PUBLIC JOINT-STOCK COMPANY MOSCOW EXCHANGE MICEX-RTS

Consolidated Financial Statements
For the Year Ended December 31, 2021

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Совершенствуя бизнес,
улучшаем мир

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Independent auditor's report

To the Shareholders and Supervisory Board of
Public Joint-Stock Company "Moscow Exchange MICEX-RTS"

Opinion

We have audited the consolidated financial statements of Public Joint-Stock Company "Moscow Exchange MICEX-RTS" and its subsidiaries (the Group), which comprise the consolidated statement of profit or loss, the consolidated statement of comprehensive income for the period ended 31 December 2021, the consolidated statement of financial position as at 31 December 2021, and the consolidated statement of cash flows, the consolidated statement of changes in equity for the year then ended 31 December 2021, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2021 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' (IESBA) International Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code) together with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Russian Federation, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

Key audit matter	How our audit addressed the key audit matter
Assessing the impairment of goodwill and intangible assets	
We considered this matter to be a key audit matters as the carrying amount of goodwill and other intangible assets, which are represented mainly by the client base, is material for the Group's consolidated financial statements. The assessment of goodwill and other intangible assets is a complex process which requires management to apply judgment when identifying indicators of impairment and when performing the testing for impairment. The information on goodwill and intangible assets is disclosed in Note 21 and Note 20 to the Group's consolidated financial statements, respectively.	We analyzed the Group's accounting policies for goodwill and other intangible assets. We assessed the judgments and the calculation methodology applied for impairment testing of goodwill and other intangible assets. We involved business valuation specialists to assist us in analyzing management's calculations, assumptions and judgments applied when identifying impairment indicators and when performing the impairment testing of goodwill and other intangible assets. We assessed management's assumptions and judgments with respect to allocating goodwill and other intangible assets to cash-generating units and making projections of cash flows for these units. We analyzed the inputs of models used in the impairment testing of goodwill and other intangible assets, reconciled them with historical trends of items in the Group's consolidated financial statements and market indicators, analyzed the discount rate and macroeconomic indicators used in the model for projecting future cash flows. We verified the mathematical accuracy of models and performed a sensitivity analysis for key assumptions (projected cash flows, discount rates) of calculation models and analyzed key assumptions having the most significant effect on the measurement of the recoverable amount of the cash-generating units. We analyzed the disclosure of goodwill and other intangible assets in the Group's consolidated financial statements.

Key audit matter	How our audit addressed the key audit matter
Recognition of fee and commission income and interest income	
Fee and commission income and interest income are the most material items of the Group's statement of profit or loss. The recognition of fee and commission income and interest income is closely interrelated with the proper functioning of highly complex IT systems of the Group. Fee and commission income and interest income are recognized on the basis of automated data processing, and there is a risk of technical failures, including the risk that the automated accounting procedures and related manual control procedures are inappropriately designed or operating. Functioning of the Group's IT systems largely depends on the reliability of relevant information systems and the effective control procedures. Therefore, we included the recognition of fee and commission income and interest income in the key audit matters. The information on fee and commission income and interest income is disclosed in Note 5 and Note 6 to the Group's consolidated financial statements.	We focused on the most significant IT systems, such as trading-clearing systems and accounting system. We tested the design and operational efficiency of general IT controls and a number of automated application controls within significant IT systems that support and automate accounting and preparation of the consolidated financial statements. We obtained an understanding of key IT control procedures with respect to these IT systems and tested their operational efficiency, including the following areas: ► Access management, including granting and revoking user access rights; ► Change management – testing and approving changes in algorithms and key reports used for preparing the consolidated financial statements; ► Control over data transfer ensuring the safety and completeness of data transferred to and from the accounting system.
Changes in the Group's structure	
We believe that this matter was one of the most significant matters for our audit of the consolidated financial statements, since in 2021, the Group acquired controlling interests in companies and made significant judgments with respect to the measurement of the fair value of identifiable assets and liabilities at the acquisition date. The information on changes in the Group's structure is disclosed in Note 4 to the Group's consolidated financial statements.	We reviewed the Group's accounting policy addressing the business combination. We analyzed judgments and methodologies applied to measure the fair value of identifiable assets and liabilities of the companies at the acquisition date, focusing on the measurement of the cost of goodwill and intangible assets. We involved business valuation specialists to assist us in analyzing calculations, management's assumptions and judgments as part of the fair value measurement of intangible assets, such as software and customer base at the acquisition date. We performed a sensitivity analysis for key assumptions (projected cash flows, discount rates, terminal value) of calculation models and analyzed key assumptions having the most significant effect on the final fair value measurement of intangible assets. Our audit procedures also included the collection and analysis of accounting data of the consolidated companies used to measure the fair value of identifiable assets and liabilities of the companies at the acquisition date. We analyzed the disclosure of changes in the Group's structure in the consolidated financial statements of the Group.

Other matter

The audit of the consolidated financial statements of the Group for 2020 was conducted by another auditor, who expressed an unmodified opinion on these statements on 5 March 2021.

Other information included in the Annual report of Public Joint-Stock Company "Moscow Exchange MICEX-RTS"

Other information consists of the information included in the Annual report of Public Joint-Stock Company "Moscow Exchange MICEX-RTS" other than the consolidated financial statements and our auditor's report thereon. Management is responsible for the other information. The Annual Report is expected to be made available to us after the date of this auditor's report.

Our opinion on the consolidated financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

Responsibilities of management and the Supervisory Board, the Audit Committee for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The Audit Committee is responsible for overseeing the Group's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Supervisory Board, the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Supervisory Board, the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

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From the matters communicated with the Supervisory Board, the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The partner in charge of the audit resulting in this independent auditor's report is M. Ignatjeva.

М. Игнатьева

M. Ignatjeva,
acting on behalf of Ernst & Young LLC
on the basis of power of attorney dated 1 March 2022,
partner in charge of the audit resulting in this independent auditor's report
(main registration number 21906108628)

4 March 2022

Details of the auditor

Name: Ernst & Young LLC
Record made in the State Register of Legal Entities on 5 December 2002, State Registration Number 1027739707203.
Address: Russia 115035, Moscow, Sadovnicheskaya naberezhnaya, 77, building 1.
Ernst & Young LLC is a member of Self-regulatory organization of auditors Association "Sodruzhestvo".
Ernst & Young LLC is included in the control copy of the register of auditors and audit organizations, main registration number 12006020327.

Details of the audited entity

Name: Public Joint-Stock Company "Moscow Exchange MICEX-RTS"
Record made in the State Register of Legal Entities on 16 October 2002, State Registration Number 1027739387411.
Address: Russia 125009, Moscow, Bolshoy Kislovsky per., building 13.

MOEX GROUP

Consolidated Statement of Profit or Loss for the Year Ended December 31, 2021
(in millions of Russian rubles)

	Notes	Year ended December 31, 2021	Year ended December 31, 2020
Fee and commission income	5	41 554,0	34 268,2
Interest income calculated using the effective interest method	6	13 836,4	14 718,1
Other interest income	6	439,5	457,5
Interest expense	7	(1 190,1)	(1 984,1)
Net (loss)/gain on financial assets at fair value through profit or loss		(96,4)	102,2
Net gain on financial assets at fair value through other comprehensive income	8	589,7	930,9
Foreign exchange gains less losses	9	(676,9)	(65,9)
Other operating income		412,7	164,1
Operating Income		**54 868,9**	**48 591,0**
General and administrative expenses	10	(10 632,9)	(8 290,7)
Personnel expenses	11	(9 881,7)	(8 459,3)
Profit before Other Operating Expenses and Tax		**34 354,3**	**31 841,0**
Movement in allowance for expected credit losses	12	627,4	(0,9)
Profit before Tax		**34 981,7**	**31 840,1**
Income tax expense	13	(6 884,2)	(6 669,6)
Net Profit		**28 097,5**	**25 170,5**
Attributable to:			
Equity holders of the parent		28 095,1	25 158,0
Non-controlling interest		2,4	12,5
Earnings per share (rubles)			
Basic earnings per share	28	12,45	11,16
Diluted earnings per share	28	12,35	11,14

Chairman of the Executive Board
Y.O. Denisov

4 March 2022
Moscow

Chief Financial Officer,
Executive Board Member
A.Y. Seliuk

4 March 2022
Moscow

Consolidated Statement of Comprehensive Income
for the Year Ended December 31, 2021
(in millions of Russian rubles)

	Notes	Year ended December 31, 2021	Year ended December 31, 2020
Net profit		**28 097,5**	**25 170,5**
Other comprehensive income/(loss) that may be reclassified subsequently to profit or loss:			
Exchange differences on translating foreign operations		5,0	8,1
Movement in investment revaluation reserve for financial assets at fair value through other comprehensive income		(6 352,0)	962,2
Movement in revaluation reserve associated with changes in expected credit losses on financial assets at fair value through other comprehensive income	12	(106,4)	22,6
Net gain on investments at fair value through other comprehensive income reclassified to profit or loss	8	(589,7)	(930,9)
Income tax relating to items that may be reclassified	13	1 409,6	(10,8)
Other comprehensive (loss)/income that may be reclassified subsequently to profit or loss		**(5 633,5)**	**51,2**
Total comprehensive income		**22 464,0**	**25 221,7**
Attributable to:			
Equity holders of the parent		22 461,6	25 201,1
Non-controlling interest		2,4	20,6

The notes 1-36 form an integral part of these consolidated financial statements.

MOEX GROUP

Consolidated Statement of Financial Position
as at December 31, 2021
(in millions of Russian rubles)

	Notes	December 31, 2021	December 31, 2020
Assets			
Cash and cash equivalents	14	471 283,4	471 793,0
Financial assets at fair value through profit or loss	15	15 639,1	18 852,2
Due from financial institutions	16	102 970,6	154 815,4
Central counterparty financial assets	17	5 256 071,2	4 050 837,6
Financial assets at fair value through other comprehensive income	18	237 821,2	193 302,7
Investments in associates and joint ventures		99,2	329,0
Property and equipment	19	6 896,2	6 459,9
Intangible assets	20	16 971,1	16 868,6
Goodwill	21	17 267,2	15 971,4
Current tax prepayments		205,1	516,2
Deferred tax asset	13	2 563,7	72,6
Other assets	22	15 650,3	2 777,6
Total assets		**6 143 438,3**	**4 932 596,2**
Liabilities			
Balances of market participants	23	718 395,2	716 893,1
Due to financial institutions		182,2	–
Central counterparty financial liabilities	17	5 256 071,2	4 050 837,6
Distributions payable to holders of securities	24	17 015,4	15 689,2
Current tax payables		375,8	2 014,4
Deferred tax liability	13	1 602,3	2 167,5
Other liabilities	25	9 625,2	5 704,7
Total liabilities		**6 003 267,3**	**4 793 306,5**
Equity			
Share capital	26	2 495,9	2 495,9
Share premium	26	32 251,4	32 316,7
Treasury shares	26	(1 535,4)	(1 260,9)
Foreign currency translation reserve		5,0	–
Investments revaluation reserve		(3 997,2)	1 641,3
Share-based payments		557,9	295,5
Retained earnings		110 292,8	103 693,8
Total equity attributable to owners of the parent		**140 070,4**	**139 182,3**
Non-controlling interest		100,6	107,4
Total equity		**140 171,0**	**139 289,7**
Total liabilities and equity		**6 143 438,3**	**4 932 596,2**

The notes 1-36 form an integral part of these consolidated financial statements.

