uranium loans are part of the Group's normal inventory management policy, required to mitigate logistical risks that could affect the timely delivery of Kazakhstan uranium to Western conversion enterprises due to the current unstable geopolitical situation.

Government grant liability

In 2021 the Government of the Republic of Kazakhstan approved the changes to the Rules for the assignment of frequency bands, radio frequencies, operation of radio-electronic means and high-frequency devices ("the Rules"), based on which the Group is eligible for government grants in form of 90% reduction in the annual fee for use of radio frequencies from January 1, 2020 till January 1, 2025. The government grants are subject to conditions, namely financing of the projects related to broadband internet in rural and urban areas. If the financing of the projects related to broadband internet is lower than the amount of the tax incentive received, the Group should pay the annual fee equal for use of radio frequencies to the amount of unfulfilled obligations to the authorities.

The funds released as a result of reduction in the annual fee for use of radio frequencies for 2021 and 2022 in the amount of 13,571 million tenge and 14,391 million tenge, respectively, were used by the Group for the purchase and construction of certain items of property and equipment (mainly base stations). Government grants related to assets are recognized as deferred income that is recognised in profit or loss on a systematic basis over the useful life of the asset. As of December 31, 2021 the balance of government grants was equal to 26,858 million tenge, and part of the government grants released to the profit and loss over the period necessary to match the related depreciation charges equal to 6,332 million tenge.

24. Trade and other payables, and other current liabilities

As at December 31 trade accounts payable comprised the following:

In millions of tenge	2022	2021
Trade accounts payable	892,690	937,027
Accounts payable for the supply of property, plant and equipment	198,983	164,985
Other accounts payable	34,305	16,043
	1,125,978	1,118,055

As at December 31, trade accounts payable were expressed in the following currencies:

In millions of tenge	2022	2021
Tenge-denominated trade accounts payable	406,353	441,996
US dollar-denominated trade accounts payable	350,261	394,706
Other currency-denominated trade accounts payable	136,076	100,325
	892,690	937,027

As at December 31 other current liabilities comprised the following:

In millions of tenge	2022	2021
Other financial liabilities		
Obligations to the Shareholder on the financing of social projects	127,276	52,755
Due to employees	49,738	32,139
Amounts due to customers	46,208	39,980
Payable under repo transactions	20,469	11,464
Historical costs associated with obtaining subsoil use rights	3,453	2,680
Dividends payable	2,797	814
Obligations under guarantee agreements	1,608	3,929
Other	51,996	27,927
Other non-financial liabilities		
Contract liabilities to customers	313,070	297,865
Other taxes payable	212,990	188,831
Vacation and other employee benefits allowance	132,064	105,774
Advances received and deferred income	29,969	14,523
Pension and social contributions liabilities	27,530	21,834
Liabilities under inventory loan agreements	19,147	99
Government grant liability	6,167	4,246
Amounts due under uranium swap contracts	4,709	15,355
Joint operations liabilities	4,569	4,569
Other	19,798	20,701
	1,073,558	845,485

Joint operations liabilities

Joint operations liabilities represent obligations of the Group under the terms of the joint operations contractual agreements that require equal volumes of uranium to be purchased during the period by the participants. In 2022 the Group did not purchase the required volume.

Payable under repo transactions

During 2022, the Group entered into direct repurchase agreements with counterparties on KASE. These agreements relate to treasury bills of the Ministry of Finance of the Republic of Kazakhstan, bonds of Development Bank of Kazakhstan JSC and notes of the National Bank of the Republic of Kazakhstan with a carrying value of 20,469 million tenge as at December 31, 2022 (December 31, 2021: 11,464 million tenge).

Liabilities on financing of other social projects

In 2022, based on the resolutions of the Shareholder, the Fund recognized obligations on financing of various social projects in the total amount of 202,445 million tenge (2021: 65,497 million tenge) (Note 18).

Actual amount of cash paid during 2022 totaled to 129,806 million tenge (2021: 67,033 million tenge).

25. Revenue

Revenue comprised the following for the years ended December 31:

In millions of tenge	2022	2021
Revenue from contracts with customers:		
Sales of crude oil	4,585,784	3,703,666
Sales of oil refined products	3,251,802	2,026,587
Railway cargo transportation	1,286,854	1,191,187
Sales of uranium products	964,390	666,944
Sales of refined gold	943,458	718,828
Sales of gas products	895,318	762,571
Telecommunication services	619,869	579,528
Air transportation	492,231	331,840
Electricity complex	368,650	344,980
Oil and gas transportation fee	296,445	323,103
Oil processing fees	204,390	202,527
Electricity transmission services	183,646	314,056
Railway passenger transportation	91,365	58,636
Postal services	45,920	43,198
Other revenue	467,792	369,070
	14,697,914	11,636,721
Interest revenue	47,845	47,393
Rental income	39,525	25,544
	14,785,284	11,709,658

In millions of tenge	2022	2021
Geographical markets		
Kazakhstan	5,479,959	4,747,372
Other countries	9,305,325	6,962,286
	14,785,284	11,709,658

26. Cost of sales

Cost of sales comprised the following for the years ended December 31:

In millions of tenge	2022	2021
Materials and supplies	6,602,943	5,010,551
Personnel costs, including social taxes and withdrawals	1,360,723	1,008,765
Depreciation, depletion and amortization	1,015,508	1,000,869
Fuel and energy	549,336	447,310
Repair and maintenance	345,570	287,066
Production services rendered	339,266	264,925
Mineral extraction tax	192,590	145,116
Taxes other than social taxes and withdrawals	176,329	117,540
Rent	92,957	40,954
Interest expense	58,710	58,337
Communication services	48,614	49,183
Transportation expenses	44,718	117,206
Security services	31,366	25,293
Other	422,895	220,942
	11,281,525	8,794,057

27. General and administrative expenses

General and administrative expenses comprised the following for the years ended December 31:

In millions of tenge	2022	2021
Personnel costs, including social taxes and withdrawals	246,745	215,732
Depreciation and amortization	36,658	44,133
Audit and consulting services	31,437	32,874
Taxes other than social taxes and withdrawals	30,537	29,710
Other services by third parties	20,869	18,826
Repair and maintenance	8,485	8,558
Sponsorship and charitable donations	7,523	9,216
Fines and penalties	7,022	2,351
Business trips	6,468	4,213
Rent	5,315	4,682
Utilities expenses and maintenance of buildings	4,392	3,765
Professional education and advanced trainings	3,618	2,358
Communication services	3,424	2,847
Transportation services	2,781	2,322
Bank services	2,445	2,178
Other	64,763	59,854
	482,482	443,619

28. Transportation and selling expenses

Transportation and selling expenses comprised the following for the years ended December 31:

In millions of tenge	2022	2021
Transportation	448,378	398,890
Rent tax	215,765	129,056
Custom duties	134,249	109,151
Personnel costs, including social taxes and withdrawals	23,918	17,699
Commission fees to agents and advertising	23,063	18,179
Depreciation and amortization	20,330	18,445
Rent expenses	7,112	6,286
Other	34,054	30,625
	906,869	728,331

29. Impairment loss

Impairment loss comprised the following for the years ended December 31:

In millions of tenge	2022	2021
Impairment of property, plant and equipment, exploration and evaluation assets and intangible assets (Notes 7, 8, 9)	55,533	122,378
Impairment of assets held for sale	14,401	4,872
Impairment of investments in joint ventures and associates (Note 10)	660	5,921
(Reversal)/impairment of VAT receivable, net	(476)	(4,602)
Other	1,564	2,746
	71,682	131,315

For the following non-current assets impairment losses were recognised for years ended:

In millions of tenge	2022	2021
Impairment and write-off expenses		
JV Alaigyr LLP (Note 4)	13,296	–
Gas turbine power plant and water treatment assets (KUS) (Note 4)	9,876	–
Southern Urikhtay project (Note 4)	8,895	–
Polymer Production LLP (Note 4)	7,096	–
Isatay project (Note 4)	3,172	–
Barys, Berkut, Beket Ata and Turkistan sea vessels (Note 4)	1,801	4,453
Zhambyl project	–	59,283
Almaty Electric Power Stations JSC CGU (Note 4)	–	20,737
Brownfields of KazMunayGas Exploration Production JSC	–	19,800
CGUs of KMGI (Note 4)	–	8,298
Other	11,397	9,807
	55,533	122,378

JV Alaigyr LLP

For the year ended December 31, 2022, the Group carried out an assessment of the value of the use of the net assets of JV Alaigyr LLP and recognised an impairment loss on non-financial assets of JV Alaigyr LLP in the amount of 13,296 million tenge.

Gas turbine power plant and water treatment (KUS) assets

The Group has analyzed whether there are indicators of impairment of property, plant and equipment as at 31 December 2022. As a result of management's assessment of the recoverable amount of non-current assets Group impairment was recognized in the amount of 14,077 million tenge, part of which in the amount of 9,876 million tenge was recognized in the consolidated statement of comprehensive loss and in the amount of 4,201 million tenge in the consolidated statement of changes in equity.

Assets of Polymer-Production

As a result of the assessment of the recoverable amount of Polymer-Production carried out by the management of Polymer-Production in the financial statements for the year ended December 31, 2022, the Group recognized an impairment charge of 7,096 million tenge.

Sea vessels

The recoverable amount of the sea vessels of Kazmortransflot LLP was determined on the basis of value-in-use method. Value-in-use was assessed as the present value of the future cash flows expected to be derived from the sea vessels until the end of the existing and probable contracts at the discount rate of 14.00% (2021: 10.70%). As a result of the test, the Group recognized an impairment loss of 1,801 million tenge for the year ended December 31, 2022, in regards of Barys, Turkistan and Beket Ata sea vessels (2021: 4,453 million tenge on Barys and Berkut sea vessels).

Exploration expenses

For the year ended December 31, 2022, the Group has recognized impairment of exploration and evaluation assets in the amount of 8,895 million tenge of Southern Urikhtau project, for which the contract territory was decided to be relinquished to the Government by the Group.

As at 31 December 2022, due to the expiration of the contract for combined exploration and production of hydrocarbons, the Group recognized impairment loss for exploration and evaluation assets for 6 sites and 3 fields of QazaqGas Exploration and Production LLP in the total amount of 5,893 million tenge.

Also, the Group recognized impairment of exploration and evaluation assets in the amount of 3,172 million tenge of Isatay project for which the NC KMG and the second partner, Isatay Operating Company LLP, decided to exit the project and relinquish the contract territory to the Government.

For the year ended December 31, 2021, the Group has recognized exploration expenses in the amount of 59,283 million tenge of Zhambyl project, the subsoil use contract for which was terminated and the contract territory was relinquished to the Government. Also, the Group partially reduced the contract area at Taisoigan site and, accordingly, wrote off exploration and evaluation expenses in the amount of 19,800 million tenge.

Almaty Electric Power Stations JSC CGU

In 2021 the Group performed impairment test of the assets of ALES. The Group has estimated the recoverable amount of property, plant and equipment of ALES based on value in use, which is the sum of the estimated discounted future cash flows that the Group expects to receive from their use. As a result of the test, the Group recognized an impairment loss on property, plant and equipment of 20,737 million tenge.

CGUs of KMGI

On July 2, 2021, an incident occurred at the Petromidia Refinery (further Petromidia), subsidiary of KMGI, that led to fire and resulted in temporarily interruption of the production until damaged facilities are repaired. KMGI conducted assessments to estimate the incident consequences and recognized impairment of property, plant and equipment of Petromidia for 1,615 million tenge. For the year ended December 31, 2021, based on the results of the property, plant and equipment physical inspection, KMGI recognized an impairment loss of property, plant and equipment for 6,683 million tenge. Based on the impairment analysis performed in 2022, no impairment of KMGI CGUs was identified.

30. Finance costs

Finance costs comprised the following for the years ended December 31:

In millions of tenge	2022	2021
Interest on loans and debt securities issued	497,667	446,272
Interest on lease liabilities (Note 22)	53,565	37,903
Revaluation loss on financial assets at fair value through profit/loss	39,796	10,791
Discount on provisions and other payables	27,979	22,517
Discount on assets at rates below market	5,471	2,687
Financial guarantees	1,512	721
Interest on oil supply agreement	–	3,885
Other	27,999	30,761
	653,989	555,537

31. Finance income

Finance income comprised the following for the years ended December 31:

In millions of tenge	2022	2021
Interest income on amounts due from credit institutions and cash and cash equivalents	175,427	76,876
Interest income from loans and financial assets	43,536	28,477
Revaluation gain on financial assets at fair value through profit/loss	38,400	42,419
Income from subsidized interest rates on financial liabilities	31,398	2,176
Income from written-off non-amortised portion of the premium on early repayment of bonds (Note 19)	16,890	–
Income from financial guarantees	8,096	14,839
Discount on liabilities at rates below market	805	119
Other	5,548	9,992
	320,100	174,898

Income from interest rate state subsidies on financial liabilities mainly represent income from partial coupon rate subsidies on bonds for the amount of 29,183 million tenge (Note 19).

