05 March 2020, Nur-Sultan

OPERATING AND FINANCIAL REVIEW
TWELVE MONTHS ENDED 31 DECEMBER 2019

This Operating and Financial Review is intended to assist with the understanding and assessment of trends and significant changes related to the operations and financial position of NAC Kazatomprom JSC ("the Company", "Kazatomprom" or "KAP").

This review is based on the audited consolidated financial statements of the Group for the year ended 31 December 2019, in each case without material adjustment, unless otherwise stated. It should be read in conjunction with those statements and the accompanying notes, in addition to the Kazatomprom 4Q19 Operations and Trading Update, and other Company reports. All financial data and discussions thereof are based upon the audited consolidated financial statements prepared in accordance with the International Financial Reporting Standards ("IFRS"), unless otherwise indicated.

In this document, "the Group" refers to the Company and its consolidated subsidiaries, i.e. companies that the Group controls by having (i) the power to direct their relevant activities that significantly affect their returns, (ii) exposure, or rights, to variable returns from its involvement with these entities, and (iii) the ability to use its power over these entities to affect the amount of the Group's returns. The existence and effect of substantive rights, including substantive potential voting rights, are considered when assessing whether the Group has power over another entity.

The Group, with its Associates and Joint Ventures ("JVs"), are collectively referred to as "the Holding".

The functional currency of Kazatomprom is the national currency of Kazakhstan, the Kazakhstani Tenge ("KZT"). All references to pounds ("lb") herein are referring to pounds of uranium oxide (U_3O_8). References to dollars are referring to the United States dollar ("USD").

Additional information about the Group and its businesses and operations is available in regularly published documents submitted to the Regulatory News Service of the London Stock Exchange ("LSE"), on the Astana International Exchange ("AIX") and on Kazatomprom's corporate website (www.kazatomprom.kz).

This document contains forward-looking information ("FLI"). For more information regarding the risks and assumptions associated with FLI, see the Risks and FLI section at the end of the document.

TABLE OF CONTENTS

1.0 CORPORATE OVERVIEW

Kazatomprom is the world's largest producer of natural uranium, with priority access to one of the world's largest uranium resource bases. According to UxC, LLC ("UxC") data, the Company's 2019 uranium production represented approximately 24% of global primary uranium supply. The Holding, which includes all uranium production from Kazakhstan, represented 42% of global primary uranium supply in 2019.

As the National Atomic Company of the Republic of Kazakhstan, Kazatomprom holds national operator status for the export and import of uranium and its compounds, nuclear power plant fuel, special equipment and technologies, and rare metals, which provides the Company with certain privileges, including the ability to obtain subsoil use licenses through direct negotiation with the authoritative body of Government. This effectively grants priority access to high-quality and in-situ recovery ("ISR")-conducive deposits of natural uranium, which are abundant in the Republic of Kazakhstan. In 2019, approximately 78% of the world's uranium that was mined using ISR, came from the Holding's mines in Kazakhstan.

The Holding operates 13 mining assets with 26 uranium deposits/areas ("deposits"), all of which are located in Kazakhstan and mined using the ISR mining method:

- Three uranium producing subsidiaries, wholly-owned by Kazatomprom (100% share ownership), operating on eight uranium deposits;
- Ten uranium producing companies, partly owned by Kazatomprom (based on equity shareholding), operating on 18 uranium deposits.

In 2020, the number of distinct uranium deposits being mined will decrease from 26 to 24, due to the completion of development work on the №1 block (South) of the Moinkum mining site, and the Uvanas mining site by "Kazatomprom-SaUran" LLP, a subsidiary of Kazatomprom. The development work combined ore deposits that were previously under separate subsoil use agreements, resulting in a decrease in the total number of discrete deposits.

At 31 December 2019, the Group's attributable Proved and Probable Ore Reserves totaled 292.7 thousand tonnes of Uranium Metal Content Equivalent ("UME"). Attributable Measured and Indicated Mineral Resources (inclusive of those Mineral Resources modified to produce the Ore Reserves) totaled 462.4 thousand tonnes of UME. Each category is reported in accordance with the terms and definitions of the Joint Ore Reserves Committee (JORC) Code with more information available in section 8.0 *Reserves and geological surveys*.

Kazatomprom's core business is the mining and marketing of natural uranium products. However, the Group is also present in other stages of the "front-end" nuclear fuel cycle, including uranium dioxide (UO_2) ceramic powder production, and the production of fuel pellets for fuel assemblies used in nuclear power stations. The Group also has access to uranium enrichment services through its agreements with TVEL Fuel Company of Rosatom. In addition, the construction of a fuel assembly plant is currently underway in Kazakhstan and expected to be operational in the first half of 2021 (previously expected to be operating in 2020).

In addition to uranium operations, the Group includes one wholly owned subsidiary that is engaged in the processing of selected rare metals, primarily tantalum, niobium and beryllium.

The Group also includes subsidiaries that are primarily engaged in providing supporting services to the uranium segment, such as drilling, transportation, IT and security services.

1.1 Strategy, vision and mission

Kazatomprom's Mission is to develop its uranium deposits and their value chain components in order to create long-term value for all of its stakeholders, in accordance with the principles of Sustainable Development. The Vision of the Company is to become the partner of choice for the global nuclear fuel industry. The Company's 2018-2028 Development Strategy is to achieve continued growth and strengthen its position as the leading company in the uranium industry by focusing on:

- Uranium mining as the core business;
- Optimising production, processing and sales volumes based on market conditions;
- Creating value by enhancing the marketing function and expanding sales channels;
- Implementing best-practice business processes;
- Developing a corporate ethics culture that is commensurate with an industry leader.

The Company strives to be the first choice in the provision of uranium and related front-end services, focusing on reliability, technical excellence, outstanding Health, Safety and Environmental (“HSE”) performance, and fair dealings with customers.

The Group’s Mission highlights:

- **Sustainability –** the Group is committed to the best HSE practices and the management team is focused on continual improvement.
- **Uranium deposits and their value chain components** – the focus of the Group’s commercial activities will remain where it has the most significant competitive advantage: uranium mining.
- **Long-term value creation** – The Group runs high-margin, cash generating operations with relatively modest requirements for further expansion capital in its uranium segment. With its conservative debt policy, the Group will therefore seek to return substantial cash flows to its shareholders, whilst preserving a conservative balance sheet structure and comfortable leverage to better position itself to act on market opportunities, should they arise.

2.0 HEALTH, SAFETY AND ENVIRONMENT

Health, safety, and environmental protection, including nuclear and radiation safety, are priorities for the Company. A successful business is built by healthy employees working in safe conditions. The Company is continuously improving the quality of its industrial HSE programs.

2.1 Occupational health and safety

The Company conducts its production activities in compliance with the requirements for labor protection and industrial safety, implementing comprehensive measures to prevent incidents and accidents. Health care and safety management systems that meet international standards are being widely implemented. In addition to internal instructions and rules, the Company also carries out various communication and engagement campaigns to improve safety culture across the organization. Building a strong employee and management safety culture, and increasing awareness and conscious compliance with industrial safety requirements, is a critical element for ensuring Kazatomprom remains in alignment with the highest international safety standards.

In supporting the International Social Security Association (ISSA) initiative to improve safety, health and well-being at work, the Company is registered as a member of the international Vision Zero program. Membership reflects management's belief that a strong safety culture can reduce the number of work-related accidents, the degree of harm to health, and the number of occupational diseases.

In order to preserve the life and health of employees, the Company has adopted the "Seven Golden rules" of the Vision Zero program, which apply to all employees of the Company's enterprises and their contractors:

- Take leadership – demonstrate commitment;
- Identify hazards – control risks;
- Define targets – develop programmes;
- Ensure a safe and healthy system – be well-organized;
- Ensure safety and health in machines, equipment and workplaces;
- Improve qualifications – develop competence;
- Invest in people – motivate by participation.

Indicator	2018	2019	Change
Industrial accidents[1]	0	0	-
LTIFR (per million man-hours)[2]	0.31	0.24	(23)%
Unsafe conditions, unsafe actions, near-miss reporting[3]	6,200	34,546	457%
Number of accidents[4]	12	8	(33)%
Fatalities	1	1	-

[1] Defined as uncontrolled explosions, emissions of dangerous substances, or destruction of buildings.
[2] Lost-Time Injury Frequency Rate (LTIFR) per million hours.
[3] The increase in the number of identified unsafe conditions (UC), unsafe actions (UA), near-miss reports was primarily due to the fact that in 2018, the reporting processes were still at the implementation stage (employee training), and in 2019 these processes were functioning in all Subsidiaries, JO's, JVs and Associated companies.
[4] Defined as impact on the employee of a harmful and (or) dangerous production factor in performance of his work (job) duties or tasks of the employer, which resulted in an industrial accident, sudden deterioration of health, or poisoning of the employee that led to temporary or persistent disability, or death.

The measures undertaken in 2019 to enhance the focus on safety awareness helped to prevent industrial accidents (no uncontrolled explosions, emissions of dangerous substances or destruction of buildings) at the Company's enterprises. The Group also saw a statistical improvement of the LTIFR. However, despite the considerable effort, eight accidents were registered during the year, resulting in ten injuries, one of which was fatal.

The types of accidents varied, including slips and falls, pinch point injuries, traffic accidents, and an instance of a chemical burn. The fatality occurred when an employee slipped and fell under a piece of mobile equipment that was in motion at night.

Following each accident, a thorough investigation was completed, the main causes were identified, preventative measures were developed and procedures were changed to prevent similar incidents in the future. The lessons-learned were also reported to operations across the Holding.

As part of the continuing work to improve the system for ensuring industrial safety and implementing the 2018 – 2028 development strategy, in 2020, the Company is planning to complete the following activities:

- implementing the practice of immediately stopping work if an unsafe act or condition is observed (STOP cards);
- analysis of the frequency and nature of detected dangerous conditions, dangerous actions, potentially dangerous near-miss situations, and the adequacy of corrective measures taken;
- improving the survey methods used to determine the level of employee and executive conscious compliance with industrial safety requirements;
- increase the industrial safety requirements for contractors;
- automation of production safety reporting processes.

These activities are expected to enhance the focus on preventive measures and accordingly, increase the safety culture among the Company's employees.

2.2 Environmental protection, nuclear and radiation safety

An internationally recognized benefit of the ISR mining method is its low environment and radiological impact. In contrast to underground and open-pit mining, ISR mining does not generate significant waste rock piles, nor are major tailings dams required. All of the Group’s uranium is mined using the ISR method and as a result, its operations inherently have a minimal impact on land, atmosphere and water supply.

The company employs reliable systems for monitoring the environment and radiation safety at all of its uranium mines, and there were no environmental or radiation-related incidents in 2019. All activities were completed in compliance with environmental legislation, regulatory requirements and guidance on nuclear and radiation safety.

3.0 MARKETING

3.1 The uranium market

The sale of natural uranium and uranium products is Kazatomprom's primary source of revenue and profit. As a result, the market prices for uranium have a significant impact on the Company's financial results and like any commodity, the balance of supply and demand determines the market price for uranium products. However, the average sales price realized by any primary uranium producer is also highly dependent on the specific types of contracts they deliver into and the structure of their sales portfolio (terms, price formulae used in each contract, proportion of spot and term contracts, etc.).

Kazatomprom expects that in the years to come, nuclear power, as a reliable source of carbon-free, base-load electricity, will maintain and strengthen its position in the broader energy market, resulting in increased demand for uranium. Accordingly, uranium prices will need to rise from current low levels, which represents a significant opportunity for Kazatomprom as a low-cost producer with a high degree of leverage to market prices.