Consolidated Statement of Cash Flows
for the Year Ended December 31, 2021
(in millions of Russian rubles)

	Notes	Year ended December 31, 2021	Year ended December 31, 2020
Cash flows from / (used in) operating activities:			
Profit before tax		34 981,7	31 840,1
Adjustments for:			
Depreciation and amortisation charge	10	3 689,5	3 348,8
Revaluation of derivatives		(147,2)	175,2
Share-based payment expense	11	421,9	212,0
Unrealized loss/(gain) on foreign exchange operations		78,3	(14,7)
Gain on disposal of financial assets at FVTOCI		(589,7)	(930,9)
Net change in interest accruals		3 635,9	2 646,8
Net gain on disposal of property and equipment and intangible assets		(37,2)	(3,3)
Change in allowance for expected credit losses	12	(627,4)	0,9
Change in other provisions	25	(14,4)	(17,3)
Gain on disposal of assets held for sale		–	(71,4)
Gain from revaluation of previously held equity interest in the acquiree		(89,4)	–
Cash flows from operating activities before changes in operating assets and liabilities		**41 302,0**	**37 186,2**
Changes in operating assets and liabilities:			
(Increase) / decrease in operating assets:			
Due from financial institutions		52 189,1	(86 549,7)
Financial assets at FVTPL		2 593,3	(1 882,4)
Central counterparty financial assets		(1 199 436,2)	(787 758,2)
Other assets		309,7	1 985,1
Increase / (decrease) in operating liabilities:			
Balances of market participants		7 837,2	54 868,7
Due to financial institutions		228,1	(50 501,1)
Central counterparty financial liabilities		1 199 436,2	787 758,2
Distributions payable to holders of securities		48,9	3 360,1
Margin account		–	(0,6)
Other liabilities		3 627,4	569,2
Cash flows from/(used in) operating activities before taxation		**108 135,7**	**(40 964,5)**
Income tax paid		(9 961,3)	(3 306,4)
Cash flows from/(used in) operating activities		**98 174,4**	**(44 270,9)**

Consolidated Statement of Cash Flows
for the Year Ended December 31, 2021 (continued)
(in millions of Russian rubles)

	Notes	Year ended December 31, 2021	Year ended December 31, 2020
Cash flows from / (used in) investing activities:			
Purchase of financial assets at FVTOCI		(113 086,4)	(135 718,1)
Proceeds from disposal of financial assets at FVTOCI		57 703,7	134 672,0
Purchase of property and equipment and intangible assets		(4 147,1)	(3 418,9)
Proceeds from disposal of property and equipment and intangible assets		51,1	22,5
Acquisition of subsidiaries, net of cash acquired	4	(1 119,3)	–
Proceeds from disposal of non-current assets held for sale		–	21,5
Acquisition of investment in associate and joint ventures		(210,7)	(329,0)
Cash flows used in investing activities		**(60 808,7)**	**(4 750,0)**
Cash flows from / (used in) financing activities:			
Dividends paid	27	(21 369,1)	(17 899,4)
Cash outflow for lease liabilities		(163,0)	(178,0)
Acquisition of non-controlling interest in subsidiaries	4	(38,2)	–
Acquisition of treasury shares		(450,0)	–
Cash flows used in financing activities		**(22 020,3)**	**(18 077,4)**
Effect of changes in foreign exchange rates on cash and cash equivalents		(15 854,8)	72 784,1
Net (decrease)/increase in cash and cash equivalents		**(509,4)**	**5 685,8**
Cash and cash equivalents, beginning of period	14	**471 793,1**	**466 107,3**
Cash and cash equivalents, end of period	14	**471 283,7**	**471 793,1**

Interest received by the Group from operating activities the year ended December 31, 2021, amounted to RUB 17 777,9 million (December 31, 2020: 17 780,7 RUB million).

Interest paid by the Group as part of its operating activities the year ended December 31, 2021, amounted to RUB 1 056,2 million (December 31, 2020: RUB 1 942,4 million) and as part of its financing activities RUB 83,0 million (December 31, 2020: RUB 49,4 million).

MOEX GROUP

Consolidated Statement of Changes in Equity
for the Year Ended December 31, 2021
(in millions of Russian rubles)

	Share capital	Share premium	Treasury shares	Investments revaluation reserve	Share-based payments	Foreign currency translation reserve	Reserves relating to assets held for sale	Retained earnings	Total equity attributable to owners of the parent	Non-controlling interest	Total equity
December 31, 2019	**2 495,9**	**32 199,8**	**(1 504,3)**	**1 598,2**	**457,6**	**–**	**(14,6)**	**96 435,1**	**131 667,7**	**184,7**	**131 852,4**
Net profit	–	–	–	–	–	–	–	25 158,0	25 158,0	12,5	25 170,5
Other comprehensive income	–	–	–	43,1	–	–	–	–	43,1	8,1	51,2
Total comprehensive income for the period	**–**	**–**	**–**	**43,1**	**–**	**–**	**–**	**25 158,0**	**25 201,1**	**20,6**	**25 221,7**
Dividends declared (Note 27)	–	–	–	–	–	–	–	(17 899,4)	(17 899,4)	–	(17 899,4)
Share-based payments	–	117,4	242,9	–	(162,1)	–	–	–	198,2	–	198,2
Disposal of assets held for sale	–	–	–	–	–	–	14,6	–	14,6	(97,9)	(83,3)
Treasury shares transferred	–	(0,5)	0,5	–	–		–	–	–	–	–
Other	–	–	–	–	–	–	–	0,1	0,1	–	0,1
Total transactions with owners	**–**	**116,9**	**243,4**	**–**	**(162,1)**	**–**	**14,6**	**(17 899,3)**	**(17 686,5)**	**(97,9)**	**(17 784,4)**
December 31, 2020	**2 495,9**	**32 316,7**	**(1 260,9)**	**1 641,3**	**295,5**	**–**	**–**	**103 693,8**	**139 182,3**	**107,4**	**139 289,7**
Net profit	–	–	–	–	–	–	–	28 095,1	28 095,1	2,4	28 097,5
Other comprehensive (loss)/income	–	–	–	(5 638,5)	–	5,0	–	–	(5 633,5)	–	(5 633,5)
Total comprehensive income for the period	**–**	**–**	**–**	**(5 638,5)**	**–**	**5,0**	**–**	**28 095,1**	**22 461,6**	**2,4**	**22 464,0**
Repurchase of treasury shares	–	–	(450,0)	–	–	–	–	–	(450,0)	–	(450,0)
Dividends declared (Note 27)	–	–	–	–	–	–	–	(21 369,1)	(21 369,1)	–	(21 369,1)
Share-based payments	–	(65,3)	175,5	–	262,4	–	–	–	372,6	–	372,6
Acquisition of subsidiary (Note 4)	–	–	–	–	–	–	–	–	–	62,0	62,0
Recognition of liabilities reserve for buyout of non-controlling interest (Note 4, 25)	–	–	–	–	–	–	–	(160,0)	(160,0)	–	(160,0)
Acquisition of non-controlling interest (Note 4)	–	–	–	–	–	–	–	33,0	33,0	(71,2)	(38,2)
Total transactions with owners	**–**	**(65,3)**	**(274,5)**	**–**	**262,4**	**–**	**–**	**(21 496,1)**	**(21 573,5)**	**(9,2)**	**(21 582,7)**
December 31, 2021	**2 495,9**	**32 251,4**	**(1 535,4)**	**(3 997,2)**	**557,9**	**5,0**	**–**	**110 292,8**	**140 070,4**	**100,6**	**140 171,0**

The notes 1-36 form an integral part of these consolidated financial statements.

(in millions of Russian rubles, unless otherwise indicated)

1. Organization

Public Joint-Stock Company Moscow Exchange MICEX-RTS (Moscow Exchange) is a stock exchange based in Moscow, Russian Federation. It was established as closed joint-stock company "Moscow Interbank Currency Exchange" (MICEX) in 1992. In December 2011 the company was reorganized into the form of open joint-stock company and renamed to Open Joint-Stock Company MICEX-RTS. In July 2012 the name of the company was changed to Open Joint-Stock Company Moscow Exchange MICEX-RTS. On April 28, 2015 at Annual General Meeting of Shareholders of Moscow Exchange (AGM) the company's new business name as Public Joint Stock Company Moscow Exchange MICEX-RTS was approved to meet revised standards of the Russian Civil Code. The new business name and respective changes to the Charter of Moscow Exchange took effect from May 13, 2015, the day the registration authority recorded new version of the Charter.

The legal address of Moscow Exchange: 13 Bolshoy Kislovsky per., Moscow, the Russian Federation.

Moscow Exchange Group ("the Group") is an integrated exchange structure that provides financial market participants with a full set of competitive trading, clearing, settlement, depository and information services. The Group operates on the following markets: foreign currencies exchange market, government securities and money market, market of derivative financial instruments, equities market, corporate and regional bonds market, commodities market.

The Group has 2 208 employees as at December 31, 2021 (December 31, 2020: 1 980 employees).

Group composition. Moscow Exchange is the parent company of the Group, which includes the following entities:

Name	Principal activities	December 31, 2021 Voting rights, %	December 31, 2020 Voting rights, %
JSC Central Counterparty National Clearing Centre (former Bank National Clearing Centre JSC) (NCC)	Clearing operations	100%	100%
JSC National Settlement Depository (NSD)	Depository, clearing, repository and settlement services	99,997%	99,997%
JSC National Mercantile Exchange (NAMEX)	Commodities exchange operations	85,08%	65,08%
MICEX Finance LLC (MICEX Finance)	Financial activities	100%	100%
MOEX Innovations LLC (MOEX Innovations)	Fintech start-ups investments, financial activities	100%	100%
MOEX Information Security LLC (MOEX Information Security)	Information security services	100%	100%
MB Marketplace LLC (Disovers LLC)	FinTech	70%	–
Insveb LLC	FinTech	70%	–
BierbaumPro AG	FX OTC trading platform	94,99%	–*
NT Progress LLC	FX OTC trading platform	94,99%	–*

* Before control acquisition on October 26, 2021 BierbaumPro AG and NT Progress LLC were accounted as investments in associates (Note 4).