32. Share in profit of joint ventures and associates, net

Share in profit/(loss) of joint ventures and associates comprised the following for the years ended December 31:

In millions of tenge	2022	2021
Joint ventures		
Tengizchevroil LLP	742,660	441,665
Asia Gas Pipeline LLP	276,653	253,554
Beineu Shymkent Gas Pipeline LLP	50,837	65,533
Mangistau Investments B.V.	48,486	80,154
Petrosun LLP (Note 5)	23,184	–
Valsera Holdings B.V.	21,009	11,868
Kazgermunay LLP	20,530	6,108
Kazakhstan – China Pipeline LLP	16,783	13,464
Ural Group Limited BVI	(11,470)	(11,060)
Other	39,158	48,452
Associates		
Caspian Pipeline Consortium JSC	117,763	90,904
JV KATCO LLP	47,593	29,278
JV South Mining Chemical Company LLP	18,528	14,334
Transtelecom JSC	(2,737)	1,294
Kazzinc LLP	(6,528)	66,996
Other	46,811	29,538
	1,449,260	1,142,082

33. Income tax expenses

Income tax expenses comprised the following for the years ended December 31:

In millions of tenge	2022	2021
Current income tax expenses		
Corporate income tax ("CIT")	454,437	328,309
Withholding tax on dividends and interest income	55,314	47,752
Excess profit tax	2,573	1,237
Deferred income tax expense/(benefit)		
Corporate income tax ("CIT")	145,224	148,782
Withholding tax on dividends and interest income	113,331	34,990
Excess profit tax	239	(34)
Income tax expenses	771,118	561,036

The Romanian government introduced a solidarity contribution on profits in the fossil fuel sector by Emergency Ordinance no. 186 issued on December 28, 2022. The solidarity contribution is payable by companies operating in the crude oil, natural gas, coal, and refinery sectors on taxable profits of 2022 and 2023 exceeding 120% of the average taxable profit of the preceding four years, 2018 to 2021, at a rate of 60%. If the average taxable profit related to the period 2018-2021 is negative, for the purpose of calculating the solidarity contribution, it is considered that the average taxable profit is equal to zero. As of December 31, 2022, KMGI recognized income tax in the amount of 124.9 million US dollars (equivalent to 57,584 million tenge).

A reconciliation of income tax expenses applicable to profit before income tax at the statutory income tax rate (20% in 2022 and 2021) to income tax expenses was as follows for the years ended December 31:

In millions of tenge	2022	2021
Accounting profit before income tax	3,140,002	2,469,393
Income tax expenses on accounting profit	628,000	493,879
Tax effect of other items, which are not deductible	101,881	75,821
Change in unrecognized deferred tax assets	(43,142)	(12,034)
Effect of different corporate income tax rates	89,756	46,818
Excess profit tax	2,812	1,203
Share in non-taxable profit of joint ventures and associates	(176,218)	(86,923)
Other differences	168,029	42,272
Total corporate income tax expenses	771,118	561,036

33. Income tax expenses (continued)

Deferred tax balances, calculated by applying the statutory tax rates effective at the respective reporting dates to the temporary differences between tax basis of assets and liabilities and the amounts reported in the consolidated financial statements, are comprised of the following at December 31:

In millions of tenge	2022		
	Corporate income tax	Excess profit tax	Withholding tax
Deferred tax assets			
Property, plant and equipment	33,252	-	-
Tax loss carryforward	826,477	-	-
Employee related accruals	25,710	-	-
Allowance for expected credit losses of financial assets	37,934	-	-
Provisions	82,713	-	-
Other accruals	126,307	-	-
Other	68,925	-	-
Less: unrecognized deferred tax assets	(597,317)	-	-
Less: deferred tax assets offset with deferred tax liabilities	(515,033)	-	-
Deferred tax assets	88,968		
Deferred tax liabilities			
Property, plant and equipment	1,455,874	597	-
Undistributed earnings of joint ventures and associates	-	-	615,747
Other	97,031	-	-
Less: deferred tax assets offset with deferred tax liabilities	(515,033)	-	-
Deferred tax liabilities	1,037,872	597	615,747
Net deferred tax liabilities	(948,904)	(597)	(615,747)

In millions of tenge	2022		
	Corporate income tax	Excess profit tax	Withholding tax
Balance at January 1	798,220	358	465,891
Foreign currency translation	14,127	-	36,525
Recognised to other comprehensive income	297	-	-
Recognised in equity	-	-	-
Transfer to assets classified as held for sale (Note 6)	(8,964)	-	-
Recognised to profit and loss	145,224	239	113,331
Balance at December 31	948,904	597	615,747

A deferred tax asset is recognized only to the extent that it is probable that future taxable profits will be available against which the asset can be utilized. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realized. Unrecognized deferred tax asset arising mainly from tax losses carry forward were equal to 597,317 million tenge as at December 31, 2022 (December 31, 2021: 640,459 million tenge).

Tax losses carryforwards as at December 31, 2022 in the Republic of Kazakhstan expire for tax purposes 10 (ten) years from the date they are incurred.

Total	2021			Total
	Corporate income tax	Excess profit tax	Withholding tax	
33,252	35,346	-	-	35,346
826,477	827,839	-	-	827,839
25,710	18,500	-	-	18,500
37,934	34,593	-	-	34,593
37,934	34,593	-	-	34,593
82,713	85,226	-	-	85,226
126,307	159,865	-	-	159,865
68,925	52,470	-	-	52,470
(597,317)	(640,459)	-	-	(640,459)
(515,033)	(504,232)	-	-	(504,232)
88,968	69,148	-	-	69,148
1,456,471	1,287,711	358	-	1,288,069
615,747	-	-	465,891	465,891
97,031	83,889	-	-	83,889
(515,033)	(504,232)	-	-	(504,232)
1,654,216	867,368	358	465,891	1,333,617
(1,565,248)	(798,220)	(358)	(465,891)	(1,264,469)

Total	2021			Total
	Corporate income tax	Excess profit tax	Withholding tax	
1,264,469	644,514	392	419,083	1,063,989
50,652	2,993	-	11,818	14,811
297	340	-	-	340
-	1,571	-	-	1,571
(8,964)	20	-	-	20
258,794	148,782	(34)	34,990	183,738
1,565,248	798,220	358	465,891	1,264,469

34. Consolidation

Subsidiaries included in the consolidated financial statements are presented as follows:

		Main activity	Country of incorporation	Ownership percentage	
				2022	2021
1	National Company "KazMunayGas" JSC ("NC KMG") and subsidiaries	Exploration, production, processing and transportation of oil and gas	Kazakhstan	87.42%	90.42%
2	National Company "QazaqGaz" JSC (former- National Company "KazTransGas" JSC) and subsidiaries	Exploration, production, transportation, sale and storage of natural gas and gas condensate	Kazakhstan	100.00%	100.00%
3	National Company "Kazakhstan Temir Zholy" JSC ("NC KTZh") and subsidiaries	Passenger and cargo transportation	Kazakhstan	100.00%	100.00%
4	National Atomic Company "Kazatomprom" JSC ("NAC KAP") and subsidiaries	Production and mining of uranium, rare metals	Kazakhstan	75.00%	75.00%
5	Samruk-Energy JSC ("Samruk-Energy") and subsidiaries	Electricity and heat production	Kazakhstan	100.00%	100.00%
6	Kazakhstan Electricity Grid Operating Company JSC ("KEGOC") and subsidiaries	Electricity transmission services	Kazakhstan	90.00% + 1	90.00% + 1
7	Kazpost JSC and subsidiaries	Postal and financial activities	Kazakhstan	100.00%	100.00%
8	Kazakhtelecom JSC ("KTC") and subsidiaries	Telecommunication services	Kazakhstan	52.03%	52.03%
9	Air Astana JSC ("Air Astana") and subsidiaries	Air transportation	Kazakhstan	51.00%	51.00%
10	Samruk-Kazyna Construction JSC and subsidiaries	Construction and real estate management	Kazakhstan	100.00%	100.00%
11	National Mining Company "Tau-Ken Samruk" and subsidiaries	Exploration, mining and processing of solid minerals	Kazakhstan	100.00%	100.00%
12	Samruk-Kazyna Ondeu LLP (former- United Chemical Company LLP) and subsidiaries	Development and implementation of projects in the chemical industry	Kazakhstan	100.00%	100.00%
13	Samruk-Kazyna Invest LLP and subsidiaries	Investments	Kazakhstan	100.00%	100.00%
14	Samruk-Kazyna Contract LLP	Procurement activities	Kazakhstan	100.00%	100.00%
15	Stantsiya Ekibastuzskaya GRES-2 JSC ("EGRES-2")	Power generation	Kazakhstan	100.00%	100.00%
16	SK Business Service LLP and subsidiaries	Transformation services, information and IT services	Kazakhstan	100.00%	100.00%
17	Qazaq Air JSC	Air transportation	Kazakhstan	100.00%	100.00%
18	Kazakhstan nuclear electric plants LLP	Servicing companies in the electricity sector	Kazakhstan	100.00%	100.00%
19	Kazakhstan Petrochemical Industries Inc. JSC	Production of oil-and-gas and petrochemical products	Kazakhstan	99%	99%
20	CCGT Turkistan LLP (former – "PVH Development" LLP)	Transmission, distribution and sale of electricity	Kazakhstan	100.00%	100.00%
21	Center for Scientific and Technological Initiatives "Samgau" Foundation (former – Private company "Center for Scientific and Technological Initiatives Ltd")	Institutional service for innovative technologies, other research and experimental developments in the natural and technical sciences	Kazakhstan	100.00%	–

35. Related party disclosures

In accordance with IAS 24 Related Party Disclosures, parties are considered to be related if one party has the ability to control the other party or exercise significant influence over the other party in making financial or operational decisions. In considering each possible related party relationship, attention is directed to the substance of the relationship, not merely the legal form. Related parties include key management personnel of the Group, enterprises in which a substantial interest in the voting power is owned, directly or indirectly, by the Group's key management personnel and other entities controlled by the Government. Related party transactions were made on terms agreed to between the parties that may not necessarily be at market rates, except for certain regulated services, which are provided based on the tariffs available to related and third parties. The Group recognizes allowances for ECL on amounts owed by related parties.

The following table provides the total amount of transactions, which have been entered into with related parties as at December 31:

In millions of tenge		Associates	Joint ventures	Other state-controlled entities
Trade and other accounts receivable	2022	6,546	63,217	47,290
	2021	6,189	28,732	35,262
Trade and other payables	2022	60,264	213,335	9,681
	2021	40,544	282,269	8,186
Sale of goods and services	2022	156,034	492,406	1,106,306
	2021	215,647	281,751	835,404
Purchase of goods and services	2022	266,454	2,669,338	108,703
	2021	206,969	1,816,227	37,443
Other income/(loss), net	2022	6,866	24,651	2,530
	2021	714	7,243	3,823
Cash and cash equivalents, and amounts due from credit institutions (assets)	2022	-	242	278,176
	2021	-	78	154,768
Loans issued	2022	10,947	117,605	7,952
	2021	14,169	300,929	14,100
Borrowings	2022	7,002	13,262	1,017,795
	2021	22,438	4	964,744
Other assets	2022	19,023	19,218	326,227
	2021	17,204	28,912	160,638
Lease and other liabilities	2022	26,483	189,399	59,078
	2021	41,258	59,415	54,610
Interest accrued due from related parties	2022	1,549	20,234	15,508
	2021	2,547	32,796	12,753
Interest accrued due to related parties	2022	2,752	18,636	78,658
	2021	4,529	5,258	79,655

As at December 31, 2022 some of the Group's borrowings of 16,026 million tenge were guaranteed by the Government of the Republic of Kazakhstan (December 31, 2021: 42,907 million tenge).

Total compensation to key management personnel (members of the Boards of Directors and Management boards of the Fund and its subsidiaries) included in general and administrative expenses in the consolidated statement of comprehensive income was equal to 6,637 million tenge for the year ended December 31, 2022 (December 31, 2021: 6,406 million tenge). Compensation to key management personnel mainly consists of contractual salary and other payments based on achievement of operating results.

