

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. GENERAL

Joint stock company "National Company "KazMunayGas" (the Company, JSC NC "KazMunayGas" or Parent Company) is oil and gas enterprise of the Republic of Kazakhstan (RK), which was established on February 27, 2002 as a closed joint stock company pursuant to the Decree No. 811 of the President of the Republic of Kazakhstan dated February 20, 2002 and the resolution of the Government of the RK (further the Government) No. 248 dated February 25, 2002. The Company was formed as a result of the merger of closed joint stock companies "National Oil and Gas Company Kazakhoil" and "National Company Transport Nefti i Gaza". As the result of the merger, all assets and liabilities, including ownership interest in all entities owned by these companies, have been transferred to the Company. The Company was reregistered as a joint stock company in accordance with the legislation of the RK in March 2004.

Starting from June 8, 2006, the sole shareholder of the Company was joint stock company "Kazakhstan Holding Company for State Assets Management "Samruk", which in October 2008 was merged with the state owned Sustainable Development Fund "Kazyna" and formed joint stock company "National Welfare Fund Samruk-Kazyna", now renamed to joint stock company "Sovereign Wealth Fund Samruk-Kazyna" (further Samruk-Kazyna). The Government is the sole shareholder of Samruk Kazyna. On August 7, 2015, the National Bank of RK purchased 9.58% plus one share of the Company from Samruk-Kazyna.

As at December 31, 2021, the Company has interest in 60 operating companies (as of December 31, 2020: 61) (jointly "the Group").

The Company has its registered office in the RK, Nur-Sultan, Dinmukhamed Kunayev, 8.

The principal activity of the Group includes, but is not limited, to the following:

- Participation in the development and implementation of the uniform public policy in the oil and gas sector;
- Representation of the state interests in subsoil use contracts through interest participation in those contracts; and
- Corporate governance and monitoring of exploration, development, production, oil servicing, processing, petrochemistry, transportation and sale of hydrocarbons and the designing, construction and maintenance of oil-and-gas pipeline and field infrastructure.

The consolidated financial statements comprise the financial statements of the Company and its controlled subsidiaries (Note 3).

These consolidated financial statements of the Group were approved for issue by the Deputy Chairman of the Management Board for Economy and Finance and the Chief accountant on March 4, 2022.

2. BASIS OF PREPARATION

These consolidated financial statements have been prepared on a historical cost basis, except as described in the accounting policies and the notes to these consolidated financial statements. All values in these consolidated financial statements are rounded to the nearest millions, except when otherwise indicated.

Statement of compliance

These consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by International Accounting Standards Board (IASB).

The preparation of the consolidated financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Group's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the Group consolidated financial statements are disclosed in Note 4.

In course of preparation of these consolidated financial statements the Group management considered the current international economic environment including complex of uncertainties due to COVID-19 pandemic. The consolidated financial statements were prepared on a going concern basis.

Foreign currency translation

Functional and presentation currency

Items included in the financial statements of each of the Group's entities included in these consolidated financial statements are measured using the currency of the primary economic environment in which the entities operate (the functional currency). The consolidated financial statements are presented in Kazakhstan tenge (tenge or KZT), which is the Company's functional and presentation currency.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in the consolidated statement of comprehensive income.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined.

Differences arising on settlement or translation of monetary items are recognized in profit or loss with the exception of monetary items that are designated as part of the hedge of the Group's net investment in foreign operation. These are recognized in other comprehensive income until the net investment is disposed of, at which time, the cumulative amount is reclassified to profit or loss. Tax charges and credits attributable to exchange differences on those monetary items are also recorded in other comprehensive income.

Group Companies

The results and financial position of all of the Group's subsidiaries, joint ventures and associates (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each statement of financial position presented are translated at the closing rate at that reporting date;
- Income and expenses for each statement of comprehensive income presented are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rate on the date of the transaction); and
- All resulting exchange differences are recognized as a separate component of other comprehensive income.

Exchange rates

Weighted average currency exchange rates established by the Kazakhstan Stock Exchange (KASE) are used as official currency exchange rates in the Republic of Kazakhstan. The currency exchange rate of KASE as at December 31, 2021 was 431.80 tenge to 1 United States dollar (US dollar). This rate was used to translate monetary assets and liabilities denominated in US dollar as at December 31, 2021 (2020: 420.91 tenge to 1 US dollar). The currency exchange rate of KASE as at March 4, 2022 was 499.20 tenge to 1 US dollar.

3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Changes in accounting policies and disclosures

New and amended standards and interpretations

The accounting policies adopted in the preparation of the consolidated financial statements are consistent with those followed in the preparation of the Group's annual consolidated financial statements for the year ended December 31, 2020, except for the adoption of new standards and interpretations effective as of January 1, 2021.

The following amendments were applied for the first time in 2021:

- Amendments to IFRS 9 Financial Instruments, IAS 39 Financial Instruments: Recognition and Measurement, IFRS 7 Financial Instruments: Disclosures, IFRS 4 Insurance Contracts and IFRS 16 Leases. The amendments provide temporary reliefs which address the financial reporting effects when an interbank offered rate (IBOR) is replaced with an alternative nearly risk-free interest rate (RFR). The amendments include the following practical expedients:
 - A practical expedient to require contractual changes, or changes to cash flows that are directly required by the reform, to be treated as changes to a floating interest rate, equivalent to a movement in a market rate of interest;
 - Permit changes required by IBOR reform to be made to hedge designations and hedge documentation without the hedging relationship being discontinued;
 - Provide temporary relief to entities from having to meet the separately identifiable requirement when an RFR instrument is designated as a hedge of a risk component.

These amendments had no impact on the consolidated financial statements of the Group:

- Amendments to IFRS 16 Leases in regards of COVID-19-related rent concessions. The amendments provide relief to lessees from assessment whether a COVID-19-related rent concession is a lease modification. The amendments did not have a material impact on the consolidated financial statements, as the Group has not received significant rent concessions related to pandemic.

Standards issued but not yet effective

In May 2017, the IASB issued IFRS 17 Insurance Contracts. IFRS 17 establishes a single framework for the accounting for insurance contracts and contains requirements for related disclosures. The new standard replaces IFRS 4 Insurance Contracts. In June 2020, the IASB issued amendments to IFRS 17 that address concerns and implementation challenges, and deferred the date of initial application to annual periods beginning on or after January 1, 2023. The Group does not expect the standard to have a material impact on the consolidated financial statements.

In January 2020, the IASB issued amendments to IAS 1 Presentation of Financial Statements named Classification of Liabilities as Current or Non-current. The amendments clarify requirements for classifying liabilities as current or non-current. The amendments are effective on or after January 1, 2023; earlier application is permitted. The Group does not expect the amendments to have a material impact on the consolidated financial statements, as the Group already applies criteria set by the amendments.

In May 2020, the IASB issued amendments to IFRS 3 Business Combinations named Reference to the Conceptual Framework. The amendments replace references to the Conceptual Framework for Financial Reporting with the current version issued in March 2018, without significantly changing the requirements of the standard. The amendments are effective on or after January 1, 2022; earlier application is permitted. The Group does not expect the amendments to have a material impact on the consolidated financial statements.

In May 2020, the IASB issued amendments to IAS 16 Property, Plant and Equipment named Property, Plant and Equipment: Proceeds Before Intended Use. The amendments prohibit entities from deducting from the cost of an item of property, plant and equipment any proceeds of the sale of items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognizes the proceeds from selling such items, and the costs of producing those items, in profit or loss. The amendments are effective on or after January 1, 2022 and should be applied retrospectively. The Group does not expect the amendments to have a material impact on the consolidated financial statements.

In May 2020, the IASB issued amendments to IAS 37 Provisions, Contingent Liabilities and Contingent Assets named Onerous Contracts – Costs of Fulfilling a Contract. The amendments specify which costs an entity needs to include when assessing whether a contract is onerous. The amendments are effective on or after January 1, 2022; earlier application is permitted. The Group does not expect the amendments to have a material impact on the consolidated financial statements.

In May 2021, the IASB issued amendments to IAS 12 Income Taxes named Deferred Tax Related to Assets and Liabilities arising from a Single Transaction. The amendments clarify the accounting for deferred tax on transactions in which equal amounts of deductible and taxable temporary differences arise on initial recognition. The amendments are effective on or after January 1, 2023; earlier application is permitted. The Group does not expect the amendments to have a material impact on the consolidated financial statements.

Additionally, a number of amendments, not yet effective, were issued during annual improvement process conducted by IASB. They include the amendments to IFRS 1 First-time Adoption named First-time Adoption: Subsidiary as a First-time Adopter, the amendments to IFRS 9 Financial Instruments named Fees in the '10 per cent' Test for Derecognition of Financial Liabilities, the amendments to IFRS 16 Leases named Lease incentives and the amendments to IAS 41 Agriculture named Taxation in Fair Value Measurements. The Group does not expect the amendments to have a material impact on the consolidated financial statements.

Amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2 Making Materiality Judgements. The amendments to IAS 1 require companies to disclose their material accounting policy information rather than their significant accounting policies. The amendments to IFRS Practice Statement 2 provide guidance on how to apply the concept of materiality to accounting policy disclosures.

Separately, the Board has also issued amendments to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors. The amendments clarify how companies should distinguish changes in accounting policies from changes in accounting estimates. That distinction is important because changes in accounting estimates are applied prospectively only to future transactions and other future events, but changes in accounting policies are generally also applied retrospectively to past transactions and other past events.

The amendments to IAS 1 and IAS 8 will be effective for annual reporting periods beginning on or after 1 January 2023, with early application permitted.

The Group has not early adopted any standard, interpretation or amendment that has been issued but is not yet effective.

Basis of consolidation

The consolidated financial statements comprise the financial statements of the Company and its subsidiaries as of December 31, 2021. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if and only if the Group has: power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee); exposure, or rights, to variable returns from its involvement with the investee, and; the ability to use its power over the investee to affect its returns.

Generally, there is a presumption that a majority of voting rights result in control. To support this presumption and when the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including: the contractual arrangement with the other vote holders of the investee; rights arising from other contractual arrangements; the Group's voting rights and potential voting rights.

The Group re-assesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control. Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control over the subsidiary. Assets, liabilities, revenue and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the date the Group gains control until the date the Group ceases to control the subsidiary.

The financial statements of the subsidiaries are prepared for the same reporting period as the parent company, using consistent accounting policies. Profit or loss and each component of other comprehensive income are attributable to the equity holders of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interest having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies. All intra-group balances, transactions, unrealized gains and losses resulting from intra-group transactions and dividends are eliminated in full on consolidation. A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognizes the related assets (including goodwill), liabilities, non-controlling interest and other components of equity while any resultant gain or loss is recognized in profit or loss. Any investment retained is recognized at fair value.

Subsidiaries

As at December 31, 2021 and 2020, the following direct significant subsidiaries were included in these consolidated financial statements:

Significant entities	Main activity	Country of incorporation	Percentage ownership	
			2021	2020
KazMunayGas Exploration Production JSC	Exploration and production	Kazakhstan	99.72%	99.72%
KazMunayTeniz LLP	Exploration and production	Kazakhstan	100 %	100 %
KMG Karachaganak LLP	Exploration and production	Kazakhstan	100 %	100 %
Kazakhturkmunay LLP	Exploration and production	Kazakhstan	100 %	100 %
KazTransOil JSC	Oil transportation	Kazakhstan	90 %	90 %
KazMorTransFlot LLP	Oil transportation and construction	Kazakhstan	100 %	100 %
KazTransGas JSC (Note 5)	Gas transportation	Kazakhstan	–	100 %
Cooperative KazMunayGas PKI U.A.	Refinery and marketing of oil products	Netherlands	100 %	100 %
Atyrau Refinery LLP	Refinery	Kazakhstan	99.53%	99.53%
Pavlodar oil chemistry refinery LLP	Refinery	Kazakhstan	100 %	100 %
KMG International N.V.	Refinery and marketing of oil products	Romania	100 %	100 %
KMG Drilling&Services LLP	Drilling services	Kazakhstan	100 %	100 %

Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value and the amount of any non-controlling interest in the acquiree. For each business combination, the acquirer measures the non-controlling interest in the acquiree either at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition costs incurred are expensed and included in general and administrative expenses.

When the Group acquires a business, it assesses the financial assets acquired and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts by the acquiree.

Any contingent consideration to be transferred by the acquirer will be recognized at fair value at the acquisition date. Contingent consideration classified as an asset or liability that is a financial instrument and within the scope of IFRS 9 Financial Instruments, is measured at fair value with changes in fair value recognized in the statement of profit or loss in accordance with IFRS 9. If the contingent consideration is not within the scope of IFRS 9, it is measured at fair value through profit and loss. Contingent consideration that is classified as equity is not remeasured and its subsequent settlement is accounted for within equity.

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred and the amount recognized for non-controlling interests, and any previous interest held, over the net identifiable assets acquired and liabilities assumed. If the fair value of the net assets acquired is in excess of the aggregate consideration transferred, the Group re-assesses whether it has correctly identified all of the assets acquired and all of the liabilities assumed and reviews the procedures used to measure the amounts to be recognized at the acquisition date. If the reassessment still results in an excess of the fair value of net assets acquired over the aggregate consideration transferred, then the gain is recognized in profit or loss.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units.

Where goodwill forms part of a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. Goodwill disposed in this circumstance is measured based on the relative values of the operation disposed of and the portion of the cash-generating unit retained.

Business combinations achieved in stages

The acquisition date fair value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date through profit or loss.

In a business combination achieved in stages the acquirer recognizes goodwill as of the acquisition date measured as the excess of (1) over (2) below:

1. The aggregate of: (i) the consideration transferred measured in accordance with this IFRS 3 Business Combinations, which generally requires acquisition-date fair value; (ii) the amount of any non-controlling interest in the acquiree measured in accordance with this IFRS; and (iii) the acquisition-date fair value of the acquirer's previously held equity interest in the acquiree;
2. The net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed.

Acquisition of subsidiaries from parties under common control

Acquisitions of subsidiaries from parties under common control are accounted for using the pooling of interest method.

The assets and liabilities of the subsidiary transferred under common control are recorded in the consolidated financial statements at the carrying amounts of the transferring entity (the Predecessor) at the date of the transfer. Related goodwill, if any, inherent in the Predecessor's original acquisition is also recorded in the consolidated financial statements. Any difference between the total book value of net assets, including the Predecessor's goodwill, and the consideration paid is accounted for in the consolidated financial statements as an adjustment to equity.

The consolidated financial statements, including corresponding figures, are presented as if the subsidiary had been acquired by the Group on the date it was originally acquired by the Predecessor.

Joint operations

A joint operation is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets and obligations for the liabilities, relating to the arrangement. In relation to its interests in joint operations, the Group recognizes its: Assets, including its share of any assets held jointly; Liabilities, including its share of any liabilities incurred jointly; Revenue from the sale of its share of the output arising from the joint operation; Share of the revenue from the sale of the output by the joint operation; Expenses, including its share of any expenses incurred jointly.

Investment in associates and joint ventures

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but which does not comprise control or joint control over those policies.

A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control. Under contractual arrangement that establishes joint control the Group may own less than 50% of shares in joint ventures.

The considerations made in determining significant influence or joint control are similar to those necessary to determine control over subsidiaries. The Group's investments in its joint venture and associates are accounted for using the equity method.

Under the equity method, the investment in a joint venture or an associate is initially recognized at cost. The carrying amount of the investment is adjusted to recognize changes in the Group's share of net assets of the joint venture or associate since the acquisition date. Goodwill relating to the joint venture or associate is included in the carrying amount of the investment and is neither amortized nor individually tested for impairment.

The consolidated statement of comprehensive income reflects the Group's share of the results of operations of the joint venture or associate. Any change in other comprehensive income of those investees is presented as part of the Group's other comprehensive income. In addition, when there has been a change recognized directly in the equity of the joint venture or associate, the Group recognizes its share of any changes, when applicable, in the consolidated statement of changes in equity. Unrealized gains and losses resulting from transactions between the Group and the joint venture or associate are eliminated to the extent of the interest in the joint venture or associate.

The aggregate of the Group's share in profit or loss of a joint venture and an associate is shown on the face of the consolidated statement of comprehensive income and represents profit or loss after tax and non-controlling interest in the subsidiaries of the joint venture or associate. The financial statements of the joint venture or associate are prepared for the same reporting period as the Group. When necessary, adjustments are made to bring their accounting policies in line with those of the Group.

After application of the equity method, the Group determines whether it is necessary to recognize an impairment loss on its investment in its joint venture or associate. At each reporting date, the Group determines whether there is objective evidence that the investment in the joint venture or associate is impaired. If there is such evidence, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate or joint venture and its carrying value, and then recognizes the loss as "Impairment of investment in joint venture and associate" in the consolidated statement of comprehensive income.

Upon loss of joint control over the joint venture or significant influence over the associate, the Group measures and recognizes any retained investment at its fair value. Any difference between the carrying amount of the joint venture or associate upon loss of joint control or significant influence and the fair value of the retained investment and proceeds from disposal is recognized in profit or loss.

Current versus non-current classification

The Group presents assets and liabilities in the consolidated statement of financial position based on current/non-current classification. An asset is classified as current when it is: expected to be realized or intended to sold or consumed in normal operating cycle; held primarily for the purpose of trading; expected to be realized within 12 (twelve) months after the reporting period; or it is cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 (twelve) months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when it is: expected to be settled in normal operating cycle; held primarily for the purpose of trading; due to be settled within 12 (twelve) months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 (twelve) months after the reporting period. The Group classifies all other liabilities as non-current.

Deferred tax assets and liabilities are always classified as non current assets and liabilities.

Oil and natural gas exploration, evaluation and development expenditure

Costs incurred before obtaining subsoil use rights (licenses)

Costs incurred before obtaining full subsoil use rights (licenses) are expensed in the period in which they are incurred, except when costs are incurred after signing preliminary agreements with the Government of RK, in such cases costs incurred after this date are capitalized in exploration and evaluation assets.

Subsoil use rights and property acquisition costs

Exploration and production subsoil use rights and related property acquisition costs are capitalized within exploration and evaluation assets and subclassified as intangible. Each property under exploration and appraisal is reviewed on an annual basis to confirm that drilling activity is planned and it is not impaired. If no future activity is planned, the carrying amount of the exploration subsoil use right and related property acquisition costs is written off. Upon determination of economically recoverable reserves ('proved reserves' or 'commercial reserves') and internal approval of development, the carrying amount of the subsoil use right and related property acquisition costs held on a field by field basis is aggregated with exploration and evaluation assets and transferred to oil and gas assets or intangible assets.

Exploration and evaluation costs

Once the legal right to explore has been acquired, geological and geophysical exploration costs and costs directly associated with exploration and appraisal wells, including unsuccessful development or delineation wells are capitalized as exploration and evaluation intangible or tangible assets, according to the nature of the costs, until the drilling of the well is complete and the results have been evaluated. These costs include employee remuneration, materials and fuel used, rig costs and payments made to contractors. If no expected reserves are found, the exploration and evaluation asset is tested for impairment. If extractable hydrocarbons are found and, subject to further appraisal activity, which may include the drilling of further wells, are likely to be developed commercially; the costs continue to be carried as an asset while sufficient/continued progress is made in assessing the commerciality of the hydrocarbon reserves. All such carried costs are subject to technical, commercial and management review as well as review for impairment at least once a year to confirm the continued intent to develop or otherwise extract value from the discovery.

When proved reserves of hydrocarbons are determined and development is sanctioned, the relevant expenditure is transferred to oil and gas assets after impairment is assessed and impairment loss recognized, if any.

When this is no longer the case, and the Group decides to relinquish the contract territory to the Government and terminate the subsoil use contracts, the assets are written off.

Development costs

Expenditures on the construction, installation or completion of infrastructure facilities such as platforms, pipelines and the drilling of development wells, are capitalized within oil and gas assets.