1. Organization (continued)

NCC performs functions of a clearing organization and central counterparty on the financial market and holds licences for clearing operations and banking operations for non-banking credit institutions - central counterparties issued by the Central Bank of Russia (CBR).

NSD is the central securities depository of the Russian Federation. NSD is the Russian national numbering agency and the substitute numbering agency for the Commonwealth of Independent States (CIS), authorized to assign the international ISIN, CFI, as well as Local Operating Unit of a global system of legal entities identification, authorized to assign LEI codes to the legal entities. NSD holds licences for depository, repository, clearing and settlement operations issued by the CBR.

NAMEX is a commodity exchange operating in Russia.

MICEX Finance is established for facilitating financial activities of the Group.

MOEX Innovations concentrates on start-ups development in the fintech sphere.

MOEX Information Security was established in Russia in October 2018 for providing information security services.

MB Marketplace LLC (former Disovers LLC) and Insveb LLC are recently acquired Group companies to develop the Finusugi personal finance platform and expand the line of products offered in related markets. The electronic platform INGURU, developed by MB Marketplace (former Disovers LLC) and Insveb LLC was intergrated into Finuslugi platform in third quarter of 2021 and continues to provide interface for comparison and purchases of services (OSAGO insurance, KASKO, mortgages, credit cards, consumer loans, car loans, deposits, debit cards, microloans), which allow clients to choose and obtain the most favorable conditions for insurance products. On November 24, 2021, Disovers LLC changed its name to MOEX Marketplace LLC.

BierbaumPro AG is recently acquired Group company which is 100% owner of NT Progress LLC, the developer and owner of OTC FX trading platform NTPro. The platform offers solutions for liquidity aggregation, matching and algo execution across a wide range of FX instruments, as well as services to connect to more than 60 currency liquidity providers.

Moscow Exchange and all subsidiaries are located in Russia, except for BierbaumPro AG which is located in Switzerland.

Operating environment. The Russian economy continued to be negatively impacted by increased political tension in the region, continuing international sanctions imposed in several packages by the U.S. and the E.U. on certain Russian officials, businessmen and companies. The above mentioned events have led to reduced access of the Russian businesses to international capital markets, hampered economic growth and created other negative economic consequences.

Because Russia produces and exports large volumes of oil and gas, its current account and fiscal balance are particularly sensitive to the price of oil and gas on the world market. The Russian economy is vulnerable to market downturns and economic slowdowns elsewhere in the world. The Russian Government has introduced a range of stabilization measures providing support for Russian banks and companies in response to the ongoing global crisis.

As the COVID-19 pandemic continues around the world, and despite vaccination started in 2021, the pandemic situation remains uncertain with regards to addition of new strains of COVID-19. The Group continues to assess pandemic effect and changing micro- and macroeconomic conditions on its activities, financial position and financial results.

1. Organization (continued)

This evaluation includes stress-tests adjusted for potential COVID-19 effect on market volatility. Management currently believes that it has adequate capital and liquidity position to continue to operate the business and mitigate risks associated with COVID-19 for the foreseeable future. The Group remains vigilant in monitoring day to day changes as the global situation evolves.

The Group has adapted to mentioned events. To ensure the health of employees and maintain uninterrupted operation, a significant part of the Group's staff is transferred to remote work mode. The Group has a well-established mechanism to ensure continuity of trading and successfully operates in conditions of high volatility and a large number of transactions.

The financial statements approval. Consolidated Financial Statements of the Group were approved for issue by the Management on March 4, 2022.

Statement of compliance

These Consolidated Financial Statements of the Group have been prepared in accordance with the International Financial Reporting Standards ("IFRS").

2. Basis of Preparation and Significant Accounting Policies

Basis of preparation

These Consolidated Financial Statements are presented in millions of Russian rubles rounded to one decimal place, unless otherwise indicated. These Consolidated Financial statements have been prepared assuming that the Group is a going concern and will continue operation for the foreseeable future. These Consolidated Financial Statements have been prepared on the historical cost basis except for certain financial assets and liabilities that are measured at fair value.

These Consolidated Financial Statements have been prepared on basis of the statutory accounting records and have been adjusted to conform to IFRS.

The Russian ruble exchange rates applied in the preparation of these Consolidated Financial Statements are presented below:

	December 31, 2021	**December 31, 2020**
USD	74,2926	73,8757
EUR	84,0695	90,6824

Adjustments of corresponding figures

In the Consolidated Financial Statement of Profit and loss for the year ended December 31, 2021 the Group has adjusted interest and other finance income by splitting into interest income calculated using the effective interest rate method, Other interest income and Net gain on financial assets at fair value through profit or loss.

(in millions of Russian rubles, unless otherwise indicated)

2. Basis of Preparation and Significant Accounting Policies (continued)

Adjustments of corresponding figures (continued)

The following table below represents the effect of changes mentioned above in the Consolidated Statement of Profit or Loss for the year ended December 31, 2020.

	As previously reported	Adjustments	As presented in these Consolidated Financial Statements
Interest and other finance income	15 277,8	(15 277,8)	–
Interest income calculated using the effective interest method	–	14 718,1	14 718,1
Other interest income	–	457,5	457,5
Net gain on financial assets at fair value through profit or loss	–	102,2	102,2

In the Consolidated Financial Statement of Cashflows for the year ended December 31, 2021 the Group performed adjustments of previously reported cashflows for the year ended December 31, 2020 by moving of the amounts from operating activities to investing activities that represents purchase of financial assets at FVTOCI.

The following changes have been made to the below items of Consolidated Statement of Cash Flows in the data of the year ended December 31, 2020.

	As previously reported	Adjustments	As presented in these Consolidated Financial Statements
Adjustments for:			
Net change in interest accruals	(2 001,7)	4 648,5	2 646,8
Cash flows (used in)/from operating activities	**(48 919,4)**	**4 648,5**	**(44 270,9)**
Purchase of financial assets at FVTOCI	(131 069,6)	(4 648,5)	(135 718,1)
Cash flows used in from investing activities	**(101,5)**	**(4 648,5)**	**(4 750,0)**

Changes in Accounting Policies

The accounting policies adopted by the Group in the preparation of these Consolidated Financial Statements are consistent with those followed in the preparation of the Group's Consolidated Financial Statements for the year ended December 31, 2020.

The Group applied for the first time certain amendments to the standards, which are effective for annual periods beginning on or after January 1, 2021. The Group has not early adopted any standards, interpretations or amendments that have been issued but are not yet effective.

2. Basis of Preparation and Significant Accounting Policies (continued)

Changes in Accounting Policies (continued)

Interest Rate Benchmark Reform – Phase 2 Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (IBOR reform Phase 2)

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

COVID-19-Related Rent Concessions beyond 30 June 2021 Amendments to IFRS 16

On May 28, 2020, the IASB issued COVID-19-Related Rent Concessions – amendment to IFRS 16 *Leases*. The amendments provide relief to lessees from applying IFRS 16 guidance on lease modification accounting for rent concessions arising as a direct consequence of the COVID-19 pandemic. As a practical expedient, a lessee may elect not to assess whether a COVID-19 related rent concession from a lessor is a lease modification. A lessee that makes this election accounts for any change in lease payments resulting from the COVID-19 related rent concession the same way it would account for the change under IFRS 16, if the change were not a lease modification.

The amendment was intended to apply until June 30, 2021, but as the impact of the COVID-19 pandemic is continuing, on March 31, 2021, the IASB extended the period of application of the practical expedient to June 30, 2022.The amendment applies to annual reporting periods beginning on or after April 1, 2021. However, the Group has not received COVID-19-related rent concessions, but plans to apply the practical expedient if it becomes applicable within allowed period of application.

The adoption of these new and revised Standards and Interpretations has not resulted in significant changes to the Group's accounting policies that have affected the amounts reported for the current or prior years.

Basis for consolidation

Subsidiaries are investees controlled by the Group. The Group controls an investee when it is exposed to, 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. In particular, the Group consolidates investees that it controls on the basis of de facto circumstances. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. All intra-group transactions, balances and unrealised gains on transactions between group companies are eliminated in full; unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Where necessary, accounting policies for subsidiaries have been changed to ensure consistency with the policies adopted by the Group.

A change in the ownership interest of a subsidiary, without a change of control, is accounted for as an equity transaction. Losses are attributed to the non-controlling interests even if that results in a deficit balance.

If the Group loses control over a subsidiary, it derecognises the assets (including goodwill) and liabilities of the subsidiary, the carrying amount of any non-controlling interests, the cumulative translation differences, recorded in equity; recognises the fair value of the consideration received, the fair value of any investment retained and any surplus or deficit in profit or loss and reclassifies the parent's share of components previously recognised in other comprehensive income to profit or loss.

2. Basis of Preparation and Significant Accounting Policies (continued)

Business combinations

Business combinations are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are recognised in profit or loss as incurred.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (i.e. the date when the Group obtains control) and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

Goodwill

Goodwill arising on an acquisition of a business is carried at cost as established at the date of acquisition of the business (see above) less accumulated impairment losses, if any.

For the purposes of impairment testing, goodwill is allocated to each of the Group's cash-generating units (or groups of cash-generating units) that is expected to benefit from the synergies of the combination.

A cash-generating unit to which goodwill has been allocated is tested for impairment at least annually, or more frequently when there is indication that the unit may be impaired. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro rata based on the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognised directly in profit or loss in the Consolidated Statement of Profit or Loss. An impairment loss recognised for goodwill is not reversed in subsequent periods. On disposal of the relevant cash-generating unit, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

The Group’s policy for goodwill arising on the acquisition of an associate is described below.

Investments in associates and joint ventures

Associates are entities in which the Group generally has between 20% and 50% of the voting rights, or is otherwise able to exercise significant influence, but which it does not control or jointly control.

Joint venture – a joint arrangement whereby two or more parties (one of which is the Group) that have joint control of the arrangement have rights to the net assets of the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

2. Basis of Preparation and Significant Accounting Policies (continued)

Investments in associates and joint ventures (continued)

Investments in associates and joint ventures are accounted for under the equity method and are initially recognised at cost, including goodwill. Subsequent changes in the carrying value reflect the post-acquisition changes in the Group's share of net assets of the associate and joint venture. The Group's share of its associates' or and joint ventures' profits or losses is recognised in profit or loss, and its share of movements in reserves is recognised in other comprehensive income. However, when the Group's share of losses in an associate or joint venture equals or exceeds its interest in the associate or joint venture, the Group does not recognise further losses, unless the Group is obliged to make further payments to, or on behalf of, the associate or join venture.