36. Financial instruments and financial risk management objectives and policies

The Group's principal financial instruments consist of borrowings, loans from the Government of the Republic of Kazakhstan, lease liabilities, amounts due to the customers, derivatives, cash and cash equivalents, loans issued, amounts due from credit institutions, other financial assets, as well as accounts receivable and accounts payable. The main risks arising from the Group's financial instruments are interest rate risk, foreign currency risk and credit risk. The Group also monitors the liquidity risk arising from all financial instruments.

Interest rate risk

Interest rate risk is the risk that the value of a financial instrument will fluctuate due to changes in market interest rates. The Group limits interest rate risk by monitoring changes in interest rates in the currencies in which its cash, investments and borrowings are denominated.

The Group's exposure to interest risk relates primarily to the Group's long-term and short-term borrowings with variable interest rates (Note 19).

The following table demonstrates the sensitivity of the Group's profit before income tax (through the impact on variable rate borrowings) to a reasonably possible change in variable LIBOR interest rates, with all other variables held constant.

In millions of tenge	Increase/ (decrease) in basis points*	Effect on profit before income tax
2022		
US dollar	245/(245)	(17,871)/17,871
2021		
US dollar	125/(25)	(12,148)/2,369

* 1 basis point = 0.01%.

Currency risk

As a result of significant borrowings, lease liabilities, and trade accounts payable, cash and cash equivalents, amounts due from credit institutions and accounts receivable denominated in the US dollars, the Group's consolidated financial position can be affected significantly by movement in the US dollar / tenge exchange rates.

The following table demonstrates the sensitivity of the Group's profit before income tax to a reasonably possible change in the US dollar and euro, with all the variables held constant.

In millions of tenge	Increase/(decrease) in exchange rate	Effect on profit before income tax
2022		
US dollar	21.00%/(21.00%)	(584,346)/584,346
RUB	22.05%/(22.05%)	(86,858)/86,858
Euro	17.99%/(17.99%)	(11,277)/11,277
2021		
US dollar	13.00%/(10.00%)	(353,754)/270,863
RUB	13.00%/(13.00%)	(50,478)/50,478
Euro	13.00%/(10.00%)	(9,977)/7,675

Credit risk

Credit risk arising from the inability of a party to meet the terms of the Group's financial instrument contracts is generally limited to the amounts, if any, by which the counterparty's obligations exceed the obligations of the Group to that party. It is the Group's policy to enter into financial instruments with a diversity of creditworthy parties. The maximum exposure to credit risk is represented by carrying amount of each financial asset.

The Group considers that its maximum exposure is reflected by the amount of loans issued (*Note 11*), amount due from credit institutions (*Note 12*), trade accounts receivable and other current assets (*Note 16*), other financial assets (*Note 13*), and cash and cash equivalents (*Note 17*), net of allowances for expected credit losses recognized at the reporting date.

Concentrations of credit risk may arise from exposures to a single debtor or to groups of debtors having similar characteristics such that their ability to meet their obligations is expected to be affected similarly by changes in economic or other conditions.

The Group has a policy that ensures enforcement of constant control procedures for sales to only be made to buyers with an appropriate credit history and that an acceptable credit exposure limit is not exceeded. Credit risk is minimised by the fact that the Group operates on a prepayment basis with the majority of its buyers.

Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in raising funds to meet commitments associated with its financial liabilities. Liquidity risk may result from an inability to sell a financial asset quickly at price close to its fair value.

Liquidity requirements are monitored on a regular basis and management ensures that sufficient funds are available to meet any commitments as they arise.

The table shown below summarizes the maturity profile of the Group's financial liabilities at December 31 based on contractual undiscounted payments.

In millions of tenge	On demand	Due later than 1 month but not later than 3 months	Due later than 3 months but not later than 1 year	Due later than 1 year but not later than 5 years	Due after 5 years	Total
At December 31, 2022						
Loans from the Government of the Republic of Kazakhstan	–	24	27,735	204,440	2,028,887	2,261,086
Borrowings	71,945	147,115	1,316,513	4,039,538	6,342,580	11,917,691
Lease liabilities	6,498	35,426	136,844	487,375	162,639	828,782
Due to customers	12,427	–	33,781	12	–	46,220
Financial guarantees	27,785	2,109	12,652	78,467	117,092	238,105
Trade and other payables	332,850	612,897	252,995	10,509	–	1,209,251
	451,505	797,571	1,780,520	4,820,341	8,651,198	16,501,135
At December 31, 2021						
Loans from the Government of the Republic of Kazakhstan	13	24	21,298	173,638	1,851,202	2,046,175
Borrowings	299,900	101,620	928,299	3,572,501	7,752,556	12,654,876
Finance lease liabilities	8,147	31,208	110,723	375,346	135,925	661,349
Due to customers	39,975	–	4	16	–	39,995
Financial guarantees	29,408	16,785	59,393	191,499	106,300	403,385
Trade and other payables	461,775	587,349	72,589	11,679	353	1,133,745
	839,218	736,986	1,192,306	4,324,679	9,846,336	16,939,525

Capital management

The Group manages its capital primarily through capital management of its subsidiaries while conducting its oversight function. Major objective of the capital management is to ensure that subsidiaries of the Group will be able to continue as a going concern while maximising the return to shareholders through the optimisation of the debt and equity balance. The Group manages capital of its subsidiaries by setting various performance indicators tailored to the business need and industry specific matters of each subsidiary.

The Group manages capital of its subsidiaries by setting various performance indicators tailored to the business need and industry specific matters of each subsidiary. Key performance indicators ("KPI") used by the Group to manage capital of its subsidiaries are ratios of: Debt to Earnings before Interest, Taxes, Depreciation and Amortization, and Interest ("D/EBITDA") from continuing and discontinued operations; and Debt to Equity ("D/E"). Debt is considered to be equal to all borrowings, debt securities, guarantee and finance lease liabilities of relevant subsidiaries reduced by value of cash and cash equivalents. Equity is considered to be equal to the entire equity of the subsidiary attributable to majority shareholders.

Allowed maximum for the indicator is approved for each subsidiary based on the needs and specifics of its business and varies within following ranges (consolidated KPI's for the Group have been presented for reference purposes as the Group does not monitor KPI's on the consolidated level):

Key Performance Indicators	2022	2021
D/EBITDA	1.73	2.32
D/E	0.41	0.54
In billions of tenge	2022	2021
Borrowings (Note 19)	6,668	7,863
Loans from the Government of the Republic of Kazakhstan (Note 20)	684	579
Lease liabilities (Note 22)	621	510
Derivative instruments	2	2
Guaranteed principal amount of liabilities of entities outside the Group	154	341
Total debt	8,129	9,295
Less: cash and cash equivalents	(2,940)	(2,811)
Net debt	5,189	6,484
EBITDA	4,690	3,998
Total equity	19,744	17,173

Fair values of financial instruments

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

- Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities;
- Level 2: other techniques for which all inputs which have a significant effect on the recorded fair value are observable, either directly or indirectly;
- Level 3: techniques which use inputs which have a significant effect on the recorded fair value that are not based on observable market data.

There were no transfers between Level 1 and Level 2 during the reporting period, and no transfers into or out of Level 3 category.

As at December 31, 2022 and 2021 the carrying amount of the following Group's financial instruments is a reasonable estimate of their fair value:

In millions of tenge	Level 1	Level 2	Level 3	December 31, 2022
Financial instruments category				
Assets				
Loans issued at fair value through profit and loss	-	-	117,511	117,511
Financial assets measured at fair value through OCI	1,121	27,127	74	28,322
Financial assets at fair value through profit and loss	81,709	32,342	27,279	141,330
Derivative financial assets	-	1,477	1,099	2,576

In millions of tenge	Level 1	Level 2	Level 3	December 31, 2021
Financial instruments category				
Assets				
Loans issued at fair value through profit and loss	-	-	123,161	123,161
Financial assets measured at fair value through OCI	1,134	20,741	60	21,935
Financial assets at fair value through profit and loss	74,356	14,486	32,913	121,755
Derivative financial assets	-	14,153	-	14,153

December 31, 2022					
Fair value by level of assessment					
In millions of tenge	Carrying amount	Fair value	Quotations in an active market (Level 1)	From the observed market (Level 2)	Based on the significant amount of unobserved (Level 3)
Financial assets					
Loans issued at amortized cost and net investment in finance lease	101,104	83,451	-	10,392	73,059
Amounts due from credit institutions	1,703,873	1,694,238	1,206,833	487,386	19
Financial liabilities					
Borrowings	7,609,261	6,917,679	3,546,266	2,192,828	1,178,585
Loans from the Government of the Republic of Kazakhstan	683,604	500,904	-	500,904	-
Guarantee obligations	35,532	38,873	-	37,565	1,308

	December 31, 2021				
	Fair value by level of assessment				
In millions of tenge	Carrying amount	Fair value	Quotations in an active market (Level 1)	From the observed market (Level 2)	Based on the significant amount of unobserved (Level 3)
Financial assets					
Loans issued at amortized cost and net investment in finance lease	280,955	273,189	–	14,800	258,389
Amounts due from credit institutions	776,662	770,714	546,900	215,651	8,163
Financial liabilities					
Borrowings	7,862,692	8,575,232	5,039,417	2,484,584	1,051,231
Loans from the Government of the Republic of Kazakhstan	579,369	374,861	–	374,861	–
Guarantee obligations	40,456	38,655	–	33,330	5,325

The fair value of the above financial instruments has been calculated by discounting the expected future cash flows at prevailing interest rates.

Except for the financial instruments stated above as at December 31, 2022 and December 31, 2021 the management assessed that the fair value of financial instruments of the Group, such as trade and other accounts receivable and payable, cash and cash equivalents, short-term bank deposits and other current liabilities approximates their carrying amounts largely due to the short-term maturities of these instruments.

Reconciliation of fair value measurements:

In millions of tenge	Loans issued at fair value through profit and loss	Financial assets measured at fair value through profit and loss
As at January 1, 2021	138,024	22,127
Remeasurement	–	–
Income/(loss)	11,597	8,921
Disposal and acquisition	–	1,865
Receipt and redemption	(22,818)	–
Other	(3,642)	–
As at December 31, 2021	123,161	32,913
Remeasurement	–	–
Income/(loss)	16,254	(6,567)
Receipt and redemption	(27,119)	–
Other	5,215	933
As at December 31, 2022	117,511	27,279

The significant unobservable inputs used in the fair value measurements categorized within Level 3 of the fair value hierarchy are shown below:

Valuation technique	Significant unobservable inputs	Range as of December 31	
		2022	2021
Loans issued at amortized cost and net investment in finance lease	Discounted cash flow method	Interest/discount rate	8.05%-32% 3.1%-30%
Financial assets at fair value through profit and loss	WACC	Interest/discount rate	12,72%
Loans issued at fair value through profit and loss	Discounted cash flow method	Interest/discount rate indexed to changes in the US dollar exchange rate	16.21% 12.72%
Amounts due from credit institutions	Discounted cash flow method	Interest/discount rate	3.5%+12M LIBOR+forex adjustment 3.5%+12M
Borrowings	Discounted cash flow method	Interest/discount rate	Libor+ forex adjustment 3,5-17%
Financial guarantee issued	Discounted cash flow method	Interest/discount rate	14.1% 6.94%
			5.7%-17% 3.5%-17%
			12.31%-16.68% 4.5%-5.25%

The quantitative sensitivity analysis of the fair value measurements categorised within Level 3 of the fair value hierarchy, as at 31 December 2022 and 2021 are shown below:

Valuation technique	Fair value	Sensitivity of the input to fair value
Financial assets at fair value through profit and loss	WACC 2022: 27,279 2021: 32,913	1% (2021: 1%) increase/ (decrease) in the discount rate would result in an increase/ (decrease) in fair value by (280)/565 (2021: (2,151)/3,347)
Loans issued at fair value through profit and loss	Discounted cash flow method 2022: 117,511 2021: 123,161	1% (2021: 1%) increase/ (decrease) in the discount rate would result in an increase/ (decrease) in fair value by (2,474)/2,614 (2021: (2,334)/2,492)

37. Commitments and contingencies

Operating environment

Kazakhstan continues economic reforms and development of its legal, tax and regulatory frameworks as required by a market economy. The future stability of the Kazakhstan economy is largely dependent upon these reforms and developments and the effectiveness of economic, financial and monetary measures undertaken by the government.

Commodity price risk

The Group generates most of its revenue from the sale of commodities, primarily crude oil and oil products. Historically, the prices of these products have been volatile and have fluctuated widely in response to changes in supply and demand, market uncertainty, the performance of the global or regional economies and cyclicalities in industries.