Oil and gas assets and other property, plant and equipment

Oil and gas assets and other property, plant and equipment are stated at cost less accumulated depreciation, depletion and impairment.

The initial cost of an asset comprises its purchase price or construction cost, borrowing cost for long-term construction or development project, if recognition criteria is met, any costs directly attributable to bringing the asset into operation and the initial estimate of decommissioning obligation, if there is any. The purchase price or construction cost is the aggregate amount paid and the fair value of any other consideration given to acquire the asset.

Oil and gas assets are depreciated using a unit-of-production method, whereas tangible assets are depreciated over proved developed reserves and intangible assets – over proved reserves. Certain oil and gas assets with useful lives less than the remaining life of the fields or term of the subsoil use contracts are depreciated on a straight-line basis over useful lives.

Property, plant and equipment other than oil and gas assets and land principally comprise buildings, machinery and equipment, vehicles and others that are depreciated on a straight-line basis over the expected remaining useful average lives as follows:

Refinery assets	4-100 years
Pipelines	2-30 years
Buildings and improvements	2-100 years
Machinery and equipment	2-30 years
Vehicles	3-35 years
Other	2-20 years
Land	Not depreciated

The expected useful lives of property, plant and equipment are reviewed on an annual basis and, if necessary, changes in useful lives are accounted for prospectively.

The carrying value of property, plant and equipment is reviewed for impairment whenever events or changes in circumstances indicate the carrying value may not be recoverable.

An item of property, plant and equipment, inclusive of production wells which stop producing commercial quantities of hydrocarbons and are scheduled for abandonment, is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the item) is included in the profit or loss in the period the item is derecognized.

Intangible assets

Intangible assets are stated at cost, less accumulated amortization and accumulated impairment losses. Intangible assets include expenditure on acquiring subsoil use rights for oil and natural gas exploration, evaluation and development, computer software and goodwill. Intangible assets acquired separately from a business are carried initially at cost. The initial cost is the aggregate amount paid and the fair value of any other consideration given to acquire the asset.

Intangible assets, except for goodwill and subsoil use rights, are amortized on a straight-line basis over the expected remaining useful life. The expected useful lives of the assets are reviewed on an annual basis and, if necessary, changes in useful lives are accounted for prospectively. Computer software costs have an estimated useful life of 3 to 7 years.

The carrying value of intangible assets is reviewed for impairment whenever events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is tested for impairment annually (as at December 31) and when circumstances indicate that the carrying value may be impaired.

Impairment is determined for goodwill by assessing the recoverable amount of each cash-generating unit (or group of cash-generating units) to which the goodwill relates. Where the recoverable amount of the cash generating unit is less than their carrying amount an impairment loss is recognized. Impairment losses relating to goodwill cannot be reversed in future periods.

Impairment of non-financial assets

The Group assesses at each reporting date whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the Group estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's (CGU) fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. Where the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

In determining fair value less costs to sell, an appropriate valuation model is used. These calculations are corroborated by valuation multiples, quoted share prices for publicly traded subsidiaries or other available fair value indicators. Impairment losses of continuing operations are recognized in the consolidated statement of comprehensive income in those expense categories consistent with the function of the impaired asset.

The Group bases its impairment calculation on detailed budgets and forecast calculations, which are prepared separately for each of the Group's CGUs to which the individual assets are allocated. These budgets and forecast calculations generally cover a period of 5 (five) years. For longer periods, a long-term growth rate is calculated and applied to projected future cash flows after the fifth year.

For assets excluding goodwill, an assessment is made at each reporting date as to whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such indication exists, the Group estimates the asset's or cash-generating unit's recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognized. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of accumulated depreciation, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in the consolidated statement of comprehensive income.

Impairment of exploration and evaluation assets

Exploration and evaluation assets are tested for impairment when reclassified to oil and gas development tangible or intangible assets or whenever facts and circumstances indicate impairment.

One or more of the following facts and circumstances indicate that the Group should test exploration and evaluation assets for impairment (the list is not exhaustive):

- The period for which the Group entity has the right to explore and appraise in the specific area has expired during the period or will expire in the near future, and is not expected to be renewed;
- Substantive expenditure on the further exploration for and evaluation of hydrocarbon resources in the specific area is neither budgeted nor planned;
- Exploration for and evaluation of hydrocarbon resources in the specific area have not led to the discovery of commercially viable quantities of hydrocarbon resources and the Group entity has decided to discontinue such activities in the specific area;
- Sufficient data exist to indicate that, although a development in the specific area is likely to proceed, the carrying amount of the exploration and evaluation asset is unlikely to be recovered in full from successful development or by sale.

Non-current assets held for sale and discontinued operations

Non-current assets and disposal groups classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell. Non-current assets and disposal groups are classified as held for sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset or disposal group is available for immediate sale in its present condition.

Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

In the consolidated statement of comprehensive income of the reporting period, and of the comparable period of the previous year, income and expenses from discontinued operations are reported separately from income and expenses from continuing operations, down to the level of profit after taxes, even when the Group retains a non-controlling interest in the subsidiary after the sale. The resulting profit or loss (after taxes) is reported separately in the consolidated statement of comprehensive income.

Property, plant and equipment and intangible assets once classified as held for sale are not depreciated or amortized.

Asset retirement obligation (decommissioning)

Provision for decommissioning is recognized in full, on a discounted cash flow basis, when the Group has an obligation to dismantle and remove a facility or an item of plant, property and equipment and to restore the site on which it is located, and when a reasonable estimate of that provision can be made. The amount recognized is the present value of the estimated future expenditure determined in accordance with local conditions and requirements. A corresponding item of property, plant and equipment of an amount equivalent to the provision is also created. This asset is subsequently depreciated as part of the capital costs of the production and transportation facilities based on the appropriate depreciation method.

Changes in the measurement of an existing decommissioning provision that result from changes in the estimated timing or amount of the outflow of resources embodying economic benefits required to settle the obligation, or change in the discount rate, is accounted for so that:

1. Changes in the provision are added to, or deducted from, the cost of the related asset in the current period;
2. The amount deducted from the cost of the asset shall not exceed its carrying amount. If a decrease in the provision exceeds the carrying amount of the asset, the excess is recognized immediately in the consolidated statement of comprehensive income; and
3. If the adjustment results in an addition to the cost of an asset, the Group considers whether this is an indication that the new carrying amount of the asset may not be fully recoverable. If it is such an indication, the Group tests the asset for impairment by estimating its recoverable amount, and accounts for any impairment loss, in accordance with IAS 36.

Financial assets

Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortized cost, fair value through other comprehensive income, and fair value through profit or loss. The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under IFRS 15.

In order for a debt financial asset to be classified and measured at amortized cost or fair value through other comprehensive income, it needs to give rise to cash flows that are 'solely payments of principal and interest (SPPI)' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level. The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both. Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognized on the trade date, i.e., the date that the Group commits to purchase or sell the asset.

Subsequent measurement

For purposes of subsequent measurement, financial assets are classified in two categories:

- Financial assets at amortized cost (debt instruments);
- Financial assets at fair value through profit or loss.

The Group does not have financial assets at fair value through other comprehensive income.

Financial assets at amortized cost (debt instruments)

This category is the most relevant to the Group. The Group measures financial assets at amortized cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows; and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortized cost are subsequently measured using the effective interest rate method and are subject to impairment. Gains and losses are recognized in profit or loss when the asset is derecognized, modified or impaired. The Group's financial assets at amortized cost include trade and other receivables, loans due from related parties and bank deposits.

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss include certain loans due from related parties, which contain embedded derivative financial instruments. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at fair value through profit or loss, irrespective of the business model. Notwithstanding the criteria for debt instruments to be classified at amortized cost or at fair value through other comprehensive income, as described above, debt instruments may be designated at fair value through profit or loss on initial recognition if doing so eliminates, or significantly reduces, an accounting mismatch.

Financial assets at fair value through profit or loss are carried in the consolidated statement of financial position at fair value with net changes in fair value recognized in the consolidated statement of comprehensive income within the profit and loss.

Derecognition

A financial asset is primarily derecognized (removed from the consolidated statement of financial position) when:

- The rights to receive cash flows from the asset have expired; or
- The Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Group continues to recognize the transferred asset to the extent of its continuing involvement. In that case, the Group also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained. Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

Impairment of financial assets

The Group recognizes an allowance for expected credit losses (ECL) for all debt instruments not held at fair value through profit or loss. ECL are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECL are recognized in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECL are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For trade and other receivables, the Group applies a simplified approach in calculating ECL. Therefore, the Group does not track changes in credit risk, but instead recognizes a loss allowance based on lifetime ECL at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Group considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Inventories

Inventories are stated at the lower of cost and net realizable value on a first-in first-out (FIFO) basis. Cost includes all costs incurred in the normal course of business in bringing each product to its present location and condition. The cost of crude oil and refined products is the cost of production, including the appropriate proportion of depreciation, depletion and amortization and overheads based on normal capacity. Net realizable value of crude oil and refined products is based on estimated selling price in the ordinary course of business less any costs expected to be incurred to complete the sale.

Value added tax (VAT)

The tax authorities permit the settlement of VAT on sales and purchases on a net basis. VAT receivable represents VAT on domestic purchases net of VAT on domestic sales. Export sales are zero rated.

Cash and cash equivalents

Cash and cash equivalents include cash in bank and cash on hand, demand deposits with banks with original maturities of three months or less.

Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans borrowings and payables, or as derivatives financial instruments.

All financial liabilities are recognized initially at fair value and in the case of loans and borrowings, plus directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, loans and borrowings and derivative financial instruments.

Subsequent measurement

The measurement of financial liabilities depends on their classification as follows:

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss includes financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss.

Financial liabilities are classified as held for trading if they are acquired for the purpose of selling in the near term. This category includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by IFRS 9. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognized in profit or loss.

The Group has not designated any financial liabilities upon initial recognition as at fair value through profit or loss.

Trade and other payables

Trade payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

Loans and borrowings

After initial recognition, interest bearing loans and borrowings are subsequently measured at amortized cost using the effective interest rate method. Gains and losses are recognized in the consolidated statement of comprehensive income when the liabilities are derecognized as well as through the effective interest rate amortization process.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fee or costs that are an integral part of the effective interest rate. The effective interest rate amortization is included in finance costs.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least twelve months after the reporting date. Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalized as part of the cost of that asset. Other borrowing costs are recognized as an expense when incurred.

Financial guarantee contracts

Financial guarantee contracts issued by the Group are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. Financial guarantee contracts are recognized initially as a liability at fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequently, the liability is measured at the higher of the expected credit losses allowance calculated under IFRS 9 and the amount recognized less cumulative amortization, if any.

Derecognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in profit or loss.

Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount reported in the consolidated statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

Fair value of financial instruments

The fair value of financial instruments that are traded in active markets at each reporting date is determined by reference to quoted market prices or dealer price quotations (bid price for long positions and ask price for short positions), without any deduction for transaction costs.

For financial instruments not traded in an active market, the fair value is determined using appropriate valuation techniques. Such techniques may include using recent arm's length market transactions; reference to the current fair value of another instrument that is substantially the same; a discounted cash flow analysis or other valuation models.

Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. When the Group expects a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognized as a separate asset, but only when the reimbursement is virtually certain.

If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognized as a finance cost.

Provision for obligations to the Government

The Government assigns various sponsorship and financing obligations to the Group. Management of the Group believes that such Government's assignments represent constructive obligations of the Group and require recognition on the basis of respective resolution of the Government. Furthermore, as the Government is the ultimate controlling party of the Group, the expenditures on these assignments are recognized as other distributions to the Shareholders directly in the equity, in the consolidated financial statements.

Employee benefits

Pension scheme

Payments to defined contribution retirement benefit plans are charged as an expense as they fall due. Payments made to state – managed retirement benefit schemes are dealt with as defined contribution plans where the Group's obligations under the scheme are equivalent to those arising in a defined contribution retirement benefit plan.

Long-term employee benefits

The Group provides long-term employee benefits to employees before, on and after retirement, in accordance with the collective agreements between the Group entities and their employees. The collective agreement provides for certain one-off retirement payments, financial aid for employees' disability, anniversaries, funeral and other benefits. The entitlement to benefits is usually conditional on the employee remaining in service up to retirement age.

The expected costs of the benefits associated with one-off retirement payments are accrued over the period of employment using the same accounting methodology as used for defined benefit post-employment plans with defined payments upon the end of employment. Actuarial gains and losses arising in the year are taken to other comprehensive income. For this purpose, actuarial gains and losses comprise both the effects of changes in actuarial assumptions and experience adjustments arising because of differences between the previous actuarial assumptions and what has actually occurred. Other movements are recognized in the current period, including current service cost, any past service cost and the effect of any curtailments or settlements.

The most significant assumptions used in accounting for defined benefit obligations are discount rate and mortality assumptions. The discount rate is used to determine the net present value of future liabilities and each year the unwinding of the discount on those liabilities is charged to the consolidated statement of comprehensive income as finance costs. The mortality assumption is used to project the future stream of benefit payments, which is then discounted to arrive at a net present value of liabilities.

Employee benefits other than one-off retirement payments are considered as other long-term employee benefits. The expected cost of these benefits is accrued over the period of employment using the same accounting methodology as used for the defined benefit plan. Actuarial gains and losses on other long-term employee benefits are recognized in the profit or loss. These obligations are valued by independent qualified actuaries on an annual basis.

Revenue recognition

Revenues are recognized when (or as) the Group satisfies a performance obligation by transferring a promised good or service (i.e. an asset) to a customer. An asset is transferred when (or as) the customer obtains control of that asset, which usually occurs when the title is passed, provided that the contract price is fixed or determinable and collectability of the receivable is reasonably assured. Specifically, domestic sales of crude oil and gas, as well as petroleum products and materials are usually recognized when title passes. For export sales, title generally passes at the border of the RK. Revenue is measured at the fair value of the consideration received or receivable taking into account the amount of any trade discounts, volume rebates and reimbursable taxes.

Sales of support services are recognized as services are performed provided that the service price can be determined and no significant uncertainties regarding the receipt of revenues exist.

Interest income and expense

For all financial instruments measured at amortized cost, and interest income and interest expense are recorded using the effective interest rate. Effective interest rate is the rate that exactly discounts the estimated future cash payments or receipts over the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset or liability. Interest income is included in finance income and interest expense is included in finance costs in the consolidated statement of comprehensive income.

Trade receivables

A receivable represents the Group's right to an amount of consideration that is unconditional (i.e., only the passage of time is required before payment of the consideration is due).

Contract liabilities

A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Group transfers goods or services to the customer, a contract liability is recognized when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognized as revenue when the Group performs under the contract.

Expense recognition

Expenses are recognized as incurred and are reported in the consolidated financial statements in the period to which they relate on an accrual basis.

Income taxes

Income tax for the year comprises current income tax, excess profit tax and deferred tax. Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted by the reporting date. Current income tax (CIT) relating to items recognized directly in equity is recognized in equity and not in the consolidated statement of comprehensive income.

Excess profit tax (EPT) is treated as an income tax and forms part of income tax expense. In accordance with the applicable tax legislation, the Group accrues and pays EPT in respect of each subsoil use contract, at varying rates based on the ratio of aggregate annual income to deductions for the year for a particular subsoil use contract. The ratio of aggregate annual income to deductions in each tax year triggering the application of EPT is 1.25:1. EPT rates are applied to the part of the taxable income (taxable income after corporate income tax and allowable adjustments) related to each subsoil use contract in excess of 25% of the deductions attributable to each contract.

Deferred tax is calculated with respect to both CIT and EPT. Deferred EPT is calculated on temporary differences for assets allocated to subsoil use contracts at the expected rate of EPT to be paid under the contract.

Deferred income tax is provided using the liability method on temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred income tax liabilities are recognized for all taxable temporary differences, except:

- Where the deferred income tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred income tax assets are recognized for all deductible temporary differences, carryforward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carryforward of unused tax credits and unused tax losses can be utilized except:

- When the deferred income tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- In respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred income tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred income tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred income tax asset to be utilized. Unrecognized deferred income tax assets are reassessed at each reporting date and are recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered. Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted at the reporting date.

Deferred income tax relating to items recognized directly in equity is recognized in equity and not in the consolidated statement of comprehensive income. Deferred income tax assets and deferred income tax liabilities are offset, if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred income taxes relate to the same taxable entity and the same taxation authority. Deferred tax assets are recognized for all allowances and unused tax losses to the extent that it is probable that taxable temporary differences and business nature of such expenses will be proved. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and level of future taxable profits together with future tax planning strategies.

Equity

Non-controlling interest

Non-controlling interests are presented in the consolidated statement of financial position within equity, separately from the equity of the Company's owners. Total comprehensive income is attributed to the Company's owners and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Dividends

Dividends are recognized as a liability and deducted from equity at the reporting date only if they are declared before or on the reporting date. Dividends are disclosed when they are declared before the reporting date or after the reporting date but before the consolidated financial statements are authorized for issue.

Distributions to the Shareholders

Expenditures incurred by the Group based on the respective resolution of the Government based on the RK President's charge or decision and instructions of Samruk-Kazyna are accounted for as other distributions through equity. Such expenditures include costs associated with non-core activity of the Group (construction of social assets to be transferred to Samruk-Kazyna).

Subsequent events

The results of post-year-end events that provide evidence of conditions that existed at the reporting date (adjusting events) are reflected in the consolidated financial statements. Post-year-end events that are not adjusting events are disclosed in the notes to the consolidated financial statements when material.

4. SIGNIFICANT ACCOUNTING ESTIMATES AND JUDGEMENTS

The preparation of the Group's consolidated financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities and the disclosure of contingent liabilities and assets, at the reporting date. However, uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

Considerations in respect of COVID-19 pandemic and hydrocarbon economy in 2021

The impact of COVID-19 and unfavorable trend in the global hydrocarbons market on the basis of preparation of these consolidated financial statements has been considered as part of the going concern assessment. To support this assertion liquidity forecast has been assessed under several stressed scenarios.

In "Exploration and production of oil and gas segment" no impairment indicators of property, plant and equipment intangible assets and exploration and evaluation assets were observed.

In "Oil transportation" segment impairment charges of 4,453 million tenge were recognized. Impairment charges mainly relate to barges of KazMorTransFlot LLP (Note 13). The recoverable amounts of the CGUs within these businesses were based on value-in-use calculations.

In "Refining and trading of crude oil and refined products segment" impairment charges of 8,298 million tenge were recognized, which represent partial impairment of refining assets of KMG International N.V. (further KMGI) (Note 13). The recoverable amount of these assets for impairment testing purposes was determined based on fair value less cost to disposal.

Headroom of the majority of oil and refining assets are sensitive to changes in price or other assumptions. The changes within next financial periods may result in recoverable amount of these assets above or below the current carrying amounts and therefore there is a risk of impairment reversals or charges in those periods. Sensitivity to key assumptions for significant CGUs of the Group, at which impairment charges were recognized in 2021, were disclosed in Note 13.

Impairment testing assumptions

The Group's long-term assumptions for Brent oil prices, KZT/USD exchange rate and inflation projections have been revised and are based on externally sourced forecasts and rates of the independent research organizations considering long-term market expectations. Production volumes estimates are based on proved developed and undeveloped reserves for subsidiaries, and on proved and probable reserves for significant investments in joint ventures and associates. Production period is either based on subsoil use contracts' expiration date or on extended license period, to which the Group has strong intention to extend its licenses. Estimated production volumes are based on the Group's production plans that are mostly used for the purposes of application filing for extension of subsoil use contracts.

Discount rates were estimated on the weighted average cost of capital of the individual cash generating unit and ranged between 10.70-16.30% depending on the functional currency, production period, size, equity risk premium, beta and gearing ratio of the relevant CGU.