Unrealised gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates; unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred.

Inflation accounting

The Russian economy was considered hyperinflationary until December 31, 2002. As such, the Group applied IAS *29 Financial Reporting in Hyperinflationary Economies*. The effect of applying IAS 29 is that non-monetary items, including components of equity, were restated to the measuring units current at December 31, 2002 by applying the relevant inflation indices to the historical cost, and that these restated values were used as a basis for accounting in subsequent periods.

Financial assets

All regular way purchases and sales of financial assets and liabilities are recognised on the settlement date. Regular way purchases or sales are purchases or sales of financial assets and liabilities that require delivery of assets and liabilities within the period generally established by regulation or convention in the marketplace.

All financial assets are measured at fair value at initial recognition, including transaction costs, except for those financial assets classified as at fair value through profit or loss (further – FVTPL). Transaction costs directly attributable to the acquisition of financial assets classified as at FVTPL are recognised immediately in profit or loss.

All recognised financial assets that are within the scope of IFRS 9 are required to be subsequently measured at amortised cost (further – AC) or fair value on the basis of the entity's business model for managing the financial assets and the contractual cash flow characteristics of the financial assets. Specifically:

- financial assets should be measured at amortised cost if both of the following criteria are met:
  a. financial asset is held within a business model with the objective to collect the contractual cash flows, and
  b. the contractual cash flows of financial asset are solely payments of principal and interest on the principal amount outstanding (SPPI);
- financial assets should be measured at fair value through other comprehensive income (FVTOCI) if both of the following criteria are met:
  a. financial asset is held within a business model with the objective both to collect the contractual cash flows and to sell the financial assets and
  b. the contractual cash flows of financial assets are SPPI;
- all other debt instruments (e.g. debt instruments managed on a fair value basis, or held for sale) and equity investments are subsequently measured at FVTPL.

2. Basis of Preparation and Significant Accounting Policies (continued)

Financial assets (continued)

An assessment of business models for managing financial assets is fundamental to the classification of a financial asset. The Group determines the business models on the basis that reflects how groups of financial assets are managed together to achieve a particular business objective. The Group's business models do not depend on management's intentions for an individual instrument, therefore the business model assessment is performed at a higher level of aggregation rather than on an instrument-by-instrument basis.

The Group has several business models for managing its financial instruments that reflect how the Group manages its financial assets in order to generate cash flows. The Group's business models determine whether cash flows will result from collecting contractual cash flows, selling financial assets or both.

The Group considers all relevant information available when making the business model assessment. However, this assessment is performed not on the basis of scenarios that the Group does not reasonably expect to occur, such as so-called 'worst case' or 'stress case' scenarios. The Group takes into account the following relevant evidence available such as:

- how the performance of the business model and the financial assets held within that business model are evaluated and reported to the Group's key management personnel;
- the risks that affect the performance of the business model (and the financial assets held within that business model) and, in particular, the way those risks are managed.

At initial recognition of a financial asset, the Group determines whether newly recognised financial asset is part of an existing business model or whether it reflects the commencement of a new business model, if the asset does not match the existing business models. The Group reassesses its business models every reporting period to determine whether they have changed or not since the preceding period. For the current reporting period, the Group has not identified a change in its business models.

Debt instruments at amortised cost or at FVTOCI

The Group assesses the classification and measurement of a financial asset based on contractual cash flow characteristics of the asset and the Group's business model for managing the asset.

For an asset to be classified and measured at amortised cost or at FVTOCI, its contractual terms should give rise to cash flows that are solely payments of principal and interest on the principal outstanding (SPPI).

For the purpose of SPPI test, principal is the fair value of the financial asset at initial recognition. Thatprincipal amount may change over the life of the financial asset (e.g. if there are repayments of principal). Interest accrued on principal amount outstanding consists of consideration for the time value of money, for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs, as well as a profit margin. The SPPI assessment is performed in the currency in which the financial asset is denominated.

Contractual cash flows that are SPPI are consistent with a basic lending arrangement. Contractual terms that introduce exposure to risks or volatility in the contractual cash flows that are not related to a basic lending arrangement, such as exposure to changes in equity prices or commodity prices, do not give rise to contractual cash flows that are SPPI. An originated or an acquired financial asset can be a basic lending arrangement irrespective of whether it is a loan in its legal form.

When a debt instrument measured at FVTOCI is derecognised, the cumulative gain/loss previously recognised in OCI is reclassified from equity to profit or loss.

Debt instruments that are subsequently measured at amortised cost or at FVTOCI are subject to impairment.

2. Basis of Preparation and Significant Accounting Policies (continued)

Financial assets at FVTPL are:

- assets with contractual cash flows that are not SPPI; or/and
- assets that are held in a business model other than held to collect contractual cash flows or held to collect and sell.

The Group does not designate assets at FVTPL using the fair value option.

These assets are measured at fair value, with any gains/losses arising on remeasurement recognised in profit or loss.

Reclassifications

If the business model under which the Group holds financial assets changes, the financial assets affected are reclassified. The classification and measurement requirements related to the new category apply prospectively from the first day following the change in business model that results in reclassification the Group's financial assets. Changes in contractual cash flows are considered under the accounting policy on Modification and derecognition of financial assets described below.

Impairment

The Group recognises loss allowances for expected credit losses (ECLs) on the following financial instruments, not measured at FVTPL:

- due from financial institutions;
- cash and cash equivalents;
- debt investment securities;
- other financial assets subject to credit risk.

No loss allowances for expected credit losses are recognised on equity investments, financial assets arising from central counterparty (CCP) activity.

ECLs are required to be measured through a loss allowance at an amount equal to:

- 12-month ECL, i.e. lifetime ECL that result from those possible default events on the financial instrument that are possible within 12 months after the reporting date, (referred to as Stage 1); or
- full lifetime ECL, i.e. lifetime ECL that result from all possible default events over the life of the financial instrument, (referred to as Stage 2 and Stage 3).

Loss allowance for full lifetime ECL is required for a financial instrument if the credit risk attributable to that financial instrument has increased significantly since initial recognition. For all other financial instruments, ECLs are measured at an amount equal to the 12-month ECL. More details on the determination of a significant increase in credit risk are provided below.

ECLs are a probability-weighted estimate of the present value of potential credit losses. ECLs are measured as the present value of the difference between the cash flows due to the Group under the contract and the cash flows that the Group expects to receive arising from the weighting of multiple future economic scenarios. The Group measures ECLs on an individual basis or on a collective basis for portfolios of debtors that share similar value and economic risk characteristics.

2. Basis of Preparation and Significant Accounting Policies (continued)

Impairment (continued)

The Group does not form any loss allowance on ECLs for CCP activities. The CCP is acting as an intermediary between the parties: i.e. as a seller for each buyer and as a buyer for each seller, so that replacing their contractual relations between each other with relevant contracts with a central counterparty. CCP assets and liabilities are simultaneously reflected in the Group's statement of financial position due to the following:

- the net market value of those deals at the end of each day is equal to zero (if there are no defaulted market participants);
- there are no uncollateralised receivables in case all the obligations are duly fulfilled by the clearing participants.

The risks of non-fulfilment or improper fulfilment of clearing participants obligations on the CCP deals are managed using the following risk-management system measures, organised according to the federal law as of February 7, 2011 N 7-FZ *On clearing, clearing activities and the central counterparty*:

- setting the requirements for individual and collective clearing collateral to mitigate expected losses in case of non-fulfilment or improper fulfilment of clearing participants obligations;
- forming the CCP's guarantee fund – part of net assets designated according to the Clearing Rules to mitigate possible losses caused by non-fulfilment or improper fulfilment of clearing participants obligations;
- conducting regular stress-tests of the CCP capital adequacy, including the control of statutory ratios calculation;
- limitation of the CCP's liabilities.

Definition of default

Critical to the determination of ECLs is the definition of default. The definition of default is used in measuring the amount of ECLs and in the determination of whether the loss allowance is based on 12-month or lifetime ECLs, as default is a component of the probability of default (PD) which affects both the measurement of ECLs and the identification of a significant increase in credit risk.

The Group considers the following as constituting an event of default:

- the counterparty has gone bankrupt;
- a third party has filed a claim with the court to call the counterparty bankrupt and it has been accepted for hearing;
- the counterparty is permanently insolvent, i.e. has obligations to the Group that are past due for over 90 days; or
- the borrower's licence has been revoked;
- liquidation decision was made in respect of the counterparty.

2. Basis of Preparation and Significant Accounting Policies (continued)

Significant increase in credit risk

The Group monitors all financial assets that are subject to the impairment requirements to assess whether there has been a significant increase in credit risk since initial recognition. If there has been a significant increase in credit risk the Group will measure the loss allowance based on lifetime ECL.

When assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Group compares the risk of a default occurring to the financial instrument at the reporting date based on the remaining maturity of the instrument with the risk of a default that was anticipated for the remaining maturity at the reporting date when the financial instrument was first recognised. In making this assessment, the Group considers both quantitative and qualitative information that is reasonable, including historical experience and forward-looking information that is available without undue cost or effort, based on the Group's historical experience and expert credit assessment including forward-looking information.

When an asset becomes past due for over 30 days, and not less than a half of the counterparty's credit ratings issued by international rating agencies declined or internal credit rating declined by 3 grades or more since initial recognition, the counterparty is included in watch-list by the Group, the Group considers that a significant increase in credit risk has occurred and the asset is in stage 2 of the impairment model, i.e. the loss allowance is measured as the lifetime ECLs.

Probability of default (PD)

Multiple economic scenarios form the basis of determination of the probability of default at initial recognition and for the future. It is the weighting of these different scenarios that forms the basis of a weighted average probability of default that is used to determine whether credit risk has significantly increased.

To determine PD the Group uses:

- available data from international rating agencies;
- internal ratings if the data mentioned above is unavailable.

The Group allocates its counterparties to a relevant internal rating depending on their credit quality based on quantitative and qualitative information. The historical PD is identified using a migration matrix, where internal ratings are mapped to the rating scales of international rating agencies for those counterparties that are not rated by international rating agencies.

2. Basis of Preparation and Significant Accounting Policies (continued)

Modification and derecognition of financial assets

A modification of a financial asset occurs when the contractual terms governing cash flows of a financial asset are renegotiated or otherwise modified between initial recognition and maturity of the financial asset. A modification affects the amount and/or timing of the contractual cash flows either immediately or at a future date.