3.2 Sales

There are over 70 utility companies globally, operating 442 nuclear power reactors. As part of the Company's strategic goal to create value by expanding sales channels, the marketing and sales departments are constantly working to grow the Company's customer base, with ongoing negotiations in Europe, North and South America and the Middle East.

In 2019, the Company sold its uranium products, directly and through its Swiss marketing subsidiary "Trade House KazakAtom" AG ("THK"), to 23 customers in 11 countries, an increase of six customers and two countries compared to 2018. In 2019, Kazatomprom's top three and top five customers accounted for 54% and 68% of uranium segment revenues, respectively.

In December 2019, the Company shipped 42.14 tonnes of low enriched uranium hexafluoride ("UF_6"), about 315 tonnes of uranium equivalent, to the United Nations International Atomic Energy Agency Low Enriched Uranium Bank (LEU). The only one of its kind, the LEU Fuel Bank is a strategic reserve for nuclear power plants, owned by the UN IAEA and at Kazatomprom's "Ulba Metallurgical Plant" JSC, located on the territory of Ust-Kamenogorsk, Kazakhstan.

Kazatomprom delivers U_3O_8 and finished uranium products to various destinations based on customer requirements:

- **Converters:** The Group transports U_3O_8 to licensed conversion facilities owned by companies such as ConverDyn (US), Cameco (Canada) and Comurhex (France), first by rail from the Company's operations in Kazakhstan, generally to the port of St. Petersburg in Russia, then by sea to various ports in the US, Canada and Europe. The material then moves by rail or road to the processing facilities and is transferred to the customer's accounts. In some cases, the Group enters into swap (exchange) agreements at the conversion facility to reduce transportation costs. This can include the exchange of U_3O_8 with partners of the Group at the conversion facility.
- **China.** When transporting material to China, the Company delivers its cargo to the Alashankou railway station near the Kazakhstan-China border.
- **Russia.** When shipping to the Russian Federation — recipients include Angarsk Electrolysis and Chemical Combine JSC (AECC), Siberian Chemical Combine JSC (SCC) and Chepetsk Mechanical Plant JSC (Rosatom group) — the Group delivers its cargo by rail from its operations to one of several Russian railway stations, depending on the final destination of the products.
- **India.** The Company generally delivers U_3O_8 to destinations in India by rail to the port in St. Petersburg, Russia, then by sea to the port of Mumbai, India. The customer takes title at the port and organizes transportation to the final destination.

The following table provides the geographical distribution of customers for the Group's uranium products, according to revenue in the uranium segment:

Sales of U_3O_8 uranium products by region

(% of total uranium segment revenue)

Region	**2015**	**2016**	**2017**	**2018**	**2019**
China	44%	47%	60%	34%	40%
Europe	19%	16%	18%	9%	18%
India	–	11%	8%	23%	9%
Russia	–	–	–	–	8%
South Korea	3%	6%	4%	–	–
USA	20%	12%	4%	5%	6%
Canada	–	–	–	7%	8%
Other*	14%	8%	6%	22%	12%

Source: Internal company data. Percentages have been rounded.

*Includes sales to other countries, uranium funds and THK's trading activity.

4.0 PRESENTATION OF FINANCIAL INFORMATION

4.1 Segments

During the period under review, the Group operated through the following three principal business segments:

- **Uranium segment** includes uranium mining and processing operations from the Group's mines, the Group's purchases of uranium from the Group's JVs and Associates engaged in uranium production, and external sales and marketing of uranium products. The Uranium segment includes the Group's share in net results of its JVs and Associates engaged in uranium production, as well as results of the Company as the head office of the Group. This segment does not include production and sales of UO_2 powder and fuel pellets.
- **"Ulba Metallurgical Plant" JSC ("UMP") segment** includes production and sales of products containing beryllium, tantalum and niobium, hydrofluoric acid and by-products. This segment is also engaged in the processing of uranium raw materials under tolling arrangements, and the production of UO_2 powder and fuel pellets.
- **Other segment** includes revenue and expenses of the Group's subsidiaries that are primarily engaged in providing supporting services to the Uranium segment, such as drilling, transportation, R&D, IT and security services. These businesses are not included within reportable operating segments, as their financial results do not meet the quantitative threshold. This segment is not disclosed in this report due to immateriality.

4.2 Consolidation

In addition to the operations of the Company and its consolidated subsidiaries, the Group relies on a number of JOs, JVs and Associates.

- **Subsidiaries** are entities that the Group controls by having (i) the power to direct their relevant activities that significantly affect their returns, (ii) exposure, or rights, to variable returns from its involvement with these entities, and (iii) the ability to use its power over these entities to affect the amount of the Group's returns. The existence and effect of substantive rights, including substantive potential voting rights, are considered when assessing whether the Group has power over another entity.
- **Joint operations** ("JOs") are entities in respect of which the Group has joint control and has rights to their assets and revenues and has obligations relating to their expenses, as well as financial obligations in proportion to the Group's interests. The Group's JOs, being JV "Akbastau" JSC and "Karatau" LLP, are consolidated as JOs from 1 January 2018. The Group's interests in JOs are accounted for on a proportional consolidation basis.
- **Joint ventures** ("JVs) are entities that are under the joint control of the Group acting collectively with other parties, and decisions over the relevant activities of such entity require unanimous consent of all parties sharing control. The Group's interests in JVs are accounted for using the equity method of accounting.
- **Associates** are entities over which the Group has, directly or indirectly, significant influence, but not sole or joint control, which is typical for a shareholding of between 20% and 50% of the voting rights. The Group's investments in Associates are accounted for using the equity method of accounting.
- **Equity investments** are entities in which the Group has less than 20% of the voting rights. Equity investments are recognised at fair value as "other investments" in the Company's consolidated IFRS financial statements.

The following table lists the Group's subsidiaries, JVs, JOs and Associates, as of 31 December 2019. In all cases, the share proportion is equal to the Group's voting rights, with the exception of "Ulba Metallurgical Plant" JSC and "Volkovgeologia" JSC, where the Group has 100% voting rights in each.

Treatment	Name	Share (%)
Uranium Mining and Processing		
Subsidiaries	“Ortalyk” LLP	100.00%
	“Kazatomprom-SaUran” LLP(1)	100.00%
	“RU-6” LLP(1)	100.00%
	“Appak” LLP	65.00%
	“JV “Inkai” LLP(2)	60.00%
	“Baiken-U” LLP (4) (5)	52.50%
	“JV “Khorassan-U” LLP (4)	50.00%
Joint Ventures	“JV “Budenovskoye” LLP	51.00%
	“Semizbai-U” LLP	51.00%
Joint Operations	“JV “Akbastau” JSC (3)	50.00%
	“Karatau” LLP (3)	50.00%
	Energy Asia (BVI) Limited (4) (5) (6)	50.00%
Associates	“JV “Katco” LLP	49.00%
	“JV “South Mining Chemical Company” LLP	30.00%
	“JV “Zarechnoye” JSC	49.98%
	“Kyzylkum” LLP (5)	50.00%
	“Zhanakorgan-Transit” LLP (7)	60.00%
Nuclear Fuel Cycle and Metallurgy		
Subsidiaries	“Ulba Metallurgical Plant” JSC	90.18%
	“ULBA-CHINA Co” Ltd(7)	100.00%
	“Mashzavod” JSC(7)	100.00%
	“Ulba FA” LLP(7)	51.00%
Nuclear Fuel Cycle		
Joint Ventures	“Uranium Enrichment Centre” JSC (8)	50.00%
	“Ural Electrochemical Integrated Plant” JSC(7)	25.00%
	“JV “UKR TVS” Closed Joint-Stock Company	33.33%
Investments	“International Uranium Enrichment Centre” JSC	10.00%
Ancillary Operations		
Subsidiaries	“High Technology Institute” LLP	100.00%
	“KazakAtom TH” AG or “THK”	100.00%
	“KAP-Technology” JSC	100.00%
	“Trading and Transportation Company” LLP	99.99%
	“Volkovgeologia” JSC	90.00%
	“Rusburmash-Kazakhstan” LLP(7)	49.00%
	“Korgan-KAP” LLP	100.00%
Joint Ventures	“SKZ-U” LLP	49.00%
	“Uranenergo” LLP	79.52%
	“Shieli – Energoservice” LLP(7)	99.17%
	“Taukent – Energoservice” LLP(7)	99.95%
	“Uranenergo-PUL” LLP(7)(9)	100.00%
Associates	“JV “SKZ Kazatomprom” LLP	9.89%

[1] The Company transferred its rights and obligations under the subsoil use licenses relating to Kanzhugan, Southern Moinkum, Eastern Mynkuduk and Uvanas deposits, along with the associated production assets to “Kazatomprom-SaUran” LLP and its rights and obligations under the subsoil use licenses relating to the Southern and Northern Karamurun deposits, to “RU-6” LLP, in November 2018.
[2] The Company increased its interest in JV “Inkai” LLP from 40% to 60%, and accordingly, started fully consolidating this entity in its financial statements effective 1 January 2018.
[3] JV “Akbastau” JSC and “Karatau” LLP were classified as JOs, effective 1 January 2018.
[4] In December 2018, the Company completed the acquisition of 40.05% shares in EAL and a 16.02% stake in the issued capital of JV “Khorasan-U” LLP from Energy Asia Holdings (BVI) Limited. As a result of these transactions, the Company increased its interests in “Baiken-U” LLP from 5% to 52.5% (direct ownership 5%, indirect ownership through Energy Asia (BVI) Limited 47.5%), its interest in JV “Kyzylkum” LLP from 30% to 50% (direct ownership 30%, indirect ownership through Energy Asia (BVI) Limited 20.0%), in JV “Khorasan-U" from 33.98% to 50% (direct ownership).
[5] The Company holds 50% (direct ownership) in Energy Asia (BVI) Limited. Energy Asia (BVI) Limited holds 40% (direct ownership) in “Kyzylkum” LLP and 95% (direct ownership) in “Baiken-U” LLP.
[6] In December 2019, PSIL was liquidated and its share in Energy Asia (BVI) Limited in the amount of 9.95% (direct ownership) was transferred to the Company. As a result, the Company's share in Energy Asia (BVI) Limited (direct ownership) increased to 50%
[7] These companies are 3rd level entities for the Company through the interests in subsidiaries, JVs and Associates presented above these companies in the table. The corresponding interests belongs to the 2nd tier entities, not the Company.

The following assets are currently for sale or subject to restructuring:

Treatment	Name	Share (%)
Nuclear and Alternative Energy		
Subsidiaries	"Kazakhstan Solar Silicon" LLP(9)	100.00%
	"MK KazSilicon" LLP(9)	100.00%
	"Astana Solar" LLP(9)	100.00%
Joint Ventures	*"Uranenergo-PUL" LLP* (7)(11)	100.00%
	"Shieli – Energoservice" LLP (7) (12)	99.17%
	"Taukent – Energoservice" LLP (7) (12)	99.95%
Auxiliary operations		
Associates	"Caustic" JSC(10)	40.00%
Nuclear Fuel Cycle		
Joint Ventures	"Uranium Enrichment Centre" JSC (8)	50.00%

[8] In January 2020, Kazatomprom entered a conditional contract to sell its 50% interest (minus one (1) share) in the Uranium Enrichment Center JSC ("UEC") to its partner in the JV, TVEL Fuel Company ("TVEL"), for RUB 6.253 billion (approximately US$100 million). The value of Kazatomprom's interest in UEC is based on an independent fair market valuation carried out by KPMG Tax and Advisory LLC. Kazatomprom is planning to retain one (1) share in UEC, which will preserve the Company's rights to access uranium enrichment services under the conditions previously agreed upon with TVEL.