The long-term price assumptions applied were derived from Bloomberg consensus; so did the near-term commodity price assumptions, a summary of which, in real 2021 terms, is provided below:

	2022	2023	2024	2025	2026
Brent oil (\$/bbl)	73	71.5	73	70	71

Oil and gas reserves

Oil and gas reserves are a material factor in the Group's computation of depreciation, depletion and amortization expenses. The Group estimates its oil and gas reserves in accordance with the methodology of the Society of Petroleum Engineers (SPE). In estimating its reserves under SPE methodology, the Group uses long-term planning prices. Using planning prices for estimating proved reserves removes the impact of the volatility inherent in using year-end spot prices. Management believes that long-term planning price assumptions, which are also used by management for their business planning and investment decisions are more consistent with the long-term nature of the upstream business and provide the most appropriate basis for estimating oil and gas reserves.

All reserve estimates involve some degree of uncertainty. The uncertainty depends mainly on the amount of reliable geological and engineering data available at the time of the estimate and the interpretation of this data.

The relative degree of uncertainty can be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Proved reserves are more certain to be recovered than unproved reserves and may be further sub-classified as developed and undeveloped to denote progressively increasing uncertainty in their recoverability.

Estimates are reviewed and revised annually. Revisions occur due to the evaluation or re-evaluation of already available geological, reservoir or production data, availability of new data, or changes to underlying price assumptions. Reserve estimates may also be revised due to improved recovery projects, changes in production capacity or changes in development strategy. Proved developed reserves are used to calculate the unit of production rates for depreciation, depletion and amortization in relation to oil and gas production assets. The Group has included in proved reserves only those quantities that are expected to be produced during the initial subsoil use contract period. This is due to the uncertainties surrounding the outcome of such renewal procedures, since the renewal is ultimately at the discretion of the Government. An increase in the Group's subsoil use contract periods and corresponding increase in reported reserves would generally lead to lower depreciation, depletion and amortization expense and could materially affect earnings. A reduction in proved developed reserves will increase depreciation, depletion and amortization expense (assuming constant production), reduce income and could also result in an immediate write-down of the property's book value. Given the relatively small number of producing fields, it is possible that any changes in reserve estimates year on year could significantly affect prospective charges for depreciation, depletion and amortization.

Please refer [Note 13](#) for details on annual impairment test results.

Recoverability of oil and gas assets, downstream, refining and other assets

The Group assesses assets or CGU for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Where an indicator of impairment exists, a formal estimate of the recoverable amount is made, which is considered to be the higher of the fair value less costs to sell and value in use. These assessments require the use of estimates and assumptions such as long-term oil prices, discount rates, future capital requirements, operating performance (including production and sales volumes) that are subject to risk and uncertainty. Where the carrying amount of an asset or CGU exceeds its recoverable amount, the asset/CGU is considered to be impaired and is written down to its recoverable amount. In assessing recoverable values, the estimated future cash flows are adjusted for the risks specific to the asset group and are discounted to their present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Fair value less costs to sell is identified as the price that would be received to sell the asset in an orderly transaction between market participants and does not reflect the effects of factors that may be specific to the entity and not applicable to entities in general.

KMGI CGU, including goodwill

As at December 31, 2021 and 2020, the Group performed its annual impairment tests for goodwill and downstream, refining and other assets due to existence of impairment indicators at the CGUs of KMGI. As the result of the impairment analysis, recoverable amount of KMGI CGUs exceeded their carrying values (Note 13).

Pavlodar refinery, goodwill

As of December 31, 2021 and 2020 the Group has goodwill of 88,553 million tenge related to acquisition of Pavlodar oil chemistry refinery LLP (further Pavlodar refinery) (Note 17). The Group performed annual impairment test for the Pavlodar refinery goodwill using the current tolling business scheme employed by Pavlodar refinery in December 2021 and 2020. The Group considered the forecast for oil tolling volumes, oil tolling tariffs, capital expenditures, among other factors, when reviewing for indicators of impairment. The recoverable amount is calculated using a discounted cash flow model. In 2021, the discount rate of 12.06% was calculated based on the pre-tax weighted average cost of capital. The inherent risk was included by applying an individual beta factor. The beta factor was estimated based on the publicly available market data. Forecasted cash flows till to 2029 were based on five-years business plan of Pavlodar refinery 2022-2026, which assumes current management estimates on potential changes in operating and capital costs. As at December 31, 2021 and 2020 the recoverable amount of goodwill, which was determined based on value-in-use, exceeded its book value, as such no impairment of Pavlodar refinery goodwill was recognized.

Sensitivity to changes in assumptions

Results of the assessment of recoverable amount of Pavlodar refinery goodwill are sensitive to changes in key assumptions, in particular, assumptions related to changes in discount rate and target EBITDA in terminal period. Increase in discount rates by 1.0% to 13.06% and decrease of target EBITDA in terminal period by 1% would not result decrease of the recoverable amount of CGU Pavlodar refinery to its carrying value.

Other CGUs

Revision to the Group's commodity price and other assumptions have not resulted in impairment charges in any other CGUs of the Refining and trading of crude oil and refined products segment.

Assets retirement obligations

Oil and gas production facilities

Under the terms of certain subsoil use contracts, legislation and regulations the Group has legal obligations to dismantle and remove tangible assets and restore the land at each production site. Specifically, the Group's obligation relates to the ongoing closure of all non-producing wells and final closure activities such as removal of pipes, buildings and recultivation of the contract territories, and also obligations to dismantle and remove tangible assets and restore territory at each production site. Since the subsoil use contract terms cannot be extended at the discretion of the Group, the settlement date of the final closure obligations has been assumed to be the end of each subsoil use contract period. The extent of the Group's obligations to finance the abandonment of wells and for final closure costs depends on the terms of the respective subsoil use contracts and current legislation.

Where neither subsoil use contracts nor legislation include an unambiguous obligation to undertake or finance such final abandonment and closure costs at the end of the subsoil use contract term, no liability has been recognized. There is some uncertainty and significant judgment involved in making such a determination. Management's assessment of the presence or absence of such obligations could change with shifts in policies and practices of the Government or in the local industry practice.

The Group calculates asset retirement obligations separately for each contract. The amount of the obligation is the present value of the estimated expenditures expected to be required to settle the obligation adjusted for expected inflation and discounted using average long-term risk-free interest rates for emerging market sovereign debt adjusted for risks specific to the Kazakhstan market.

At each reporting date the Group reviews site restoration provisions, and adjusts them to reflect the current best estimate in accordance with IFRIC 1 Changes in Existing Decommissioning, Restoration and Similar Liabilities.

Estimating the future closure costs involves significant estimates and judgments by management. Most of these obligations are many years in the future and, in addition to ambiguities in the legal requirements, the Group's estimate can be affected by changes in asset removal technologies, costs and industry practice. The Group estimates future well abandonment cost using current year prices and the average long-term inflation rate.

The long-term inflation and discount rates used to determine the obligation in the consolidated statement of financial position across the Group entities at December 31, 2021 were in the range from 2.23% to 8.10% and from 3.80% to 10.25%, respectively (December 31, 2020: from 2.00% to 7.3% and from 3.68% to 11.00%, respectively). As at December 31, 2021 the carrying amounts of the Group's asset retirement obligations relating to decommissioning of oil and gas facilities were 67,190 million tenge (December 31, 2020: 66,177 million tenge) (Note 26).

Major oil and gas pipelines

According to the Law of the RK On Major Pipelines which was made effective on July 4, 2012 KazTransOil JSC (further KTO) has legal obligation to decommission its major oil pipelines at the end of their operating life and to restore the land to its original condition. Asset retirement obligation is calculated based on estimate of the work to decommission and rehabilitate. As at December 31, 2021, the carrying values of the Group's asset retirement obligations relating to decommissioning of pipelines and land were 34,547 million tenge (December 31, 2020: 113,558 million tenge) (Note 26).

Environmental remediation obligations provision

The Group also makes judgments and estimates in establishing provisions for environmental remediation obligations. Environmental expenditures are capitalized or expensed depending upon their future economic benefit. Expenditures that relate to an existing condition caused by past operations and do not have a future economic benefit are expensed.

Liabilities are determined based on current information about costs and expected plans for remediation and are recorded on discounted basis. The Group's environmental remediation provision represents management best estimate based on an independent assessment of the anticipated expenditure necessary for the Group to remain in compliance with the current regulatory regime in Kazakhstan and Europe. The Group has classified this obligation as non-current except for the portion of costs, included in the annual budget for 2022. For environmental remediation provisions, actual costs can differ from estimates because of changes in laws and regulations, public expectations, discovery and analysis of site conditions and changes in clean-up technology. Movements in the provision for environmental remediation obligations are disclosed in Note 26.

Employee benefits

The cost of defined long-term employee benefits payable before, on and after retirement and the present value of the obligation are determined using actuarial valuations. An actuarial valuation involves making various assumptions that may differ from actual developments in the future. These include the determination of the discount rate, future salary increases, mortality rates and future pension increases.

Due to the complexity of the valuation, the underlying assumptions and its long-term nature, a defined benefit obligation is highly sensitive to changes in these assumptions. All assumptions are reviewed at each reporting date.

Taxation

In assessing tax risks, management considers to be probable obligations the known areas of tax positions which the Group would not appeal or does not believe it could successfully appeal, if assessed by tax authorities. Such determinations inherently involve significant judgment and are subject to change as a result of changes in tax laws and regulations, amendments to the taxation terms of the Group's subsoil use contracts, the determination of expected outcomes from pending tax proceedings and current outcome of ongoing compliance audits by tax authorities. The provision for tax risks other than on income tax are disclosed under provisions for taxes in Note 26. Contingent liabilities for tax risks other than on income tax are disclosed in Note 32. Provisions and contingent liabilities related to income tax are included or disclosed as income tax liabilities or contingencies (see Note 29 and 32 for further details).

Useful lives of property, plant and equipment

The Group assesses the remaining useful lives of items of property, plant and equipment at least at each financial year-end and, if expectations differ from previous estimates, the changes are accounted for prospectively as a change in an accounting estimate in accordance with IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors.

Fair value of financial instruments

Where the fair value of financial assets and financial liabilities recorded in the consolidated statement of financial position cannot be derived from active markets, they are determined using valuation techniques including the discounted cash flows model. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgment is required in establishing fair values. The judgments include considerations of inputs such as liquidity risk, credit risk and volatility. Changes in assumptions about these factors could affect the reported fair value of financial instruments presented in the consolidated financial statements. Further details are disclosed in Note 31.

5. LOSS OF CONTROL

On March 11, 2021, the Company and Samruk-Kazyna entered into a trust management agreement with respect to 100% common shares of KazTransGas JSC (further KTG). On November 9, 2021, the Company transferred to Samruk-Kazyna 100% shares of KTG for 1 tenge and the trust management agreement was terminated.

The transaction was preceded by fulfilment of a number of legal and financial conditions, including approvals from KMG lenders and relevant government agencies. The last condition was fulfilled on November 8, 2021. Starting from November 8, 2021, KTG was classified as a discontinued operation.

The Company's obligation on the financial guarantee of the Company and KTG under syndicated loan of Beineu-Shymkent Gas Pipeline LLP, the joint venture of KTG, was transferred to KTG (Note 27).

The business of KTG represented the entirety of the Group's Gas trading and transportation segment until November 8, 2021. With KTG being disposed, the Gas trading and transportation segment is no longer presented in the segment note.

The consolidated statement of comprehensive income and the consolidated statement of cashflows, as well as the related notes to the consolidated financial statements for prior year were restated retrospectively.

The results of KTG for the period ended November 8, 2021 and the year ended December 31, 2020 are presented below:

In millions of tenge	For the period ended November 8, 2021	For the year ended December 31, 2020
Revenue	708,110	931,073
Share in profit of joint ventures, net	275,100	230,380
Finance income	19,750	21,766
Other operating income	18,288	6,075
Total revenue and other income from discontinued operations	1,021,248	1,189,294
Cost of purchased gas and other materials	(158,438)	(375,831)
Production expenses	(66,266)	(84,608)
Taxes other than income tax	(12,645)	(15,237)
Depreciation, depletion and amortization	(63,502)	(42,856)
Transportation and selling expenses	(248,832)	(321,042)
General and administrative expenses	(18,420)	(23,583)
Finance costs	(36,330)	(32,179)
Net foreign exchange loss	(4,423)	(7,747)
Other expenses	(4,399)	(3,856)
Profit before income tax from discontinued operations	407,993	282,355
Income tax expenses	(55,515)	(21,027)
Profit after income tax for the period from discontinued operations	352,478	261,328

The net cash flows incurred by KTG period ended November 8, 2021 and the year ended December 31, 2020 are as follows:

In millions of tenge	For the period ended November 8, 2021	For the year ended December 31, 2020
Operating	184,675	88,737
Investing	(8,689)	71,562
Financing	(44,270)	(36,183)
Net increase in cash and cash equivalents	134,138	132,134

At the date of loss of control net assets of KTG were as follows

In millions of tenge	Net assets at the date of loss of control
Assets	
Property, plant and equipment	968,467
Investments in joint ventures	662,208
Loans due from related parties	176,019
VAT receivable	94,439
Inventories	41,834
Trade accounts receivable	127,567
Other non-current assets	95,088
Other current assets	77,582
Cash and cash equivalents	380,438
Assets classified as held for sale	2,623,642
Liabilities	
Borrowings	490,813
Provisions	119,902
Deferred income tax liabilities	72,909
Trade accounts payable	132,708
Other non-current liabilities	25,157
Other current liabilities	32,694
Liabilities directly associated with assets classified as held for sale	874,183
Net assets directly associated with disposal group	1,749,459

Other non-current liabilities of KTG as of the date of loss of control were adjusted for the Company's obligation on the financial guarantee for 6,445 million tenge.

Since the transfer of KTG was carried out pursuant to the order of the President of the RK and the decision of the Samruk-Kazyna, the difference between the sale price and the carrying amount of net assets of KTG at the date of loss of control was recorded as transactions with Samruk-Kazyna.

6. REVENUE

In millions of tenge	2021	2020 (restated)
Type of goods and services		
Sales of crude oil and gas	3,097,249	1,676,749
Sales of refined products	2,102,113	1,336,723
Refining of oil and oil products	203,425	193,659
Oil and gas transportation services	171,365	167,911
Other revenue	264,641	249,922
	5,838,793	3,624,964
Geographical markets		
Kazakhstan	978,343	770,102
Other countries	4,860,450	2,854,862
	5,838,793	3,624,964

7. SHARE IN PROFIT OF JOINT VENTURES AND ASSOCIATES, NET

In millions of tenge	2021	2020 (restated)
Tengizchevroil LLP	441,665	173,476
Caspian Pipeline Consortium	90,904	81,582
KMG Kashagan B.V.	88,423	(6,961)
Mangistau Investments B.V.	80,154	16,749
KazRosGas LLP	20,952	957
Kazakhstan-China Pipeline LLP	13,464	10,380
Kazakhoil-Aktobe LLP	13,379	2,448
Valseira Holdings B.V.	11,868	(6,137)
PetroKazakhstan Inc.	8,042	(8,812)
KazGerMunay LLP	6,108	15,622
Teniz Service LLP	(3,089)	3,891
Ural Group Limited	(11,060)	(10,265)
Other joint ventures and associates	7,923	7,885
	768,733	280,815

8. COST OF PURCHASED OIL, GAS, PETROLEUM PRODUCTS AND OTHER MATERIALS

In millions of tenge	2021	2020 (restated)
Purchased oil for resale	2,626,857	1,311,169
Cost of oil for refining	558,603	313,543
Materials and supplies	256,761	214,332
Purchased petroleum products for resale	97,964	45,870
Purchased gas for resale	56,306	16,322
	3,596,491	1,901,236

9. PRODUCTION EXPENSES

In millions of tenge	2021	2020 (restated)
Payroll	310,672	294,529
Repair and maintenance	116,151	103,124
Energy	98,258	81,910
Transportation costs	45,599	39,631
Short-term lease expenses	28,213	33,822
Others	94,138	103,162
	693,031	656,178

10. TAXES OTHER THAN INCOME TAX

In millions of tenge	2021	2020 (restated)
Rent tax on crude oil export	129,056	41,120
Export customs duty	107,074	71,746
Mineral extraction tax	91,751	59,323
Other taxes	100,758	82,133
	428,639	254,322

11. TRANSPORTATION AND SELLING EXPENSES

In millions of tenge	2021	2020 (restated)
Transportation	87,282	94,800
Payroll	11,899	12,811
Other	32,731	29,533
	131,912	137,144

12. GENERAL AND ADMINISTRATIVE EXPENSES

In millions of tenge	2021	2020 (restated)
Payroll	63,844	63,360
Management fees	21,428	-
Consulting services	15,912	21,893
Maintenance	5,620	6,163
Social payments	4,594	5,028
Communication	4,081	3,624
Accrual of expected credit losses for trade receivables and other current financial assets (Note 21)	3,268	3,460
VAT that could not be offset	2,599	3,166
Allowance for fines, penalties and tax provisions	2,114	12
Accrual/(reversal) of impairment of other current non-financial assets (Note 21)	101	(65)
(Reversal)/accrual of impairment of VAT receivable	(5,144)	6,432
Other	30,061	33,552
	148,478	146,625

For the year ended December 31, 2021, the total payroll amounted to 386,415 million tenge (2020: 370,700 million tenge) and was included in production expenses, transportation and selling expenses and general and administrative expenses in the consolidated statement of comprehensive income.

13. IMPAIRMENT OF PROPERTY, PLANT AND EQUIPMENT, EXPLORATION AND EVALUATION ASSETS, INTANGIBLE ASSETS, ASSETS CLASSIFIED AS HELD FOR SALE AND EXPLORATION EXPENSES

In millions of tenge	2021	2020 (restated)
Impairment charge and reversal		
Property, plant and equipment (Note 15)	17,013	221,112
Assets classified as held for sale	3,770	-
Exploration and evaluation assets (Note 16)	-	16,389
Investment property	-	142
Intangible assets (Note 17)	(59)	6,250
	20,724	243,893
Exploration expenses		
Zhambyl project	59,283	-
Brownfields of KMG EP	19,800	19,692
Samtyr, Zhayik, Saraishyk, Zaburunie projects	-	115
	79,083	19,807
	99,807	263,700

Impairment was recognized for the following CGUs:

In millions of tenge	2021	2020 (restated)
CGUs of KMGI	8,298	162,455
Sunkar, Barys and Berkut, self-propelled barges (Barges)	4,453	10,297
EMG CGU	-	60,440
Others	7,973	10,701
	20,724	243,893

CGUs of KMGI

In 2020, KMGI, the Group subsidiary, performed impairment tests of its CGUs. As a result of the test performed, KMGI recognized impairment loss of property, plant and equipment and intangible assets of 155,544 million tenge and 6,911 million tenge, respectively.

On July 2, 2021, an incident occurred at the Petromidia Refinery (further Petromidia), subsidiary of KMGI, that led to fire and resulted in temporarily interruption of the production until damaged facilities are repaired. KMGI conducted assessments to estimate the incident consequences and recognized impairment of property, plant and equipment of Petromidia for 1,615 million tenge.

For the year ended December 31, 2021, based on the results of the property, plant and equipment physical inspection, KMGI recognized an impairment loss of property, plant and equipment for 6,683 million tenge.

EMG CGU

In 2020, Embamunaigas (further EMG), subsidiary of KazMunayGas Exploration Production JSC (further KMG EP), carried out an assessment of the recoverable amount of property, plant and equipment and exploration and evaluation assets due to the presence of impairment indicators such as decline in the forecasted oil prices. The result of this assessment indicated that the carrying value of assets exceeded their estimated recoverable amount by 60,440 million tenge, particularly, 44,098 million tenge of property, plant and equipment and 16,342 million tenge of exploration and evaluation assets were impaired.

For the year ended December 31, 2021, no impairment or reversal of impairment indicators for property, plant and equipment, intangible assets and exploration and evaluation assets were observed.