When a financial asset is modified the Group assesses whether this modification results in derecognition. In accordance with the Group's policy a modification results in derecognition when it gives rise to substantially different terms. To determine whether the modified terms differ substantially from the original contractual terms the Group considers the following qualitative factors:

(a) contractual cash flows after modification are no longer SPPI;

(b) change in currency;

(c) change of counterparty;

(d) the extent of change in interest rates;

(e) maturity.

If these do not clearly indicate a substantial modification, then quantitative assessment is performed to compare the present value of the remaining contractual cash flows under the original terms with the contractual cash flows under the revised terms, both amounts discounted at the original effective interest. If the difference in present value is greater than 10% the Group deems the arrangement is substantially different leading to derecognition.

In the case when the financial asset is derecognised the loss allowance for ECLs is remeasured at the date of derecognition to determine the net carrying amount of the asset at that date. The difference between this revised carrying amount and the fair value of the new financial asset with the new terms will lead to a gain or loss on derecognition. The new financial asset will have a loss allowance measured based on 12-month ECL except in the eventual occasions where the new asset is considered to be originated-credit impaired. The Group monitors credit risk of modified financial assets by evaluating qualitative and quantitative information.

When the contractual terms of a financial asset are modified and the modification does not result in derecognition, the Group determines whether the credit risk associated with the financial asset has increased significantly since initial recognition by comparing:

- the remaining lifetime PD estimated based on data at initial recognition and the original contractual terms; with
- the remaining lifetime PD at the reporting date based on the modified terms.

Where a modification does not lead to derecognition the Group calculates the modification gain/loss comparing the gross carrying amount before and after the modification (excluding the ECL allowance). Then the Group measures ECL for the modified asset, where the expected cash flows arising from the modified financial asset are included in calculating the expected cash shortfalls from the original asset.

2. Basis of Preparation and Significant Accounting Policies (continued)

Modification and derecognition of financial assets (continued)

The Group derecognises a financial asset only when the contractual rights to the asset's cash flows expire (including expiry arising from a modification with substantially different terms), or when the financial asset and substantially all the risks and rewards of ownership of the asset are transferred to another entity. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset.

On derecognition of a financial asset in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain/loss that had been recognised in OCI and accumulated in equity is recognised in profit or loss. The cumulative gain/loss on equity investment designated as measured at FVTOCI, previously recognised in OCI is not subsequently reclassified to profit or loss.

On derecognition of a financial asset other than in its entirety (e.g. when the Group retains an option to repurchase part of a transferred asset), the Group allocates the previous carrying amount of the financial asset between the part it continues to recognise under continuing involvement, and the part it no longer recognises on the basis of the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognised and the sum of the consideration received for the part no longer recognised and any cumulative gain/loss allocated to it that had been recognised in OCI is recognised in profit or loss. A cumulative gain/loss that had been recognised in OCI is allocated between the part that continues to be recognised and the part that is no longer recognised on the basis of the relative fair values of those parts. This does not apply for equity investments designated as measured at FVTOCI, as the cumulative gain/loss previously recognised in OCI is not subsequently reclassified to profit or loss.

Write-off

Financial assets are written off when the Group has no reasonable expectations of recovering the financial asset (either in its entirety or a portion of it). This is the case when the Group determines that the counterparty does not have assets and/or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. A write-off constitutes a derecognition event. The Group may apply enforcement activities to financial assets written off. Recoveries resulting from the Group's enforcement activities will result in impairment gains.

Presentation of allowance for ECL in the statement of financial position

Loss allowances for ECL are presented in the statement of financial position as follows:

- for financial assets measured at amortised cost: as a deduction from the gross carrying amount of the assets;
- for debt instruments measured at FVTOCI: no loss allowance is recognised in the statement of financial position as the carrying amount is at fair value. However, the loss allowance is included as part of the revaluation amount in the investments revaluation reserve.

2. Basis of Preparation and Significant Accounting Policies (continued)

Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is (i) held for trading, or (ii) it is designated as at FVTPL.

A financial liability is classified as held for trading if:

- it has been incurred principally for the purpose of repurchasing it in the near term; or
- on initial recognition it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

A financial liability other than a financial liability held for trading or contingent consideration that may be paid by an acquirer as part of a business combination may be designated as at FVTPL upon initial recognition if:

- such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or
- the financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Group's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and IFRS 9 permits the entire hybrid (combined) contract to be designated as at FVTPL.

Financial liabilities at FVTPL are stated at fair value, with any gains/losses arising on remeasurement recognized in profit or loss to the extent that they are not part of a designated hedging relationship.

Other financial liabilities

Other financial liabilities, including deposits and borrowings, are initially measured at fair value, net of transaction costs. Other financial liabilities are subsequently measured at amortized cost using the effective interest method (for details of the effective interest method see the Interest income and interest expense section below).

Derecognition of financial liabilities

The Group derecognizes financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

When the Group exchanges with the existing lender one debt instrument into another one with substantially different terms, such exchange is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. Similarly, the Group accounts for substantial modification of terms of an existing liability or part of it as an extinguishment of the original financial liability and the recognition of a new liability. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective rate is at least 10 per cent different from the discounted present value of the remaining cash flows of the original financial liability. If the modification is not substantial, the difference between: (1) the carrying amount of the liability before the modification; and (2) the present value of the cash flows after modification should be recognised in profit or loss as the modification gain or loss within other gains and losses.

2. Basis of Preparation and Significant Accounting Policies (continued)

Cash and cash equivalents

Cash and cash equivalents in the Consolidated Statement of Financial Position include cash on hand, unrestricted balances on correspondent and deposit accounts with banks with maturity up to one business day. Amounts that are subject to restrictions on their availability, including minimum reserve deposits with the CBR, are not included in cash and cash equivalents for the purpose of consolidated statement of cash flows.

Repurchase and reverse repurchase agreements

Sale and repurchase agreements ("repos") are treated as secured financing transactions. Securities sold under sale and repurchase agreements are retained in the consolidated statement of financial position and, in case the transferee has the right by contract or custom to sell or repledge them, reclassified as securities pledged under sale and repurchase agreements. The corresponding liability is presented within amounts due to financial institutions. Securities purchased under agreements to resell ("reverse repo") are recorded as amounts due from financial institutions. The difference between sale and repurchase price is treated as interest income and accrued over the life of repo agreements using the effective interest method.

Derivative financial instruments

The Group enters into derivative financial instruments, which are held for trading and to manage its exposure to foreign exchange rate risk.

Derivatives are initially recognized at fair value at the date a derivative contract is entered into and are subsequently remeasured to their fair value at each reporting date. The resulting gain/loss is recognized in profit or loss immediately.

A derivative with a positive fair value is recognized as a financial asset whereas a derivative with a negative fair value is recognized as a financial liability.

Precious metals

Precious metals are represented by physical precious metals and accounts in precious metals. Precious metals are recorded on the reporting date at the CBR prices, which approximate fair values. Corresponding accounts in precious metals are recorded within Due from financial institutions and physical precious metals are recorded within Other assets. Clients' accounts in precious metals are recorded within Balances of market participants. Precious metals are not financial instruments and therefore excluded from financial risk management disclosures in accordance with IFRS 7.

Property and equipment

Property and equipment is carried at historical cost less accumulated depreciation and any impairment losses.

Depreciation is recognised so as to write off the cost of assets (other than freehold land and properties under construction) less their residual values over their useful lives, using the straight-line method:

Buildings and other real estate	2%
Furniture and equipment	20-33%

2. Basis of Preparation and Significant Accounting Policies (continued)

Property and equipment (continued)

Freehold land is not depreciated.

The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

An item of property and equipment is derecognised 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 the disposal or retirement of an item of property and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in profit or loss.

Costs related to repairs and renewals are charged when incurred and included in other operating expenses, unless they qualify for capitalization.

Intangible assets

Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are carried at cost less accumulated amortisation and accumulated impairment losses. Amortisation is recognised on a straight-line basis over their estimated useful lives at the annual rates of 10%-25%. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Intangible assets with indefinite useful lives that are acquired separately are carried at cost less accumulated impairment losses.

Intangible assets acquired in a business combination

Intangible assets acquired in a business combination and recognised separately from goodwill are initially recognised at their fair value at the acquisition date (which is regarded as their cost).

Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets that are acquired separately. Amortisation is recognised on a straight-line basis. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Internally developed intangible assets

Development costs that are directly associated with the production of identifiable and unique software products controlled by the Group are capitalised and an internally generated intangible asset is recognised only if it is probable that it will generate economic benefits exceeding costs beyond one year and the development costs can be measured reliably. An internally generated intangible asset is recognised only if the Group has the technical feasibility, resources and intention to complete the development and to use the product. Direct costs include software development employee costs and an appropriate portion of relevant overheads. Expenditure on research activities is recognised as an expense in the period in which it is incurred.

Subsequent expenditure on intangible assets is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates.

2. Basis of Preparation and Significant Accounting Policies (continued)

Intangible assets (continued)

Derecognition of intangible assets

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognised in profit or loss when the asset is derecognised.

Impairment of tangible and intangible assets

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are also allocated to individual cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually, and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs to sell and value in use. 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 for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or a cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or a cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or a cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or a cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the reversal of the impairment loss is treated as a revaluation increase.

Lease

The Group as lessee

The Group assesses whether a contract is or contains a lease, at inception of the contract. The Group recognizes a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with lease term of 12 months or less) and leases of low value assets. For these leases, the Group recognizes the lease payments as an operating expense on a straight-line basis over the term of the lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

2. Basis of Preparation and Significant Accounting Policies (continued)

Lease (continued)

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the incremental borrowing rate as the rate implicit in the lease cannot be generally readily determined. The incremental borrowing rate is determined using the most recent CBR statistics on loan interest rates in the same currency and of the same term.

The lease payments included in the measurement of the lease liability comprise:

(a) fixed payments (including in-substance fixed payments), less any lease incentives;
(b) variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
(c) amounts expected to be payable by the lessee under residual value guarantees;
(d) the exercise price of a purchase option if the lessee is reasonably certain to exercise that option; and
(e) payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease.

The lease liability is presented within other liabilities in the consolidated statement of financial position.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Group remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

(a) the lease term has changed or there is a change in the assessment of exercise of a purchase option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate;
(b) there is a change in future lease payments resulting from a change in an index or a rate used to determine those payments, or a change in expected payment under a guaranteed residual value, in which cases the lease liability is remeasured by discounting the revised lease payments using the initial discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case the revised discount rate is used);
(c) a lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate.