[9] In accordance with the privatisation plan of non-core assets as presented in Kazatomprom's IPO Prospectus, a number of non-core assets have been or are to be disposed. This includes entities of the KazPV project: "Astana Solar" LLP, "Kazakhstan Solar Silicon" LLP and "MK KazSilicon" LLP. As disclosed in May 2019, the Company entered a contract to sell the assets, subject to conditions, which provides for the initial sale of 75% of the Group's shareholding in the entities of the KazPV project. This transaction had not yet closed at 31 December 2019, as outstanding conditions had not yet been met. The assets and liabilities of the entities in the KazPV project are therefore presented as a disposal group in the consolidated financial statements.

[10] The Group intends to sell its entire stake in Caustic JSC by the end of 2020.

[11] "Uranenergo-PUL" LLP is a 3rd-level enterprise of the Company through stakes in "Uranenergo" LLP. In October 2019, the General Meeting of the Participants of "Uranenergo" LLP approved the reorganization of "Uranenergo-PUL" LLP. The "Uranenergo-PUL" LLP are expected to be reorganized in 2020.

[12] "Shieli-Energoservice" LLP and "Taukent-Energoservice" LLP, are a 3rd-level enterprises of the Company through stakes in "Uranenergo" LLP. The companies are expected to be reorganized in 2020.

5.0 SIGNIFICANT FACTORS AFFECTING THE GROUP'S RESULTS OF OPERATIONS

The significant factors that affected the Group's results of operations during 2018 and 2019, and which the Company expects to continue to affect the Group's results of operations in the future, include:

- the price received for the sale of natural uranium and changes in natural uranium product prices;
- changes in the Group structure;
- the impact of changes in exchange rates;
- taxation, including mineral extraction tax;
- the price and availability of sulfuric acid;
- impact of changes in ore reserves estimates; and
- transactions with Subsidiaries, JVs and Associates.

5.1 Price received for the sale of natural uranium and changes in natural uranium product prices

Spot market prices for U_3O_8, which is the main marketable product of the Group, have the most significant effect on the Group's revenue. The majority of the Group's revenue is derived from sales of U_3O_8 under contracts with price formulae containing a reference to spot price. In addition to spot prices, the Group's effective realized price depends on the proportion of contracts in the portfolio with a fixed price component in a given period. The average realized price for each period can therefore deviate from the prevailing spot market price. More information regarding the impact of spot market prices on average realized price is provided in section 13.1 Uranium sales price sensitivity analysis .

The following table provides the average spot price and average realized price per pound of U_3O_8 for the periods indicated:

		2018	2019	Change
Average weekly spot price (per lb U_3O_8)[1]	USD	24.64	25.84	5%
	KZT	8,497	9,892	16%
Average realized price of the Group (per lb U_3O_8)	USD	24.46	26.60	9%
	KZT	8,435	10,184	21%
Average realized price of Kazatomprom (per lb U_3O_8)	USD	24.37	26.89	10%
	KZT	8,406	10,294	22%

[1] Prices per UxC LLC.

For additional details related to specific market developments that influenced the pricing of uranium in 2019, please see the *Kazatomprom 4Q2019 Operations and Trading Update*, available on the corporate website.

5.2 Change in the Group structure

In 2018 and 2019, as part of its corporate restructuring program developed in connection with the initial public offering of securities in 2018, the Group completed several transactions that had a significant impact on reported results.

In 2018:

- The Group's ownership interest in JV "Inkai" LLP was increased from 40% to 60% effective 1 January 2018, which resulted in a change in accounting treatment from equity to full consolidation.
- Agreements were signed with Uranium One Inc. under which the Company and Uranium One Inc. have the obligation to purchase all production of JV "Akbastau" JSC and "Karatau" LLP at equitable terms, with financing to the joint arrangements in proportion to their shareholdings. As a result, the Group's investments in these two operations were reclassified as JOs in the consolidated financial statements, and accounted for by recognising the Group's direct rights in joint assets, liabilities, income and expenses in proportion to its ownership effective 1 January 2018.
- the Group's ownership interest in "Baiken-U" LLP, "Kyzylkum" LLP and JV "Khorasan-U" LLP increased to 52.5%, 50% and 50%, respectively – before the transaction, those ownership interests were 14.45%, 33.98% and 33.98%, respectively.
- as of 31 December 2018, the Group obtained control over "Baiken-U" LLP through having majority of the voting rights and representation on the Supervisory Board.

- The acquisition of “Baiken-U” LLP, as well as the increase in ownership interest in “Kyzykum” LLP and Khorasan-U LLP, were reflected in the consolidated financial statements for the year ended 31 December 2018, at provisional (carrying) values. The valuations by an independent appraiser were finalised in the first half of 2019. As a result, the statement of financial position as of 31 December 2018 was restated in the consolidated financial statements.
- the Group maintained significant influence over “Kyzylkum” LLP and JV “Khorasan-U” LLP in 2018, and the Group concluded that no control was obtained over JV Khorasan-U LLP pending participants’ approval of changes in the charter of the investee that will enable the Group to exercise the majority of votes.

In accordance with IFRS, the Group assessed the fair values of the assets and liabilities acquired in the above business combinations of JV “Inkai” LLP, JV “Akbastau” JSC, “Karatau” LLP and “Baiken-U” LLP which resulted in a net gain of KZT 347.5 billion being recorded in profit and loss for the year ended 31 December 2018.

In 2019:

- in February 2019, the owners of JV “Khorasan-U” LLP approved changes to the charter documents of that entity, which gave the Group the ability to cast a majority vote on the supervisory board. As a result, the Group obtained control over JV “Khorasan-U” LLP. The Group has been consolidating JV “Khorasan-U” LLP from 1 March 2019.

In 2019, the fair value appraisal for the acquired assets and liabilities of JV “Khorassan-U” LLP was completed and the Group recorded a net gain of KZT 54.6 billion in profit and loss.

In total, the number of the Group’s subsidiaries, JVs, JOs and Associates decreased from 44 in 2018, to 42 in 2019.

- In January 2019, the General Meeting of Participants approved the interim liquidation balance of “ULBA Conversion” LLP. In accordance with the decree of the Ust-Kamenogorsk Department of Registration and Land Cadastre dated August 16, 2019 No. 151, the termination of activity of “ULBA Conversion” LLP was registered.
- In September, 2019, Kazatomprom’s Board of Directors approved the liquidation of Power System International Limited (PSIL) and in December 2019, the liquidation of PSIL was completed.

5.3 Impact of Changes in Exchange Rates

The Group's exposure to currency fluctuations is associated with sales, purchases and loans in foreign currencies. Significant cash flows of the Group are in USD because:

- Uranium is generally priced in USD, therefore most of the Group’s consolidated sales revenue is generated in USD (88% in 2019, 87% in 2018);
- The Company purchases uranium and uranium products from its JVs and Associates pursuant to KZT-denominated contracts, with the prices determined by reference to prevailing spot market prices of U_3O_8, which are in USD;
- Most of the Group’s borrowings are denominated in USD (88% in 2019, 99% in 2018), which is the principal currency of the Group’s revenue.

A significant portion of the Group’s expenses, including its operating, production and capital expenditures, are denominated in KZT. Accordingly, as most of the Group’s revenue is denominated in USD, while a significant share of its costs are KZT denominated, the Group generally benefits from appreciation of USD against KZT which subsequently has a positive effect on the Group’s financial performance. However, the positive effect of an appreciating USD may be fully or partially offset given that the Group has outstanding USD-denominated liabilities. In addition, the Company purchases uranium and uranium products from its JVs and Associates pursuant to KZT-denominated contracts, with the prices determined by reference to prevailing spot market prices of U_3O_8, which are denominated in USD. Accordingly, a significant appreciation of USD would result in a corresponding increase in the KZT-denominated price of such contracts.

The Group attempts to mitigate the risk of fluctuations in exchange rate, where possible, by matching the currency denomination of its payments with the currency denomination of its cash flows. Through this matching, the Group achieves natural hedging without the use of derivatives. With respect to monetary assets and liabilities denominated in other currencies, the Group attempts to keep its net exposure to an acceptable level by planning future costs in KZT where possible.

In 2019, the KZT/USD exchange rate fluctuated between KZT 373.56 and KZT 390.13. At the end of 2019, the exchange rate was KZT 381.18. Changes in exchange rates had no material impact on the Group's financial performance in 2019. The Group's net foreign exchange gain in 2019 was not-significant, at KZT 83 million.

The following table provides annual average and year-end closing KZT/USD exchange rates, as reported by the National Bank of the Republic of Kazakhstan (NBK), as of 31 December 2018 and 2019.

		2018	2019	Change
Average exchange rate for the period[1]	KZT / USD	344.90	382.87	11%
Closing exchange rate for the period	KZT / USD	384.20	381.18	(1)%

[1] The average rates are calculated as the average of the daily exchange rates on each calendar day.

5.4 Taxation and Mineral Extraction Tax ("MET")

Kazakhstan's MET is determined by applying a 29% tax charge to the taxable base related to mining production costs (based on a formula - see table and footnote below). Taxable expenditures are made up of all direct expenditures associated with mining operations, including wellfield development depreciation charges and any other depreciation charges attributable to direct mining activities, but specifically exclude processing and general and administrative expenses. The MET is calculated separately for each subsoil use license.

The resulting MET paid is therefore dependent upon the cost of mining operations.

The following table provides a summary of taxes accrued by the Group for the periods shown:

(KZT millions)	2018	2019	Change
Corporate income tax[1]	31,412	43,948	40%
Mineral extraction tax[2]	17,720	22,916	29%
Other taxes and off-budgetary payments[3]	49,684	60,335	21%
Total tax accrued	**98,816**	**127,199**	**29%**

[1] Applicable rate: 20%; calculation: taxable income (based on tax reporting accounts) multiplied by corporate income tax rate.
[2] Applicable rate: 18.5% for uranium cost in pregnant solution; calculation: the tax charge is a cost of mining and is based on a deemed 20% profit margin on certain expenditures, and a MET rate of 18.5%. The tax charge of 29% is determined by the following formula: (1 + 20%) × 18.5% ÷ (1 – (1 + 20%) × 18.5%).
[3] Includes property tax, land tax, transport tax, social tax, off-budgetary payments, VAT and PIT.

Total tax accrued, including corporate income tax, MET and other taxes, increased by 29% in 2019, compared to 2018. The increase was due to the higher tax base resulting from higher uranium spot prices and the weakening of the KZT against the USD, as well as the accounting changes related to the change in the Group structure (see section 5.2 Change in the Group structure).

5.5 Price and availability of sulfuric acid

Extraction of uranium using the ISR mining method requires substantial amounts of sulfuric acid. If sulfuric acid is unavailable, it could impact the Group's production schedule, while higher prices for sulfuric acid could adversely impact the Group's profits.

The Group's weighted average price of sulfuric acid decreased slightly to KZT 21,304 per tonne in 2019 (from KZT 21,557 per tonne in 2018). On average in 2019, the price of sulfuric acid represented about 15% of the Group's uranium production costs.

5.6 Impact of changes in Ore Reserves estimates

The Group reviews its JORC-compliant estimates of Ore Reserves and Mineral Resources on an annual basis, including a review of the estimates by a third-party. As a result, certain Ore Reserves and Mineral Resources may be reclassified annually in accordance with applicable standards. Such reclassifications may have an impact on the Group's financial statements. For example, if a reclassification results in a change to the Group's life of mine plans, there may be a corresponding impact on depreciation and amortization expenses, impairment charges, as well as mine closure charges incurred at the end of mine life.