Barges

The recoverable amount of the barges of KazMorTransFlot LLP was determined on the basis of value-in-use method. Value-in-use was assessed as the present value of the future cash flows expected to be derived from the barges until the end of the existing and probable contracts at the discount rate of 10.7% (2020: 11.3%). As a result of the test, the Group recognized an impairment loss of 4,453 million tenge for the year ended December 31, 2021 in regards of Barys and Berkut barges (2020: 10,297 million tenge on Sunkar, Barys and Berkut barges).

Exploration expenses

For the year ended December 31, 2020 the Group has written off the exploration and evaluation assets in the amount of 12,829 million tenge as a result of termination of Ozen-Karamandybas exploration subsoil use contract, the contract territory of which was relinquished to the Government. Also, the Group partially reduced the contract area at Karaton-Sarkamys site and, accordingly, wrote off exploration and evaluation expenses in the amount of 6,863 million tenge.

For the year ended December 31, 2021 the Group has written off the exploration and evaluation assets in the amount of 59,283 million tenge of Zhambyl project, the subsoil use contract for which was terminated and the contract territory was relinquished to the Government. Also, the Group partially reduced the contract area at Taisoigan site and, accordingly, wrote off exploration and evaluation expenses in the amount of 19,800 million tenge.

14. FINANCE INCOME / FINANCE COST

Finance income

In millions of tenge	2021	2020 (restated)
Interest income on bank deposits, financial assets, loans and bonds	64,655	70,800
Amortization of issued financial guarantees	1,704	2,276
Total interest income	66,359	73,076
Revaluation of financial assets at fair value through profit or loss	12,022	445
Discount on a loan with non-market interest rate (Note 25)	-	11,002
Other	6,218	3,464
	84,599	87,987

Finance costs

In millions of tenge	2021	2020 (restated)
Interest expense on loans and bonds	218,999	215,614
Interest expense on lease liabilities	2,950	3,390
Total interest expense	221,949	219,004
Unwinding of discount on asset retirement obligations, for environmental obligation and other provisions (Note 26)	9,206	7,284
Unwinding of discount on employee benefits obligations (Note 26)	4,412	3,484
Bonds redemption fee (Note 25)	-	21,057
Other	13,698	14,543
	249,265	265,372

15. PROPERTY, PLANT AND EQUIPMENT

In millions of tenge	Oil and gas assets	Pipelines	Refinery assets	Buildings and improvements	Machinery and equipment	Vehicles	Other	Capital work in progress	Total
Net book value as at December 31, 2019	1,049,763	803,717	1,381,661	300,655	457,811	97,637	106,286	286,741	4,484,271
Foreign currency translation	50,582	3,992	39,281	6,928	3,404	2,973	7,033	15,034	129,227
Change in estimate	6,785	5,914	-	28	-	-	-	-	12,727
Additions	4,738	1,967	2,176	4,455	6,901	5,439	2,561	404,519	432,756
Disposals	(17,138)	(18,212)	(10,829)	(4,412)	(4,135)	(1,887)	(2,783)	(2,533)	(61,929)
Depreciation charge	(109,846)	(29,297)	(119,746)	(19,746)	(37,922)	(11,085)	(11,163)	-	(338,805)
Accumulated depreciation and impairment on disposals	13,876	1,893	10,364	3,352	4,007	1,720	2,521	1,356	39,089
Impairment (Note 13)	(37,887)	(731)	(155,544)	(5,101)	(1,366)	(11,766)	(1,750)	(6,768)	(220,913)
Transfers to assets classified as held for sale	-	-	(834)	(14,777)	(71,856)	(86)	(228)	(1,400)	(89,181)
Transfers from/(to) inventory, net	42	(28)	1,619	-	264	(54)	532	2,541	4,916
Transfers from exploration and evaluation assets (Note 16)	67	-	-	-	-	-	-	-	67
Transfers to investment property	-	-	-	(19,207)	-	-	-	-	(19,207)
Other changes	-	-	(96)	-	-	-	(619)	(2,558)	(3,273)
Transfers	122,633	39,542	23,058	37,527	96,713	1,770	9,557	(330,800)	-
Net book value as at December 31, 2020	1,083,615	808,757	1,171,110	289,702	453,821	84,661	111,947	366,132	4,369,745
At cost	2,232,770	1,063,532	2,537,233	591,757	880,230	235,520	244,801	422,492	8,208,335
Accumulated depreciation and impairment	(1,149,155)	(254,775)	(1,366,123)	(302,055)	(426,409)	(150,859)	(132,854)	(56,360)	(3,838,590)
Net book value as at December 31, 2020	1,083,615	808,757	1,171,110	289,702	453,821	84,661	111,947	366,132	4,369,745

In millions of tenge	Oil and gas assets	Pipelines	Refinery assets	Buildings and improvements	Machinery and equipment	Vehicles	Other	Capital work in progress	Total
Foreign currency translation	13,298	1,075	7,241	908	1,288	894	1,818	4,720	31,242
Change in estimate	259	(382)	-	(3)	-	-	-	-	(126)
Additions	11,165	3,163	2,063	6,716	42,099	6,857	3,452	324,834	400,349
Disposals	(27,370)	(9,103)	(39,685)	(5,401)	(7,141)	(5,033)	(4,919)	(685)	(99,337)
Loss of control over subsidiaries	-	-	-	(631)	(557)	(248)	(222)	(38)	(1,696)
Depreciation charge	(115,545)	(27,370)	(114,521)	(19,786)	(36,632)	(9,925)	(11,034)	-	(334,813)
Accumulated depreciation and impairment on disposals	23,602	8,586	11,649	4,525	5,935	4,102	4,701	373	63,473
(Impairment)/reversal of impairment (Note 13)	(3,939)	(3)	(8,276)	2	13	(4,451)	22	(381)	(17,013)
Discontinued operations (Note 5)	(32,655)	(549,852)	-	(73,865)	(261,707)	(4,196)	(4,547)	(41,645)	(968,467)
Transfers to assets classified as held for sale	-	-	(24)	(11,452)	(33,477)	(48)	(450)	-	(45,451)
Transfers from inventory, net	46	1,387	125	1	82	1	1,424	1,863	4,929
Transfers from exploration and evaluation assets (Note 16)	16,674	-	-	-	-	-	-	-	16,674
Transfers from investment property	-	-	-	2,296	-	-	7	-	2,303
Other changes	(6,179)	-	-	-	-	-	(16)	(9,637)	(15,832)
Transfers	163,579	26,459	91,738	18,811	75,467	2,611	6,833	(385,498)	-
Net book value as at December 31, 2021	1,126,550	262,717	1,121,420	211,823	239,191	75,225	109,016	260,038	3,405,980
At cost	2,370,020	394,496	2,624,793	507,485	588,037	214,572	243,514	309,288	7,252,205
Accumulated depreciation and impairment	(1,243,470)	(131,779)	(1,503,373)	(295,662)	(348,846)	(139,347)	(134,498)	(49,250)	(3,846,225)
Net book value as at December 31, 2021	1,126,550	262,717	1,121,420	211,823	239,191	75,225	109,016	260,038	3,405,980

Additions

In 2021, additions were mainly attributable to development drilling at Ozenmunaigas JSC (further OMG), subsidiary of KMG EP, EMG and KMG Karachaganak LLP for the total of 145,179 million tenge, overhaul of main gas pipelines and construction of gas metering stations and rotational camp at KTG for total amount of 41,642 million tenge within the framework of the projects “Bukhara gas-bearing region Tashkent-Bishkek-Almaty”, “Gazli-Shymkent” and “Bukhara-Ural”; construction of water pipeline of “Kulsary-Tengiz” for 24,987 million tenge at KTO; and overhauls at Atyrau refinery LLP (further Atyrau refinery) and Rompetrol Rafinare for 22,522 million tenge and 29,693 million tenge respectively.

In 2020, additions to capital work in progress were mainly attributable to development drilling at OMG, EMG and KMG Karachaganak LLP for the total of 148,593 million tenge, construction of compressor stations at KTG for 113,844 million tenge within the framework of the projects “Beineu-Bozoy-Shymkent and Bukhara-Ural” and reconstruction of “Bozoi” underground gas storage, replacement of “Prorva-Kulsary” and “Uzen-Atyray-Samara” pipeline for 43,247 million tenge at KTO, and overhauls at the plant facilities at Rompetrol Rafinare for 51,617 million tenge.

Transfer to assets held for sale

During 2021, the Group reclassified to assets held for sale property and equipment of 45,451 million tenge mainly represented by compressor station “Aral” for 40,378 million tenge and property, plant and equipment of UTTIOS LLP for 5,009 million tenge.

During 2021, the Group sold the compressor station “Korkyt-ata”, which was reclassified to assets held for sale in 2020, for the consideration of 42,886 million tenge.

During 2020, the Group reclassified to assets held for sale compressor stations “Turkestan” and sold it for the consideration of 43,667 million tenge.

Other

For the year ended December 31, 2021, the Group capitalized to the carrying amount of property, plant and equipment borrowing costs related to construction of 32 million tenge at the average interest rate of 2.10% (for the year ended December 31, 2020: 2,890 million tenge at the average interest rate of 5.78%) (Note 25).

As at December 31, 2021, the cost of fully depreciated but still in use property, plant and equipment was 329,282 million tenge (as at December 31, 2020: 340,511 million tenge).

As at December 31, 2021, property, plant and equipment with the net book value of 837,744 million tenge (as at December 31, 2020: 910,216 million tenge) were mainly pledged as collateral to secure borrowings of the Group.

Capital commitments are disclosed in Note 32.

16. EXPLORATION AND EVALUATION ASSETS

In millions of tenge	Tangible	Intangible	Total
Net book value as at December 31, 2019	152,292	27,605	179,897
Additions	14,212	787	14,999
Write-off (Note 13)	(19,235)	(572)	(19,807)
Impairment (Note 13)	(12,797)	(3,592)	(16,389)
Trial production	(248)	-	(248)
Transfer to property, plant and equipment (Note 15)	(67)	-	(67)
Net book value as at December 31, 2020	134,157	24,228	158,385
Additions	8,763	831	9,594
Change in estimate	77	-	77
Write-off (Note 13)	(76,869)	(2,214)	(79,083)
Discontinued operations (Note 5)	(19,250)	(14)	(19,264)
Loss of control over subsidiaries	-	(427)	(427)
Transfers to intangible assets (Note 17)	-	(8,768)	(8,768)
Transfer to property, plant and equipment (Note 15)	(16,674)	-	(16,674)
Other changes	(299)	-	(299)
Net book value as at December 31, 2021	29,905	13,636	43,541

As at December 31, 2021 and 2020 the exploration and evaluation assets are represented by the following projects:

In millions of tenge	December 31, 2021	December 31, 2020
EMG	16,357	33,458
Urikhtau	13,726	38,834
KTG projects	-	17,366
Zhambyl	-	59,603
Others	13,458	9,124
	43,541	158,385

17. INTANGIBLE ASSETS

In millions of tenge	Goodwill	Marketing related intangible assets	Software	Other	Total
Net book value as at December 31, 2019	98,561	28,960	19,454	24,197	171,172
Foreign currency translation	1,003	2,775	296	1,071	5,145
Additions	-	-	2,855	3,553	6,408
Disposals	-	-	(5,576)	(2,246)	(7,822)
Amortization charge	-	-	(6,494)	(2,804)	(9,298)
Accumulated amortization and impairment on disposals	-	-	5,544	215	5,759
(Impairment)/reversal, net (Note 13)	-	(6,911)	(270)	931	(6,250)
Transfers to assets classified as held for sale	-	-	(24)	-	(24)
Other changes	-	-	1,925	1,466	3,391
Transfers	-	-	2,404	(2,404)	-
Net book value as at December 31, 2020	99,564	24,824	20,114	23,979	168,481
Foreign currency translation	285	643	111	772	1,811
Additions	-	-	1,613	2,634	4,247
Disposals	-	-	(1,930)	(126)	(2,056)
Amortization charge	-	-	(7,277)	(3,566)	(10,843)
Accumulated amortization and impairment on disposals	-	-	1,775	107	1,882
Reversal of impairment (Note 13)	-	-	54	5	59
Loss of control over subsidiaries	-	-	(2)	(2)	(4)
Transfers from assets classified as held for sale	-	-	42	-	42
Transfers from exploration and evaluation assets (Note 16)	-	-	-	8,768	8,768
Discontinued operations (Note 5)	-	-	(5,246)	(751)	(5,997)
Other changes	-	-	3,924	11,908	15,832
Transfers	-	-	4,210	(4,210)	-
Net book value as at December 31, 2021	99,849	25,467	17,388	39,518	182,222
At cost	208,594	65,371	72,230	120,317	466,512
Accumulated amortization and impairment	(108,745)	(39,904)	(54,842)	(80,799)	(284,290)
Net book value as at December 31, 2021	99,849	25,467	17,388	39,518	182,222
At cost	210,012	63,722	74,841	100,784	449,359
Accumulated amortization and impairment	(110,448)	(38,898)	(54,727)	(76,805)	(280,878)
Net book value as at December 31, 2020	99,564	24,824	20,114	23,979	168,481

As at December 31, 2021 and 2020, marketing related intangible assets were represented by trademarks of KMGi.

Carrying amount of goodwill is allocated to each of the group of cash-generating units as follows:

Cash-generating unit	December 31, 2021	December 31, 2020
Pavlodar refinery CGU	88,553	88,553
CGUs of KMGi	11,296	11,011
Total goodwill	99,849	99,564

In 2021 and 2020, based on the impairment test results, no impairment of Pavlodar refinery or KMGi goodwill was recognized. For the detailed discussion of Pavlodar refinery goodwill impairment test refer to Note 4.

18. BANK DEPOSITS

In millions of tenge	December 31, 2021	December 31, 2020
Denominated in US dollar	559,244	324,646
Denominated in tenge	7,527	14,863
Less: allowance for expected credit losses	(200)	(509)
	566,571	339,000

As at December 31, 2021, the weighted average interest rate for long-term bank deposits was 1.04% in US dollars and 0.94% in tenge (December 31, 2020: 1.07% in US dollars and 1.58% in tenge).

As at December 31, 2021, the weighted average interest rate for short-term bank deposits was 0.27% in US dollars and 5.68% in tenge (December 31, 2020: 0.40% in US dollars and 3.10% in tenge).

In millions of tenge	December 31, 2021	December 31, 2020
Maturities under 1 year	510,513	282,472
Maturities between 1 and 2 years	140	796
Maturities over 2 years	55,918	55,732
	566,571	339,000

As at December 31, 2021 bank deposits include those pledged as collateral of 56,058 million tenge (December 31, 2020: 56,528 million tenge), which are represented mainly by 51,163 million tenge at restricted bank accounts designated as a liquidation fund per requirements of subsoil use contracts (December 31, 2020: 44,497 million tenge).

19. INVESTMENTS IN JOINT VENTURES AND ASSOCIATES

In millions of tenge	Main activity	Place of business	December 31, 2021		December 31, 2020	
			Carrying value	Percentage ownership	Carrying value	Percentage ownership
Joint ventures						
Tengizchevroil LLP (TCO)	Oil and gas exploration and production	Kazakhstan	3,105,942	20.00%	2,793,887	20.00%
KMG Kashagan B.V. (Kashagan)	Oil and gas exploration and production	Kazakhstan	2,404,820	50.00%	2,256,816	50.00%
Mangistau Investments B.V. (MIBV)	Oil and gas development and production	Kazakhstan	207,410	50.00%	142,585	50.00%
KazRosGas LLP (KRG)	Processing and sale of natural gas and refined gas products	Kazakhstan	54,317	50.00%	76,702	50.00%
Ural Group Limited (UGL)	Oil and gas exploration and production	Kazakhstan	41,453	50.00%	44,585	50.00%
KazGerMunay LLP (KGM)	Oil and gas exploration and production	Kazakhstan	32,289	50.00%	32,840	50.00%
Kazakhoil-Aktobe LLP (KOA)	Production of crude oil	Kazakhstan	25,262	50.00%	20,886	50.00%
Teniz Service LLP (Teniz Service)	Design, construction and operation of infrastructure facilities, offshore oil operations support	Kazakhstan	16,894	48.996%	20,473	48.996%
Valseira Holdings B.V. (Valseira)	Oil refining	Kazakhstan	9,590	50.00%	2,253	50.00%
Asian Gas Pipeline LLP (AGP) (Note 5)	Construction and operation of the gas pipeline	Kazakhstan	-	-	291,086	50.00%
Beineu-Shymkent Gas Pipeline LLP (BSGP) (Note 5)	Construction and operation of the gas pipeline	Kazakhstan	-	-	156,771	50.00%
Other			55,880		43,498	
Associates						
Caspian Pipeline Consortium (CPC)	Transportation of liquid hydrocarbons	Kazakhstan / Russia	473,880	20.75%	478,134	20.75%
PetroKazakhstan Inc. (PKI)	Exploration, production and processing of oil and gas	Kazakhstan	84,905	33.00%	78,636	33.00%
Other			37,742		31,869	
			6,550,384		6,471,021	

All of the above joint ventures and associates are strategic for the Group's business.

As at December 31, 2021, the Group's share in unrecognized losses of joint ventures and associates was equal to 1,811 million tenge (December 31, 2020: 19,038 million tenge).

The following table summarizes the movements in the investments in 2021 and 2020:

In millions of tenge	2021	2020
On January 1	6,471,021	5,590,384
Share in profits of joint ventures and associates, net (Note 5 and 7)	1,043,833	511,195
Dividends received	(415,359)	(134,772)
Change in dividends receivable	(48,511)	1,680
Impairment of investments	(64)	(30,654)
Other changes in the equity of the joint venture	9,391	21,352
Additional contributions without change in ownership	1,926	1,586
Disposals, net	-	(179)
Transfers to assets classified as held for sale	-	(3,080)
Eliminations and adjustments ¹	(6,308)	2,936
Discontinued operations (Note 5)	(662,208)	-
Foreign currency translation	156,663	510,573
On December 31	6,550,384	6,471,021

On October 16, 2015, the Group sold 50% of its shares in KMG Kashagan B.V. to Samruk-Kazyna with a right to buy back all or part of the shares (further Option) effective from January 1, 2018 to December 31, 2020. On December 20, 2017, the exercise period for the Option was changed to January 1, 2020 and December 31, 2022. As of December 31, 2021 and 2020, the fair value of the Option was close to nil.

The Amsterdam Court imposed certain restrictions on 50% of shares in KMG Kashagan B.V. owned by Samruk-Kazyna (further Restrictions). During the Restrictions period, these shares of KMG Kashagan B.V. cannot be sold, transferred or pledged. As of December 31, 2021 and 2020, the Restrictions remained in force and control over the asset was not transferred to the Group.

The following tables illustrate summarized financial information of material joint ventures, based on financial statements of these entities for 2021:

In millions of tenge	TCO	Kashagan	MIBV	KRG	UGL	KGM
Non-current assets	21,900,722	4,287,173	480,741	45,961	254,152	65,184
Current assets, including	1,454,491	356,957	160,802	80,906	911	54,869
Cash and cash equivalents	331,602	164,701	101,431	31,428	830	49,531
Non-current liabilities, including	(6,307,907)	(290,869)	(138,617)	(225)	(129,822)	(18,405)
Non-current financial liabilities	(3,886,200)	(25,710)	-	-	(95,775)	-
Current liabilities, including	(1,517,597)	(59,404)	(86,154)	(18,009)	(2,335)	(37,070)
Current financial liabilities	(60,529)	(9,942)	-	-	-	-
Equity	15,529,709	4,293,857	416,772	108,633	122,906	64,578
Share of ownership	20 %	50 %	50 %	50 %	50 %	50 %
Goodwill	-	257,892	-	-	-	-
Impairment of the investment	-	-	-	-	(20,000)	-
Equity method adjustments	-	-	(976)	-	-	-
Carrying amount of the investments as at December 31, 2021	3,105,942	2,404,820	207,410	54,317	41,453	32,289
Revenue	6,793,158	628,306	763,148	196,978	-	118,071
Depreciation, depletion and amortization	(894,739)	(203,568)	(66,434)	(221)	(61)	(59,318)
Finance income	2,341	484	181	2,908	-	743
Finance costs	(62,409)	(13,948)	(9,296)	-	(3,918)	(1,752)
Income tax expenses	(946,429)	(99,855)	(55,667)	(12,467)	(171)	(27,785)
Profit for the year from continuing operations	2,208,327	176,846	160,308	41,903	(22,120)	12,216
Other comprehensive income	393,933	119,162	18	4,394	3,995	1,596
Total comprehensive income	2,602,260	296,008	160,326	46,297	(18,125)	13,812
Dividends received	177,260	-	15,338	45,532	-	7,441

¹ Equity method eliminations and adjustments represent unrealized income from sale of inventory from joint ventures to subsidiaries and capitalized borrowing costs on the loans provided by the Company and subsidiaries to joint ventures.