The right-of-use asset comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

Whenever the obligation for costs to dismantle and remove a leased asset is incurred or an obligation to restore the site on which it is located or restore the underlying asset to the condition required by the terms of the lease, a provision is recognized and measured under IAS 37. The costs are included in the related right-of-use asset, unless those costs are incurred to produce inventories.

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the underlying asset.

2. Basis of Preparation and Significant Accounting Policies (continued)

Lease (continued)

If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Group expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. The depreciation starts at the commencement date of the lease.

The right-of-use assets are presented within the line property and equipment in the consolidated statement of financial position.

The Group applies IAS 36 "Impairment of assets" to determine whether a right-of-use asset is impaired and to account for the impairment.

As a practical expedient, IFRS 16 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. The Group has not used this practical expedient.

The Group as lessor

A lessor classifies leases as finance or operating leases and account for those two types differently. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease (the Group does not have such contracts). All other leases are classified as operating leases.

Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease.

Assets classified as held for sale

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the asset (or disposal group) is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such asset (or disposal group) and its sale is highly probable. 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.

When the Group is committed to a sale plan involving loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Group will retain a non-controlling interest in its former subsidiary after the sale.

Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell.

Interest income and interest expense

Interest income and expense for all financial instruments except for those classified as held for trading or those measured or designated as at fair value through profit or loss (FVTPL) are recognized in 'Interest and other finance income' and 'Interest expense' in the profit or loss using the effective interest method.

The effective interest rate (EIR) is the rate that exactly discounts estimated future cash flows of the financial instrument through the expected life of the financial instrument or, where appropriate, a shorter period, to the net carrying amount of the financial asset or financial liability. The future cash flows are estimated taking into account all the contractual terms of the instrument.

2. Basis of Preparation and Significant Accounting Policies (continued)

Interest income and interest expense (continued)

The calculation of the EIR includes all fees and points paid or received between parties to the contract that are incremental and directly attributable to the specific transaction costs, and all other premiums or discounts. For financial assets at FVTPL transaction costs are recognized in profit or loss at initial recognition.

The interest income/ interest expense is calculated by applying the EIR to the gross carrying amount of non-credit impaired financial assets (i.e. at the amortised cost of the financial asset before adjusting for any expected credit loss allowance), or to the amortised cost of financial liabilities. For credit-impaired financial assets the interest income is calculated by applying the EIR to the amortised cost of the credit-impaired financial assets (i.e. the gross carrying amount less the allowance for expected credit losses (ECLs)). For financial assets originated or purchased credit-impaired (POCI) the EIR reflects the ECLs in determining the future cash flows expected to be received from the financial asset.

Fee and commission income and expense

The main source of the Group's revenue is through fees for services provided. Revenue is measured based on the consideration specified in a contract with a customer. The Group recognizes revenue as services are performed and as it satisfies its obligations to provide service to a customer.

The Group provides various services on trading in different markets, clearing, settlement and custody, IT services and also services of the financial platform operator related to providing an opportunity to make transactions by trading participants of the financial platform.

Fees and commission income of the Group are divided into fixed and variable.

Fixed fee and commission income revenue from providing services is recognized in the accounting period in which the services are rendered. Revenue is recognized based on the actual service provided up to the end of the reporting period as a proportion of the total services to be provided (i.e. recognition over time).

Variable fee and commission income are transaction or transaction volume-based revenues and are generated by services which are directly related to a single transaction or volume of transactions.

The performance obligation of a service is satisfied when the transaction or order has been executed trades or contracts cleared, custody service provided. Transaction revenues are recognized at a point in time when the Group meets its obligations to complete the transaction or service.

Being the financial platform operator the Group charges fee and commission income for the providing an opportunity to make transactions by trading participants of the financial platform. Such income is recognised at point in time as the service is provide at the moment of conclusion of the transaction.

Fee and commission expenses with regards to services are accounted for as the services are received.

Current income tax

Current income tax assets and liabilities for the current period 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, at the reporting date in the countries where the Group operates and generates taxable income.

Management of the Group periodically evaluates positions taken in the tax returns with respect to situations in which applicable tax regulations are subject to interpretation and establishes provisions where appropriate.

2. Basis of Preparation and Significant Accounting Policies (continued)

Deferred income tax

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

Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised.

Deferred tax assets and liabilities are recognised for all taxable temporary differences, except:

- When the deferred tax liability arises from the initial recognition of goodwill or 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;
- In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Operating taxes

Countries where the Group operates also have various other taxes, which are assessed on the Group's activities. These taxes are included as a component of operating expenses in the Consolidated Statement of Profit or Loss.

Share-based payments

The Group grants the right to some employees to purchase equity instruments on the terms set in individual contracts.

The cost of equity-settled transactions is recognised, together with a corresponding increase in equity within Share-based payments reserve, over the period in which the performance and/or service conditions are fulfilled.

The cumulative expense recognised for equity-settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of equity instruments that will ultimately vest. The income statement expense or credit for a period represents the movement in cumulative expense recognised as at the beginning and end of that period (Note 11).

For cash-settled share-based payments, a liability is recognised for the goods or services acquired, measured initially at the fair value of the liability. At the end of each reporting period until the liability is settled, and at the date of settlement, the fair value of the liability is remeasured, with any changes in fair value recognised in profit or loss for the year.

Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, and it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate of the amount of obligation can be made.

Contingencies

Contingent liabilities are not recognised in the Consolidated Statement of Financial Position but are disclosed unless the possibility of any outflow in settlement is remote. A contingent asset is not recognised in the Consolidated Statement of Financial Position but disclosed when an inflow of economic benefits is probable.

2. Basis of Preparation and Significant Accounting Policies (continued)

Fiduciary activities

The Group provides custodial services to its customers which include transactions with securities on their custody accounts. Assets accepted and liabilities incurred under the fiduciary activities are not included in the Group's Consolidated Financial Statements. The Group accepts the operational risk on these activities, but the Group's customers bear the credit and market risks associated with such operations. Revenue for provision of fiduciary services is recognised as services are provided.

Foreign currencies

In preparing the financial statements of each individual Group entity, transactions in currencies other than the entity's functional currency (foreign currencies) are recognised at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

For the purposes of presenting Consolidated Financial Statements, the assets and liabilities of the Group's foreign operations are translated into RUB using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during that period, in which case the exchange rates at the dates of the transactions are used.

Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity (attributed to non-controlling interest as appropriate).

Goodwill and fair value adjustments on identifiable assets and liabilities acquired arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the rate of exchange prevailing at the end of each reporting period. Exchange differences arising are recognised in other comprehensive income.

Earnings per share

The Group presents basic and diluted earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Group by the weighted average number of ordinary shares outstanding during the period. Diluted EPS is determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted average number of ordinary shares outstanding for the effects of all dilutive potential ordinary shares.

Segment reporting

An operating segment is a component of a Group that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the same Group); whose operating and financial results are regularly reviewed by the chief operating decision maker (Executive Board) to make decisions about resources to be allocated to the segment and assess its performance, and for which discrete financial information is available.

(in millions of Russian rubles, unless otherwise indicated)

2. Basis of Preparation and Significant Accounting Policies (continued)

New or amended standards issued but not yet effective

The Group has not applied the following new and revised IFRSs that have been issued but are not yet effective:

IFRS 17	*Insurance Contracts*
Amendments to IAS 1	Classification of Liabilities as Current or Non-current
Amendments to IFRS 3	Business combinations – Reference to the Conceptual Framework
Amendments to IAS 16	Property and equipment – Proceeds before Intended Use
Amendments to IAS 37	Provisions, contingent liabilities and contingent assets – Onerous Contracts – Cost of Fulfilling a Contract
IFRS 1 *First-time Adoption of International Financial Reporting Standards*	Subsidiary as a first-time adopter
IFRS 9 *Financial Instruments*	Fees in the '10 per cent' test for derecognition of financial liabilities
Amendments to IAS 8	Definition of Accounting Estimates
Amendments to IAS 1 and IFRS Practice Statement 2 Disclosure of Accounting Policies	Disclosure of Accounting Policies

The management does not expect that the adoption of the Standards listed above will have a material impact on the financial statements of the Group in future periods, except as noted below:

Amendments to IAS 1 Classification of Liabilities as Current or Non-current. In January 2020, the IASB issued amendments to paragraphs 69 to 76 of IAS 1 to specify the requirements for classifying liabilities as current or non-current. The amendments clarify:

- What is meant by a right to defer settlement
- That a right to defer must exist at the end of the reporting period
- That classification is unaffected by the likelihood that an entity will exercise its deferral right
- That only if an embedded derivative in a convertible liability is itself an equity instrument would the terms of a liability not impact its classification.

The amendments apply retrospectively to the periods beginning on or after January 1, 2023. Early application is acceptable.

The management of the Group does not expect that the application of these amendments could have an impact on the Group's financial statements in future periods.

Amendments to IFRS 3 Reference to the Conceptual Framework. In May 2020, the IASB issued Amendments to IFRS 3 Business Combinations - Reference to the Conceptual Framework.

The amendments are intended to replace a reference to the Framework for the Preparation and Presentation of Financial Statements, issued in 1989, with a reference to the Conceptual Framework for Financial Reporting issued in March 2018 without significantly changing its requirements.

The Board also added an exception to the recognition principle of IFRS 3 to avoid the issue of potential 'day 2' gains or losses arising for liabilities and contingent liabilities that would be within the scope of IAS 37 or IFRIC 21 *Levies*, if incurred separately.

2. Basis of Preparation and Significant Accounting Policies (continued)

New or amended standards issued but not yet effective (continued)

At the same time, the Board decided to clarify existing guidance in IFRS 3 for contingent assets that would not be affected by replacing the reference to the Framework for the Preparation and Presentation of Financial Statements.

The amendments are effective for annual reporting periods beginning on or after January 1, 2022 and apply prospectively.

The management of the Group does not expect that the application of these amendments could have an impact on the Group's financial statements in future periods.

Amendments to IAS 16 Property, Plant and Equipment: Proceeds before Intended Use. In May 2020, the IASB issued Property, Plant and Equipment – Proceeds before Intended Use, which prohibits entities deducting from the cost of an item of property, plant and equipment, any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognises the proceeds from selling such items, and the costs of producing those items, in profit or loss.

The amendment is effective for annual reporting periods beginning on or after January 1, 2022 and must be applied retrospectively to items of property, plant and equipment made available for use on or after the beginning of the earliest period presented when the entity first applies the amendment.

The management of the Group does not expect that the application of these amendments could have an impact on the Group's financial statements in future periods.