5.7 *Transactions with Subsidiaries, JVs and Associates*

The Company purchases U_3O_8 from its subsidiaries, JVs and Associates, principally at spot price with market-based discounts, which vary by operation. Purchased volumes generally correspond to the Company's interest in the respective selling entities.

The Group's Uranium segment revenue is primarily composed of two streams:

- the sale of U_3O_8 purchased from operations (JVs and Associates, consolidated subsidiaries), and
- the sale of U_3O_8 produced by the Company and by its consolidated subsidiaries and JOs.

Cost of sales of purchased uranium is equal to the purchase price from JVs and Associates, which in most cases is the prevailing spot price with certain applicable discounts. The share of results of JVs and Associates represents a significant part of the Group's profits and should be considered accordingly in the assessment of the Group's financial results. In 2019, U_3O_8 was purchased at a weighted average discount of 4.28% on the prevailing spot price.

When uranium produced by the Company, consolidated subsidiaries and JOs, is sold, the cost of sales is predominantly represented by the cost of production. For those sales, the full mining margin is therefore captured in the consolidated results of the Group, taking into account the sale of uranium for export.

The following table provides the volumes purchased by the Company; these volumes were accounted for using the purchase price in the Company's cost of sales and cost of production for the periods indicated.

(tU)	2018	2019	Change
U_3O_8 purchased from JVs and Associates	3,022	3,050	1%
U_3O_8 purchased from non-controlled investment[1]	1,647	-	(100)%
U_3O_8 purchased from Subsidiaries	7,254	11,010	52%
Total	**11,923**	**14,060**	**18%**

[1] Non-controlled investment in 2018 was "Baiken-U" LLP with 5% direct ownership by the Company.

The volume of U_3O_8 purchased from JVs, Associates, and non-controlled investments that was accounted for in cost of sales using purchased price, totaled 3,050 tonnes in the 2019, compared to 4,669 tonnes in 2018, a decrease of 35%, mainly due to the changes in the Group structure (see section 5.2 Change in the Group structure).

The Group purchased uranium from subsidiaries totaling to 11,010 tonnes, compared to 7,254 in 2018, an increase of 52%, mainly due to the changes in the Group structure (see section 5.2 Change in the Group structure).

In addition to the above volumes, the Company has 100% owned production where cost of sales is predominantly represented by the cost of production, and the Company as well as through THK buys volumes from third parties at variable prices.

6.0 KEY PERFORMANCE INDICATORS

In December 2018, the Group obtained control over “Baiken-U” LLP (Financial Statements Note 45). As at 31 December 2018, the Group applied provisional amounts for the acquired assets and liabilities, as the assessment of fair value for the business combination was not complete at the end of the reporting period. In June 2019, an independent professional appraiser finalized the fair value assessment of acquired assets and liabilities and as a result, comparative information for 2018 was restated. Details are presented in the Consolidated Financial Statements.

6.1 Consolidated Financial metrics

(KZT billion)	2018 (restated)	2019	Change
Group’s consolidated revenue	436.6	502.3	15%
Operating profit	77.5	151.9	96%
Net profit	424.7	213.7	(50)%
Gain from reversal of liability under joint operations (one-time effect)[1]	-	17.0	-
Gain from business combinations (one-time effect)	347.5	54.6	(84)%
Adjusted net profit	77.2	142.1	84%
Earnings per share attributable to owners (basic and diluted), KZT/share	1,610.5	732.6	(55)%
Adjusted EBITDA[2]	141.7	248.7	76%
Adjusted attributable EBITDA[3]	140.3	217.3	55%
Operating cash flow	58.3	159.5	174%

[1] Gain from reversal of liability under JOs relates to volumes of uranium that were not purchased from JOs in 2018, and which the Group does not plan to acquire in future, hence this liability, initially recorded in 2018, was derecognised in 2019.
[2] Adjusted EBITDA is calculated by excluding from EBITDA items not related to the main business and having a one-time effect.
[3] Adjusted Attributable EBITDA is calculated as an adjusted EBITDA less the share of the results in the net profit in JVs and Associates, plus the share of adjusted EBITDA of JVs and Associates engaged in the uranium segment (except JV “Budenovskoye” LLP’s EBITDA due to minor effect it has during each reporting period) less non-controlling share of adjusted EBITDA of “Appak” LLP, JV “Inkai” LLP, “Baiken-U” LLP and JV “Khorasan-U” LLP less any changes in the unrealized gain in the Group.

The Group’s consolidated revenue was KZT 502.3 billion in 2019, an increase of 15% compared to 2018, mainly due to an increase in average sales price related to the higher market spot prices for U_3O_8, the weakening of the KZT against the USD in 2019, and the change in the Group structure (see section 5.2 Change in the Group structure). The increase was partially offset by lower uranium sales volumes in 2019 compared to 2018 as described below.

The operating profit in 2019 was KZT 151.9 billion, an increase of 96% compared to 2018. The increase was mainly due to the weakening of the KZT against the USD and a higher average sales price in 2019. The change in the Group structure (see section 5.2 Change in the Group structure) also led to an increase in the share of uranium produced by the Company, consolidated subsidiaries and JOs. For that production, the full mining margin was captured in the consolidated results of the Group on the volume of uranium sold for export, which had a positive impact on profit.

Net profit in 2019 was KZT 213.7 billion, a decrease of 50% compared to 2018. A significant portion of the year-over-year decrease was associated with one-time effects of transactions in both years, particularly the inclusion of JV “Inkai” LLP, “Karatau” LLP, JV “Akbastau” JSC and “Baiken-U” LLP in the consolidation in 2018, and JV “Khorasan-U” LLP in 2019 (see section 5.2 Change in the Group structure). The one-time effects of these transactions increased net income by KZT 347.5 billion and KZT 54.6 billion in 2018 and 2019 respectively. Also impacting net profit, as of 31 December 2019, there was a KZT 17.0 billion gain from reversal of a liability under JOs, which was initially recorded in 2018. This gain related to volumes of uranium that were not purchased from JOs in 2018, and which the Group does not plan to purchase in the future. As a result, this liability was reversed in 2019. Adjusting for those one-time effects, adjusted net profit was KZT 142.1 billion, an increase of 84% compared to 2018.

Adjusted EBITDA totaled KZT 248.7 billion in 2019, an increase of 76% compared to 2018, while adjusted attributable EBITDA was KZT 217.3 billion in 2019, an increase of 55% compared to 2018. The changes were mainly driven by increased operating profit and the change in the Group structure (see section 5.2 Change in the Group structure).

Operating cash flows totaled KZT 159.5 billion, an increase of 174% compared to 2018, mainly due to changes in working capital, an increase in the spot price for U_3O_8, and the weakening of the KZT against the USD in 2019 (see section 10.4.1 Cash Flows from Operating Activities).

6.2 Uranium segment

6.2.1 Uranium segment financial metrics

(KZT billion unless noted)		2018	2019	Change
Average exchange rate for the period	KZT/USD	344.9	382.9	11%
Uranium segment revenue		366.8	437.2	19%
Including U_3O_8 sales proceeds (across the Group)		365.1	424.8	16%
Share of a revenue from uranium products	%	84%	85%	1%

Consolidated U_3O_8 sales were KZT 424.8 billion in 2019, an increase of 16% compared to 2018, mainly due to an increase in the average sales price related to a higher spot price for U_3O_8 and weakening of the KZT against the USD in 2019, partly offset by lower sales volume.

6.2.2 Uranium segment production and sales metrics

		2018	2019	Change
Production volume of U_3O_8 (100% basis)	tU	21,705	22,808	5%
Production volume of U_3O_8 (attributable basis) [1]	tU	11,476	13,291	16%
U_3O_8 sales volume (consolidated)	tU	16,647	16,044	(4)%
Including KAP U_3O_8 sales volume [2, 3]	tU	15,287	14,148	(7)%
Group inventory of finished goods (U_3O_8)	tU	7,892	9,906	26%
KAP inventory of finished goods (U_3O_8) [4]	tU	7,353	8,571	17%
Average realized price of the Group	KZT/kg	21,930	26,475	21%
Average realized price of the Group	USD/lb	24.46	26.60	9%
Average realized price of the KAP[5]	USD/lb	24.37	26.89	10%
Average weekly spot price	USD/lb	24.64	25.84	5%
Average month-end spot price[6]	USD/lb	24.59	25.64	4%

[1] the Production volumes of U_3O_8 (attributable basis) is not equal to the volumes purchased by Company and THK.
[2] KAP U_3O_8 sales volume (incl. in Group): includes only the total external sales of KAP HQ and THK. Intercompany transactions between KAP HQ and THK are not included.
[3] The Group sales volume and KAP sales volume (incl. in Group) do not include 42.14 tons sold as low enriched UF6 (~315 tU equivalent) to the IAEA fuel bank in 4Q 2019.
[4] KAP inventory of finished goods (incl. in Group): includes the inventories of KAP HQ and THK.
[5] KAP average realized price: the weighted average price per pound for the total external sales of KAP and THK. The pricing of intercompany transactions between KAP and THK are not included.
[6] Source: UxC, TradeTech. Values provided represent the average of the uranium spot prices quoted at month end, and not the average of each weekly quoted spot price, as contract price terms generally refer to a month-end price.

All annual operational and sales results in the uranium segment were in line with the guidance provided for 2019.

Production volumes of U_3O_8 on both an attributable and on a 100% basis were slightly higher in 2019 compared to the same period in 2018. The increase was as expected and due to higher 2019 production levels under subsoil use contracts, although 2019 production remained 20% lower than the planned levels under those contracts. The difference in the year-over-year percentage increases of the 100% basis and attributable share production levels was related to different production levels at various assets, the mix of ownership interests in each asset, and the impact of changes in the group structure on the consolidation of the results (see section 5.2 Change in the Group structure).

Consolidated Group U_3O_8 sales volumes and KAP sales volumes were slightly lower year-over-year due to a lower level of contracting activity in the market in 2019, and a marketing strategy that prioritizes value over volume.

Consolidated Group inventory of finished U_3O_8 products in 2019 amounted to 9,906 tonnes in 2019, which was 26% higher than in 2018. At the Company level, inventory of finished U_3O_8 products was 8,571 tonnes, an increase of 17% compared to 2018. The increase in inventory was mainly related to market conditions. In alignment with the Company's value strategy, Kazatomprom's inventory levels vary based on seasonality and mining and sales volumes, in alignment with changing market conditions. The higher inventory volume at year-end was also related to the timing of swap deals made in 2019, where the transaction to return material will take place in 2020.

The average sales price in KZT realized by the Group in the 2019 was KZT 26,475 per kg (26.60 USD/lb), an increase of 21% compared to 2018 due to an increase in the average spot price for uranium products, and the weakening of the KZT against the USD. The average sales prices at the KAP level was also higher and for the same reasons. The Company's current overall contract portfolio price is closely correlated to current uranium spot prices (see section 13.1 Uranium sales price sensitivity analysis).

6.2.3 Uranium segment production by operation

The information presented in the table below provides the total uranium production level at each asset (100% basis).