The following tables illustrate summarized financial information of material joint ventures, based on financial statements of these entities for 2021:

In millions of tenge	KOA	Teniz Service	Valseira	AGP (Note 5)	BSGP (Note 5)
Non-current assets	50,961	13,544	487,137	-	-
Current assets, including	18,936	34,290	119,241	-	-
Cash and cash equivalents	11,652	8,728	66,868	-	-
Non-current liabilities, including	(2,671)	(357)	(443,302)	-	-
Non-current financial liabilities	-	-	(412,600)	-	-
Current liabilities, including	(16,701)	(12,997)	(100,603)	-	-
Current financial liabilities	-	-	(74,181)	-	-
Equity	50,525	34,480	62,473	-	-
Share of ownership	50 %	48,996 %	50 %	-	-
Impairment of the investment	-	-	(21,647)	-	-
Carrying amount of the investments as at December 31, 2021	25,262	16,894	9,590	-	-
Revenue	65,050	106,302	181,777	732,768	167,239
Depreciation, depletion and amortization	(3,492)	(106,478)	(38,773)	(69,439)	(16,839)
Finance income	347	14	19	1,006	-
Finance costs	(588)	(2,383)	(24,063)	(31,528)	(10,840)
Income tax expenses	(6,905)	245	(13,179)	(112,025)	-
Profit/(loss) for the year from continuing operations	26,758	(6,305)	23,737	436,821	113,246
Other comprehensive income/(loss)	-	-	(353)	412	-
Total comprehensive income/(loss)	26,758	(6,305)	23,384	437,233	113,246
Dividends received	6,003	490	-	40,216	18,000

The following tables illustrate summarized financial information of material joint ventures, based on financial statements of these entities for 2020:

In millions of tenge	TCO	Kashagan	MIBV	KRG	UGL	KGM
Non-current assets	20,221,619	4,332,838	468,069	44,681	246,111	101,629
Current assets, including	908,846	178,797	89,172	118,142	993	24,627
Cash and cash equivalents	50,588	117,269	5,267	44,459	833	19,264
Non-current liabilities, including	(6,412,967)	(371,651)	(160,711)	(207)	(115,216)	(35,090)
Non-current financial liabilities	(4,061,782)	(40,665)	-	-	(81,291)	-
Current liabilities, including	(748,064)	(129,128)	(110,186)	(9,212)	(2,718)	(25,486)
Current financial liabilities	(69,558)	(9,691)	(21,306)	-	-	-
Equity	13,969,434	4,010,856	286,344	153,404	129,170	65,680
Share of ownership	20 %	50 %	50 %	50 %	50 %	50 %
Goodwill	-	251,388	-	-	-	-
Impairment of investments	-	-	-	-	(20,000)	-
Equity method adjustments	-	-	(587)	-	-	-
Carrying amount of the investments as at December 31, 2020	2,793,887	2,256,816	142,585	76,702	44,585	32,840
Revenue	3,776,155	311,663	488,032	167,016	-	101,595
Depreciation, depletion and amortization	(700,929)	(196,789)	(75,609)	(289)	(14)	(27,084)
Finance income	3,887	2,250	239	2,293	-	511
Finance costs	(58,264)	(24,322)	(9,555)	-	(16,986)	(1,598)
Income tax expenses	(371,799)	(11,190)	(19,663)	(6,628)	(1,077)	(6,200)
Profit/(loss) for the year from continuing operations	867,380	(13,922)	33,498	7,785	(20,531)	31,245
Other comprehensive income/(loss)	1,216,017	411,964	(1,479)	16,232	11,671	4,337
Total comprehensive income	2,083,397	398,042	32,019	24,017	(8,860)	35,582
Dividends received	-	-	32,291	15,155	-	10,372

The following tables illustrate summarized financial information of material joint ventures, based on financial statements of these entities for 2020:

In millions of tenge	KOA	Teniz Service	Valseira	AGP (Note 5)	BSGP (Note 5)
Non-current assets	46,657	118,818	536,659	1,333,611	544,058
Current assets, including	10,837	50,602	99,783	616,479	147,802
Cash and cash equivalents	1,664	9,046	47,783	180,065	18,027
Non-current liabilities, including	(6,450)	(15,265)	(488,672)	(886,363)	(351,719)
Non-current financial liabilities	-	-	(471,886)	(692,254)	(335,084)
Current liabilities, including	(9,272)	(112,370)	(108,681)	(481,556)	(76,155)
Current financial liabilities	-	-	(73,012)	(464,699)	(63,101)
Equity	41,772	41,785	39,089	582,171	263,986
Share of ownership	50 %	48,996 %	50 %	50 %	50 %
Impairment of the investment	-	-	(17,292)	-	-
Equity method adjustments	-	-	-	-	24,778
Carrying amount of the investments as at December 31, 2020	20,886	20,473	2,253	291,086	156,771
Revenue	41,654	260,560	147,569	727,503	201,524
Depreciation, depletion and amortization	(7,169)	(215,594)	(36,397)	(78,212)	(18,222)
Finance income	238	1	17	7,352	-
Finance costs	(544)	(15,377)	(30,195)	(54,943)	(14,365)
Income tax expenses	(3,142)	(2,805)	(9,363)	(90,323)	-
Profit/(loss) for the year from continuing operations	4,897	7,941	(12,275)	350,677	110,010
Other comprehensive income/(loss)	-	-	(420)	2,964	-
Total comprehensive income/(loss)	4,897	7,941	(12,695)	353,641	110,010
Dividends received	8,000	2,695	4,176	53,821	-

The following tables illustrate summarized financial information of material associates, based on their financial statements for 2021:

In millions of tenge	December 31, 2021	
	CPC	PKI
Non-current assets	2,050,452	255,912
Current assets	229,939	88,537
Non-current liabilities	(32,699)	(20,905)
Current liabilities	(163,712)	(45,717)
Equity	2,083,980	277,827
Share of ownership	20,75 %	33 %
Goodwill	41,454	-
Impairment of the investment	-	(6,778)
Carrying amount of the investment as at December 31	473,880	84,905
Revenue	925,320	113,185
Depreciation, depletion and amortization	(174,032)	(17,008)
Finance income	775	249
Finance costs	(1,685)	(1,675)
Income tax expenses	(128,913)	(1,112)
Profit for the year	438,091	24,369
Other comprehensive income	60,033	3,149
Total comprehensive income	498,124	27,518
Dividends received	96,489	2,676

The following tables illustrate summarized financial information of material associates, based on their financial statements for 2020:

In millions of tenge	December 31, 2020	
	CPC	PKI
Non-current assets	2,082,957	284,545
Current assets	193,677	67,047
Non-current liabilities	(32,817)	(72,335)
Current liabilities	(134,300)	(20,426)
Equity	2,109,517	258,831
Share of ownership	20,75 %	33 %
Goodwill	40,409	-
Impairment of the investment	-	(6,778)
Carrying amount of the investment as at December 31	478,134	78,636
Revenue	872,851	83,863
Depreciation, depletion and amortization	(184,379)	(26,470)
Finance income	171	252
Finance costs	(12,080)	(2,464)
Income tax (expenses)/benefit	(99,572)	5,599
Profit/(loss) for the year	393,165	(26,702)
Other comprehensive income	180,142	13,223
Total comprehensive income/(loss)	573,307	(13,479)
Dividends received	-	2,609

The following tables illustrate aggregate financial information of individually immaterial joint ventures (the Group's proportional share):

In millions of tenge	December 31, 2021	December 31, 2020
Group share in:		
Non-current assets	105,445	123,063
Current assets	56,509	53,760
Non-current liabilities	(67,992)	(85,476)
Current liabilities	(39,190)	(65,550)
Goodwill	172	172
Impairment of the investment in joint venture	-	(3,635)
Accumulated unrecognized share of losses	936	18,163
Carrying amount of the investments as at December 31	55,880	43,498
Profit for the year from continuing operations	31,230	25,690
Other comprehensive income	20	47
Total comprehensive income	31,250	25,737
Unrecognized share of (loss)/income	(273)	1,225

The following tables illustrate aggregate financial information of individually immaterial associates (the Group's proportional share):

In millions of tenge	December 31, 2021	December 31, 2020
Group share in:		
Non-current assets	47,781	36,869
Current assets	93,419	56,671
Non-current liabilities	(13,860)	(8,998)
Current liabilities	(90,409)	(53,548)
Impairment of the investment in associates	(64)	-
Accumulated unrecognized share of losses	875	875
Carrying amount of the investments as at December 31	37,742	31,869
Profit for the year from continuing operations	16,338	11,442
Other comprehensive income	425	6,218
Total comprehensive income	16,763	17,660

20. INVENTORIES

In millions of tenge	December 31, 2021	December 31, 2020
Materials and supplies (at cost)	114,580	108,506
Refined products (at lower of cost and net realizable value)	89,725	56,712
Crude oil (at cost)	55,136	30,006
Gas products (at cost)	56	32,841
	259,497	228,065

As at December 31, 2021 inventories of 121,772 million tenge are pledged as collateral (December 31, 2020: 72,277 million tenge).

21. TRADE ACCOUNTS RECEIVABLE AND OTHER CURRENT FINANCIAL AND NON-FINANCIAL ASSETS

In millions of tenge	December 31, 2021	December 31, 2020
Trade accounts receivable		
Trade accounts receivable	445,500	455,321
Less: allowance for expected credit losses	(27,245)	(32,500)
	418,255	422,821
Other current financial assets		
Other receivables	102,699	90,904
Reservation of cash for repayment of borrowings (Note 25)	259,459	-
Dividends receivable	6,375	2,913
Less: allowance for expected credit losses	(39,030)	(36,746)
	329,503	57,071
Other current non-financial assets		
Advances paid and prepaid expenses	38,149	45,497
Taxes receivable, other than VAT	32,090	35,003
Other	6,479	11,867
Less: impairment allowance	(104)	(3,546)
	76,614	88,821
Total other current assets	406,117	145,892

As at December 31, 2021 and 2020 the above assets were non-interest bearing.

As at December 31, 2021 trade accounts receivable of 131,000 million tenge are pledged as collateral (December 31, 2020: 155,998 million tenge).

As at December 31, 2021, the Group reserved cash in the amount of 259,459 million tenge for repayment of the loan from The Export-Import Bank of China, including interest accrued. Cash reserved in November 2021 was used for early redemption of the loan from The Export-Import Bank of China, including interest accrued, in January 2022.

Trade accounts receivable is denominated in the following currencies as of December 31, 2021 and 2020:

In millions of tenge	December 31, 2021	December 31, 2020
US dollars	245,124	235,099
Tenge	104,603	123,824
Romanian Leu	60,616	57,637
Euro	3,615	6,059
Other currency	4,297	202
	418,255	422,821

Movements in the allowance for expected credit losses and impairment were as follows:

In millions of tenge	Individually impaired	
	Trade accounts receivable and other current financial assets	Other current non-financial assets
As at December 31, 2019	68,005	3,719
Charge for the year, net (Note 12)	4,225	(65)
Written-off	(9,259)	(108)
Foreign currency translation	6,275	-
As at December 31, 2020	69,246	3,546
Charge for the year, net (Note 12)	3,819	100
Written-off	(3,915)	(1,410)
Transfers and reclassifications	2,121	(2,121)
Discontinued operations (Note 5)	(4,932)	(11)
Foreign currency translation	(64)	-
As at December 31, 2021	66,275	104

There was no significant deterioration in the credit quality of trade and other accounts receivable due to COVID-19 pandemic. Uncertainties due to COVID-19 pandemic may exist in the future, and as a result, actual losses may differ from expected credit losses on accounts receivable.

Set out below is the information about credit risk exposure on the Group's trade receivables using a provision matrix:

In millions of tenge	Current	Days past due				Total
		<30 days	30-60 days	61-90 days	>91 days	
December 31, 2021						
Expected credit loss rate	0.39%	3.17%	18.42%	8.28%	94.05%	
Trade accounts receivable	405,468	11,088	617	1,661	26,666	445,500
Expected credit loss	(1,561)	(352)	(114)	(138)	(25,080)	(27,245)
December 31, 2020						
Expected credit loss rate	0.18%	2.94%	2.66%	4.34%	81.01%	
Trade accounts receivable	398,752	12,361	2,844	2,845	38,519	455,321
Expected credit loss	(733)	(363)	(76)	(124)	(31,204)	(32,500)

22. LOANS AND RECEIVABLES DUE FROM RELATED PARTIES

In millions of tenge	December 31, 2021	December 31, 2020
At amortized cost		
Loans due from related parties	478,064	558,546
Bonds receivable from Samruk-Kazyna (Note 30)	18,433	17,312
Other	-	2,470
Less: allowance for expected credit losses	(3,249)	(3,947)
	493,248	574,381
At fair value through profit or loss		
Loans due from related parties	123,161	138,024
Guaranteed returns from shareholders of joint venture	11,750	-
	134,911	138,024
Total loans and receivables due from related parties	628,159	712,405

Loans and receivables due from related parties are denominated in the following currencies:

In millions of tenge	December 31, 2021	December 31, 2020
Tenge	470,677	398,896
US dollars	156,374	310,175
Other foreign currencies	1,108	3,334
	628,159	712,405

In millions of tenge	December 31, 2021	December 31, 2020
Current portion	485,765	27,795
Non-current portion	142,394	684,610
	628,159	712,405

Movements in the allowance for expected credit losses of loans and receivables due from related parties were as follows:

In millions of tenge	
As at December 31, 2019	3,508
Charged, net	340
Foreign currency translation	99
As at December 31, 2020	3,947
Charged, net	188
Foreign currency translation	52
Discontinued operations (Note 5)	(938)
As at December 31, 2021	3,249

23. CASH AND CASH EQUIVALENTS

In millions of tenge	December 31, 2021	December 31, 2020
Term deposits with banks – US dollar	512,701	435,119
Term deposits with banks – tenge	231,944	163,820
Term deposits with banks – other currencies	32,343	54,800
Current accounts with banks – US dollar	179,097	397,774
Current accounts with banks – tenge	7,003	75,369
Current accounts with banks – other currencies	10,037	10,370
Cash in transit	1,557	7,508
Cash-on-hand and cheques	1,337	1,138
Less: allowance for expected credit losses	(170)	(34)
	975,849	1,145,864

Term deposits with banks are made for various periods of between one day and three months, depending on the immediate cash requirements of the Group.

As at December 31, 2021, the weighted average interest rate for time deposits with banks was 0.20% in US dollars, 8.67% in tenge and 5.00% in other currencies (December 31, 2020: 0.37% in US dollars, 7.74% in tenge and 1.44% in other currencies).

As at December 31, 2021 and 2020, cash and cash equivalents were not pledged as collateral for obligations of the Group.

24. EQUITY

Share capital

Total number of outstanding, issued and paid shares comprises:

	December 31, 2020 and 2021
Number of shares issued and paid, including	610,119,493
Par value of 27,726.63 tenge	137,900
Par value of 10,000 tenge	20,719,604
Par value of 5,000 tenge	59,707,029
Par value of 2,500 tenge	71,104,187
Par value of 2,451 tenge	1
Par value of 1,000 tenge	1
Par value of 921 tenge	1
Par value of 858 tenge	1
Par value of 838 tenge	1
Par value of 704 tenge	1
Par value of 592 tenge	1
Par value of 500 tenge	458,450,766
Share capital (thousands of tenge)	916,540,545

As at December 31, 2021 and 2020, the Company had only one class of issued shares. As at December 31, 2021 and 2020, common shares in the number of 239,440,103 were authorized, but not issued. In 2021, there was no issuance of any ordinary share.

Additional paid-in capital (APIC)

In 2020 the Group disposed gas pipeline assets obtained on trust management terms from the Government for 17,323 million tenge due to change in judgements. These pipelines were recognized within APIC in prior years. As of disposal date the book value of pipelines was 16,118 million tenge. The difference between cost and book value as of disposal date mainly represents depreciation of the pipelines, and was reversed from retained earnings.

In 2020, the Group transferred the difference between par and fair value of loan received from Samruk-Kazyna of 10,971 million tenge, recognized in 2011 within APIC, to retained earnings due the fact that the loan payable was settled.

In 2020, the Group transferred 3,519 million tenge, the difference between fair and nominal value of a loan receivable, from APIC to retained earnings. This loan represents the “Kazakhstan Note” receivable from CPC, and which was contributed to the Company in 2015, and fully settled in 2020 (Note 30).

Dividends

In 2021, based on the decision of Samruk-Kazyna and National Bank of RK, the Company declared and paid-off dividends for 2020 of 81.95 tenge per common share in the total of 49,999 million tenge (2020: declared dividends for 2019 of 133.97 tenge per common share in the total of 81,738 million tenge).

In 2021, the Group declared and paid-off dividends to the non-controlling interest holders of KTO, KMG I and KMG EP in the total amount of 6,192 million tenge and 5,756 million tenge, respectively (2020: 4,856 million tenge and 4,553 million tenge, respectively).

Transactions with Samruk-Kazyna

In 2021, the Company provided Samruk-Kazyna additional interest-free financial aid tranches of 43,151 million tenge (2020: 54,951 million tenge) under a long-term financial aid agreement signed on December 25, 2015, with a current maturity in 2022 (Note 30). In 2021, the difference between the fair value and nominal amount of the additional tranches of 5,222 million tenge (2020: 11,617 million tenge) was recognized as transactions with Samruk-Kazyna in the consolidated statement of changes in equity.

Distributions to Samruk-Kazyna

In 2021, in accordance with the Government decree on housing for the residents, living in Zhana-ozen town, the Group distributed 393 million tenge and paid 842 million tenge (2020: distributed 3,098 million tenge and paid 2,490 million tenge).

Additionally, in 2021, the Company reversed its distribution to Samruk-Kazyna by 308 million tenge and received reimbursement of 308 million tenge from contractor due to savings, which was recognized in prior years under the construction for social facilities in Turkestan city (2020: accrued and settled 5,497 million tenge).

Book value per share

In accordance with the decision of KASE dated October 4, 2010 financial statements shall disclose book value per share (ordinary and preferred) as of the reporting date, calculated in accordance with the KASE rules.