Prices may also be affected by government actions, including the imposition of tariffs and import duties, speculative trades, an increase in capacity or an oversupply of the Group's products in its main markets. These external factors and the volatility of the commodity markets make it difficult to estimate future prices.

A substantial or extended decline in commodity prices would materially and adversely affect the Group's business and the consolidated financial results and cash flows of operations. The Group does not hedge significantly its exposure to the risk of fluctuations in the price of its products.

Transfer pricing control

Transfer pricing control in Kazakhstan has a very wide scope and applies to many transactions that directly or indirectly relate to international business regardless of whether the transaction participants are related or not. The transfer pricing legislation requires that all taxes applicable to transaction participants are related or not. The transfer pricing legislation requires that all taxes applicable to a transaction should be calculated based on market price determined in accordance with the arm's length principle. The new law on transfer pricing came into effect in Kazakhstan from January 1, 2009. The new law is not explicit and there is little precedence with some of its provisions. Moreover, the law is not supported by detailed guidance, which is still under development. As a result, application of transfer pricing control to various types of transactions is not clearly regulated.

Because of the uncertainties associated with the Kazakhstan transfer pricing legislation, there is a risk that the tax authorities may take a position that differs from the Group's position, which could result in additional taxes, fines and interest at December 31, 2022.

As at December 31, 2022 management believes that its interpretation of the transfer pricing legislation is appropriate and that it is probable that the Group's positions with regard to transfer pricing will be sustained.

Environmental, Social and Governance (ESG) matters - Consideration of climate change and resulting climate related risks

The Group shares the concerns of the world community climate change and supports global efforts to reducing greenhouse gas emissions, increasing energy efficiency, transition to renewable sources energy and phasing out carbon fuels. The Group has the strategic goal to reduce the carbon footprint of the Group by 10% by 2032 compared to 2021 and aims to achieve carbon neutrality by 2060. In general, carbon neutrality does not mean complete exclusion of greenhouse gas emissions - the volume of emissions that not possible to reduce, must be compensated.

The Group is continuously assessing climate related and environmental risks and their impact on the Group's operation. For the identified risks, the Group has assessed their impact on the recognition/derecognition of assets and liabilities and measurement of such assets and liabilities as well as the disclosure provided in its consolidated financial statements. The areas listed below are predominantly impacted by the climate related and environmental risks:

- The Group has initiated projects on constructions of new combined cycle gas plant at the Almaty CHP-2 and CHP-3. The purpose is the replacement of the existing coal-fired equipment with modern environmentally friendly combined cycle power units; and
- The Group has assessed and recognized provisions for decommissioning of power plants and rehabilitating environmental damage due to recently introduced regulatory requirements in accordance with Environmental Code (Note 21).

Taxation

Kazakhstan's tax legislation and regulations are subject to ongoing changes and varying interpretations. Instances of inconsistent opinions between local, regional and national tax authorities are not unusual, including opinions with respect to IFRS treatment of revenues, expenses and other items in the financial statements. The current regime of penalties and interest related to reported and discovered violations of Kazakhstan's tax laws are severe. Due to uncertainties associated with Kazakhstan's tax system, the ultimate amount of taxes, penalties and interest, if any, may be in excess of the amount expensed to date and accrued at December 31, 2022. As at December 31, 2022, Management believes that its interpretation of the relevant legislation is appropriate and that it is probable that the Group's tax positions will be sustained, except as provided for or otherwise disclosed in these consolidated financial statements.

Comprehensive tax audit at oil refineries of the Group

All three major oil refineries in the Group, Atyrau Refinery, Pavlodar Refinery and Shymkent Refinery were subject to a comprehensive tax audit covering periods of a few years (up to 2020) in 2020-2022. As a result of the audits, the total amount of additional charges for VAT for 37,728 million tenge, for income tax for 17,830 million tenge, for other taxes for 476 million tenge, including penalties for all additional charges of 8,959 million tenge and reduction in tax carry-forward losses for 119,871 million tenge. Atyrau Refinery, Pavlodar Refinery and Shymkent Refinery did not agree with the assessment and appealed to the Ministry of Finance of RK. The consideration of the appeals remains suspended by the Ministry of Finance of RK until the circumstances are clarified. The Group believes that additional tax assessment is not probable, as such, the Group did not recognize any provisions as of December 31, 2022.

Comprehensive tax audit at EGRES-1 for 2016-2020

In September 2022, based on 2016-2020 comprehensive tax audit, EGRES-1 received additional tax assessment for CIT and property tax for 51,066 million tenge, including penalties. The results of the tax audit of EGRES-1 were appealed to the Appeal Commission under the Ministry of Finance of the Republic of Kazakhstan, which on November 13 of this year informed the company of the suspension of the period for considering the complaint in connection with the appointment of a thematic audit in relation to EGRES-1.

On January 13, 2023, EGRES-1 received the Decision of the Ministry of Finance and the Notification on the results of the consideration of the complaint, according to which the tax authorities canceled the Documentary Tax Audit Act in terms of recognizing the non-compliance of fixed assets by belonging to asset groups according to the Classifier of fixed assets.

Comprehensive tax audit at JV KATCO LLP

According to the results of the thematic audit of income tax at the source of payment from the income of non-residents for 2014-2018, completed in 2021, additional charges of JV KATCO LLP, an associate of NAC KAP, amounted to CIT on payments of dividends and royalties in the amount of 10,482 million tenge and penalties of 9,441 million tenge. By decision of the Appellate Commission of the Ministry of Finance, the amount of the fine was reduced to 5,358 million tenge. In 2022, JV KATCO LLP continued to appeal to the judiciary, and by the decisions of the court of first instance and the court of appeal, the amount of additional charges was reduced by 15,761 million tenge. In November 2022, the State Revenue Department filed a complaint with the Supreme Court to overturn the decision of the Court of Appeal, and the issue is currently being considered. As at December 31, 2022, the entity or the Group did not record any liability in respect of these contested assessments.

The case of an administrative offense of the Pavlodar Refinery initiated by the Department of Agency for protection and development of competition of RK (hereafter – Antimonopoly agency) of the Pavlodar region

During February-July 2022 the Prosecutor's Office of the Pavlodar region together with the Antimonopoly agency conducted an inspection of the Pavlodar Refinery operations for compliance with the legislation of the RK in the field of oil and petroleum products turnover, labor, tax and antimonopoly legislation for 2020-2021. On March 16, 2022 Antimonopoly agency issued the Conclusion which stated that Pavlodar Refinery set monopolistically high tariff for oil refining services. On July 25, 2022, Antimonopoly agency of the Pavlodar region initiated an administrative offence and issued a Protocol to the Specialized Court for Administrative Offenses of Pavlodar city for setting by the Pavlodar Refinery monopolistically high tariff for oil refining services in 2021 and to confiscate revenue for 2021 of 21,961 million tenge and impose fine of 6,226 million tenge. During August-September 2022, Pavlodar Refinery appealed several times to terminate Protocol and Conclusion. However, all appeals of Pavlodar Refinery were rejected. Pavlodar Refinery is planning to further follow the appealing process in higher judiciaries. In September 2022, after rejection of initial appeals the Group recognized a provision in the amount of 28,187 million tenge.

Inspection of the Prosecutor's Office of the Atyrau region with the involvement of Antimonopoly agency of the Atyrau Refinery

During February-September 2022 the Prosecutor's Office of the Atyrau region with the involvement of the Antimonopoly agency conducted an inspection of the Atyrau Refinery operations. On September 22, 2022 the Prosecutor's Office of the Atyrau region provided a conclusion of setting monopolistically high tariff for oil refining services in 2020-2021. The Atyrau Refinery has sent an official letter with justifying the approved tariff for oil refining services in 2020-2021. The Group believes that the risk of revenue confiscation and fine imposing are not probable, as such, the Group did not recognize any provisions as of December 31, 2022.

The proceedings initiated against Mr. Stati and his related parties on the suit of the Fund due to the arrest of shares KMG Kashagan B.V. belonging to the Fund

On 14 September 2017, the pre-judgement attachment in respect of the Fund's rights on management of 50% KMG Kashagan B.V. in amount of 5.2 billion US dollars, shares was imposed with regard to the decision of Amsterdam Court (the "Pre-judgement Attachment").

The named Pre-judgement Attachment was imposed as part of the claim for recognition and enforcement of arbitral award in Netherlands on the matter of Anatolie Stati, Gabriel Stati, Ascom Group SA and Terra Raf Trans Trading Ltd, against the Republic of Kazakhstan issued in 2013 by the Arbitration Tribunal at the Arbitration Institute of the Stockholm Chamber of Commerce.

On 14 July 2020, the Court of Appeal of Amsterdam decided to recognise in the Netherlands an arbitral award rendered in 2013 against the Republic of Kazakhstan, while rejecting Stathi's claim to enforce the award against the Fund.

On December 18, 2020, the Supreme Court overturned the decision of the Amsterdam Court of Appeal of May 7, 2019 to maintain the arrest and referred the case to the Court of Appeal in The Hague.

On 14 June 2022, the Court of Appeal of The Hague issued a decision, according to which the arrest of Kashagan shares owned by the Fund, imposed in September 2017, was lifted. On August 8, Stati filed an appeal against the decision of the Court of Appeal of The Hague of 14 June 2022. The process is currently ongoing.

Main proceedings in the Stati claim filed on December 7, 2017, in which the Stati asks the court to recognize the Fund as part of the Republic of Kazakhstan and oblige the Fund to comply with the Arbitral Award

On 17 March 2021, a hearing in the main proceedings was held.

On 28 April 2021, the Court of Appeal granted the Fund's request to postpone this process until the decision of the Court of Appeal in The Hague to appeal the restriction on shares of KMG Kashagan B.V.

On November 2, 2022, the Fund filed an application to terminate the trial, in connection with the decision of the Court of Appeal of The Hague dated June 14, 2022, according to which the arrest of Kashagan shares owned by the Fund, imposed in September 2017, was lifted.

On February 8, 2023, the District Court of Amsterdam ruled that the claims of Anatole and Gabriel Stati and their companies ("Stati") against the Fund were inadmissible and, as a result, the proceedings were dismissed. However, the Stati has the right to appeal this decision.

The civil litigation at KMGI

Faber Invest & Trade Inc. (further Faber), the non-controlling shareholder of KMGI subsidiaries, resumed several previous civil filings in 2020, one of which challenged the increase in the Rompetrol Rafinare Constanta, the KMGI subsidiary, share capital in 2003-2005. The hearings have been held periodically, but no final decisions were made. On July 13, 2021, the court rejected the complaint of Faber. However, Faber appealed against this decision. Based on the results of the hearing in December 2021, the court granted the complaint and returned the case for reconsideration.

Most of Faber's lawsuits were dismissed by the Supreme Court in May and September 2022, including an appeal filed by Faber challenging Faber's corporate documents approving the bond issue and paying off historical budget debts as filed after the deadline. In January 2023, hearings were held on the claims filed by Faber. Faber withdrew its claims in two cases, and the court dismissed the third. Faber has filed the same lawsuit for the third time, but now in the Constanta court. The first hearing is scheduled for April 2023.

The Group believes that its position regarding Faber's new application will be resolved in a similar manner to other similar proceedings resolved in favor of the Group. Accordingly, the Group did not recognize a provision in this case as of December 31, 2022.

Civil legal dispute between the National Mineral Resources Agency (ANRM) and Oilfield Exploration Business Solutions S.A (OEBS), subsidiary of KMGI, at the Focsani field

On December 17, 2019 OEBS has been noticed by the ANRM that a Request for Arbitration would have been filed in to ICC Paris for an alleged breach by OEBS of the Concession Agreement as regards the exploration block near Focsani. Starting from that period, OEBS was in dispute with ANRM. On July 29, 2022 the Court decided to oblige OEBS to pay 10.1 million U.S. dollars from a total ANRM claim of 20 million U.S. dollars. As of December 31, the Group recognized a provision in the amount of 10.1 million dollars (equivalent to 4,673 million tenge).

Competition investigation Moldova

Since the beginning of 2021, Rompetrol Moldova (further RPM), a subsidiary of KMGI operating in Moldova, is involved in an investigation and related court proceedings initiated by the Competition Council of Moldova (further CCM) alleging RPM agreed with other industry players on retail prices for petroleum products. RPM is challenging the competition report prepared by the CCM investigation division that forms the basis for the allegations in accordance with applicable regulations. A few attempts to dismiss the said report were unsuccessful with the latest ruling rejecting RPM's request to dismiss the report issued by the local court on 26 May 2022. RPM has filed an appeal and a first hearing is scheduled for 21 March 2023. Due to the replacement of the jury, the hearing was postponed to October 2023. As of December 31, 2022, the Group recognized a provision in the amount of 12 million dollars (equivalent to 5,552 million tenge).