(tU as U_3O_8)	2018	2019	Change
Ortalyk LLP	1,712	1,694	(1)%
Kazatomprom-SaUran LLP	1,470	1,541	5%
RU-6 LLP	774	864	12%
Appak LLP	801	800	0%
JV Inkai LLP	2,662	3,209	21%
Semizbay-U LLP	960	960	0%
Karatau LLP	2,088	2,600	25%
JV Akbastau JSC	1,556	1,550	0%
JV Zarechnoye JSC	756	778	3%
JV Katco LLP	3,212	3,252	1%
JV Khorassan-U LLP	1,665	1,599	(4)%
JV SMCC LLP	2,418	2,401	(1)%
Baiken-U LLP	1,631	1,560	(4)%
Total	**21,705**	**22,808**	**5%**

6.2.4 Uranium segment C1 cash cost, all-in sustaining cash cost, and capital expenditures

(KZT billion unless noted)		2018	2019	Change
C1 Cash cost (attributable basis)	USD/lb	11.56	9.28	(20)%
All-in sustaining cash cost (attributable C1 + capital cost)	USD/lb	15.08	11.94	(21)%
Capital expenditures of mining companies (100% basis)[1]		75.4	67.0	(11)%

[1] Excludes liquidation funds and closure costs and includes expansion investments. Note that in section *7.0 Capital Expenditures Review* total results includes liquidation funds and closure cost.

C1 Cash cost (attributable) and All-in-sustaining cash costs (attributable C1 + capital cost) decreased by 20% and 21% respectively in USD equivalent in 2019, compared to 2018. The results were considerably better than expected and below the guidance ranges provided for 2019 (US$11.00 - US$12.00 for attributable C1 cash cost, US$15.00 – US$16.00 for attributable all-in sustaining cash costs). The decreases were primarily due to the weakening of the KZT against the USD in 2019, the change in the Group structure (see section 5.2 Change in the Group structure), and continued cost optimization efforts. Additionally, the C1 cash cost in 2018 included the overheads of the Company under the subsoil use licenses at Kanzhugan, Southern Moinkum, Eastern Mynkuduk, Uvanas and Southern and Northern Karamurun deposits, which were transferred to "Kazatomprom-SaUran" LLP and "RU-6" LLP in November 2018.

Capital expenditures of mining companies (100% basis) totaled KZT 67.0 billion, a decrease of 11% compared to 2018, primarily due to the timing of different projects for future expansion at each of the mining assets, and continued cost optimization programs (see section 7.0 Capital Expenditures Review).

Kazatomprom's attributable C1 cash cost can generally be broken down as follows (proportions vary year-to-year, and vary between operations, deposits and regions):

General Attributable Cash cost (C1) Categories	2018	2019
Material and supplies	23%	26%
Wages and salaries	12%	14%
Processing and other services	12%	15%
MET	24%	19%
General and administrative expenses	7%	7%
Selling expenses	3%	3%
Others	19%	16%
Total	**100%**	**100%**

6.3 UMP Segment

6.3.1 UMP segment uranium product sales

UO_2 powder and Fuel pellets		2018	2019	Change
Fuel pellets	Sales, tonnes	84.3	86.1	2%
Ceramic powder	Sales, tonnes	10.2	-	-
Dioxide from scraps	Sales, tonnes	8.3	56.2	577%

Sales of fuel pellets increased slightly to 86.1 tonnes in 2019, 2% higher than in 2018 due to the amount of UF_6 received for processing in accordance with customer demand. There were no contracts for ceramic powder in 2019.

The increase in sales volumes of dioxide from scraps was due to increased demand from customers.

6.3.2 UMP segment rare metal product sales

Rare metals products		2018	2019	Change
Beryllium products	KZT/kg	10,447	12,049	15%
	Sales, tonnes	1,662.1	1,636.4	(2)%
Tantalum products	KZT/kg	104,076	79,693	(23)%
	Sales, tonnes	137.7	119.8	(13)%
Niobium products	KZT/kg	24,088	26,148	9%
	Sales, tonnes	22.9	9.4	(59)%

Sales of beryllium products decreased by 2% in 2019 compared to 2018, due to a decrease in demand from customers. Sales price increased by 15% in 2019 mainly related to the weakening of KZT against USD, which was partially offset by lower prices in the non-ferrous metal markets.

Sales volumes and prices for tantalum products were lower in 2019 compared 2018, due to lower consumer demand for tantalum ingots and chips.

Sales of niobium products in 2019 decreased compared to 2018 due to a reduction in the quantity of orders for niobium hydroxide, although the 2019 orders were for more highly refined products of greater value, resulting in a higher selling price.

7.0 CAPITAL EXPENDITURES REVIEW

The main capital expenditures of the Group are incurred by subsidiaries, JO's, JVs and Associates engaged in the mining of natural uranium. Such expenditures are comprised of the following key components:

- well construction costs;
- expansion costs, which typically include expansion of processing facilities, extension of services and transport routes to new wellfield areas, implementation of new systems and processes;
- sustaining capital, largely reflecting recurring, infrastructure, maintenance and equipment replacement related costs, which are assumed to cease three years prior to the end of production at the asset; and
- liquidation fund contributions and mine closure costs (not included in the calculation of AISC).

The following table provides the capital expenditures for the Group's subsidiaries, JOs, JVs and Associates engaged in uranium mining for the periods indicated. Capital expenditure amounts shown were derived from stand-alone management information of certain entities within the Group on an unconsolidated basis, and they are therefore not comparable with or reconciled to the amounts of additions to property, plant and equipment as presented in the Financial Statements. Investors are strongly cautioned to not place undue reliance on capital expenditure information, as it represents unaudited, unconsolidated financial information on an accounting basis that is not in compliance with IFRS.

(KZT millions)		2018					2019			
	Owner ship	WC[1]	S[2]	LF/C[3]	Total	Owner ship	WC[1]	S[2]	LF/C[3]	Total
Ortalyk LLP	100%	2,321	5,010[4]	171	**7,502**	100%	2,091	194[4]	139	**2,424**
Kazatomprom-SaUran LLP	100%	6,778	1,478	2,990	**11,245**	100%	3,488	830	444	**4,762**
RU-6 LLP	100%	2,472	676	1,062	**4,210**	100%	2,217	804	253	**3,274**
Appak LLP	65%	999	257	68	**1,325**	65%	1,076	507	48	**1,631**
JV Inkai LLP	60%	8,707	2,324	31	**11,062**	60%	8,517	2,634[4]	(1)	**11,150**
Semizbay-U LLP	51%	2,996	980	115	**4,091**	51%	2,810	946	123	**3,879**
Karatau LLP	50%	2,376	685	80	**3,141**	50%	4,203	5,683[4]	96	**9,982**
JV Akbastau JSC	50%	2,031	1,192	79	**3,301**	50%	2,249	351	132	**2,732**
JV Zarechnoye JSC	49.98%	3,971	182	10	**4,162**	49.98%	3,858	275	9	**4,142**
JV Katco LLP	49%	9,275	2,447	1,368	**13,090**	49%	8,499	2,491[4]	632	**11,622**
JV Khorassan-U LLP	34%	4,983	1,611	142	**6,736**	50%	2,138	422	119	**2,679**
JV SMCC LLP	30%	5,813	339	535	**6,688**	30%	4,456	845	224	**5,525**
Baiken-U LLP	5%	4,674	861	146	**5,681**	52.5%	4,392	998	150	**5,540**
Total of mining assets		**57,396**	**18,041**	**6,798**	**82,235**		**49,994**	**16,980**	**2,368**	**69,342**

[1] Well construction.
[2] Sustaining.
[3] Liquidation fund / closure.
[4] Includes total expansion investments in amount of KZT 4.6 billion in 2018 and KZT 7.0 billion in 2019.

In order to achieve the planned levels of production, the Group's mining companies assess the required level of wellfield and mining preparation based on the availability of reserves. These costs relate to the capitalized costs of maintaining the sites, with the main component being wellfield construction.

(KZT millions)	2018	2019	Change
Well construction	57,396	49,994	(13)%
Sustaining	13,419	10,026	(25)%
Total wellfield construction and sustaining costs	**70,815(1)**	**60,020(1)**	**(15)%**

[1] Excludes total expansion investments of KZT 4.6 billion in 2018 and KZT 7.0 billion in 2019.

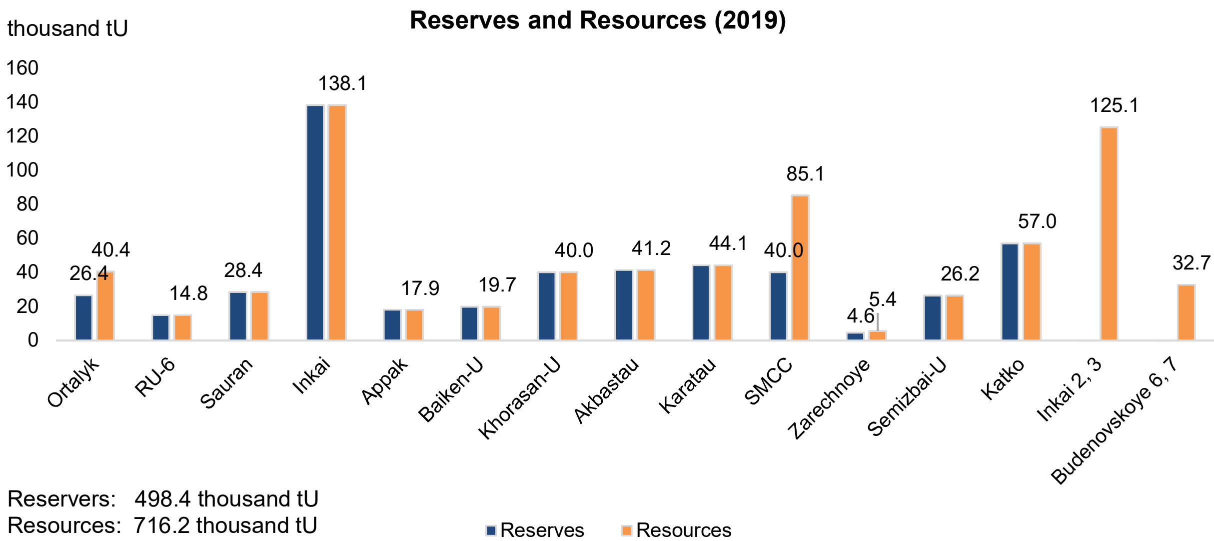
Wellfield construction and sustaining costs for the 13 mining entities in 2019 amounted to KZT 60,020 million, which is 15% lower than in 2018. The results were considerably below the guidance ranges provided for 2019 (80 – 90 KZT billion). The change in the sustaining costs were mainly due to the timing of different projects related to future expansion at each of the mining assets, and constant cost optimization efforts. A 13% decrease in the cost of well construction was related to a change of the construction schedule for technological blocks (postponement to 2020).

The information presented in the table below reflects the wellfield development depreciation (commonly known as PGR), property, plant and equipment, and depreciation and amortization data for each mining asset in 2019.

(KZT million unless noted)	PGR volumes (tU)	PGR at the end of period	Exploration value at the end of period	Carrying amount of PPE (excl. wellstock) at the end of period	Historical cost of PPE (excl. wellstock) at the end of period	D&A (excl. wellstock)
Ortalyk LLP	2,717	9,557	1,100	11,704	18,174	891
Kazatomprom-SaUran LLP	4,833	12,373	2,789	5,962	15,192	1,088
RU-6 LLP	2,625	6,689	-	4,607	7,196	373
Appak LLP	1,803	3,246	2,318	4,284	8,622	421
JV Inkai LLP	4,825	24,120	18,145	60,001	97,786	2,560
Semizbay-U LLP	2,847	6,703	36	9,217	16,997	714
Karatau LLP	2,540	7,682	3,009	16,363	28,306	1,047
JV Akbastau JSC	2,454	4,548	6,635	7,436	11,163	424
JV Zarechnoye JSC	2,420	8,520	535	2,498	8,564	646
JV Katco LLP	4,604	22,080	1,785	17,303	51,234	2,116
JV Khorassan-U LLP*	3,168	7,421	9,481	9,953	15,228	653
JV SMCC LLP	4,560	10,521	6,290	11,417	20,017	1,683
Baiken-U LLP	2,970	8,919	6,611	10,975	20,116	1,114

* includes the fixed assets of “Kyzylkum” LLP

8.0 RESERVES AND GEOLOGICAL SURVEYS



In accordance with the SRK Consulting (UK) Limited letter (dated 12 January 2020), the Mineral reserves of all mining assets at 31 December 2019 (including annual depletion) totaled about 498.4 thousand tU, (100% basis), with 292.7 thousand tU attributable to the Company. Total mineral resources (including reserves) were estimated at 716.2 thousand tU (100% basis), with 462.4 thousand tU attributable to the Company. In comparison to 2018, total mineral resources decreased by about 23.8 thousand tU due to the depletion of mineral resources at mining assets in 2019.