In millions of tenge	December 31, 2021	December 31, 2020
Total assets	13,652,261	14,653,287
Less: intangible assets	182,222	168,481
Less: total liabilities	5,493,580	6,016,608
Net assets	7,976,459	8,468,198
Number of ordinary shares	610,119,493	610,119,493
Book value per ordinary share (in thousand tenge)	13 074	13 880

Earnings per share

In thousand tenge	2021	2020 (restated)
Weighted average number of common shares for basic and diluted earnings per share	610,119,493	610,119,493
Basic and diluted earnings per share	1.963	0.282
Basic and diluted earnings per share from continuing operations	1.385	(0.147)
Basic and diluted earnings per share from discontinued operations	0.578	0.428

Non-controlling interest

The following tables illustrate information of subsidiaries in which the Group has significant non-controlling interests:

	Country of incorporation and operation	December 31, 2021		December 31, 2020	
		Non-controlling shares	Carrying value	Non-controlling shares	Carrying value
Romp petrol Downstream S.R.L.	Romania	45.37%	56,869	45.37%	53,065
KTO	Kazakhstan	10.00%	49,100	10.00%	47,314
Romp petrol Petrochemicals S.R.L.	Romania	45.37%	15,935	45.37%	15,338
KMG EP	Kazakhstan	0.28%	6,115	0.28%	5,447
Romp petrol Vega	Romania	45.37%	(15,113)	45.37%	(15,824)
Romp petrol Rafinare S.A.	Romania	45.37%	(219,641)	45.37%	(185,286)
Other			17,453		8,305
			(89,282)		(71,641)

The following tables illustrate summarized financial information of subsidiaries on a stand-alone basis, in which the Group has significant non-controlling interests as at December 31, 2021 and for the year then ended:

In millions of tenge	Rompetrol Downstream S.R.L.	KTO	Rompetrol Petrochemicals S.R.L.	KMG EP	Rompetrol Vega	Rompetrol Rafinare S.A.
Summarized statement of financial position						
Non-current assets	94,973	595,294	3,078	1,515,936	30,700	142,738
Current assets	195,726	80,960	32,700	369,789	11,550	65,598
Non-current liabilities	(57,646)	(112,607)	(632)	(81,740)	(29,969)	(66,933)
Current liabilities	(107,713)	(78,607)	(24)	(141,796)	(45,589)	(625,494)
Total equity	125,340	485,040	35,122	1,662,189	(33,308)	(484,091)
Attributable to:						
Equity holder of the Parent Company	68,471	435,940	19,187	1,656,074	(18,195)	(264,450)
Non-controlling interest	56,869	49,100	15,935	6,115	(15,113)	(219,641)
Summarized statement of comprehensive income						
Revenue	81,210	238,176	-	1,026,022	81,210	1,225,765
Profit/(loss) for the year from continuing operations	6,326	64,872	(1,503)	240,606	2,637	(64,132)
Total comprehensive income/(loss) for the year, net of tax	8,383	68,620	1,317	244,322	1,568	(75,719)
Attributable to:						
Equity holder of the Parent Company	4,579	61,758	719	243,638	857	(41,364)
Non-controlling interest	3,804	6,862	598	684	711	(34,355)
Dividends declared to non-controlling interests	-	(5,076)	-	(16)	-	-
Summarized cash flow information						
Operating activity	12,442	89,776	(8)	291,813	3,547	36,361
Investing activity	3,235	(48,768)	-	(237,951)	(1,660)	(16,996)
Financing activity	(6,378)	(52,802)	-	(17)	(1,884)	(49,899)
Net increase/(decrease) in cash and cash equivalents	9,299	(11,516)	(8)	57,459	3	(30,534)

The following tables illustrate summarized financial information of subsidiaries on a stand-alone basis, in which the Group has significant non-controlling interests as at December 31, 2020 and for the year then ended:

In millions of tenge	Rompetrol Downstream S.R.L.	KTO	Rompetrol Petrochemicals S.R.L.	KMG EP	Rompetrol Vega	Rompetrol Rafinare S.A.
Summarized statement of financial position						
Non-current assets	101,670	523,992	3,072	1,329,294	30,643	131,929
Current assets	165,467	110,803	31,415	326,047	6,406	41,149
Non-current liabilities	(60,155)	(88,539)	(659)	(81,848)	(26,078)	(80,806)
Current liabilities	(90,026)	(79,066)	(22)	(107,727)	(45,847)	(500,643)
Total equity	116,956	467,190	33,806	1,465,766	(34,876)	(408,371)
Attributable to:						
Equity holder of the Parent Company	63,891	419,876	18,468	1,460,319	(19,052)	(223,085)
Non-controlling interest	53,065	47,314	15,338	5,447	(15,824)	(185,286)
Summarized statement of comprehensive income						
Revenue	495,075	235,222	-	718,825	58,229	790,412
Profit/(loss) for the year from continuing operations	2,505	73,267	1,840	127,124	4,528	(240,657)
Total comprehensive income/(loss) for the year, net of tax	3,249	69,936	21,642	65,600	1,025	(244,304)
Attributable to:						
Equity holder of the Parent Company	1,775	62,817	11,822	65,403	560	(133,458)
Non-controlling interest	1,474	7,119	9,820	197	465	(110,846)
Dividends declared to non-controlling interests	-	(4,538)	-	(16)	-	-
Summarized cash flow information						
Operating activity	10,357	94,608	-	131,498	4,607	84,236
Investing activity	1,108	(26,354)	-	(137,375)	(3,110)	(42,881)
Financing activity	(9,736)	(47,434)	-	(2,717)	(1,643)	(6,675)
Net increase/(decrease) in cash and cash equivalents	1,729	23,366	-	(1,727)	(146)	34,680

25. BORROWINGS

In millions of tenge	December 31, 2021	December 31, 2020
Fixed interest rate borrowings	3,041,001	3,394,958
Weighted average interest rates	5.72%	5.50%
Floating interest rate borrowings	705,326	683,490
Weighted average interest rates (Note 31)	5.78%	4.38%
	3,746,327	4,078,448

Borrowings are denominated in the following currencies as of December 31:

In millions of tenge	December 31, 2021	December 31, 2020
US dollar	3,213,820	3,669,668
Tenge	294,581	318,034
Russian ruble	221,207	85,223
Euro	8,424	2,319
Other currencies	8,295	3,204
	3,746,327	4,078,448

In millions of tenge	December 31, 2021	December 31, 2020
Current portion	484,980	361,556
Non-current portion	3,261,347	3,716,892
	3,746,327	4,078,448

As at December 31, 2021 and 2020, the bonds comprised:

In millions of tenge	Issuance amount	Redemption date	Interest	December 31, 2021	December 31, 2020
Bonds					
Bonds LSE 2020	750 million USD	2033	3.50%	325,735	317,474
AIX 2019	56 billion KZT	2024	5.00%	33,123	45,192
Bonds LSE 2018	1.5 billion USD	2048	6.375%	639,046	631,832
Bonds LSE 2018	1.25 billion USD	2030	5.375%	540,156	530,776
Bonds LSE 2018	0.5 billion USD	2025	4.75%	216,760	212,117
Bonds LSE 2017	1.25 billion USD	2047	5.75%	522,827	516,505
Bonds LSE 2017	1 billion USD	2027	4.75%	428,552	419,390
Bonds ISE 2017	750 million USD	2027	4.375%	-	299,934
Other	-	-	-	-	4,593
Total				2,706,199	2,977,813

In October - November 2020, the Company made an early full repayment of bonds due 2022 and 2023 with nominal value of 906,564 thousand US dollars (equivalent to 392,214 million tenge). Bond repayment fee was 49 million US dollars (equivalent to 21,057 million tenge) (Note 14).

In October 2020, the Company placed bonds for 750 million US dollars (equivalent to 321,698 million tenge) at coupon interest rate of 3.5% per annum and due 2033.

In May 2020, KTG made an early partial repayment of bonds placed at ISE for the total amount of 41 million US dollars (equivalent to 17,816 million tenge) with bonds repayment gain of 927 million tenge.

As at December 31, 2021 and 2020, the borrowings comprised:

In millions of tenge	Issuance amount	Redemption date	Interest	December 31, 2021	December 31, 2020
Loans					
The Export-Import Bank of China (Eximbank)	1.13 billion USD	2026	6M Libor + 4.10%	242,555	287,387
VTB Bank (PJSC)	38 billion RUB	2027	Key Rate of Central Bank of Russia Federation + 2.25%	221,207	-
Halyk bank JSC (Halyk bank)	151 billion KZT	2024-2025	11.00%	138,119	41,207
Development bank of Kazakhstan JSC (DBK) (Note 30)	157 billion KZT	2023-2026	7.00%-9.00%	119,243	166,377
The Syndicate of banks (Unicredit Tiriak Bank, ING Bank, BCR, Raiffeisen Bank)	435 million USD ¹	2022-2023	1M Libor + 2.75%, 1M Libor + 2.50%, 1W Libor + 2.50%	84,096	118,228
Cargill	100 million USD	2022-2023	3M Libor + 2.60%, 3M Libor + 2.50%	43,343	-
Halyk bank	100 million USD ²	2023	5.00%	43,302	42,145
DBK (Note 30)	843.6 million USD	2023	10.99%	34,138	107,318
ING Bank NV	250 million USD	2022	COF (0.25%) + 2.00%	24,034	35,029
Bank of Tokyo-Mitsubishi UFJ, Ltd (London Branch)	150 million USD	2022	COF (0.14%) + 1.70%	22,385	38,215
Credit Agricole	250 million USD	2022	COF (0.24%) + 2.00%	21,533	14,862
VTB Bank Kazakhstan and VTB Bank (PJSC)	15 billion RUB	2023	Key Rate of Central Bank of Russia Federation + 2.15%	-	85,223
Japan Bank for International Cooperation (JBIC)	297.5 million USD	2025	2.19% + CIRR	-	60,098
European Bank for Reconstruction and Development (EBRD)	68 billion KZT	2026	3M CPI + 50 basis points + 2.15%	-	33,786
EBRD	36 billion KZT	2026	6M CPI + 100 basis points + 2.15%	-	24,278
Other	-	-	-	46,173	46,482
Total				1,040,128	1,100,635

In 2021 Atyrau Refinery received a long-term loan from VTB Bank (PJSC) for 38,169 million Russian rubles (equivalent to 229,015 million tenge) at the rate of key rate of Central Bank of Russia + 2.25% per annum and maturity of 6 years for full early repayment of the loan from Eximbank in 2022.

In 2021 Atyrau Refinery partially repaid for 105 million US dollars (equivalent to 44,734 million tenge) including accrued interest, and received a short-term loan from Halyk bank under revolving credit facility for 100 million US dollars (equivalent to 42,813 million tenge) with 5% interest rate for full early repayment of the loan from Eximbank in 2022 and to finance working capital.

In 2021 Atyrau Refinery received a long-term loan from Halyk bank in the total amount of 109,855 million tenge with 11% interest rate and maturity of 4 years to refinance its existing loans from JBIC and DBK. The loan from Halyk bank was partially repaid for 22,827 million tenge, including accrued interest.

In 2021 Atyrau Refinery made partial repayment of the loan from Eximbank for 79 million US dollars (equivalent to 33,039 million tenge), including accrued interest. In June and November 2021, Atyrau Refinery made reservation of cash in total amount of 681 million US dollars (equivalent to 292,258 million tenge) for repayment of the loan from Eximbank and repaid the loan in July 2021 for 77 million US dollars (equivalent to 32,799 million tenge) and in January 2022 for 604 million US dollars (equivalent to 259,459 million tenge), including accrued interest.

In 2021 Atyrau Refinery made full early repayment of the loan from JBIC for 155 million US dollars (equivalent to 67,392 million tenge), including accrued interest.

¹ 75 million USD with revolving credit facility.

² Revolving credit facility.

In 2021 Atyrau Refinery made full and partial repayment of the loans from DBK for 142 million US dollars (equivalent to 59,507 million tenge), including accrued interest, and 29,409 million tenge, including accrued interest.

In 2021 KMGI received short-term and long-term loans to finance working capital from Cargill at the rate of 3M Libor + + 2.60% and 3M Libor + 2.50%, respectively, for 50 million US dollars each (equivalent to 20,997 million tenge).

In 2021 KMGI partially repaid a short-term loan from ING Bank NV for 29 million US dollars (equivalent to 12,632 million tenge), including accrued interest.

In 2021 KMGI made partial repayment of its syndicated loan for 97 million US dollars (equivalent to 41,447 million tenge).

In 2020 Atyrau refinery made partial repayment of the loan from Eximbank for 289 million US dollars (equivalent to 112,494 million tenge), including accrued interest.

In 2020 Atyrau refinery and KTG received an additional long-term loan under the loan agreement with DBK for the total amount of 49,609 million tenge and made a partial redemption of existing loans for 27,832 million tenge, including accrued interest.

In 2020 Atyrau refinery and Pavlodar refinery, made a partial repayment of the loan from DBK for 98 million US dollars (equivalent to 39,005 million tenge), including accrued interest.

In November 2020, KTG received a long-term loan from VTB Bank Kazakhstan and VTB Bank (PJSC) for the total amount of 15,152 million Russian rubles (equivalent to 84,621 million tenge) at the rate of key rate of Central Bank of Russia + 2.15% per annum and maturity of 3 years. KTG used proceeds from these loans to make a full early repayment of its syndicated loan of 205 million US dollars (equivalent to 86,971 million tenge), including accrued interest.

Changes in liabilities arising from financing activities:

In millions of tenge	2021			Total	2020			Total
	Short-term loans	Long-term loans	Bonds		Short-term loans	Long-term loans	Bonds	
On January 1	184,370	916,265	2,977,813	4,078,448	70,843	974,937	2,791,724	3,837,504
Received in cash	82,753	368,343	-	451,096	169,088	186,641	321,250	676,979
Repayment of principal in cash	(108,134)	(218,733)	(12,685)	(339,552)	(64,921)	(299,501)	(442,933)	(807,355)
Repayment of principal and interest by reserved cash	-	(32,799)	-	(32,799)	-	-	-	-
Interest accrued	9,573	72,248	159,810	241,631	7,265	64,931	163,890	236,086
Interest paid	(9,427)	(52,876)	(185,140)	(247,443)	(7,278)	(64,953)	(164,192)	(236,423)
Discount (Note 14)	-	-	-	-	-	(11,002)	-	(11,002)
Bonds redemption fee (Note 14)	-	-	-	-	-	-	21,057	21,057
Bonds redemption gain	-	-	-	-	-	-	(927)	(927)
Foreign currency translation	3,227	2,684	66,967	72,878	4,790	9,164	205,725	219,679
Foreign exchange loss	410	4,844	7,679	12,933	4,583	54,367	82,365	141,315
Discontinued operations (Note 5)	-	(182,568)	(308,245)	(490,813)	-	-	-	-
Other	-	(52)	-	(52)	-	1,681	(146)	1,535
On December 31	162,772	877,356	2,706,199	3,746,327	184,370	916,265	2,977,813	4,078,448
Current portion	162,772	292,708	29,500	484,980	184,370	133,094	44,092	361,556
Non-current portion	-	584,648	2,676,699	3,261,347	-	783,171	2,933,721	3,716,892

This syndicated loan was raised to partially fund a strategic project – construction of three compressor stations at MG “Beineu-Bozoi-Shymkent”.

In December, 2020, Atyrau refinery received a long-term loan from Halyk bank for the total amount of 41,089 million tenge with 11% interest rate and maturity of 4 years, and used it to fully refinance its long-term loan from Halyk bank for 144 million US dollars (equivalent to 59,007 million tenge), including accrued interest.

In 2020 KMGI received and repaid short-term loans to finance working capital from Bank of Tokyo-Mitsubishi UFJ, Ltd (London Branch) at the rate of COF (0.18%) + 1.50% for 91 million US dollars (equivalent to 37,539 million tenge).

In 2020 KMGI received and repaid short-term loans to finance working capital from ING Bank NV at the rate of COF (0.28%) + 2.00% for 83 million US dollars (equivalent to 34,409 million tenge).

In 2020 KTG made a partial repayment of the loan from EBRD for the total amount of 12,696 million tenge, including accrued interest.

In 2020, KMGI received and repaid short-term loans to finance working capital from Credit Agricole at the rate of COF (0.29%) + 2.00% for 33 million US dollars (equivalent to 13,655 million tenge).

Covenants

The Group is required to comply with the financial and non-financial covenants under the terms of loan agreements. On June 16, 2021, the Company received a consent of the holders of Eurobonds with maturities in 2025, 2027, 2030, 2047, 2048 to bring the terms of these issues in line with the terms of the issue of KMG Eurobonds in 2020. As of December 31, 2021 and 2020, the Group complied with all financial and non-financial covenants.

Hedge of net investment in the foreign operations

As at December 31, 2021, certain borrowings denominated in foreign currency were designated as hedge instrument for the net investment in the foreign operations. These borrowings are being used to hedge the Group's exposure to the US dollar foreign exchange risk on these investments. In 2021 loss of 66,967 million tenge (2020: loss of 205,725 million tenge) on the translation of these borrowings were transferred to other comprehensive income and offset against translation gains of the net investments in foreign operations.

There is an economic relationship between the hedged item and the hedging instrument as the net investment creates a translation risk that will match the foreign exchange risk on the US Dollars borrowings. The Group has established a hedge ratio of 1:1 as the underlying risk of the hedging instrument is identical to the hedged risk component. The hedge ineffectiveness will arise when the amount of the investment in the foreign subsidiary becomes lower than the amount of the fixed rate borrowings. As at December 31, 2021 and 2020, there was no ineffective portion of the hedge.

26. PROVISIONS

In millions of tenge	Asset retirement obligations	Provision for environmental obligation	Provision for taxes	Provision for gas transportation	Employee benefit obligations	Other	Total
As at December 31, 2019	154,394	60,346	18,184	27,965	59,059	57,179	377,127
Foreign currency translation	2,258	3,706	(1)	2,801	922	5,370	15,056
Change in estimate	13,049	(1,421)	-	-	-	(3)	11,625
Unwinding of discount (Note 14)	11,001	2,242	-	-	3,605	130	16,978
Provision for the year	886	5,454	722	-	13,099	15,857	36,018
Recovered	(1,189)	-	(1,451)	-	-	(5,041)	(7,681)
Use of provision	(664)	(5,326)	(7,019)	-	(6,767)	(62,958)	(82,734)
As at December 31, 2020	179,735	65,001	10,435	30,766	69,918	10,534	366,389
Foreign currency translation	543	1,087	118	453	266	78	2,545
Change in estimate	(55)	(2,514)	-	-	503	151	(1,915)
Unwinding of discount (Note 14)	10,343	3,759	-	-	4,515	152	18,769
Provision for the year	785	2,628	2,392	-	(2,905)	2,974	5,874
Recovered	(1,329)	-	(748)	-	-	(1,207)	(3,284)
Use of provision	(332)	(6,775)	(1,834)	-	(6,235)	(8,055)	(23,231)
Discontinued operations (Note 5)	(87,953)	-	(1)	(31,219)	(636)	(93)	(119,902)
As at December 31, 2021	101,737	63,186	10,362	-	65,426	4,534	245,245

Detailed description of significant provisions, including critical estimates and judgments used, is included in Note 4.

Current portion and long-term portion are segregated as follows:

In millions of tenge	Asset retirement obligations	Provision for environmental obligation	Provision for taxes	Provision for gas transportation	Employee benefit obligations	Other	Total
Current portion	1,196	4,627	10,362	-	3,809	2,315	22,309
Long-term portion	100,541	58,559	-	-	61,617	2,219	222,936
As at December 31, 2021	101,737	63,186	10,362	-	65,426	4,534	245,245
Current portion	700	8,094	10,435	30,766	5,691	7,549	63,235
Long-term portion	179,035	56,907	-	-	64,227	2,985	303,154
As at December 31, 2020	179,735	65,001	10,435	30,766	69,918	10,534	366,389

27. TRADE ACCOUNTS PAYABLE AND OTHER FINANCIAL AND NON-FINANCIAL LIABILITIES

In millions of tenge	December 31, 2021	December 31, 2020
Trade accounts payable	519,201	536,922
Other financial liabilities		
Due to employees	44,401	54,741
Other trade payables	16,446	21,215
Dividends payable	534	195
Financial guarantees (Note 5)	122	14,910
Other	23,643	28,342
	85,146	119,403
Current portion	69,231	86,440
Non-current portion	15,915	32,963
Other non-financial liabilities		
Contract liabilities	154,696	118,537
Other	18,802	39,315
	173,498	157,852
Current portion	134,269	129,021
Non-current portion	39,229	28,831

As of December 31, 2021 and 2020, trade accounts payable were denominated in the following currencies:

In millions of tenge	December 31, 2021	December 31, 2020
US dollars	351,383	221,097
Tenge	83,705	249,108
Romanian Leu	71,932	44,457
Euro	3,381	6,558
Other currency	8,800	15,702
Total	519,201	536,922

As at December 31, 2021 and 2020, trade accounts payable and other financial liabilities were not interest bearing.