The case of arbitration between KazRosGas LLP (further KRG) and Karachaganak Petroleum Operating B.V. (further KPO)

On August 23, 2022, the Notice of Initiation of Arbitration Proceedings of KPO was submitted to the KRG by the Secretariat of the International Chamber of Commerce in Paris. KPO intends to increase the gas sale price under the existing Karachaganak Gas Purchase and Sale Agreement. If the gas price is agreed later than October 1, 2022, KRG and KPO shall recalculate the gas price for the period from October 1, 2022 to the date of the price agreement. In October 2022, a working group was established to develop a negotiating position of the Kazakh side on the peaceful settlement of the dispute over the arbitration process between the KRG and KPO, chaired by the First Vice Minister of Energy of RK. The working group also includes representatives of the Ministry of Energy of RK, JSC "NC "QazaqGaz", NC KMG and KRG.

In order to ensure a stable supply of gas to the domestic market of the RK, KRG and the Ministry of Energy of RK sent letters to KPO contractors with a proposal to suspend arbitration proceedings until 2024-2025. In December 2022, the KPO informed about the readiness to hold further discussions to achieve a potential settlement of the price revision process. In January 2023, the KRG sent to the KPO a proposal to conclude an agreement on the suspension of arbitration proceedings for a period of 3 months, during which the parties will appoint a "negotiation period" of 2 months to resolve the dispute. As of December 31, 2022 and on the date of issue of the financial statements the parties are negotiating to resolve the dispute on mutually beneficial terms. The Group believes that the risk of loss is not probable as of December 31, 2022.

Cost recovery audits

Under the base principles of the production sharing agreements, the Government transferred to contractors the exclusive rights to conduct activities in the subsurface use area, but did not transfer rights to this subsurface use area either to ownership or lease. Thus, all extracted and processed oil (i.e. the hydrocarbons produced) are the property of the Government. Works are carried out on the basis of compensation and the Government pays to the contractors not in cash but in the form of the portion of oil production, thereby allowing the contractors to recover their costs and earn profit.

In accordance with the production sharing agreements, not all costs incurred by the contractors could be reimbursed. Certain expenditures need to be approved by the authorized bodies. The authorized bodies conduct the cost recovery audits. In accordance with the cost recovery audits completed prior to December 31, 2022, certain amounts of the costs incurred by contractors were assessed as non-recoverable. The parties to the production sharing agreements are in negotiations with respect to the recoverability of those costs.

As of December 31, 2022 the Group's share in the total disputed amounts of costs is 1,200,386 million tenge (as of December 31, 2021: 979,556 million tenge).

Kazakhstan local market obligation

The Government requires oil companies in the RK to supply a portion of the products to meet the Kazakhstan domestic energy requirement on an annual basis, mainly to maintain oil products supply balance on the local market and to support agricultural producers during the spring and autumn sowing and harvest campaigns.

Kazakhstan local market oil prices are significantly lower than export prices and even lower than the normal domestic market prices determined in an arm-length transaction. If the Government does require additional crude oil to be delivered over and above the quantities currently supplied by the Group, such supplies will take precedence over market sales and will generate substantially less revenue than crude oil sold on the export market, which may materially and adversely affect the Group's business, prospects, consolidated financial position and performance.

In 2022, in accordance with its obligations, the Group delivered 7,951 thousand tonnes of crude oil (2021: 7,114 thousand tonnes), including its share in the joint ventures and associates, to the Kazakhstan market.

Oil supply commitments

As of December 31, 2022, Kashagan had commitments under the oil supply agreements in the total amount of 6.6 million tonnes (December 31, 2021: 8.6 million tonnes).

Commitments under oilfield and mining field licenses and subsurface use contracts

As at December 31, 2022 the Group had following commitments on fulfillment of minimal work programs with respect to the requirements of their oilfield and mining licenses and related subsurface use contracts with the Government (in millions of tenge):

Year	Capital expenditures	Operational expenditures
2023	492,142	209,018
2024	415,624	108,241
2025	521,594	111,407
2026	571,355	116,473
2027-2059	3,175,007	1,710,300
Total	5,175,722	2,255,439

Unconditional gas purchase obligations to the joint ventures

As at 31 December 2022, the Group has unconditional purchase obligation to Asia Gas Pipeline LLP and Beineu-Shymkent Gas Pipeline LLP of 95,558 mln tenge and 216,131 mln tenge excluding VAT for gas transportation services (31 December 2021: 126,292 mln tenge and 201,629 mln tenge).

Capital commitments

As at December 31, 2022 the Group, including its joint ventures and associates, had capital commitments of approximately 1,418,761 million tenge related to acquisition and construction of property, plant and equipment, excluding VAT (as at December 31, 2021: 2,252,306 million tenge, excluding VAT).

As at December 31, 2022, the Group had commitments in the total amount of 1,387,680 million tenge (as at December 31, 2021: 592,889 million tenge) under the investment programs approved by the joint order of Ministry of Energy of the Republic of Kazakhstan and CRNM to facilitate production units.

38. Segment reporting

For management purposes, the Group is organized into organizational business units based on their products and services, and has 8 (eight) reportable operating segments (*Note 1*).

Certain of operating segments have been formed by aggregation of smaller reportable segments in line with the organizational structure of the Group. Each reportable segment maintains its accounting records in line with IFRS. Financial performance of each segment prepared in line with IFRS is reported to the chief operating decision maker for the purposes of making decisions about allocating resources to the segment and assessing its performance.

Eliminations represent the exclusion of intra-group turnovers. Inter-segment transactions were made on terms agreed to between the segments that may not necessarily be at market rates, except for certain regulated services, which are provided based on the tariffs available to related and third parties.

The following table represents information about profit and loss, assets and liabilities of operating segments of the Group for 2022:

In millions of tenge	Oil-and-gas and petrochemical segment	Mining	Transportation	Communication
Revenues from sales to external customers	9,576,916	1,945,888	1,926,051	666,830
Revenue from contracts with customers	9,565,441	1,945,530	1,904,011	666,830
Interest revenue	-	-	-	-
Rental income	11,475	358	22,040	-
Revenues from sales to other segments	61,751	41	11,806	4,856
Total revenue	9,638,667	1,945,929	1,937,857	671,686
Geographical markets				
Kazakhstan	1,633,769	1,054,350	1,591,421	649,049
Other countries	8,004,898	891,579	346,436	22,637
Gross profit	2,221,350	531,637	373,025	225,338
General and administrative expenses	(223,284)	(45,354)	(115,410)	(50,461)
Transportation and selling expenses	(853,650)	(25,683)	(10,772)	(16,979)
Finance income	156,368	22,955	70,256	23,880
Finance costs	(372,488)	(9,176)	(168,296)	(43,783)
Share in profits/(loss) of joint ventures and associates	1,337,127	82,460	8,546	-
Foreign exchange (loss)/gain, net	(6,551)	15,404	22,680	8,949
Depreciation, depletion and amortization	(571,203)	(82,469)	(210,591)	(122,960)
Impairment of property, plant and equipment, exploration and evaluation assets and intangible assets	(19,642)	(13,297)	(170)	(2,751)
Reversal/(impairment) of other assets, net	1,373	1,304	644	(493)
Income tax (expenses)/benefit	(518,783)	(111,977)	(47,028)	(35,696)
Total net profit/(loss) for the year	1,653,779	456,132	131,062	115,919
Other segment information				
Total assets of the segment	19,835,479	2,969,563	4,632,180	1,593,990
Total liabilities of the segment	7,774,919	610,219	3,077,764	835,531
Allowances for expected credit losses on trade receivables, loans and other current financial assets	(4,412)	331	(5,560)	(8,373)
Investments in joint ventures and associates	5,896,273	689,774	28,799	-
Capital expenditures	(1,006,194)	(89,710)	(472,722)	(134,616)

Energy	Industrial	Corporate center	Other	Elimination	Total
580,429	28,120	40,935	20,115	-	14,785,284
580,420	28,120	-	7,562	-	14,697,914
-	-	40,935	6,910	-	47,845
9	-	-	5,643	-	39,525
85,941	9,366	825,085	13,667	(1,012,513)	-
666,370	37,486	866,020	33,782	(1,012,513)	14,785,284
631,695	32,386	866,020	33,782	(1,012,513)	5,479,959
34,675	5,100	-	-	-	9,305,325
216,388	8,909	802,293	15,413	(837,202)	3,557,151
(29,732)	(3,659)	(20,873)	(4,426)	10,717	(482,482)
(13,265)	(745)	-	(16)	14,241	(906,869)
10,834	2,027	53,761	46,863	(66,844)	320,100
(54,723)	(6,017)	(60,628)	(61,250)	122,372	(653,989)
14,304	(216)	7,018	21	-	1,449,260
6,437	(790)	(48,050)	(9,528)	1,551	(9,898)
(81,771)	(7,172)	(728)	(3,251)	3,533	(1,076,612)
(2,700)	(16,973)	-	-	-	(55,533)
(7,706)	(14,361)	(228,919)	(455)	232,464	(16,149)
(37,232)	422	(17,445)	3,044	(6,423)	(771,118)
103,782	(33,685)	815,069	(9,309)	(863,865)	2,368,884
1,702,435	179,461	9,603,793	337,055	(7,278,961)	33,574,995
795,445	73,385	2,527,357	201,901	(2,065,187)	13,831,334
167	(102)	31,789	908	(34,134)	(19,386)
103,247	3,788	45,006	35	(32,341)	6,734,581
(149,945)	(20,786)	(382)	(6,447)	468	(1,880,334)

38. Segment reporting (continued)

The following table represents information about profit and loss, assets and liabilities of operating segments of the Group for 2021:

In millions of tenge	Oil-and-gas and petrochemical segment	Mining	Transportation	Communication
Revenues from sales to external customers	7,314,716	1,415,150	1,619,200	624,383
Revenue from contracts with customers	7,304,770	1,414,821	1,611,571	624,383
Interest revenue	–	–	–	–
Rental income	9,946	329	7,629	–
Revenues from sales to other segments	47,846	79	4,026	4,184
Total revenue	7,362,562	1,415,229	1,623,226	628,567
Geographical markets				
Kazakhstan	1,343,883	749,320	1,399,420	607,216
Other countries	6,018,679	665,909	223,806	21,351
Gross profit	1,896,249	288,594	407,454	222,481
General and administrative expenses	(212,200)	(37,415)	(109,818)	(54,687)
Transportation and selling expenses	(692,357)	(15,784)	(6,950)	(13,769)
Finance income	117,541	11,108	22,062	9,004
Finance costs	(304,745)	(7,425)	(151,194)	(49,417)
Share in profits/(loss) of joint ventures and associates	999,424	118,554	10,826	–
Foreign exchange (loss)/gain, net	110,922	3,131	3,727	2,349
Depreciation, depletion and amortization	(595,203)	(69,949)	(195,162)	(121,822)
Impairment of property, plant and equipment, exploration and evaluation assets and intangible assets	(95,961)	4,885	(1,860)	(5,961)
Reversal/(impairment) of other assets, net	1,097	(2,295)	(72)	30
Income tax (expenses)/benefit	(388,631)	(61,510)	(36,617)	(30,196)
Total net profit/(loss) for the year	1,456,260	291,732	150,356	89,760
Other segment information				
Total assets of the segment	18,592,151	2,739,861	4,133,241	1,341,590
Total liabilities of the segment	6,790,420	469,838	2,820,223	667,222
Allowances for expected credit losses on trade receivables, loans and other current financial assets	(4,202)	(487)	957	(3,193)
Investments in joint ventures and associates	4,851,977	703,195	27,688	–
Capital expenditures	(535,515)	(71,066)	(412,021)	(123,986)

Energy	Industrial	Corporate center	Other	Elimination	Total
649,753	30,567	41,144	14,745	-	11,709,658
649,748	30,567	-	861	-	11,636,721
-	-	41,144	6,249	-	47,393
5	-	-	7,635	-	25,544
87,462	5,529	297,783	22,320	(469,229)	-
737,215	36,096	338,927	37,065	(469,229)	11,709,658
712,787	27,983	338,927	37,065	(469,229)	4,747,372
24,428	8,113	-	-	-	6,962,286
190,305	6,959	275,203	18,122	(335,152)	2,970,215
(25,178)	(6,720)	(24,419)	(4,088)	30,906	(443,619)
(12,249)	(1,151)	-	(5)	13,934	(728,331)
11,290	1,863	28,152	34,919	(61,041)	174,898
(54,315)	(6,173)	(37,786)	(34,576)	90,094	(555,537)
11,509	(219)	1,986	2	-	1,142,082
2,390	(28,979)	(93,264)	(363)	(690)	(777)
(76,816)	(6,240)	(2,147)	(2,658)	3,800	(1,066,197)
(20,849)	(2,542)	-	(90)	-	(122,378)
(1,092)	(581)	(18,057)	(167)	12,200	(8,937)
(30,806)	(468)	(2,942)	(4,370)	(5,496)	(561,036)
76,273	(38,795)	130,893	10,467	(258,589)	1,908,357
1,616,981	1,128,970	8,309,598	373,645	(7,926,279)	30,309,758
788,374	884,803	1,790,290	217,503	(1,292,007)	13,136,666
696	207	(270)	904	1,047	(4,341)
90,472	5,215	35,013	15	(32,341)	5,681,234
(97,574)	(336,848)	(307)	(4,883)	9,758	(1,572,442)

39. Impacts of war in Ukraine

Since February 2022, due to the conflict between the Russian Federation and Ukraine, numerous sanctions have been announced by a majority of western countries against the Russian Federation. These sanctions are targeted to have a negative economic impact on the Russian Federation.