In 2019, "Kazatomprom-SaUran" LLP completed mining of section No. 1 (southern) of the Moinkum deposit, which, as of 31 December, 2018, consisted of only 30 tons of ore reserves. Mining of the Uvanas deposit was also completed. In 2020, the process of liquidating the related subsoil use contracts for these fields will begin in accordance with the elimination projects of consequences of subsoil use operations.

9.0 FINANCIAL ANALYSIS

The analysis in this section of the report is performed on the basis of twelve months ended 31 December 2019 compared to twelve months ended 31 December 2018.

The table below provides financial information related to the consolidated results of the Group for 2018 and 2019.

(KZT millions)	2018 (restated)	2019	Change
Revenue	**436,632**	**502,269**	15%
COGS	(313,817)	(307,498)	(2)%
Gross profit	**122,815**	**194,771**	59%
Selling expenses	(10,530)	(10,827)	3%
G&A	(34,805)	(32,024)	(8%)
Operating profit	**77,480**	**151,920**	96%
Other income/(loss), including:	346,398	61,924	(82%)
Gain from reversal of liability under joint operations (one-time effect)	-	16,995	-
Net gain from business combinations (one-time effect)	347,479[1]	54,649	(84%)
Share in the results of Associates	33,246	23,547	(29)%
Share of JVs' results	(4,743)	9,864	-
Pre-tax income	**452,381**	**247,255**	(45%)
Corporate income tax	(28,797)	(33,506)	16%
Income from discontinued operations	1,104	-	-
Net profit	**424,688**	**213,749**	**(50%)**
Adjusted Net profit (net of one-time effects)	**77,209**	**142,105**	**84%**

[1] Includes the gain in amount of KZT 5 million from other investments.

Net profit of the Group in both periods was significantly affected by transactions related to changes in the Group structure (see section 5.2 Change in the Group structure):

In 2018:

- a gain from the increased interest in JV "Inkai" LLP of KZT 95,929 million;
- a gain from the change of classification of "Karatau" LLP and JV "Akbastau" JSC to JOs of KZT 124,632 million and KZT 92,951 million respectively;
- a gain from the increased interest in "Baiken-U" LLP of KZT 33,962 million.

In 2019:

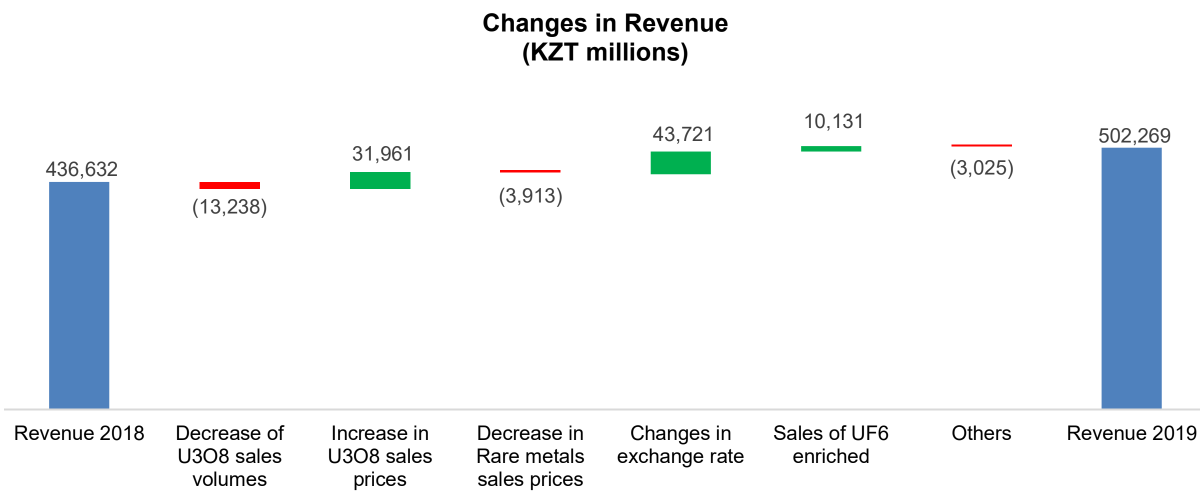
- a gain from the increased interest in JV "Khorassan-U" LLP of KZT 54,649 million

Also in the 2019, there was a gain from reversal of liability under JO's of KZT 16,995 million, which was considered a one-time effect.

9.1 Consolidated revenue

The main revenues by source in 2019 compared to 2018, are presented below.

(KZT millions)	2018	2019	Change	Proportion 2018	Proportion 2019
Uranium products	368,325	438,518	19%	84%	87%
Beryllium products	17,364	19,717	14%	4%	4%
Tantalum products	14,333	9,543	(33%)	3%	2%
Others	36,610	34,491	(6%)	8%	7%
Total Revenue	**436,632**	**502,269**	**15%**	**100%**	**100%**



9.2 Cost of sales

Cost of sales totaled KZT 307,498 million in 2019, a decrease of 2% compared to 2018. The decrease was mainly due to the change in the Group structure (see section 5.2 Change in the Group structure) and a 4% decrease in U_3O_8 sales volumes compared to 2018.

The table below illustrates the components of the Group's cost of sales for 2018 and 2019:

				Proportion	
(KZT millions)	**2018**	**2019**	**Change**	**2018**	**2019**
Materials and supplies	202,817	147,331	(27%)	65%	48%
Wages and salaries	24,024	29,632	23%	8%	10%
Processing and other services	10,354	18,566	79%	3%	6%
Depreciation and amortization	39,866	60,044	51%	13%	20%
Taxes other than income tax	22,033	27,021	23%	7%	9%
Other	14,723	24,904	69%	5%	8%
Cost of Sales	**313,817**	**307,498**	**(2)%**	**100%**	**100%**

The cost of materials and supplies was KZT 147,331 million in 2019, a decrease of 27% compared to 2018 due to the change in the Group structure (see section 5.2 Change in the Group structure).

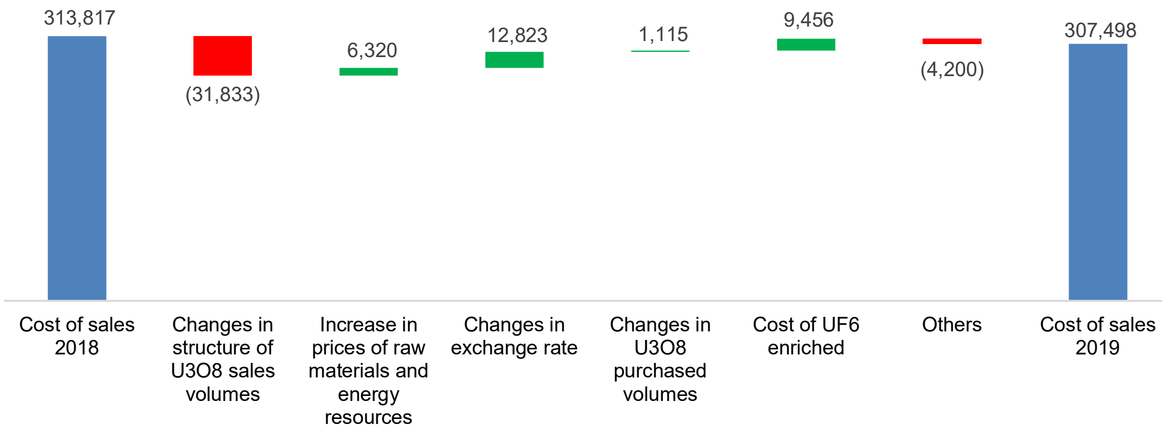
Wages and salaries totaled KZT 29,632 million in 2019, an increase of 23% compared to 2018, mainly due to the changes in the Group structure (see section 5.2 Change in the Group structure), as well as an increase in the payroll of production workers in 2019.

The cost of processing and other services was KZT 18,566 million in 2019, an increase of 79% compared to 2018, mainly due to an increase in costs associated with an increase work scope with third-party services, and due to the changes in the Group structure (see section 5.2 Change in the Group structure).

Depreciation and amortization totaled KZT 60,044 million in 2019, an increase of 51% compared to 2018, mainly due to the recognition of acquired assets at fair values resulting from the business combinations that led to higher depreciation and amortization (see section 5.2 Change in the Group structure).

The other categories of costs, including taxes other than income and other expenses, and other, totaled KZT 51,925 million in 2019, an overall increase of 41% compared to 2018, mainly due to the changes in the Group structure (see section 5.2 Change in the Group structure).

Changes in Cost of sales (KZT millions)



9.3 Selling expenses

				Proportion	
(KZT millions)	**2018**	**2019**	**Change**	**2018**	**2019**
Shipping, transportation and storing	7,275	6,790	(7%)	69%	63%
Wages and salaries	950	1,035	9%	9%	10%
Rent	106	70	(34%)	1%	1%
Materials	221	255	15%	2%	2%
Depreciation and amortization	67	70	4%	1%	1%
Others	1,911	2,607	36%	18%	24%
Selling expenses	**10,530**	**10,827**	**3%**	100%	100%

Selling expenses totaled KZT 10,827 million in 2019, an increase of 3% compared to 2018. The increase was mainly due to the commission charged for the delivery of fuel pellets in accordance with a 2018 contractual obligation at "UMP" JSC, JV "Inkai" LLP transportation expenses for a change of destination point, and the change in the Group structure (see section 5.2 Change in the Group structure).

9.4 General & Administrative expenses (G&A)

				Proportion	
(KZT millions)	**2018**	**2019**	**Change**	**2018**	**2019**
G&A expenses	**34,805**	**32,024**	**(8%)**	**100%**	**100%**
Incl. Depreciation and amortization	808	1,611	99%	2%	5%

A decrease of G&A expenses despite the change in the Group structure (see section 5.2 Change in the Group structure) related to one-time expenses that were incurred in 2018 (social contribution to the Turkestan region and the costs associated with the IPO), which were not repeated in 2019.

Depreciation and amortization was KZT 1,611 million, 99% higher than in 2018, mainly due to the acquisition of a new head office building, which was offset by lower rent expenses in comparison to 2018.

9.5 The share of Associates' and JVs' results

The share of results of Associates and JVs in 2019 was KZT 33,411 million, an increase of 17% compared to 2018. The increase was related to an increase in uranium spot prices and weakening of the KZT and RUB in 2019, which positively impacted the operating results of the Associates and JVs and their resulting contributions to the Group.

9.6 *Profit before tax and tax expense*

(KZT millions)	2018	2019	Change
Profit before tax	452,381	247,255	(45%)
Corporate income tax	28,797	33,506	16%

The Group's profit before tax was KZT 247,255 million in 2019, a decrease of 45% compared to 2018. The decrease was mainly attributable to the gains arising from business combination transactions related to changes in the Group structure (see section 5.2 Change in the Group structure), for which there is no income tax expense effect.