IFRS 9 Financial Instruments – Fees in the '10 per cent' test for derecognition of financial liabilities. As part of its 2018-2020 annual improvements to IFRS standards process the IASB issued amendment to IFRS 9. The amendment clarifies the fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf. An entity applies the amendment to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment.

The amendment is effective for annual reporting periods beginning on or after January 1, 2022 with earlier adoption permitted. The Group will apply the amendments to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment.

The management of the Group does not expect that the application of these amendments could have an impact on the Group's financial statements in future periods.

Amendments to IAS 8 Definition of Accounting Estimates. In February 2021, the IASB issued amendments to IAS 8, in which it introduces a definition of 'accounting estimates'. The amendments clarify the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. Also, they clarify how entities use measurement techniques and inputs to develop accounting estimates.

The amendments are effective for annual reporting periods beginning on or after January 1, 2023 and apply to changes in accounting policies and changes in accounting estimates that occur on or after the start of that period. Earlier application is permitted as long as this fact is disclosed.

The management of the Group does not expect that the application of these amendments could have an impact on the Group's financial statements in future periods.

2. Basis of Preparation and Significant Accounting Policies (continued)

New or amended standards issued but not yet effective (continued)

Amendments to IAS 1 and IFRS Practice Statement 2 Disclosure of Accounting Policies. In February 2021, the IASB issued amendments to IAS 1 and IFRS Practice Statement 2 Making Materiality Judgements, in which it provides guidance and examples to help entities apply materiality judgements to accounting policy disclosures. The amendments aim to help entities provide accounting policy disclosures that are more useful by replacing the requirement for entities to disclose their 'significant' accounting policies with a requirement to disclose their 'material' accounting policies and adding guidance on how entities apply the concept of materiality in making decisions about accounting policy disclosures.

The amendments to IAS 1 are applicable for annual periods beginning on or after January 1, 2023 with earlier application permitted. Since the amendments to the Practice Statement 2 provide non-mandatory guidance on the application of the definition of material to accounting policy information, an effective date for these amendments is not necessary.

The management of the Group does not expect that the application of these amendments could have an impact on the Group's financial statements in future periods.

3. Critical Accounting Judgements and Key Sources of Estimation Uncertainty

In the application of the Group's accounting policies the management is required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

Judgements and critical estimates made by the Group in the process of applying the accounting policies were consistent with those disclosed in the annual consolidated financial statements for the year ended December 31, 2020, except for the following updates made to expected credit loss (ECL) estimation model:

- Refined approach to Probability of Default (PD) estimation:
  - Starting 2021 the Group uses tables of relationships between Credit Ratings and PD made by following rating agencies: Moody's Investors Service, S&P Global Ratings and Fitch Ratings to measure ECL.
- Refined approach to Loss Given Default (LGD) estimation:
  - Starting 2021 the Group uses LGD Moody's Investment Service averages, considering legal entity type and credit rating level;
  - credit quality adjustments depending on country indicators have been excluded;
  - a separate scale for systemically important organizations has been excluded from calculation.
- An impairment indicator has been adjusted by including a rating downgrade indicator (by 6 notches) since initial recognition.

The above changes resulted in decrease in the amount of impairment allowance on cash and cash equivalents, due from financial institutions, financial assets at FVTOCI, other financial assets by RUB 94,5 million.

3. Critical Accounting Judgements and Key Sources of Estimation Uncertainty (continued)

Critical accounting judgements

Business model assessment

Classification and measurement of financial assets depends on the results of the SPPI and the business model test. The Group determines the business model at a level that reflects how groups of financial assets are managed together to achieve a particular business objective (for more details refer to Note 2). The Group monitors financial assets measured at amortised cost or fair value through other comprehensive income that are derecognised prior to their maturity to understand the reason for their disposal and whether the reasons are consistent with the objective of the business for which the asset was held. The Group conducts assessment of whether the business model for which the remaining financial assets are held continues to be appropriate and if it is not appropriate whether there has been a change and so a prospective change to the classification of those assets.

Significant increase of credit risk

As explained in Note 2, expected credit losses are measured as an allowance equal to 12-month ECL for stage 1 assets, or lifetime ECL for stage 2 or stage 3 assets. An asset moves to stage 2 when its credit risk has increased significantly since initial recognition. IFRS 9 does not define what constitutes a significant increase in credit risk. In assessing whether the credit risk of an asset has significantly increased the Group takes into account the information listed in Note 2.

Recoverability of deferred tax assets

The recognised deferred tax assets represent amount of income tax, which may be recovered through future income tax expenses and is recorded in the statement of financial position. Deferred income tax assets are recorded to the extent that realisation of the related tax benefit is probable. The future taxable profits and the amount of tax benefits that are probable in the future are based on management expectations that are believed to be reasonable under the circumstances (Note 13).

The management of the Group is confident that no valuation allowance against deferred tax assets at the reporting date is considered necessary, because it is more likely than the deferred tax asset will be fully realised. The carrying value of deferred tax assets amounted to RUB 2 563,7 million and RUB 72,6 million as at December 31, 2021 and 2020, respectively.

Key sources of estimation uncertainty

Probability of default

PD constitutes a key input in measuring ECL. PD is an estimate of the likelihood of default over a given time horizon, the calculation of which includes historical data, assumptions and expectations of future conditions. See Note 34 for more details, including analysis of the sensitivity of the reported ECL to changes in PD resulting from changes in economic drivers.

Loss Given Default

LGD is an estimate of the loss arising on default. It is based on the difference between the contractual cash flows due and those that the lender would expect to receive, taking into account cash flows from collateral and integral credit enhancements. See Note 2 for more details.

3. Critical Accounting Judgements and Key Sources of Estimation Uncertainty (continued)

Key sources of estimation uncertainty (continued)

Provision

The companies of the Group are subject to litigations. Such litigations may lead to orders to pay against the entities of the Group. If it is more likely than not that an outflow of resources will occur, a provision will be recognised based on an estimate of the most probable amount necessary to settle the obligation if such amount is reasonably estimable. The Group determines whether there is a possible obligation from past events, evaluates the probability that an outflow will occur and estimates the potential amount of the outflow. As the outcome of litigation is usually uncertain, the judgement is reviewed continuously. See Note 30 for further information.

Impairment of goodwill and other intangible assets

Determining whether goodwill is impaired requires an estimation of the value in use of the cash-generating units to which goodwill has been allocated. The value in use calculation requires the management to estimate the future cash flows expected to arise from the cash-generating unit and a discount rate in order to calculate present value. Where the actual future cash flows are less than expected, a material impairment loss may arise.
Details of the goodwill impairment testing are set out in Note 21

At the end of each reporting period, the Group reviews the carrying amounts of its intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually, and whenever there is an indication that the asset may be impaired. If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss.

Useful lives of intangible assets

The Group annually examines the estimated useful life of its intangible assets. When determining the asset's useful life, the factors taken into account include the anticipated use of the asset, its typical life cycle, technical obsolescence, etc.

Valuation of financial instruments

For financial instruments not traded in an active market, the fair value is determined using appropriate valuation techniques. Such techniques may include:

- using recent arm's length market transactions;
- reference to the current fair value of another instrument that is substantially the same;
- a discounted cash flow analysis or other valuation models.

An analysis of fair values of financial instruments and further details as to how they are measured are provided in Note 32.

Share-based payments

Estimating fair value for share-based payment transactions requires determination of the most appropriate valuation model, which is dependent on the terms and conditions of the grant. This estimate also requires determination of the most appropriate inputs to the valuation model including the expected life of the instrument and volatility and making assumptions about them. The assumptions and models used for estimating fair value for share-based payment transactions are disclosed in Note 11.

(in millions of Russian rubles, unless otherwise indicated)

4. Changes in Group Composition

Acquisition of subsidiaries.

On May 11, 2021, Moscow Exchange acquired 70% of INGURU the electronic platform for selecting insurance and banking products through buying two companies MB Marketplace LLC (formerly Disovers LLC) and Insveb LLC, which are not publicly listed. Within five years, this share may be increased to 100%. The Group recognized liability on non-controlling interest put option to acquire 20% stake (Note 25).

The acquisition of the company is part of Moscow Exchange's strategy to enter related markets. The services of INGURU are integrated into the Finuslugi personal finance platform and expand opportunities for clients and enable them to receive better terms in insurance and banking services.

From the date of acquisition, Disovers LLC and Insveb LLC have contributed RUB 488,2 million of commission income and increased the Group's net profit by RUB 5,5 million. If the combination had taken place at the beginning of the year, the net profit for 2021 of the Group would have been RUB 28 112,2 million, the fee and commission income would have been RUB 41 830,8 million.

The fair value of identifiable assets and liabilities of MB Marketplace LLC (formerly Disovers LLC) and Insveb LLC at the date of acquisition were:

Assets	
Cash and cash equivalents	17,0
Property and equipment	0,5
Intangible assets	25,8
Deferred tax asset	1,7
Other assets	93,6
Total assets	**138,6**
Liabilities	
Other liabilities	32,0
Total liabilities	**32,0**
Net identifiable assets and liabilities	**106,6**

Goodwill arising from the acquisition has been recognised as follows.

Consideration transferred	350,0
Non-controlling interest	32,0
Fair value of identifiable net assets	(106,6)
Goodwill (Note 21)	**275,4**
Cash flow on acquisition	
Consideration paid by cash	(350,0)
Cash acquired with the subsidiary	17,0
Net cash flow on acquisition (included in cash flows from investing activities)	**(333,0)**

(in millions of Russian rubles, unless otherwise indicated)

4. Changes in Group Composition (continued)

As at December 31, 2020 the Group owned 24,99% stake in BierbaumPro AG, which was accounted as investment in associate. During 2021 the Group increased its stake to 29,5%. On October 26, 2021, Moscow Exchange closed the deal on the purchase of 65,5% of BierbaumPro AG shares. Thus, Moscow Exchange's stake in BierbaumPro AG increased to 94,99%. BierbaumPro AG is the 100% owner of NT Progress LLC, the developer and owner of the platform for OTC trading of currency market instruments – NTPro.

The partnership between Moscow Exchange and NTProgress will expand both companies' service offering and allow the two parties to offer clients NTPro's highly flexible advanced FX trading solutions alongside Moscow Exchange's clearing and settlement facilities.

From the date of acquisition, BierbaumPro AG (owns 100% of NT Progress LLC) has contributed RUB 93,0 million of commission income and increased the Group's net profit by RUB 40,7 million. If the combination had taken place at the beginning of the year, the net profit for 2021 of the Group would have been RUB 28 053,8 million, the fee and commission income would have been RUB 41 900,1 million.