28. OTHER TAXES PAYABLE

In millions of tenge	December 31, 2021	December 31, 2020
VAT	49,002	90,883
Mineral Extraction Tax	26,439	10,147
Rent tax on crude oil export	23,702	10,054
Individual income tax	6,834	5,746
Export customs duty	5,842	-
Social tax	5,217	5,691
Withholding tax from non-residents	2,357	1,556
Excise tax	1,719	2,239
Other	5,312	3,947
	126,424	130,263

29. INCOME TAX EXPENSES

As at December 31, 2021 income taxes prepaid of 24,900 million tenge (2020: 70,301 million tenge) are mainly represented by corporate income tax. As at December 31, 2021 income taxes payable of 6,882 million tenge (2020: 8,967 million tenge) are mainly represented by corporate income tax.

Income tax expense comprised the following for the years ended December 31:

In millions of tenge	2021	2020 (restated)
Current income tax		
Corporate income tax	116,567	60,634
Withholding tax on dividends and interest income	42,886	9,416
Excess profit tax	1,237	(194)
Deferred income tax		
Corporate income tax	25,747	(7,616)
Withholding tax on dividends	34,990	26,021
Excess profit tax	(34)	(2,985)
Income tax expenses	221,393	85,276

A reconciliation of income tax expenses applicable to profit before income tax at the statutory income tax rate (20% in 2021 and 2020) to income tax expenses was as follows for the years ended December 31:

In millions of tenge	2021	2020 (restated)
Profit/(loss) before income tax from continuing operations	1,066,255	(4,155)
Profit before income tax from discontinued operations	407,993	282,355
Statutory tax rate	20 %	20 %
Income tax expense on accounting profit	294,850	55,640
Share in profit of joint ventures and associates	(87,497)	(76,218)
Other non-deductible expenses and non-taxable income	71,398	49,874
Effect of different corporate income tax rates	18,017	30,039
Excess profit tax	1,203	(3,179)
Change in unrecognized deferred tax assets	(21,063)	50,147
Income tax expenses	276,908	106,303
Income tax expenses attributable to continued operations	221,393	85,276
Income tax expenses attributable to discontinued operations	55,515	21,027
	276,908	106,303

Deferred tax balances, calculated by applying the statutory tax rates effective at the respective reporting dates to the temporary differences between the tax basis of assets and liabilities and the amounts reported in the consolidated financial statements, are comprised of the following at December 31:

In millions of tenge	2021					2020				
	Corporate income tax	Excess profit tax	Withholding tax	Total	Recognized in profit and loss	Corporate income tax	Excess profit tax	Withholding tax	Total	Recognized in profit and loss
Deferred tax assets										
Property, plant and equipment	22,769	-	-	22,769	(12,831)	35,848	-	-	35,848	968
Tax loss carryforward	556,394	-	-	556,394	(35,419)	591,813	-	-	591,813	35,367
Employee benefits related accruals	4,975	-	-	4,975	(133)	5,342	-	-	5,342	78
Impairment of financial assets	1	-	-	1	(12)	13	-	-	13	3
Environmental liability	3,089	-	-	3,089	(1,207)	4,296	-	-	4,296	(532)
Other	57,772	-	-	57,772	10,726	52,186	-	-	52,186	(2,091)
Less: unrecognized deferred tax assets	(561,198)	-	-	(561,198)	21,063	(582,261)	-	-	(582,261)	(50,147)
Less: deferred tax assets offset with deferred tax liabilities	(49,767)	-	-	(49,767)	(5,809)	(48,647)	-	-	(48,647)	2,832
Deferred tax assets	34,035	-	-	34,035	(23,622)	58,590	-	-	58,590	(13,522)
Deferred tax liabilities										
Property, plant and equipment	125,840	358	-	126,198	11,007	179,394	392	-	179,786	(19,811)
Undistributed earnings of joint venture	-	-	465,891	465,891	34,990	-	-	419,083	419,083	26,021
Other	3,441	-	-	3,441	10,723	5,672	-	-	5,672	1,018
Less: deferred tax assets offset with deferred tax liabilities	(49,767)	-	-	(49,767)	(5,809)	(48,647)	-	-	(48,647)	2,832
Deferred tax liabilities	79,514	358	465,891	545,763	50,911	136,419	392	419,083	555,894	10,060
Net deferred tax liability	45,479	358	465,891	511,728	-	77,829	392	419,083	497,304	-
Deferred tax expense					74,533					23,582

Deferred corporate income tax and excess profit tax are determined with reference to individual subsoil use contracts. Deferred corporate income tax is also determined for activities outside of the scope of subsoil use contracts. A deferred tax asset is recognized only to the extent that it is probable that future taxable profits will be available against which the asset can be utilized. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realized. Unrecognized deferred tax asset arising mainly from tax losses carry forward amounted to 561,198 million tenge as at December 31, 2021 (2020: 582,261 million tenge).

Tax losses carry forward as at December 31, 2021 and 2020 in the RK expire for tax purposes after ten years from the date they are incurred.

The movements in the deferred tax liability/(asset) were as follows:

In millions of tenge	2021				2020			
	Corporate income tax	Excess profit tax	Withholding tax	Total	Corporate income tax	Excess profit tax	Withholding tax	Total
Net deferred tax liability as at January 1	77,829	392	419,083	497,304	75,790	3,377	356,581	435,748
Foreign currency translation	296	-	11,818	12,114	1,601	-	36,481	38,082
Tax expense/(income) during the year recognized in profit and loss	39,577	(34)	34,990	74,533	546	(2,985)	26,021	23,582
Tax expense/(income) during the year recognized in other comprehensive income	48	-	-	48	(108)	-	-	(108)
Discontinued operations (Note 5)	(72,271)	-	-	(72,271)	-	-	-	-
Net deferred tax liability as at December 31	45,479	358	465,891	511,728	77,829	392	419,083	497,304

30. RELATED PARTY DISCLOSURES

Terms and conditions of transactions with related parties

Related party transactions were made on terms agreed between the parties that may not necessarily be at market rates, except for certain regulated services, which are provided based on the tariffs available to related and third parties. Outstanding balances at the year-end are mainly unsecured and interest free and settlement occurs in cash, except as indicated below. The Group recognizes allowances for ECL on amounts owed by related parties.

Transactions balances

The following table provides the balances of transactions with related parties as at December 31, 2021 and 2020:

In millions of tenge	December 31	Due from related parties	Due to related parties	Cash and deposits placed with related parties	Borrowings payable to related parties
Samruk-Kazyna entities	2021	497,242	1,074	-	33,123
	2020	402,272	5,921	-	45,192
Associates	2021	12,249	3,009	-	-
	2020	4,345	3,541	-	-
Other state-controlled parties	2021	2,349	638	86,481	153,381
	2020	4,116	113	126,443	273,695
Joint ventures	2021	166,869	170,923	-	-
	2020	357,832	246,555	-	-

Due from/to related parties

Samruk-Kazyna entities

As at December 31, 2021 due from Samruk-Kazyna entities is mainly represented by the bonds receivable from the Samruk-Kazyna of 18,373 million tenge, net of expected credit losses (December 31, 2020: 17,265 million tenge) (Note 22) and the financial aid provided to Samruk-Kazyna for 451,981 million tenge, net of expected credit losses (December 31, 2020: 379,159 million tenge) (Note 24).

Joint ventures

As at December 31, 2021 due from joint ventures were mainly represented by the loans given to PetroKazakhstan Oil Products LLP (further PKOP) of 74,612 million tenge (December 31, 2020: 96,958 million tenge), UGL of 48,549 million tenge (December 31, 2020: 41,066 million tenge) and advances paid to TCO for 8,744 million tenge (December 31, 2020: 16,094 million tenge) under crude oil and LPG purchase contract.

As at December 31, 2021 due to joint ventures were mainly represented by accounts payable for crude oil to TCO for 130,786 million tenge (December 31, 2020: 67,578 million tenge).

Cash and deposits placed with related parties

Other state-controlled parties

As at December 31, 2021, the decrease of cash and deposits placed with related parties is mainly due to partial withdraw of deposits for 100 million US dollars (equivalent to 42,422 million tenge as of the withdrawal date).

Borrowings payable to related parties

Other state-controlled parties

As at December 31, 2021 the borrowings payable to related parties are represented by loans received from DBK by Atyrau refinery and Pavlodar refinery of 153,381 million tenge (December 31, 2020: 273,695 million tenge) (Note 25).

Proceeds from loans given to related parties

In 2021 the Group received proceeds from principal and interest redemption of the loan issued to PKOP for 24,438 million tenge and 3,507 million tenge, respectively (2020: 24,588 million tenge and 5,492 million tenge, respectively), proceeds from interest on BSGP, joint venture of KTG, for 9,628 million tenge (2020: principal for 48,133 million tenge and interest for 9,336 million tenge). In November 2021, KTG was transferred to Samruk-Kazyna (Note 5).

Transactions turnover

The following table provides the total amount of transactions, which have been entered into with related parties during 2021 and 2020:

In millions of tenge	Sales to related parties	Purchases from related parties	Interest earned from related parties	Interest incurred to related parties	
Samruk-Kazyna entities	2021	17,589	11,500	36,805	6,448
	2020	13,793	24,316	30,055	2,293
Associates	2021	53,754	33,549	-	-
	2020	21,000	24,710	2,740	-
Other state-controlled parties	2021	32,810	16,788	315	21,529
	2020	42,880	18,765	12,035	26,567
Joint ventures	2021	270,274	1,678,338	30,626	1,109
	2020	322,894	1,128,533	31,397	4,763

Sales to related parties / purchases from related parties

Joint ventures

In 2021, sales to joint ventures were mainly represented by transportation and cargo servicing provided to TCO for 16,698 million tenge (2020: 34,399 million tenge), sale of compressor station to BSGP for 42,886 million tenge (2020: 43,667 million tenge) (Note 15), transportation charges and oil servicing provided to MangystauMunaiGas JSC, subsidiary of MIBV, for 53,892 million tenge and for 85,094 million tenge, respectively (2020: 53,591 million tenge and 72,251 million tenge, respectively).

In 2021, purchases from joint ventures were mainly attributable to purchases of crude oil from TCO to perform the oil delivery customer contract for 1,234,019 million tenge (2020: 687,896 million tenge), and transportation services provided by BSGP for 167,217 million tenge (2020: 201,524 million tenge) and AGP for 75,287 million tenge (2020: 106,160 million tenge).

Key management employee compensation

Total compensation to key management personnel (members of the Boards of directors and Management boards of the Group) included in general and administrative expenses in the accompanying consolidated statement of the comprehensive income was equal to 7,899 million tenge and 8,159 million tenge for the years ended December 31, 2021 and 2020, respectively. Compensation to key management personnel mainly consists of contractual salary and performance bonus based on operating results.

31. FINANCIAL RISK MANAGEMENT, OBJECTIVES AND POLICIES

The Group's principal financial instruments mainly consist of borrowings, loans given, financial guarantees, cash and cash equivalents, bank deposits as well as accounts receivable and accounts payable. The Group is exposed to interest rate risk, foreign currency risk and credit risk. The Group further monitors the market risk and liquidity risk arising from all financial instruments.

Market risk

The Group takes on exposure to market risks. Market risks arise from open positions in interest rate, currency, and securities, all of which are exposed to general and specific market movements. The Group manages market risk through periodic estimation of potential losses that could arise from adverse changes in market conditions and establishing appropriate margin and collateral requirements. The sensitivity analyses in the following sections relate to the position as of December 31, 2021 and 2020.

Foreign currency risk

As a result of significant borrowings and accounts payable denominated in the US dollars, the Group's consolidated statement of financial position can be affected significantly by movement in the US dollar / tenge exchange rates. The Group also has transactional currency exposures. Such exposure arises from revenues in the US dollars. The Group has a policy on managing its foreign currency risk in US dollar by matching US dollar denominated financial assets with US dollar denominated financial liabilities. The following table demonstrates the sensitivity to a reasonably possible change in the US dollar exchange rate, with all other variables held constant, of the Group's profit before income tax (due to changes in the cash flows of monetary assets and liabilities). The sensitivity of possible changes in exchange rates for other currencies are not considered due to its insignificance to the consolidated financial results of Group's operations.

In millions of tenge	Increase/ (decrease) in tenge to US dollar exchange rate	Effect on profit before tax
2021		
	+13 %	(252,408)
	(10 %)	194,160
2020		
	+14 %	(335,219)
	(11 %)	263,387

Interest rate risk

Interest rate risk is the risk that the value of a financial instrument will fluctuate due to changes in market interest rates. The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's long-term borrowings with floating interest rates. The Group's policy is to manage its interest rate cost using a mix of fixed and variable rate borrowings.

The following table demonstrates the sensitivity to a reasonably possible change in interest rates, with all other variables held constant, of the Group's profit before income tax (through the impact on floating rate borrowings). There is no significant impact on the Group's equity.

In millions of tenge	Increase/ decrease in basis points	Effect on profit before tax
2021		
LIBOR	+1,25	(8,817)
	-0,25	1,763
2020		
LIBOR	+1,00	(6,835)
	-0,25	1,709

Credit risk

The Group trades only with recognized, creditworthy parties. It is the Group's policy that all customers who wish to trade on credit terms are subject to credit verification procedures. In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is not significant. The maximum exposure is the carrying amount as disclosed in Note 14. There are no significant concentrations of credit risk within the Group.

With respect to credit risks arising on other financial assets of the Group, which comprise cash and cash equivalents, bank deposits, loans and receivables from related parties and other financial assets, the Group's exposure to credit risks arises from default of the counterparty, with a maximum exposure equal to the carrying amount of these instruments.

The table below shows the risk profile of the Group's cash and cash equivalents, short-term and long-term deposits held in banks as at 31 December 2021 and 2020 using the Fitch credit ratings, or in their absence, using their equivalent rates in S&P and Moody's:

	As at 31 December	
	2021	2020
AA- to A+	8 %	12 %
A to A-	34 %	30 %
BBB+ to BBB-	54 %	16 %
BB+ to BB-	1 %	41 %
B+ to B-	3 %	1 %

Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in raising funds to meet commitments associated with its financial liabilities. Liquidity risk may result from an inability to sell a financial asset quickly at close to its fair value.

Liquidity requirements are monitored on a regular basis and management ensures that sufficient funds are available to meet any commitments as they arise.

The table below summarizes the maturity profile of the Group's financial liabilities as at December 31, 2021 and 2020 based on contractual undiscounted payments.

In millions of tenge	Due less than one month	Due later than one month but not later than three months	Due later than three months but not later than one year	Due later than one year but not later than five years	Due after 5 years ¹	Total
As at December 31, 2021						
Borrowings ¹	268,383	92	379,336	1,432,280	4,283,944	6,364,035
Trade accounts payable	250,549	260,874	7,778	–	–	519,201
Financial guarantees ²	–	4	312	1,252	–	1,568
Lease liabilities	1,896	1,229	6,595	12,763	22,879	45,362
Other financial liabilities	38,906	17,650	15,932	16,979	–	89,467
	559,734	279,849	409,953	1,463,274	4,306,823	7,019,633
As at December 31, 2020						
Borrowings ¹	64,664	15,128	449,943	1,699,247	4,607,751	6,836,733
Trade accounts payable	208,648	318,195	10,079	–	–	536,922
Financial guarantees ²	–	16,339	48,734	172,619	313	238,005
Lease liabilities	395	515	16,061	26,236	20,448	63,655
Other financial liabilities	33,377	23,337	24,486	11,096	54,586	146,882
	307,084	373,514	549,303	1,909,198	4,683,098	7,822,197

Capital management

The primary objective of the Group's capital management is to maximise the shareholder value. The Group manages its capital to ensure that Group will be able to continue as a going concern while maximising the return to stakeholders through the optimisation of the debt and equity balance.

The Company seeks to maintain a prudent capital structure to support its capital investment plans and maintain investment grade credit rating through the cycle. Maintaining sufficient financial flexibility is considered strategically important to mitigate industry cyclicity while also enabling the pursuit of organic and inorganic investment opportunities. The Company has a comprehensive and disciplined internal approval process for capital expenditures, new projects and debt incurrence.

For the purpose of the Group's capital management, the capital structure of the Group consists of borrowings disclosed in Note 25 less cash (Note 23) and short-term deposits (Note 18) and equity, comprising share capital, additional paid-in capital, other reserves and retained earnings as disclosed in Note 24.

The Group's management regularly reviews the capital structure. As part of this review, management considers the cost of capital and the risks associated with each class of capital. Also to achieve this overall objective, the Group's capital management, among other things, aims to ensure that it meets financial covenants attached to borrowings that define capital structure requirements. There have been no breaches of the financial covenants of any borrowing in the years ended December 31, 2021 and 2020 (Note 25).

In millions of tenge	December 31, 2021	December 31, 2020
Borrowings	3,746,327	4,078,448
less: cash, cash equivalents and short-term bank deposits	1,486,362	1,428,336
Net debt	2,259,965	2,650,112
Equity	8,158,681	8,636,679
Capital and net debt	10,418,646	11,286,791

No changes were made in the overall strategy, objectives, policies or processes for managing capital during the years ended December 31, 2021 and 2020.

¹ The Group excludes from the maturity profile table the borrowings payable to project partners under the carry-in financing agreements, due to the uncertainty of maturity of these loans. As of December 31, 2021, the borrowings due to partners were 12,355 million tenge (December 31, 2020: 7,175 million tenge).

² The Group includes financial guarantees to the maturity profile table, however, the cash outflow in relation to financial guarantees is subject to certain conditions. Financial guarantee is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because of specified debtor fails to make payment when due in accordance with the original or modified terms of debt instrument. In 2021 and 2020 there was no significant instances of financial guarantees execution.

Fair values of financial instruments

The carrying amount of the Group financial instruments as at December 31, 2021 and 2020 are reasonable approximation of their fair value, except for the financial instruments disclosed below:

In millions of tenge	Carrying amount	Fair value	December 31, 2021		
			Fair value by level of assessment		
			Level 1	Level 2	Level 3
Bonds receivable from Samruk-Kazyna	18,373	16,925	–	16,925	–
Loans given to related parties at amortized cost, lease receivables from joint venture	474,875	472,528	–	448,658	23,870
Fixed interest rate borrowings	3,041,001	3,556,705	3,210,632	346,073	–
Floating interest rate borrowings	705,326	755,347	–	755,347	–
Financial guarantee issued (Note 5)	122	122	–	–	122

In millions of tenge	Carrying amount	Fair value	December 31, 2020		
			Fair value by level of assessment		
			Level 1	Level 2	Level 3
Bonds receivable from Samruk-Kazyna	17,265	16,916	–	16,916	–
Loans given to related parties at amortized cost, lease receivables from joint venture	557,116	538,063	–	372,823	165,240
Fixed interest rate borrowings	3,394,958	4,103,404	3,640,931	462,473	–
Floating interest rate borrowings	683,490	699,509	–	699,509	–
Financial guarantee issued (Note 5)	14,910	15,464	–	–	15,464

The fair value of bonds receivable from the Samruk-Kazyna and other debt instruments have been calculated by discounting the expected future cash flows at market interest rates.

All financial instruments for which fair value is recognized or disclosed are categorized within the fair value hierarchy, based on the lowest level input that is significant to the fair value measurement as a whole, as follows:

- Level 1 – quoted (unadjusted) market prices in active markets for identical assets or liabilities;
- Level 2 – valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable;
- Level 3 – valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

There were no transfers between Level 1 and Level 2 during the reporting period, and no transfers into or out of Level 3 category.