Due to the growing geopolitical tensions, since February 2022, there has been a significant increase in volatility in the securities and currency markets, as well as a significant depreciation of the tenge against the US dollar and the euro. There has also been a significant increase in the key rate of the NB RK from 9.75% to 16.75% during the year.

The Group has assessed the consequences of the sanctions and interest rate rises on the consolidated financial statements of the Group and continues to monitor these areas of increased risk for material changes.

Borrowings

The Group has 2 borrowings from VTB Bank PJSC (a Russian bank) of 10.4 billion ruble (equivalent to 68.1 billion tenge) with maturity in 2023 and 37.5 billion ruble (equivalent to 225 billion tenge) with maturity in 2027. Interest rates on borrowings are 'Key Rate of Central Bank of Russian Federation (key rate) + 1.75% and + 2.25%' per annum as at December 31, 2022. There were significant fluctuations in key rate from 8.00% to 20.00% and then to 7.50% during the year. Scheduled payments of this loan's interest and principle amount were made in Russian rubles without any issue in 2022.

Assessment of significant influence

In accordance with IAS 28 Investments in associates and joint ventures, the Group has assessed and confirmed that the changes in the legal and operating environment of Russia and Ukraine have not impacted the ability to exercise significant influence over the CPC, NC KMG's associate, in Russia.

Operating environment of Caspian Pipeline Consortium (CPC)

On March 23, 2022, CPC, stopped loading oil at the Black Sea terminal due to damage of two out of three single-point moorings (SPM) caused by a storm. On April 24, 2022, oil loading at the second of three SPM systems on the CPC network at Novorossiysk was resumed.

On April 27, 2022, a Russian Court (the Arbitration Court of the Krasnodar Territory) fully satisfied the claim of Rosprirodnadzor (a Russian regulator) to recover from the CPC damage from an oil spill at the CPC Marine Terminal (occurred in August 2021), of 5.2 billion Russian ruble (equivalent to 30 billion tenge). The CPC recognized a provision for the full amount. In the consolidated financial statements of the Group, the provision was reflected in share in profit of associate for the 2022.

On July 6, 2022, a Russian Court (Primorsky District Court) ordered CPC to suspend operations for 30 days. Later the month-long suspension was replaced by a 200,000 Russian rubles fine (equivalent to 3,300 US dollars). CPC reflected this fine in its accounting books in July 2022. The operations of CPC were not stopped during the above period.

On August 22, 2022 while performing scheduled maintenance on SPM-1 and SPM-2, divers discovered cracks in subsea hose attachments to buoyancy tanks. On November 12 and 29, 2022, both SPM-1 and SPM-2 on the CPC network at Novorossiysk have resumed their operations.

All matters occurred during 2022 are resolved during the year, no further developments.

Impact of sanctions

On March 4, 2022, the European Union disconnected seven Russian banks from SWIFT. The Group have oil transportation contracts with Russian entities. To avoid risks on settlements the Group changed the bank counterparties to the banks which are not under sanctions. Additionally, the currency of certain contracts has been changed from US Dollars to Russian rubles. Currency settlements were made without any issue during 2022.

Starting February 5, 2023, the European Union imposed a ban on imports of Russian diesel, jet fuel and other oil products transported via sea. This measure is not applicable to Group's operations in Kazakhstan or internationally.

¹⁵ On December 07, 2022, the Government of the Republic of Kazakhstan by the Decree "On Amendments and Additions to Decree of the Government of the Republic of Kazakhstan dated December 29, 2020, No. 908 "On Some Issues of Privatization for 2021-2025, replaced Tulpar Car Building Plant LLP by Passenger Car Building Plant LLP.

40. Subsequent events

Changes in legislation

In January 2023, amendments to the Law of the Republic of Kazakhstan dated July 20, 2011 No. 463-IV *"On state regulation of the production and circulation of certain types of petroleum products"* came into force. According to these amendments, refineries have the right to sell petroleum products. The sale of oil products by the oil refineries will be carried out independently after a full or partial transition to a marketing scheme of work, which implies an independent purchase of oil and the sale of oil products produced from this oil. The Group does not expect significant impact of changes in legislation on its operations.

In accordance with the Decree of the Government of the Republic of Kazakhstan dated January 25, 2023 No. 45, the changes were made to the Law on Sovereign Wealth Fund. According to the changes, by decision of the sole Shareholder and in a way approved by him, the Fund annually distributes not less than seven percent of net income of the Fund to a non-profit organization represented by the public fund "Kazakhstan Khalkyna".

Disposal of a subsidiary

In January 2023, the Group, represented by subsidiary of NC KTZh, Kaztemirtrans JSC, completed the sale of a 100% interest in the charter capital of Railway Passenger Coach Construction Plant LLP to the third party for 12,000 million tenge and as a result lost control over this subsidiary.

Hydrocarbon production contract

On February 27, 2023, the Group entered into a contract with the Ministry of Energy of RK for the production of hydrocarbons at the Kalamkas-Sea, Khazar and Auezov subsoil blocks located in the Kazakhstan sector of the Caspian Sea.

Financing of national project "Comfortable School"

In March 2023, the Group received a portion of cash related to the financing of the pilot national project "Comfortable School" implementation in the amount of 245.290 million tenge in accordance with the Decree of the Government of the Republic of Kazakhstan dated November 30, 2022 No. 963.

Dividends received from joint venture

In April 2023 the Group received dividends from the joint venture Petrosun LLP in the amount of 19,600 million tenge.

Share capital

On April 14 and 19, 2023 the Shareholder contributed assets to the Fund's share capital with a fair value of 16,915 million tenge and 59,628 million tenge, respectively.

ANNEX 2.

Information on Compliance/Non-compliance of the Principles and Provisions of the Corporate Governance Code of Joint Stock Company “Sovereign Wealth Fund “Samruk-Kazyna”, approved by Decree of the Government of the Republic of Kazakhstan of November 05, 2012, No.1403

In November 2012, the Sole Shareholder of Samruk-Kazyna JSC - the Government of the Republic of Kazakhstan - approved the Corporate Governance Code, which applies to the Fund and organizations more than fifty percent of voting shares (interests) of which is directly or indirectly owned by the Fund (hereinafter - Organizations).

The objectives of the Corporate Governance Code are:

- improvement of corporate governance in the Fund and Organizations;
- management transparency;
- confirmation of the commitment of the Fund and Organizations to follow the standards of good corporate governance.

The Corporate Governance Code is based on the principle of “comply or explain”. Consequently, the Board of Directors of the Fund confirms that, taking into account the specifics of the activity and the relevant Law of the Republic of Kazakhstan “On Sovereign Wealth Fund”, **the Fund follows most of the provisions of Corporate Governance Code in all essential aspects, however, there is evidence that the corporate governance system needs to be further improved.**

The work done in the field of improving corporate governance is described in detail in the Corporate Governance Report of this Annual Report and the following initiatives can be noted:

- in order to further improve the effectiveness of corporate governance in H2 2022, the Fund has assessed the corporate governance, including a self-assessment of the Board of Directors, by interviewing members of the Board of Directors and key structural subdivisions of the Fund in the context of the following five areas: 1) efficiency of the Board of Directors and the Management Board; 2) risk management, internal control and audit; 3) sustainable development; 4) rights of the Sole Shareholder; 5) transparency;
- the Government of the Republic of Kazakhstan by Decrees dated July 20, 2022, No. 509, dated August 2, 2022, No. 522, and dated September 26, 2022, No. 751, introduced amendments and additions to the Charter and the Corporate Governance Code of the Fund aimed at bringing it into line with the current State Planning System in the Republic of Kazakhstan, the implementation of amendments to the Law of the Republic of Kazakhstan dated December 30, 2021 “On Sovereign Wealth Fund”, changing the procedure for paying dividends on ordinary shares of the Fund, improving the norms of the Corporate Governance Code of the Fund in accordance with the best practices of corporate governance, including in terms of bringing the proportion of women in the collegial executive bodies of the Fund and organizations, as well as in the Board of Directors of organizations to the level of at least 30%;
- based on the analysis of challenges and opportunities at the global and corporate levels, a draft Development Plan of the Fund for 2023-2032 was developed focusing on three strategic directions: effective portfolio management, ecosystem for business, and sustainable development;
- the Development Plan of the Fund for 2023-2032 includes a strategic key performance indicator of the Fund to reduce its net carbon footprint by 10% by 2032 from the baseline 2021 year, confirming its commitment to ESG principles and climate change issues. For the first time, the Fund performance will be assessed in the context of environmental risks;

- as a result of the work done by the Fund to improve the occupational safety management system and to reduce the risk of accidents, the traumatism rate was reduced by 16%, from 133 to 111 employees as compared to 2021. The LTIF injury frequency rate was 0.16 and the FAR fatality rate decreased by 11% and amounted to 2.60 as compared to 2.93 in 2021;
- the Management Board submits information on the consolidated results of the Fund's activities with Portfolio Companies on a quarterly basis for consideration of the Board of Directors to ensure transparency of activities of the Fund and Portfolio Companies and timely providing of necessary information to the Board of Directors;
- in pursuance of the Instruction of the Head of State, given on January 11, 2022, at the meeting of the Majilis of the Parliament of the Republic of Kazakhstan, the Fund approved the new procurement procedure, aimed at improving procurement transparency and minimizing corruption risks, supporting local producers and suppliers, simplification of procurement and elimination of barriers to business;
- in order to combat corruption in the Fund and the group of companies, the Corporate Standard for the compliance function in Portfolio Companies of Samruk-Kazyna JSC was approved, which defines the methodological basis for the development of similar internal documents on compliance function by the group companies in order to unify approaches to the implementation of compliance function in the Fund group of companies; assessment of compliance of the Fund compliance processes with the requirements of ISO 37001 "Anti-bribery management system"; assessment of maturity of compliance function was carried out in 7 major Portfolio Companies of the Fund; the third party verification system was automated for use by the Fund and Portfolio Companies; the requirements for verification of potential suppliers registered in the EPIS system was developed, taking into account the updated Procurement Procedure of Samruk-Kazyna JSC;
- in order to increase the value of human capital, create favorable conditions and ensure competitiveness and sustainability of the labor market, the new version of the HR Policy of Samruk-Kazyna JSC was approved, which applies to the Fund and Subsidiaries of the Fund.

The Fund continues to improve the corporate governance in the Fund, demonstrates commitment to follow the standards of good corporate governance, ensures transparency of management and implements appropriate measures to further improve relations with the Sole Shareholder of the Fund, increase the performance of the Board of Directors and the Management Board of the Fund.

ANNEX 3.

The Progress Report on Assets Withdrawal of Samruk-Kazyna JSC and its Subsidiaries as part of the implementation of Government Decree of the Republic of Kazakhstan of December 29, 2020, No.908, based on the results of 2022

On August 02, 2022, the Government of the Republic of Kazakhstan by Decree No. 523 introduced amendments and additions to Decree of the Government of the Republic of Kazakhstan dated December 29, 2020, No. 908 "On Some Issues of Privatization for 2021-2025" (hereinafter - DGRK No. 908), according to which the number of assets of the Samruk-Kazyna JSC group (hereinafter - the Fund) increased from 105 to 253, of which:

- 30 organizations (plus 201 Subsidiaries in the "perimeter") for transfer to the competitive environment, including six large assets of the Fund to be withdrawn for IPO/SPO and one asset through an open two-stage tender (QazaqAir JSC), and 23 small assets of Portfolio Companies to be transferred to the competitive environment in various ways);
- 22 assets, "for which the terms, methods, as well as other conditions for their realization, liquidation, reorganization, liquidation are determined by the Management Board of the Fund" (divestment).