In 2019, corporate income tax expense was KZT 33,506 million, an increase of 16% compared to 2018, mainly due to the increase in operating profit (see section 6.1 Consolidated Financial metrics), and the change in the Group structure (see section 5.2 Change in the Group structure).

The corporate tax rate applicable to the majority of the Group's profits was 20% in 2019 and 2018. Income tax expense is recognized based upon management's estimate of the weighted average effective annual income tax rate. Effective income tax rates were 18% and 22% for 2019 and 2018, respectively. The effective tax rate differs from corporate income tax rate primarily due to certain elements of reported income that are not recognized in tax accounting, such as gains from the business combination.

10.0 LIQUIDITY AND CAPITAL RESOURCES

Kazatomprom's management pays special attention to preserving financial stability in a constantly changing market environment. The Group's financial management policy is aimed at maintaining a strong capital base to support existing operations and business development.

The Group's liquidity requirements primarily relate to funding working capital, capital expenditures, service of debt, and payment of dividends. The Group has historically relied primarily on cash flow from operating activities to fund its working capital and long-term capital requirements, and it expects to continue to do so, though it maintains the option to use external financial resources when required. It is expected that there will be no significant change in the sources of the Group's liquidity in the foreseeable future.

As required, the Company will consider entering into project financing arrangements to fund certain investment projects.

10.1 Cash and available source of financing

The Group manages its liquidity requirements to ensure the continued availability of cash sufficient to run its operations and settle its financial obligations.

(KZT millions)	2018	2019	Change
Cash and cash equivalents	128,819	98,560	(23)%
Current term deposit	205	1	(100)%
Total cash	**129,024**	**98,561**	(24)%

The Group's cash and cash equivalents in 2019 were KZT 98,560 million, compared to KZT 128,819 million in 2018, due to explanations that are presented in the section 10.4 *Cash Flows*.

Corporate credit lines are an additional liquidity source for the Group. Under these lines, short-term loans (up to 12 months) are primarily used to temporarily cover cash deficits related to the timing of inflows. At 31 December 2019, the Group had total available revolving credit lines of USD 470 million. At the end of 2019, USD 145 million was drawn and available amount is USD 325 million.

10.2 Dividends received

The Company is the parent for the Group, and in addition to revenue from its business operations, it receives dividends from JVs and Associates, and from other investments. In 2018 and 2019, the Group received dividends of KZT 12,773 million and KZT 13,266 million, respectively, from its JVs and Associates, and other investments. The increase in 2019 was primarily due to the Company using its voting power to maximise the dividend flow from subsidiaries, JVs and Associates. Dividends received by the Company from investees domiciled in the Republic of Kazakhstan are exempt from dividend tax.

In June 2019, the Company paid dividends in the amount of KZT 80,001 million to its shareholders on the results of 2018 operations.

10.3 Working capital

The table below provides a breakdown of the Group's working capital in 2019 and 2018.

(KZT millions)	2018 (restated)	2019	Change
Inventory	171,026	217,059	27%
Receivables	94,477	90,627	(4)%
Recoverable VAT	29,799	44,874	51%
Other current assets	18,322	12,257	(33)%
CIT prepayment	4,366	12,110	177%
Payables	(51,534)	(58,562)	14%
Employee remuneration liabilities	(147)	(136)	(7)%
Income tax liabilities	(977)	(467)	(52)%
Other taxes and compulsory payments liabilities	(10,711)	(12,717)	19%
Other current liabilities	(30,319)	(20,682)	(32)%
Net working capital	**224,302**	**284,363**	**27%**

The Group's net working capital remained positive during all periods under review.

An increase in inventory was mainly related to market conditions. In alignment with the Company's value strategy, Kazatomprom's inventory levels vary based on seasonality and mining and sales volumes, in alignment with changing market conditions. The higher inventory volume at year-end was also related to the timing of swap deals made in 2019, where the transaction to return material will take place in 2020. Additionally, the value of the inventory increased based on the fair value adjustment as a result of the change in the Group structure (see section 5.2 Change in the Group structure).

The following table summarises the Group's turnover of inventories, receivables and payables, and provides details of the Group's cash conversion cycle (in days), in 2018 and 2019.

(days)	2018 (restated)	2019	Change
Inventories turnover[1]	199	263	32%
Receivables turnover	79	66	(17)%
Payables turnover[1]	60	74	24%
Cash conversion cycle	**218**	**255**	**17%**

[1] For comparison purposes, the Inventories and Cost of sales in the calculation were removed from the additional depreciation and amortization which incurred as a result of the change in the Group structure (see section 5.2 Change in the Group structure), and fair value recognition.

The increase in the cash conversion cycle in 2019 is largely due to decreased sales volumes of finished goods, repayments of accounts payable in 2019, and the change in the Group structure (see section 5.2 Change in the Group structure).

The Group constantly monitors the uranium market and may pursue a strategy of increasing its inventories due to market conditions. The following table sets forth the components of the Group's inventories in 2018 and 2019:

(KZT millions)	2018 (restated)	2019	Change
Finished goods and goods for resale	130,922	171,452	31%
Including uranium products	*128,613*	*170,105*	*32%*
Work-in-process	19,768	22,317	13%
Raw materials	13,728	19,071	39%
Spare parts	720	626	(13)%
Materials in processing	1,226	1,045	(15)%
Fuel	1,875	787	(58)%
Other materials	5,459	4,913	(10)%
Provision for obsolescence and write-down to net realizable value	(2,672)	(3,152)	18%
Total inventories	**171,026**	**217,059**	**27%**

The Group's largest inventory item is finished goods and goods for resale, which primarily consists of U_3O_8. The Group's work-in-process and raw materials increased by 13% and 39% respectively, mainly due to the change in the Group structure (see section 5.2 Change in the Group structure).

The value of finished goods and goods for resale increased by 31% in the 2019 compared to the same period in 2018. However, the volume of U_3O_8 inventory, which is a significant component of finished goods and goods for resale, increased by 26% (see section 6.2.2 Uranium segment production and sales metrics). An increase in value is primarily related to the cost of purchased uranium from JVs and Associates, which generally references to market prices. In 2019, the quantity and value of the purchased uranium going into inventory was higher than in 2018. Also, the value increased due to the additional depreciation and amortization which incurred as a result of the change in the Group structure (see section 5.2 Change in the Group structure) and fair value recognition.

An increase in inventory was mainly related to market conditions. In alignment with the Company's value strategy, Kazatomprom's inventory levels vary based on seasonality, and mining and sales volumes, in alignment with changing market conditions. The higher inventory volume at year-end was also related to the timing of swap deals made in 2019, where the transaction to return material will take place in 2020. Additionally, the value of the inventory increased based on the fair value adjustment as a result of the change in the Group structure (see section 5.2 Change in the Group structure).

10.4 Cash Flows

The following cash flow discussion is based on, and should be read in conjunction with, the Financial Statements and related notes.

The following table provides the Group's consolidated cash flows in 2018 and 2019:

(KZT millions)	2018 (restated)	2019
Cash flows from operating activities[1]	58,327	159,529
Cash flows (used in) investing activities	(40,279)	(28,271)
Cash flows (used in) financing activities	(139,272)	(159,103)
Net increase/(decrease) in cash and cash equivalents	**(121,224)**	**(27,845)**

[1] Includes income tax and interest paid.

10.4.1 Cash Flows from Operating Activities

Cash flows generated from operating activities increased to KZT 159,529 million in 2019 from KZT 58,327 million in 2018. This change was primarily related to:

- a KZT 43,310 million increase in cash receipts from customers during the 2019. This was due to the change in the Group structure (see section 5.2 Change in the Group structure); and
- a KZT 74,742 million decrease in payments to suppliers during the 2019, due to the change in the Group structure (see section 5.2 Change in the Group structure) and an increase of accounts payable during the 2019.

10.4.2 Cash Flows from Investing Activities

Net cash outflows from investing activities decreased to KZT 28,271 million in 2019 compared to KZT 40,279 million in 2018.

Changes in investing cash flows in 2019 were due to:

- a KZT 9,006 million decrease in acquisition of exploration and evaluation assets and mine development assets. This was related to changes in the timing of spending for projects related to future expansion at some of the mining assets and constant cost optimization efforts;
- a decrease in the cost of well construction related to a change in the construction schedule of technological blocks (postponement to 2020); and
- changes in the Group structure (see section 5.2 Change in the Group structure).

10.4.3 Cash Flows from financing activities

Net cash outflows from financing activities were KZT 159,103 million in 2019 and KZT 139,272 million in 2018. This change was primarily due to an increase of KZT 22,244 million in dividends paid to non-controlling interest in 2019 compared to 2018, due to the change in the Group structure (see section 5.2 Change in the Group structure).

11.0 INDEBTEDNESS

The total debt and guarantees of the Group as of 31 December 2019 was KZT 176,397 million (KZT 214,104 million in 2018).

(KZT millions)	2018	2019	Change
Bank loans	90,429	71,847	(21)%
Non-bank loans, Lease liabilities and bonds	109,740	89,511	(18)%
Guarantees	13,935	15,038	8%
Total debt and guarantees	**214,104**	**176,397**	**(18)%**

The following table summarises the Group's debt for the years ended 2018 and 2019 according to maturity:

(KZT millions)	2018	2019	Change
Non-current debt, *including*	**16,620**	**70,104**	**322%**
Bank loans	16,270	-	
Non-bank loans, including:	350	70,104	
Bonds issued		69,300	
Lease liabilities	350	804	
Current debt, *including*	**183,549**	**91,254**	**(50)%**
Bank loans	74,159	71,847	
Non-bank loans, including:	109,390	19,407	
Bonds issued	*73,535*	*716*	
Non-bank loans	*35,726*	*641*	
Promissory note issued	-	*17,460*	
Lease liabilities	129	590	
Total debt	**200,169**	**161,358**	**(19)%**

As of 31 December, 2019 the amount of non-bank loans decreased by 18% mainly due to the repayment of debt by JV "Inkai" LLP for KZT 35,085 million. The amount of bank loans, debt decreased by 21% due to scheduled repayment of debt by the Group.

Bank loans consist primarily of short-term loans from the Group's corporate credit lines provided by international and local banks.

On 27 September 2019, the Company placed a new issue of five-year USD-indexed coupon bonds in the amount of KZT 70 billion, with an interest rate of 4%, on the Kazakhstan Stock Exchange (KASE). The purpose of the issue was to refinance short-term indexed coupon bonds issued at the end of 2018 at a lower interest rate.

Promissory notes were issued by JV "Khorasan-U" LLP in December 2014 to repay the debt for mine development assets. As of 31 December 2019, the right to claim under the promissory notes belongs to "Kyzylkum" LLP.

Guarantees represent off-balance sheet irrevocable obligations of the Group to effect payment in the event that another cannot meet its obligations.

As of 31 December 2019, guarantees in the amount of KZT 15.1 billion (KZT 13.9 billion in 2018) were provided for loans of Associates of the Group.

Other liabilities of the Group are finance leases, other debt and leases.

The following table summarises the Group's weighted average interest rate for bank loans in 2018 and 2019:

(%)	2018	2019	Change
Fixed interest rate	5.61	3.67	(35)%
Floating interest rate	4.05	3.91	(3)%

According to its loan and guarantee agreements, the Group is required to comply with certain key financial covenants based on the Group's consolidated information, such as debt to equity ratio, and debt to EBITDA ratio. The Group complied with all applicable covenants as of 31 December 2019, and during the year.

The Company has credit ratings assigned and affirmed by international agencies:

- Baa3 with stable outlook by Moody's Investors Service;
- BBB- with stable outlook by Fitch Ratings.

11.1 Net debt / Adjusted EBITDA

The following table summarises the key ratios used by the Company's management to measure its financial stability in 2018 and 2019.