For assets and liabilities that are recognized at fair value on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by re-assessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period. There were no changes in the Group's valuation processes, valuation techniques, and types of inputs used in the fair value measurements during the year.

The significant unobservable inputs used in the fair value measurements categorized within Level 3 of the fair value hierarchy are shown below:

	Valuation technique	Significant unobservable inputs	Range as of December 31	
			2021	2020
Loans given to related parties at amortized cost, lease receivables from joint venture	Discounted cash flow method	Interest/discount rate	4.1-11.5%	7.54-9.9%
Financial guarantee issued			4.5%	4.9%

32. CONTINGENT LIABILITIES AND COMMITMENTS

Operating environment

Kazakhstan continues economic reforms and development of its legal, tax and regulatory frameworks as required by a market economy. The future stability of the Kazakhstan economy is largely dependent upon these reforms and developments and the effectiveness of economic, financial and monetary measures undertaken by the Government.

Since the beginning of March 2020, the world markets are experiencing a significant volatility in oil demand and oil prices, in particular as a result of COVID-19 pandemic. Kazakhstan tenge value has fallen significantly against the major world currencies. In the opinion of the Company's management, these trends will not have a material impact on the Company's future financial position, results of operations and business prospects.

Commodity price risk

The Group generates most of its revenue from the sale of commodities, primarily crude oil and oil products. Historically, the prices of these products have been volatile and have fluctuated widely in response to changes in supply and demand, market uncertainty, the performance of the global or regional economies and cyclicalities in industries. Prices may also be affected by the Government actions, including the imposition of tariffs and import duties, speculative trades, an increase in capacity or oversupply of the Group's products in its main markets. These external factors and the volatility of the commodity markets make it difficult to estimate future prices. A substantial or extended decline in commodity prices would materially and adversely affect the Group's business and the consolidated financial results and cash flows of operations. The Group mainly does not hedge its exposure to the risk of fluctuations in the price of its products.

Taxation

Kazakhstan's tax legislation and regulations are subject to ongoing changes and varying interpretations. Instances of inconsistent opinions between local, regional and national tax authorities are not unusual, including opinions with respect to IFRS treatment of revenues, expenses and other items in the financial statements. The current regime of penalties and interest related to reported and discovered violations of Kazakhstan's tax laws are severe. Due to uncertainties associated with Kazakhstan's tax system, the ultimate amount of taxes, penalties and interest, if any, may be in excess of the amount expensed to date and accrued at December 31, 2021. As at December 31, 2021, Management believes that its interpretation of the relevant legislation is appropriate and that it is probable that the Group's tax positions will be sustained, except as provided for or otherwise disclosed in these consolidated financial statements.

Transfer pricing control

Transfer pricing control in Kazakhstan has a very wide scope and applies to many transactions that directly or indirectly relate to international business regardless of whether the transaction participants are related or not. The transfer pricing legislation requires that all taxes applicable to a transaction should be calculated based on market price determined in accordance with the arm's length principle. The law on transfer pricing came into force in Kazakhstan from January 1, 2009. The law is not explicit and there is little precedence with some of its provisions. Moreover, the law is not supported by detailed guidance for application of transfer pricing control to various types, as a result, there is a risk that the tax authorities may take a position that differs from the Group's position, which could result in additional taxes, fines and interest. As at December 31, 2021 management believes that its interpretation of the transfer pricing legislation is appropriate and that it is probable that the Group's positions with regard to transfer pricing will be sustained.

Comprehensive tax audit at Atyrau refinery for 2015-2017

On December 15, 2020, based on 2015-2017 comprehensive tax audit, Atyrau refinery received additional tax assessment for VAT for 9,257 million tenge, including penalties, and reduction in tax carry-forward losses for 29,026 million tenge. Atyrau refinery has not agreed with tax audit results, and, on January 28, 2021, sent an appeal to the RK Ministry of Finance. As of December 31, 2021, appeal consideration was suspended by the RK Ministry of Finance until clarification of the circumstances. The Group believes that the risk of additional tax assessment is remote, as such, the Group did not recognize any provisions as of December 31, 2021.

Legal issues and claims

The civil litigation at KMGI

Faber Invest & Trade Inc. (further Faber), the non-controlling shareholder of KMGI subsidiaries, resumed several previous civil filings in 2020, one of which challenged the increase in the Rompetrol Rafinare Constanta, the KMGI subsidiary, share capital in 2003-2005. The hearings have been held periodically, but no final decisions were made. On July 13, 2021, the court rejected the complaint of Faber. However, Faber appealed against this decision. As a result of hearing in December 2021 the court admitted the appeal and sent back the file to be re-settled. Next hearings are scheduled to March and May 2022.

The Group believes that its position with regard to the new Faber filing will be sustained similar to the matters resolved in 2020 in favour of the Group, and as such, the Group did not recognize any provisions as of December 31, 2021.

Cost recovery audits

Under the base principles of the production sharing agreements, the Government transferred to contractors the exclusive rights to conduct activities in the subsurface use area, but did not transfer rights to this subsurface use area either to ownership or lease. Thus, all extracted and processed oil (i.e. the hydrocarbons produced) are the property of the Government. Works are carried out on the basis of compensation and the Government pays to the contractors not in cash but in the form of the portion of oil production, thereby allowing the contractors to recover their costs and earn profit.

In accordance with the production sharing agreements, not all costs incurred by the contractors could be reimbursed. Certain expenditures need to be approved by the authorized bodies. The authorized bodies conduct the cost recovery audits. In accordance with the cost recovery audits completed prior to December 31, 2021, certain amounts of the costs incurred by contractors were assessed as non-recoverable. The parties to the production sharing agreements are in negotiations with respect to the recoverability of those costs.

As of December 31, 2021, the Group's share in the total disputed amounts of costs is 1,177 million US dollars (equivalent to 508,180 million tenge as at reporting date) (2020: 1,078 million US dollars, equivalent to 453,641 million tenge as at reporting date), including its share in the joint venture. The Group and its partners under the production sharing agreements are in negotiation with the Government with respect to the recoverability of these costs.

Kazakhstan local market obligation

The Government requires oil companies in the RK to supply a portion of the products to meet the Kazakhstan domestic energy requirement on an annual basis, mainly to maintain oil products supply balance on the local market and to support agricultural producers during the spring and autumn sowing and harvest campaigns.

Kazakhstan local market oil prices are significantly lower than export prices and even lower than the normal domestic market prices determined in an arm-length transaction. If the Government does require additional crude oil to be delivered over and above the quantities currently supplied by the Group, such supplies will take precedence over market sales and will generate substantially less revenue than crude oil sold on the export market, which may materially and adversely affect the Group's business, prospects, consolidated financial position and performance.

In 2021, in accordance with its obligations, the Group delivered 7,114 thousand tons of crude oil (2020: 6,401 thousand tons), including its share in the joint ventures and associates, to the Kazakhstan market.

Commitments under subsoil use contracts

As at December 31, 2021, the Group had the following commitments related to minimal working program in accordance with terms of licenses, production sharing agreements and subsoil use contracts, signed with the Government, including its share in joint ventures and associate:

In millions of tenge	Capital expenditures	Operational expenditures
Year		
2022	236,077	57,135
2023	94,245	4,373
2024	27,106	4,383
2025	10,880	4,314
2026-2048	5,216	21,372
Total	373,524	91,577

Oil supply commitments

As of December 31, 2021, Kashagan, joint venture of the Company, had commitments under the oil supply agreements in the total amount of 4.3 million ton (December 31, 2020: 8.2 million ton).

Other contractual commitments

As at December 31, 2021, the Group, including its share in joint ventures commitments, had other capital commitments of approximately 148,590 million tenge (as at December 31, 2020: 196,531 million tenge), related to acquisition and construction of long-lived assets.

As at December 31, 2021, the Group had commitments in the total amount of 184,455 million tenge (as at December 31, 2020: 232,136 million tenge) under the investment programs approved by the joint order of Ministry of Energy of RK and Committee on Regulation of Natural Monopolies and Protection of Competition of the Ministry of National Economy of RK to facilitate production units.

Non-financial guarantees

As of December 31, 2021 and 2020, the Group has outstanding performance guarantees issued in favour of third parties whereas it provides guarantee should its joint venture or associate fail to perform their obligations under the natural gas purchase-sale, transportation and other agreements.

As of December 31, 2021, the management of the Group believes that there were no expected cases of non-performance from the guaranteed parties and, accordingly, no obligations related to the above stated non-financial contingencies were recognized.

33. SEGMENT REPORTING

The Group's operating segments have their own structure and management according to the type of the produced goods and services provided. Moreover, all segments are strategic directions of the business which offer different types of the goods and services in different markets. The functions have been defined as the operating segments of the Group because they are segments a) that engages in business activities from which revenues are generated and expenses incurred; b) whose operating results are regularly reviewed by the Group's chief operating decision makers to make decisions.

The Group's activity consists of three main operating segments: exploration and production of oil and gas, oil transportation, and refining and trading of crude oil and refined products. The Group presents the Company's activities separately in Corporate segment, since the Company performs not only the functions of the parent company, but also carries out operational activities. The remaining operating segments have been aggregated and presented as other operating segment due to their insignificance.

Disaggregation of revenue by types of goods and services is presented in Note 6 to the consolidated financial statements.

In 2021 disaggregated revenue type Sales of crude oil and gas and Sales of refined products mainly represents sales made to the external parties by the following operating segments:

In millions of tenge	Type of products and services			
	2021		2020	
	Sales of crude oil and gas	Sales of refined products	Sales of crude oil and gas	Sales of refined products
Segments				
Refining and trading of crude oil and refined products	3,097,249	1,527,802	1,676,749	989,881
Corporate	-	559,515	-	333,100
Exploration and production of oil and gas	-	3,092	-	3,910
Other	-	11,704	-	9,832
	3,097,249	2,102,113	1,676,749	1,336,723

Segment performance is evaluated based on revenues, net profit and adjusted EBITDA, which are measure on the same basis as in the consolidated financial statements.

EBITDA is a supplemental non-IFRS financial measure used by management to evaluate segments performance, and is defined as earnings before depreciation, depletion and amortization, impairment of property, plant and equipment, exploration and evaluation assets, intangible assets and assets classified as held for sale, exploration expenses, impairments of joint ventures and associates, finance income and expense, income tax expenses.

EBITDA, % is calculated as EBITDA of each reporting segment divided by the total EBITDA.

Eliminations and adjustments represent the exclusion of intra-group turnovers. Inter-segment transactions were made on terms agreed to between the segments that may not necessarily comply with market rates, except for certain regulated services, which are provided based on the tariffs available to related and third parties.

Geographic information

The Group's property, plant and equipment (Note 15) are located in the following countries:

In millions of tenge	2021	2020
Kazakhstan	2,782,481	3,730,070
Other countries	623,499	639,675
	3,405,980	4,369,745

The following represents information about profit and loss for 2021 and assets and liabilities as at December 31, 2021 of operating segments of the Group:

In millions of tenge	Exploration and production of oil and gas	Oil transportation	Refining and trading of crude oil and refined products	Corporate	Other	Eliminations and adjustments	Total
Revenues from sales to external customers	8,142	203,388	4,944,326	560,895	122,042	-	5,838,793
Revenues from sales to other segments	1,223,371	78,579	157,380	46,222	86,598	(1,592,150)	-
Total revenue	1,231,513	281,967	5,101,706	607,117	208,640	(1,592,150)	5,838,793
Cost of purchased oil, gas, petroleum products and other materials	(30,151)	(14,477)	(4,508,909)	(265,594)	(33,494)	1,256,134	(3,596,491)
Production expenses	(309,158)	(124,163)	(203,059)	(167,570)	(149,841)	260,760	(693,031)
Taxes other than income tax	(346,304)	(14,105)	(14,998)	(45,855)	(7,377)	-	(428,639)
Transportation and selling expenses	(103,433)	(5,444)	(66,646)	(10,353)	-	53,964	(131,912)
General and administrative expenses	(26,223)	(18,312)	(36,366)	(46,296)	(24,151)	2,870	(148,478)
Share in profit of joint ventures and associates, net	625,567	105,890	17,694	-	19,582	-	768,733
EBITDA	1,041,811	211,356	289,422	71,449	13,359	(18,422)	1,608,975
EBITDA, %	65 %	13 %	18 %	4 %	1 %	(1 %)	
Depreciation, depletion and amortization	(126,433)	(41,694)	(140,870)	(3,034)	(10,037)	-	(322,068)
Finance income	71,785	3,980	2,563	161,385	20,795	(175,909)	84,599
Finance costs	(19,566)	(6,426)	(93,290)	(212,693)	(4,919)	87,629	(249,265)
Impairment of property, plant and equipment, exploration and evaluation assets, intangible assets and assets classified as held for sale	(3,987)	(4,796)	(8,217)	(324)	(3,400)	-	(20,724)
Exploration expenses	(79,083)	-	-	-	-	-	(79,083)
Income tax expenses	(136,784)	(14,441)	(38,159)	(30,899)	(1,110)	-	(221,393)
Profit/(loss) for the year from continuing operations	593,531	48,688	36,922	300,334	(33,052)	(101,561)	844,862

In millions of tenge	Exploration and production of oil and gas	Oil transportation	Refining and trading of crude oil and refined products	Corporate	Other	Eliminations and adjustments	Total
Other segment information							
Investments in joint ventures and associates	5,904,568	523,747	47,395	-	74,674	-	6,550,384
Capital expenditures	168,017	92,061	83,020	6,013	12,681	52,398	414,190
Allowances for obsolete inventories, expected credit losses on trade receivables, loans and receivables from related parties, other current financial assets and impairment of other current non-financial assets	(4,854)	(9,686)	(40,898)	(28,518)	(9,023)	-	(92,979)
Assets of the segment	8,624,757	1,213,613	3,000,106	1,580,623	322,008	(1,088,846)	13,652,261
Liabilities of the segment	868,902	216,809	1,994,289	3,378,313	100,458	(1,065,191)	5,493,580

The following represents information about profit and loss for 2020 and assets and liabilities as at December 31, 2020 of operating segments of the Group:

In millions of tenge	Exploration and production of oil and gas	Oil transportation	Refining and trading of crude oil and refined products	Corporate	Other	Eliminations and adjustments	Total
Revenues from sales to external customers ¹	8,981	216,843	2,955,444	334,092	109,604	-	3,624,964
Revenues from sales to other segments ¹	868,731	91,497	327,229	36,945	83,314	(1,407,716)	-
Total revenue¹	877,712	308,340	3,282,673	371,037	192,918	(1,407,716)	3,624,964
Cost of purchased oil, gas, petroleum products and other materials ¹	(29,528)	(13,301)	(2,739,382)	(185,884)	(32,844)	1,099,703	(1,901,236)
Production expenses ¹	(297,934)	(124,041)	(202,820)	(126,431)	(139,308)	234,356	(656,178)
Taxes other than income tax ¹	(194,328)	(12,891)	(15,188)	(24,994)	(7,107)	186	(254,322)
Transportation and selling expenses ¹	(118,054)	(8,019)	(62,381)	(7,752)	-	59,062	(137,144)
General and administrative expenses ¹	(30,219)	(16,775)	(46,690)	(51,053)	(25,096)	23,208	(146,625)
Share in profit of joint ventures and associates, net ¹	182,572	93,525	(1,373)	-	6,091	-	280,815
EBITDA¹	390,221	226,838	214,839	(25,077)	(5,346)	8,799	810,274
EBITDA, %¹	48 %	28 %	27 %	(3 %)	(1 %)	1 %	
Depreciation, depletion and amortization ¹	(118,157)	(39,253)	(146,764)	(3,200)	(10,053)	-	(317,427)

¹ Certain numbers shown here do not correspond to the consolidated financial statements for the year ended December 31, 2020 and reflect adjustments made, refer to Note 5.

In millions of tenge	Exploration and production of oil and gas	Oil transportation	Refining and trading of crude oil and refined products	Corporate	Other	Eliminations and adjustments	Total
Finance income ¹	106,079	3,943	18,285	99,245	11,760	(151,325)	87,987
Finance costs ¹	(16,934)	(5,180)	(87,043)	(269,715)	(11,694)	125,194	(265,372)
Impairment of property, plant and equipment, exploration and evaluation assets, intangible assets and assets classified as held for sale ¹	(61,908)	(10,534)	(164,736)	(2,279)	(4,436)	-	(243,893)
Exploration expenses	(19,807)	-	-	-	-	-	(19,807)
Impairment of investments in joint venture and associate	(30,654)	-	-	-	-	-	(30,654)
Income tax expenses ¹	(60,988)	(18,462)	4,028	(8,306)	(1,548)	-	(85,276)
Profit/(loss) for the year from continuing operations¹	171,149	161,288	(227,818)	(189,273)	(18,589)	13,812	(89,431)
Other segment information							
Investments in joint ventures and associates	5,371,371	515,025	34,122	-	101,579	448,924	6,471,021
Capital expenditures	167,609	48,900	84,649	11,811	15,586	125,608	454,163
Allowances for obsolete inventories, expected credit losses on trade receivables, loans and receivables from related parties, other current financial assets and impairment of other current non-financial assets	(4,495)	(6,457)	(46,112)	(25,141)	(9,254)	(7,240)	(98,699)
Assets of the segment	7,861,383	1,189,807	2,654,458	1,302,283	340,220	1,305,136	14,653,287
Liabilities of the segment	814,551	198,810	1,704,835	3,269,893	105,549	(77,030)	6,016,608

34. SUBSEQUENT EVENTS

Dividends received

In January 2022, the Company received dividends from KOA, KGM and MIBV, the joint ventures, of 3,000 million tenge, 4,338 million tenge and 97 million US dollars (equivalent to 41,996 million tenge), respectively.

Inspections

Starting from January 2022, various state bodies have initiated inspections in some companies of the Group, including the Company. Currently, the inspections have not been completed and, accordingly, the Group is unable to assess the impact on the consolidated financial statements.

State of emergency

On January 2, 2022 protests started in Mangystau region of Kazakhstan related to significant increase in the liquified petroleum gas retail price. Further, protests began in other cities and resulted in riots, damage to property and loss of life. On January 5, 2022 the government declared a state of emergency.

As a result of the above protests and state of emergency the President of the RK has made certain public announcements regarding possible measures including amendments to the tax legislation, introducing measures for financial stability, controlling and stabilizing the inflation rate and the tenge exchange rate.

On January 19, 2022 the state of emergency was lifted. On January 25, 2022 Samruk-Kazyna presented its action plan on reforms, developed to pursue the instructions of the President of RK. The Company is currently unable to quantify what the impact, if any, may be on the financial position of any new measures the Government and Samruk-Kazyna may take or any impact from the effect on the Kazakhstan economy as a result of the above protests, state of emergency and plans of Samruk-Kazyna.

Impact of sanction risks

In February 2022, due to the conflict between the Russian Federation and Ukraine, numerous sanctions have been announced by majority of western countries against the Russian Federation. These sanctions are targeted to have a negative economic impact on the Russian Federation.

Due to the growing geopolitical tensions, since February 2022, there has been a significant increase in volatility on the securities and currency markets, as well as a significant depreciation of the tenge against the US dollar and the euro.

The Group regards these events as non-adjusting events after the reporting period, the quantitative effect of which cannot be estimated at the moment with a sufficient degree of confidence.

As at December 31, 2021, the Group had cash and cash equivalents in various currencies with total amount of equivalent to 87,183 million tenge and borrowings of 221,207 million tenge (Note 25) at subsidiaries of Russian banks. As at the date of issue of these consolidated financial statements, cash and cash equivalents held at subsidiaries of Russian banks equaled to 205 million tenge due to the transfer of funds to Kazakhstan banks. The transfer was made without any loss.

Currently, the Group's management is analyzing the possible impact of changing micro- and macroeconomic conditions on the Group's financial position and results of operations.