In addition, now the privatization plan stipulates specific deadlines on some assets for their transfer to the competitive environment: JSC NC KazMunayGas in 2022; Passenger Cars Building Plant LLP¹⁵ - in 2022-2023; QazaqAir JSC - in 2023; Air Astana JSC, Samruk-Energy JSC and KEGOC JSC, KMG International N.V. - in 2023-2024; JSC NC QazaqGaz, LLP JV Alaigyr - in 2024-2025; JSC NC Kazakhstan Temir Zholy, ShalkiyaZinc JSC and Chim-Plus LLP - in 2025.

At the moment, measures have been completed for 7 assets (Vostokmashzavod JSC, Kazakhstan Solar Silicon LLP, Astana Solar LLP, KazSilicon MC LLP, Caustic JSC, Passenger Car Construction Plant LLP, JSC NC KazMunayGas) included in Annexes 2 and 5 to DGRK No.908, of which in 2022:

1) The IPO of JSC NC KazMunayGas (hereinafter – KMG) has been completed

In the period from November 09 to December 02, 2022, a collection of applications from potential investors was organized, according to the results of which, on December 05, 2022, the Board of Directors of the Fund and the Government of the Republic of Kazakhstan, as the Sole Shareholder of the Fund, decided to dispose 18 303 584 ordinary shares of the company, which is about 3% of the total number of outstanding shares.

The number of satisfied applications amounted to about 129.9 thousand, of which 99.1% of applications were submitted by citizens of the Republic of Kazakhstan, the total volume of placement amounted to KZT153.8 billion. Thus, on December 07, 2022, the settlement with KMG investors was completed, and on December 08, 2022, trading in KMG shares on the KASE and AIX exchanges began.

Since the IPO of KMG shares, the total trading volume on two trading platforms – KASE and AIX – amounted to more than KZT64 billion.

In general, the dynamics of KMG stock prices corresponds to the forecasts of analysts of investment companies, most of which provided for the price growth potential within 12 months after the IPO.

2) Passenger Car Building Plant LLP was realized

On December 13, 2022, the Passenger Car Building Plant Sale and Purchase Agreement was signed between Kaztemirtrans JSC and the strategic partner, Stadler. The Agreement entered into force after receiving the decision of the State Commission on the approval of the realization method.

3) For 9 non-strategic assets included in Annex 6 to DGRK No. 908, measures have been taken to withdraw from the structure of the Fund, including:

1. sale and purchase agreements were signed for 4 assets: Karagandy CCI LLP, Auyl birlestigine komek LLP, Kazakhstan Petrochemical Industries Inc. LLP, Silleno LLP;
2. 3 assets were liquidated: Indox Samruk Kazakhstan LLP, Karpovsky Severny LLP, N Block B.V.;
3. 2 assets were reorganized: INSTAFON LLP and Kcell Solutions LLP by joining KAZNET Media LLP

Plans for 2023 as part of the implementation of Decree of the Government of the Republic of Kazakhstan dated December 29, 2020, No. 908

I. In 2023, it is planned to transfer the following assets directly owned by the Fund to the competitive environment: QAZAQ AIR JSC through the open two-stage tender and SPO of KEGOC JSC.

1) QAZAQ AIR JSC (hereinafter - QA), in accordance with DGRK No. 908, is subject to realization through the open two-stage tender in 2023.

On April 12, 2023, based on the results of the open tender for consulting services procurement held by QA, the independent consultant has been identified to support the QA transaction.

In the near future, together with the independent consultant, pre-sale preparation and transfer of QA to the competitive environment will be carried out.

2) Kazakhstan Electricity Grid Operating Company JSC, KEGOC (hereinafter – KEGOC) in accordance with DGRK No. 908 is subject to transfer to the competitive environment in 2023-2024 through the SPO. The Fund plans to hold the KEGOC SPO already in the current 2023.

Key measures at the moment are engagement of consultants for the transaction and the appraiser, making changes to the prospectus for the issue of KEGOC shares, coordination and approval of the price, parameters of the transaction structure by the authorized bodies of the Fund and the Sole Shareholder of the Fund.

II. In 2023, it is planned to transfer 7 assets owned by Portfolio Companies to the competitive environment:

1) Kazakhstan Railcar Building Company LLP. During 2021-2022, the asset was put up for auction several times through the open two-stage tender. However, due to the lack of bids, all tenders were declared invalid.

In this regard, the deadline for the asset realization has been postponed to 2023. At the moment, the issue of engaging the independent consultant to support the transaction and search for potential investors is being worked out.

2) Aysir turizm ve infaat (hereinafter - Aysir). Currently, pre-sale preparation of the asset is being carried out. According to the approved roadmap, the asset is planned to be realized in 2023.

3) KazMunayGas-Service LLP. Currently, the method of withdrawal of this company is not defined. In 2016-2021, work was carried out on the realization and restructuring of the Company assets and property. At the moment, there are no other assets (stock of shares and/or equity interests of legal entities) on the balance sheet of the KMGS, except for 75% of the shares in Aysir. According to KMG, the asset withdrawal is possible only after the Aysir realization.

4) KazMunayGas-Service NS JSC. During 2022, the asset was put up for electronic tender several times, which were declared invalid due to the lack of applications. In this regard, the deadline for the asset realization has been postponed to 2022. Currently, alternative ways of transferring the asset to the competitive environment are being worked out.

5) Dosjan Temir Zholy JSC. According to the roadmap, the asset is planned to be realized in 2023. Pre-sale preparation activities are being carried out. At the moment, work is underway to engage the independent consultant to support transactions for this asset realization.

6) Batys Transit JSC. According to the roadmap, the asset is planned to be realized in 2023. At the moment, measures are being taken to determine the method of the asset realization.

7) KMG Systems & Services LLP. According to the roadmap, the asset is planned to be realized in 2023. Pre-sale preparation activities are being carried out.

ANNEX 4.

The list of related-party transactions of Samruk-Kazyna JSC, the decision on entering which was taken by the Management Board of the Fund in 2022:

No.	Counterparty name	Sign of interest	Transaction
1	AJSC NC KazMunayGas	Portfolio Company	Supplementary Contract No. 1 to Agreement on Transfer of Use Rights for SAP Software in Future dated December 24, 2020, No. 1230-И
2	1) JSC NC KazMunayGas; 2) Atyrau Refinery LLP; 3) JSC NC QazaqGaz; 4) Kazakhstan Petrochemical Industries Inc. LLP; 5) OzenMunaiGas JSC; 6) Embamunaigas JSC; 7) Intergas Central Asia JSC; 8) KazTransOil JSC; 9) JSC NC Kazakhstan Temir Zholy; 10) KTZh - Freight Transportation LLP; 11) Kazakhstan Electricity Grid Operating Company JSC; 12) JSC NAC Kazatomprom; 13) APPAK LLP; 14) RU-6 LLP; 15) Kazatomprom-SaUran LLP; 16) LLP PE ORTALYK; 17) Trade and transport Company LLP; 18) Ulba Metallurgical Plant JSC..	Portfolio Companies and organizations of the Fund Group	Sublicense Agreement On Transfer of Use Rights for SAP Software
3	JSC NC QazaqGaz	Portfolio Company	Temporary Financial Assistance Agreement
4	Samruk-Energy JSC	Portfolio Company	Temporary Financial Assistance Agreement
5	Samruk-Kazyna Business Service LLP	Portfolio Company	Supplementary Agreement No.6 to SAP Software License Trust Management Agreement of December 20, 2016, No.630-
6	Turkestan CCP LLP	Portfolio Company	Temporary Financial Assistance Agreement
7	JSC NC QazaqGaz	Portfolio Company	Trust Management Agreement for 50% Stake in the Authorized Capital of PGU Turkestan LLP
8	QAZAQ AIR JSC	Portfolio Company	Aircraft Pledge Agreements
9	JSC NC Kazakhstan Temir Zholy	Portfolio Company	Loan Agreement
10	JSC NC Kazakhstan Temir Zholy KTZh - Freight Transportation LLP.	Portfolio Company and organization of the Fund Group	Supplementary Agreements to SAP Software Use Rights Future Transfer Agreements
11	JSC NC Kazakhstan Temir Zholy	Portfolio Company	Guarantee and Indemnity Agreement
12	Kazpost JSC	Portfolio Company	Savings Account Agreement

No.	Counterparty name	Sign of interest	Transaction
13	JSC NC KazMunayGas	Portfolio Company	Agreement on principles for the LFP project "Construction of Wind Power Stations in the Republic of Kazakhstan with a Total Capacity of 1 GW"
14	Kazpost JSC	Portfolio Company	Agreement on the settlement of payment for services under the Consulting Services Long-term Procurement Contract
15	Samruk-Kazyna Ondeu LLP	Portfolio Company	Supplementary Agreement No. 6 to Loan Agreement dated December 15, 2017, No. 741-и
16	Samruk-Kazyna Business Service LLP	Portfolio Company	Supplementary Agreement No.7 to SAP Software License Trust Management Agreement of December 20, 2016, No.630-и
17	JSC NC KazMunayGas	Portfolio Company	Agreement on termination of the trust management agreement for 50% of ordinary shares in the authorized capital of AstanaGaz KMG JSC dated October 15, 2018 No. 854-и//368-31
18	JSC NC QazaqGaz	Portfolio Company	Trust management agreement for 50% of ordinary shares in the authorized capital of AstanaGaz KMG JSC
19	JSC NC QazaqGaz	Portfolio Company	Sale and Purchase Agreement of 50% of the interest in the authorized capital of PGU Turkestan LLP
20	JSC NC QazaqGaz	Portfolio Company	Agreement on transfer of state property management in the form of a 100% stake in the authorized capital of GPC Investment Limited Liability Partnership
21	Samruk-Kazyna Business Service LLP	Portfolio Company	Supplementary Agreement No.8 to SAP Software License Trust Management Agreement of December 20, 2016, No.630-и
22	Samruk-Kazyna Construction JSC	Portfolio Company	Trust Management Agreement for 100% Stake in the Authorized Capital of PGU Turkestan LLP
23	JSC NC Kazakhstan Temir Zholy	Portfolio Company	Bond Purchase Agreement
24	Main Water Pipeline LLP	Organization of the Fund Group	Guarantee and Indemnity Agreement
25	JSC NC KazMunayGas	Portfolio Company	Guarantee Agreement
26	Kazakhtelecom JSC	Portfolio Company	Supplementary Agreement No.2 to Kcell JSC Stock Pledge Agreement No.1190-и of August 18, 2020.
27	KPI Inc. LLP	Organization of the Fund Group	Obligation Fulfillment Agreement
28	JSC NC KazMunayGas	Portfolio Company	Term Sheet for the LFP project "Construction of Wind Power Stations in the Republic of Kazakhstan with a Total Capacity of 1 GW"

No.	Counterparty name	Sign of interest	Transaction
29	Samruk-Kazyna Construction JSC	Portfolio Company	Supplementary Agreement No. 1 to Samruk-Kazyna Construction JSC Bond Sale and Purchase Agreement dated March 15, 2021, No. 1277-и
30	Coöperatieve KazMunaiGaz U.A.	Organization of the Fund Group	Agreement on Termination of Trust Management Agreement dated October 16, 2015, No. 531-и
31	JSC NMC Tau-Ken Samruk	Portfolio Company	Supplementary Agreement No. 1 to Temporary Financial Assistance Agreement dated December 21, 2021, No. 1378
32	Samruk-Kazyna Business Service LLP	Portfolio Company	Supplementary Agreement No.9 to SAP Software License Trust Management Agreement of December 20, 2016, No.630-и
33	Ozenmunaigas JSC	Organization of the Fund Group	SAP Software Use Rights Transfer Agreement
34	JSC NC Kazakhstan Temir Zholy	Portfolio Company	Bond Purchase Agreement
35	Turkestan CCP LLP	Portfolio Company	Supplementary Agreement No. 2 to Temporary Financial Assistance Agreement dated April 13, 2022, No. 1446-И

The list of related-party transactions of Samruk-Kazyna JSC, the decision on entering which was taken by the Board of Directors of the Fund in 2022:

No.	Counterparty name	Sign of interest	Transaction
1	Kyzylkum LLP	Portfolio Company (30% of the interest of JSC NAC Kazatomprom)	Sublicense Agreement on Transfer of Use Rights for SAP Software
2	Khorasan-U LLP	Portfolio Company (50% of the interest of JSC NAC Kazatomprom)	Sublicense Agreement on Transfer of Use Rights for SAP Software
3	Coöperatieve KazMunaiGaz U.A.	Portfolio Company	Amendment to Share Option Agreement and Exercise of Option
4	JSC NC KazMunaiGaz and Coöperatieve KazMunaiGaz U.A.	Portfolio Company	Agreement on Transfer of Debt and Set-Off
5	JSC NC KazMunayGas	Portfolio Company	Bond Sale and Purchase Agreement

ANNEX 5.