(KZT millions unless noted)	2018 (restated)	2019	Change
Total debt	200,169	161,358	(19)%
Total cash	129,024	98,561	(24)%
Net debt	**71,145**	**62,797**	**(12)%**
Adjusted EBITDA	141,670	248,719	76%
Net debt / Adjusted EBITDA (coefficient)	**0.50**	**0.25**	**(50)%**

The above indicators are in line with expectations previously communicated by management to investors.

12.0 OUTSTANDING SHARES

As part of the Comprehensive Privatization Plan for 2016-2020, the Government of the Republic of Kazakhstan allowed up to 25% of the Company's share capital to be offered to local and international investors.

As a result, in November 2018, “Sovereign Wealth Fund “Samruk-Kazyna” JSC (“Samruk-Kazyna”) offered 14.92% of its shares in Kazatomprom to the public with a dual-listed IPO. Free-floated shares and global depositary receipts (“GDRs”) were listed on the AIX in Nur-Sultan, Republic of Kazakhstan, and GDRs were listed on the LSE in London, United Kingdom.

In September 2019, Samruk-Kazyna completed a secondary placement of GDRs on the AIX and LSE, increasing the public free-float by an additional 3.8% of the total share capital of the Company. As of 31 December 2019, 18.72% of the Company's shares are publicly traded, while 81.28% are held by Samruk-Kazyna.

(at Dec 31, 2019)	Shares and GDRs	%
Samruk-Kazyna	210,798,879	81.28
Public free-float	48,557,729	18.72
Total share capital	**259,356,608**	**100.00**

13.0 GUIDANCE FOR 2020

(exchange rate 390 KZT/1USD)	2020
Production volume U_3O_8 (tU) (100% basis)[1]	22,750 – 22,800
Production volume U_3O_8 (tU) (attributable basis)[2]	12,800 – 13,300
Group sales volume (tU) (consolidated)[3]	15,500 – 16,500
Incl. KAP sales volume (incl. in Group) (tU)[4]	13,500 – 14,500
Revenue - consolidated (KZT billions)[5]	490 – 510
Revenue from Group U_3O_8 sales, (KZT billions)[5]	400 – 440
C1 cash cost (attributable basis) (USD/lb)*	$10.00 – $11.00
All-in sustaining cash cost (attributable C1 + capital cost) (USD/lb)*	$13.50 – $14.50
Total capital expenditures (KZT billions) (100% basis)[6]	80 – 90

[1] Production volume (100% basis): Amounts represent the entirety of production of an entity in which the Company has an interest; it disregards that some portion of production may be attributable to the Group's JV partners or other third-party shareholders.
[2] Production volume (attributable basis): Amounts represent the portion of production of an entity in which the Company has an interest, corresponding only to the size of such interest; it excludes the portion attributable to the JV partners or other third-party shareholders, except for JV "Inkai" LLP, where attributable share is calculated in accordance with the formula described in Kazatomprom's IPO Prospectus. The Company anticipates that the annual share of production in JV "Inkai" LLP in 2020-2021 will be approximately 1300 tU. This change has been reflected in the 2020 guidance shown, which is now slightly lower than the attributable production guidance shown in the 4Q19 Operations and Trading Update (3 February 2020).
[3] Group sales volume: includes Kazatomprom's sales and those of its consolidated subsidiaries (companies that KAP controls by having (i) the power to direct their relevant activities that significantly affect their returns, (ii) exposure, or rights, to variable returns from its involvement with these entities, and (iii) the ability to use its power over these entities to affect the amount of the Group's returns. The existence and effect of substantive rights, including substantive potential voting rights, are considered when assessing whether KAP has power to control another entity)
[4] KAP sales volume: includes only the total external sales of KAP HQ and THK. Intercompany transactions between KAP HQ and THK are not included.
[5] Revenue expectations are based on uranium prices taken at a single point in time from third-party sources. The prices used do not reflect any internal estimate from Kazatomprom, and 2020 revenue could be materially impacted by how actual uranium prices vary from the third-party estimates.
[6] Total capital expenditures (100% basis): includes only capital expenditures of the mining entities.
* Note that the conversion of kgU to pounds U_3O_8 is 2.5998.

Kazatomprom's production expectations for 2020 remain consistent with its market-centric strategy and the intention to flex down planned production volumes by 20% for 2018 through 2021 (versus planned production levels under Subsoil Use Agreements). With the flex down, under the existing Subsoil Use Agreements, 2020 production is expected to remain flat compared to 2019, at approximately 22,750 to 22,800 tU (100% basis), and 12,800 tU to 13,300 tU (attributable basis); without the reduction, production was expected to be approximately 28,500 tU (100% basis) in 2020.

Sales volume in 2020 is aligned with the Company's market-centric strategy. The Group expects to sell between 15,500 tU and 16,500 tU, which includes KAP sales volumes between 13,500 tU and 14,500 tU, consistent with sales volumes in 2019. Sales in excess of planned attributable production are expected to be primarily sourced from inventories, from KAP subsidiaries under contracts and agreements with partners, and from other third parties.

Revenue, C1 cash cost (attributable basis) and All-in Sustaining cash cost (attributable C1 + capital cost) may vary from the guidance provided above if the KZT to USD exchange rate differs from the 2020 budget assumption of 390 KZT/1 USD.

The Company continues to target an ongoing inventory level of approximately six to seven months of annual attributable production (excluding trading volumes held by THK). However, the market is being constantly monitored and, in alignment with its value strategy, Kazatomprom may carry an inventory level outside of the target range at any point in time based on seasonality, and to optimise mining and sales volumes in line with changing market conditions.

13.1 *Uranium sales price sensitivity analysis*

The table below indicates how the Group's U_3O_8 annual average sales price may respond to changes in spot prices (shown in the left column), for a given year (shown across the top row). At present, the table clearly indicates that the Group's U_3O_8 average sales prices are closely correlated with the uranium spot market price.

This sensitivity analysis should be used only as a reference, and actual uranium market spot prices may result in different U_3O_8 annual average sales prices than those shown in the table. The table is based upon several key assumptions, including estimates of future business opportunities, which may change and are subject to risks and uncertainties outside the Group's control. Please review the footnotes under that table and refer to the section 14.1 Forward-looking statements for more information.

Average Annual Spot Price (USD)	2020E	2021E	2022E	2023E	2024E
20	23	22	22	22	22
30	30	31	31	31	31
40	38	40	40	41	41
50	46	49	49	50	50
60	53	58	59	59	59
70	61	67	68	68	68

Values are rounded to the nearest dollar. The sensitivity analysis above is based on the following key assumptions:
- Annual inflation at 2% in the US;
- Analysis is as of 31 December 2019 and prepared for 2020–2024 on the basis of minimum attributable annual sales of approximately 13.5 thousand tonnes of uranium in the form of U_3O_8, of which the volumes contracted as of 31 December 2019 will be sold per existing contract terms (i.e. contracts with hybrid pricing mechanisms with a fixed price component (calculated in accordance with an agreed price formula) and / or combination of separate spot, mid-term and long-term prices);
- For the purpose of the table, uncommitted volumes of U_3O_8 are assumed to be sold under short-term contracts negotiated directly with the customers and based on spot prices.

14.0 RISKS AND FORWARD-LOOKING INFORMATION

The Company is exposed to the following key risks that could have a material adverse effect on the Group and its results:

- major accidents affecting the nuclear industry may result in a dramatic fall in uranium prices;
- nuclear energy competes with several other sources of energy, and sustained lower prices of such other energy sources may result in lower demand for nuclear energy, and consequently, in a reduction in demand for uranium which could impact market prices;
- nuclear energy is subject to public opinion risks that could have a material adverse impact on the demand for nuclear power and increase the regulation of the nuclear power industry;
- the Group's profitability is directly related to the market prices of uranium, which are volatile;
- the Group faces competition and could lose customers to other suppliers of uranium and uranium products;
- the Group is currently dependent on a small number of customers that purchase a significant portion of the Group's uranium, and the loss of a significant customer could have a material impact;
- certain customers and business associates of the Group may be subjected to US and EU sanctions, and such sanctions could have a material impact;
- the US or other uranium importers could impose tariffs or quotas on uranium imports;
- the Group may continue to hold significant U_3O_8 inventories throughout the U_3O_8 pricing cycle if production exceeds sales;
- the Group's uranium extraction and transportation activities are subject to operational risks, hazards and unexpected disruptions, which could delay the production and delivery of the Group's uranium and uranium products, increase the Group's cost of extraction, or result in accidents at the Group's extraction locations;
- the availability and cost of sulfuric acid materially affects the continuity and commercial viability of the Group's operations, as the Group uses substantial amounts of sulfuric acid to extract uranium;
- the Group may face difficulty using railroads or other transportation infrastructure connecting Kazakhstan with neighboring countries;
- the Group may be unsuccessful in maintaining existing ore reserves or discovering new ore reserves, and the reported quantities or classifications of the Group's uranium ore reserves may be lower than estimated because of inherent uncertainties in the estimation process;
- the Group may be unable to obtain, on commercially acceptable terms or at all, the necessary financing for its operations, strategy implementation, and/or expansion of its business and local infrastructure;
- the Group is subject to various financial risks related to certain financial and other restrictive covenants, fluctuations of interest and currency rates, liquidity constraints or fail to obtain the necessary funding, or defaults of counterparties;
- the Group may be affected by arbitration or litigation proceedings to which it is not a party, or by legal consequences of non-compliance / misinterpretation of legislation;
- the Group's insurance coverage may not be adequate to cover losses arising from potential operational hazards and unforeseen interruptions;
- failures of the Group's IT systems or cyber-attacks could negatively influence the results of operations;
- failure to achieve planned uranium production or products (U_3O_8) output volumes, sales, or production costs of products and services;
- failure to achieve the Group's assets restructuring plan;
- failure to successfully improve corporate governance systems and health, safety, and environmental programs;
- failure to successfully complete construction of a fuel fabrication plant on time and on budget;
- the Group is impacted by the macroeconomic, social and political conditions in Kazakhstan, and the Group may be exposed to risks related to adverse sovereign action by local government, or subject to extensive government regulation and legislation;
- the Group may be affected by labor unrest or increased social tension in Kazakhstan;
- the Group's results of operations are subject to economic, political and legal developments in China, India and South-East Asia;
- unexpected catastrophic events, including acts of vandalism and terrorism.

14.1 Forward-looking statements

This document contains statements that are considered as “forward-looking statements”. The terminology used for describing the future, including, inter alia, such words as “believes”, “according to preliminary estimates”, “expects”, “forecasts”, “intends”, “plans”, “suggests”, “will” or “should” or, in each case, similar or comparable terminology, or references to discussions, plans, objectives, goals, future events or intentions, is used to denote forward-looking statements. These forward-looking statements include all statements that are not historical facts. These statements include, without limitation, statements regarding intentions, opinions and announcements on the Company’s expectations concerning, among other things, the results of operations, financial state, liquidity, prospects, growth, potential acquisitions, strategies and sectors, in which the Company operates. In their nature, forward-looking statements involve risks and uncertainties because they relate to future events and circumstances that may or may not occur. Forward-looking statements do not guarantee future or actual performance. The Company’s financial position and liquidity, as well as the development of the country and industries, in which the Company operates, may significantly differ from the options described herein or assumed pursuant to the forward-looking statements contained herein. The company does not plan and does not assume obligations to update any information regarding the industry or any forward-looking statements contained herein, whether as a result of obtaining new information or occurrence of future events or any other circumstances. The Company makes no representations, provides no assurances and publishes no forecasts as to whether the outcomes described in such forward-looking statements will be achieved.