Informatization and Digitalization

IT automation and digitalization in the Fund involves the use of technologies to streamline manual processes and digitization of information and data. This leads to increase in efficiency, accuracy and productivity, results in improvement of the performance of Fund employees and its group of companies.

The implementation of IT automation and digitalization in the Fund includes several key stages.

Evaluation. The first step is to evaluate existing processes and systems and identify areas where automation and digitalization can have the greatest impact.

Planning. Based on the assessment, a plan should be developed that specifies specific automation and digitalization initiatives that will be implemented, as well as the timing and budget of the project.

Realization. The next step is to implement automation and digitalization initiatives. This may include the deployment of new technological solutions, such as robotic process automation (RPA) or artificial intelligence (AI), as well as the digitization of information and data.

Training. Employees need to be trained in new technological solutions and processes. This should include both technical and technological training so that employees can use the new systems effectively.

Monitoring. After the implementation of automation and digitalization initiatives, it is important to monitor the results and make the necessary adjustments. This may include refining technological solutions or making changes to processes to ensure that the desired results are achieved.

Following these steps, the Fund can successfully implement technological solutions and digitize information and data, which will significantly increase the return and productivity of both administrative and managerial and production personnel "on site".

What was Done in 2022

As part of the digitalization of the procurement process, in order to simplify and increase the transparency of procedures, the Electronic Store project was implemented.

The Skstore.kz e-store is an automated e-commerce information platform that allows suppliers to sell their goods for Portfolio Companies of Samruk-Kazyna JSC. The undeniable benefits of using Skstore.kz include

- free online registration;
- the ability to place any product;
- remote sale of goods - without leaving the office or home;
- quick agreement of the transaction and conclusion of the contract with the customer in 2 days (1 day for the customer, 1 day for the supplier);
- charging a minimum commission only for the actual sale;
- ability to track the progress of order approval, statistics and analytics.

To carry out successful work in the skstore.kz e-store, a potential supplier needs to go through a simple registration by signing a public offer using an EDS.

Skstore.kz is not just a convenient platform for selling goods, but also a transparent, and most importantly, a quick way of buying and selling both for representatives of small and medium-sized businesses and for customers - Portfolio Companies of Samruk-Kazyna JSC.

QazaqGaz JSC initiated a project to implement an Analytical Asset Management System (AAMS). The aim of the project is to implement a system designed for the operational processing of large amounts of data (Big Data), using mathematical tools to forecast and determine deviations from them with accounting accuracy.

A model of the analytical asset management system has been tested as part of the project. The implemented pilot project of the analytical system, which proved its effectiveness within the framework of the analysis and data processing. Currently, the MVP model of the information system has been implemented and a demonstration of the functionality and capabilities of the system has been carried out. JSC NC QazaqGaz has started work on the conceptual project of the AAMS, which also covers the model of gas control and accounting

In order to widely inform the population, as well as to prevent the dissemination of deliberately false information used for fraudulent purposes, a specialized Internet resource of the privatization and IPO program was implemented - IPO.SK.KZ, which provides useful information for both institutional and retail investors. The project was implemented as part of the information and analytical support of the Privatization and IPO Program, aimed at increasing the level of awareness of citizens of Kazakhstan about the planned measures for the transfer of assets of the Fund group of organizations to the competitive environment.

The Fund group of companies initiated a project to implement the Horizontal Monitoring Platform software for the Fund transition to tax monitoring in the form of horizontal monitoring.

The implementation of the HMP platform will allow the exchange of information and documents between the State Revenue Committee of the Ministry of Finance of the Republic of Kazakhstan and the Fund, which is based on the principles of cooperation, reasonable trust, legality, transparency, and expanded information interaction.

The Fund has launched a procedure for “georeferencing” critical data and information systems as part of the improvement of the risk management system in the event of emergencies.

Plans for 2023

Scalable infrastructure for digitalization and collaboration of the company group

In 2023, our main task will be to create a scalable infrastructure among our Portfolio Companies, providing real digitalization and facilitating cooperation, as well as reducing bureaucracy. By implementing a common network and productivity tools, we will streamline communications, optimize resource allocation and ensure uninterrupted information exchange. This strategic initiative will not only enhance our ability to adapt to changing market conditions, but also enable our Portfolio Companies to thrive in the digital age, driving growth and innovation in the country.

Interactive dashboards for displaying product dates

Development of a comprehensive database combining data from exchanges and other relevant sources (product data) in order to provide up-to-date information dashboards for taking informed decisions. This approach will effectively collect, store and analyze a wide range of market and other data, providing access to the latest information and trends.

Working out and analytics on the implementation of ESG, EHS and HR services projects

The planned analysis of IT solutions for ESG, EHS and HR processes includes an assessment of technologies used today for environmental, health and safety management, as well as human resource management. The purpose of the analysis is to identify areas for improvement and the possibility of introducing new technological solutions to support these processes. The analysis includes an overview of existing systems and processes, collecting information and developing a plan for implementing new solutions.

Implementation of the Horizontal Monitoring Platform software

Introduction of the Horizontal Monitoring Platform in order to ensure the Fund interaction with the SRC of the Ministry of Finance of the Republic of Kazakhstan within the framework of tax control processes in the horizontal monitoring mode for the following types of taxes.

Georeserving

As part of the improvement of the risk management system in the event of emergencies, work continues on the implementation of measures to prevent incidents for the Fund group of companies, namely the use of the "georeservation" method of critical data and information systems.

Implementation of measures to increase the maturity of IT competencies of employees of the Fund and Portfolio Companies

It is necessary to offer training and development opportunities, provide access to technological resources and contribute to the formation of a culture that values technology in order to increase the maturity of the IT staff of the Fund and Portfolio Companies. This will result in the improvement in the technical skills of employees and increase efficiency, improve the decision-making process and enhance the productivity of the Fund.

Development of large language models (LLM, AI and ML)

To analyze big volumes of internal data, it is necessary to develop own large language models. This approach will help us process information more efficiently, quickly finding important information. Maintaining the locality of data processing, which will also increase security and comply with privacy standards. Such models will provide target conclusions that will facilitate informed decision-making and innovation in the company.

ANNEX 6. GLOSSARY

This Annual Report shall use the following definitions and abbreviations:

%	Interest
AFAPC	Automated Frequency and Active Power Control
AIFC	Astana International Financial Center
Air Astana, Air Astana JSC	Air Astana Joint Stock Company
AIX	Exchange of the Astana International Financial Center
ALE	Association of Legal Entities
AMP	Administrative and managerial personnel
Atyrau Refinery	Atyrau Oil Refinery
bln	Billion
BoD	Board of directors
CC	Corporate Center
CECS	Centralized Emergency Control System
CEO	Chief Executive Officer, senior managerial position
CIS	Commonwealth of Independent States
Companies, Fund Portfolio companies, PCs	National companies and other legal entities, more than 50% of the voting shares (interests) of which is owned by the Fund on the right of property or trust management
CRM	Customer Relationship Management
CVI, COVID-19	2019 Coronavirus Infection
DCP	Domestic Commodity Producers
EBITDA	Earnings of the company before interest, taxes, depreciation and amortization.
ESDPP-1, ESDPP-1 JSC, Ekibastuz SDPP-1 JSC	Ekibastuz SDPP-1 Joint Stock Company
ESDPP-2, ESDPP-2 JSC, Ekibastuz SDPP-2 JSC	Ekibastuz SDPP-2 Joint Stock Company
EMG, Embamunaigas JSC	Embamunaigas Joint Stock Company
EMS	Express Mail Service, an international express mail delivery service
EPIS	Electronic procurement Information System of Samruk-Kazyna JSC
ESG	Environmental, Social, and Corporate Governance
ETL	Energy transmission line
EU	European Union
FA	Fixed asset/ Fixed assets
Fund Group	The Fund, companies, their subsidiaries, more than 50% of the voting shares (interests) of which is owned by companies, as well as legal entities, more than 50% of the voting shares (interests) of which is owned by the specified subsidiaries of companies
Fund, Samruk-Kazyna JSC	Joint Stock Company "Sovereign Wealth Fund "Samruk-Kazyna"
GDP	Gross domestic product
GRES	State District Power Plant
GWS	Goods, works and services
H&S	Health & Safety
HEI	Higher education institution
HPP	Hydroelectric power plant
HR	Human Resources

ICA	Intergas Central Asia Joint-Stock Company
IMF	International Monetary Fund
IPO	Initial Public Offering
IRs	Internal regulatory document
IS	Information system
IT	Information technology
it.	Item
KAP, JSC NAC Kazatomprom	Joint Stock Company "National Atomic Company "Kazatomprom"
Kazpost, Kazpost JSC	Kazpost Joint Stock Company
KBM	Karazhanbasmunai Joint Stock Company
KEGOC, KEGOC JSC	Kazakhstan Electricity Grid Operating Company Joint Stock Company (KEGOC)
KIMEP	Kazakhstan Institute of Management Economics and Forecasting
km	Kilometer
KMG, JSC NC KMG	Joint Stock Company "National Company "KazMunayGas"
KPI	Key performance indicator
KTC, Kazakhtelecom, Kazakhtelecom JSC	Kazakhtelecom Joint Stock Company
KTZh, JSC NC KTh	Joint Stock Company "National Company "Kazakhstan Temir Zholy"
kWh	Kilowatt-hour
KZT	Kazakhstan Tenge
LC	Local content
LSE	London Stock Exchange
LP	Linear programming
LTIFR	Lost Time Injury Frequency Rate
m³	Cubic meter
M&A	Mergers and Acquisitions
MBA	Master of Business Administration
Media	Mass communication media
MGP	Main gas pipeline
mln	Million
MMG, Mangistaumunaigas JSC	Mangistaumunaigas Joint Stock Company
MW	Megawatt
NAV	Net Assets Value
NBRK	National Bank of the Republic of Kazakhstan
NCE	National Chamber of Entrepreneurs
OMG	Ozenmunaigas Joint Stock Company
OPL	Overhead power line
Pavlodar Refinery	Pavlodar Oil Chemistry Refinery
PCS	Procurement Category Strategy
PRC	People's Republic of China
PKOP	PetroKazakhstan Oil Products Limited Liability Partnership
PP	Production personnel
QAZAQ AIR, QAZAQ AIR JSC	QAZAQ AIR Joint Stock Company
Refinery	Oil processing plant
RES	Renewable energy sources
ROA	Return on assets
ROE	Return on equity
RoK	Republic of Kazakhstan

S&P Global Ratings	Standard & Poor's, the subsidiary of the American McGraw-Hill, engaged in analytical research of financial markets
s/i	sub-item
SCEF	Specific Consumption of Equivalent Fuel
SE, Samruk-Energy JSC	Samruk-Energy Joint Stock Company
SEZ	Special Economic Zone
SKI, Samruk-Kazyna Invest LLP	Samruk-Kazyna Invest Limited Liability Partnership
SPIID	State Program of Industrial and Innovative Development
SPO	Secondary Public Offering, public offering of shares owned by existing shareholders
SRS	Samruk Research Services
SS	Substation
State Commission	State Commission on the Issue of Modernization of the Economy of the Republic of Kazakhstan
Subsidiary	Subsidiaries and Affiliates
SWF	Sovereign Wealth Fund
TCO, Tengizchevroil LLP	Tengizchevroil Limited Liability Partnership
thous.	Thousand
TKS, JSC NMC Tau-Ken Samruk	Joint Stock Company "National Mining Company "Tau-Ken Samruk"
trln	Trillion
UEPS	Unified Electric Power System of the Republic of Kazakhstan
USA	United States of America
USD	US Dollar
Un.	Unit
VAT	Value added tax
WPP	Wind Power Plants
WWII	The Great Patriotic War



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