The fair value of identifiable assets and liabilities of BierbaumPro AG at the date of acquisition were:

Assets	
Cash and cash equivalents	273,4
Due from financial institutions	30,0
Property and equipment	10,4
Intangible assets	521,4
Right of use assets	15,8
Deferred tax asset	0,3
Other assets	50,0
Total assets	**901,3**
Liabilities	
Lease liabilities	15,8
Deferred tax liability	104,9
Other liabilities	181,4
Total liabilities	**302,1**
Net identifiable assets and liabilities	**599,3**

Goodwill arising from the acquisition has been recognised as follows.

Consideration transferred	1 059,8
Fair value of previously held equity interest in the acquiree	529,9
Non-controlling interest	30,0
Fair value of identifiable net assets	(599,3)
Goodwill (Note 21)	**1 020,4**

Cash flow on acquisition	
Consideration paid by cash	(1 059,8)
Cash acquired with the subsidiary	273,4
Net cash flow on acquisition (included in cash flows from investing activities)	**(786,4)**

Intangible assets acquired within this business combination are represented by NTPro platform software of RUB 363,8 million and customer relationships of RUB 157,6 million (Note 20).

(in millions of Russian rubles, unless otherwise indicated)

4. Changes in Group Composition (continued)

The Group has elected to measure the non-controlling interest in the acquiree at the non-controlling interests's proportionate share of the acquiree's identifiable net assets.

Acquisition of NCI. During 2021 the Moscow Exchange acquired an additional 20% interest in NAMEX, increasing its ownership from 65,08% to 85,08%. The carrying amount of NAMEX's net assets in the Group's consolidated financial statements on the date of acquisition was RUB 203,8 mln.

The following table summarises the effect of changes in the Moscow Exchange's ownership interest in NAMEX.

Carrying amount of NCI acquired	71,2
Consideration paid to NCI in cash	38,2
Total equity attributable to owners of the parent	33,0

5. Fee and Commission Income

	Year ended December 31, 2021	**Year ended December 31, 2020**
Money market	11 699,1	8 612,0
Securities market	8 396,2	7 981,1
- equities	*5 200,8*	*4 227,4*
- bonds	*2 431,6*	*2 942,5*
- listing and other services	*763,8*	*811,2*
Depository and settlement services	8 396,3	6 524,9
Derivatives market	5 198,4	3 939,8
Foreign exchange market	4 191,4	4 276,1
Information services	1 185,8	1 110,6
Sale of software and technical services	1 133,6	956,7
Financial marketplace services	497,0	5,8
Other	856,2	861,2
Total fee and commission income	**41 554,0**	**34 268,2**

(in millions of Russian rubles, unless otherwise indicated)

6. Interest Income

	Year ended December 31, 2021	Year ended December 31, 2020
Interest income calculated using the effective interest method		
Interest income on financial assets at FVTOCI	8 593,2	8 782,3
Interest on cash and cash equivalents and due from financial institutions	4 215,9	4 382,0
Interest income on balances of market participants	1 027,3	1 553,8
Total interest income calculated using the effective interest method	**13 836,4**	**14 718,1**
Other interest income		
Interest income on financial assets at FVTPL	439,5	457,5
Total other interest income	**439,5**	**457,5**
Total interest income	**14 275,9**	**15 175,6**

7. Interest Expense

	Year ended December 31, 2021	Year ended December 31, 2020
Interest expense on cash and cash equivalents and due from financial institutions	832,9	1 435,9
Interest expense on stress collateral	129,9	146,8
Interest expense on accounts of clearing participants	117,6	212,5
Interest expense on lease liabilities	83,0	49,4
Interest expense on interbank loans and deposits	14,8	138,9
Interest expense on repo agreements and other	11,9	0,6
Total interest expense	**1 190,1**	**1 984,1**

8. Net Gain on Financial Assets at Fair Value through Other Comprehensive Income

	Year ended December 31, 2021	Year ended December 31, 2020
Bonds issued by Russian Federation	402,3	878,4
Bonds issued by foreign companies of Russian groups	221,9	21,4
Bonds issued by Russian companies	(14,8)	32,3
Bonds issued by Russian banks	(11,6)	2,0
Bonds issued by foreign financial organizations	(8,1)	(3,2)
Total net gain on financial assets at FVTOCI	**589,7**	**930,9**

Net gain on financial assets at fair value through other comprehensive income represents reclassification adjustment from other comprehensive income to profit or loss upon disposal of financial assets.

(in millions of Russian rubles, unless otherwise indicated)

9. Foreign Exchange Losses Less Gains

	Year ended December 31, 2021	Year ended December 31, 2020
Foreign exchange swaps	(623,9)	(109,6)
Net result from other foreign exchange operations	(53,0)	43,7
Total foreign exchange losses less gains	**(676,9)**	**(65,9)**

Net result on foreign exchange swaps includes financial results from swap deals used to hedge open foreign currency position of the Group and financial results from swap transactions used to earn interest income from ruble-denominated funds.

10. General and Administrative Expenses

	Year ended December 31, 2021	Year ended December 31, 2020
Amortisation of intangible assets (Note 20)	2 717,6	2 472,3
Equipment and intangible assets maintenance	1 912,1	1 589,7
Depreciation of property and equipment (Note 19)	971,9	876,5
Advertising and marketing costs	835,5	202,7
Taxes, other than income tax	787,8	647,5
Market makers fees	764,1	572,1
Professional services	629,6	465,6
Registrar and foreign depository services	620,8	454,4
Information services	433,5	380,3
Rent and office maintenance	337,9	329,3
Agent fees	328,6	–
Communication services	104,3	86,4
Charity	34,9	113,2
Security expenses	29,8	30,5
Transport expenses	21,0	23,9
Business trip expenses	16,8	9,1
Loss on disposal of property, equipment and intangible assets	13,5	0,5
Other	73,2	36,7
Total general and administrative expenses	**10 632,9**	**8 290,7**

Professional services comprise consulting, audit, legal and other services.

11. Personnel Expenses

	Year ended December 31, 2021	Year ended December 31, 2020
Employees benefits except for share-based payments	7 839,0	6 865,9
Payroll related taxes	1 620,8	1 381,4
Share-based payment expense on equity settled instruments	372,6	198,2
Share-based payment expense on cash settled instruments	49,3	13,8
Total personnel expenses	**9 881,7**	**8 459,3**

(in millions of Russian rubles, unless otherwise indicated)

11. Personnel Expenses (continued)

Equity settled share-based program

In July 2020 the new long-term incentive program of equity settled instruments was introduced by the Group (hereinafter – LTIP). Program participants have the right to receive Moscow Exchange ordinary shares granted under conditions set out in the program. The LTIP program vests when employee continues to be employed by the Group at the vesting date and the Group fulfills certain financial performance results set by the program. The maximum contractual term of the contracts is five years. Program participants are entitled to receive fixed and variable number of shares, where variable number is defined as product of fixed number of shares and the sum of dividend yields for the three years preceding the vesting date. The fair value of the rights is measured at the grant date using the observable market price of Moscow Exchange shares at the grant date adjusted to take into account the variable component of the program and vesting conditions upon which the shares are granted.

The previous program of equity settled instruments continues along with the LTIP. Rights to purchase equity instruments granted to some employees give holders a choice either to only purchase the full number of shares at exercise price or also to sell back shares at the market price for the same ruble value. The majority of the rights vest when the employee continues to be employed by the Group at the vesting date. The maximum contractual term of the contracts granted in 2017 is three and a half years. The fair value of the rights is measured at the grant date using a binomial model taking into account the terms and conditions under which the instruments were granted.

The following table illustrates the number and weighted average fair value of shares granted (WAFV) and movements in rights to receive shares under the LTIP:

	Number	WAFV
Outstanding at January 1, 2020	–	–
Granted	15 787 054	106,00
Forfeited	(349 687)	103,91
Outstanding at January 1, 2021	**15 437 368**	**106,07**
Granted	3 742 192	114,82
Modification	(386 044)	107,73
Forfeited	(2 412 519)	109,46
Outstanding at December 31, 2021	**16 380 997**	**115,84**

The weighted average remaining contractual life of the outstanding instruments under new LTIP as at December 31, 2021 is 2,62 years (December 31, 2020: 3,50 years).

The following table illustrates the number and weighted average exercise prices (WAEP), and movements in rights to purchase equity settled instruments under previous program:

	Number	WAEP
Outstanding at January 1, 2020	**30 466 667**	**109,94**
Exercised (Note 26)	(3 573 530)	111,43
Forfeited	(3 905 000)	112,97
Redeemed	(14 659 804)	111,43
Outstanding at January 1, 2021	**8 328 333**	**104,54**
Exercised (Note 26)	(2 228 138)	108,41
Redeemed	(3 983 529)	108,41
Outstanding at December 31, 2021	**2 116 666**	**93,19**

WAEP for exercised rights in the table above is calculated based on the contractual exercise price.

The number of equity rights under previous program exercisable as at December 31, 2021 is 450 000 with WAEP of RUB 101,04 (December 31, 2020: 2 645 000 with WAEP of RUB 114,50).

(in millions of Russian rubles, unless otherwise indicated)

11. Personnel Expenses (continued)

The range of exercise prices and weighted average remaining contractual life of equity rights under previous program are as follows:

	December 31, 2021		December 31, 2020	
Exercise price	**Number outstanding**	**Weighted average remaining contractual life**	**Number outstanding**	**Weighted average remaining contractual life**
77,0 - 102,0	1 916 666	0,32	3 733 333	0,84
102,0 - 122,0	200 000	–	4 595 000	0,14
	2 116 666	**0,29**	**8 328 333**	**0,45**

Cash settled share-based program

In July 2021 the new program of cash settled instruments was introduced by the Group. The amount of cash consideration to be received by the employees is linked to the future market price of the Group's shares. The rights vest when the employee continues to be employed by the Group at the vesting date. The maximum contractual term of the contracts is three and a half years. The fair value of the rights is remeasured at each reporting date using a binomial model.

1 461 336 settled instruments were granted under new cash settled programm during the year ended December 31, 2021. The weighted average remaining contractual life is 1,63 years.

During the year ended December 31, 2021 82 635 cash settled instruments under previous programm with WAEP of RUB 173,33 were exercised (December 31, 2020: 331 150 with WAEP of RUB 104,39).

12. Movement in Allowance for Expected Credit Losses

	Year ended December 31, 2021	Year ended December 31, 2020
Movement in allowance for ECL	627,4	(0,9)
Movement in allowance for expected credit losses	**627,4**	**(0,9)**

(in millions of Russian rubles, unless otherwise indicated)

12. Movement in Allowance for Expected Credit Losses (continued)

The information on the movement in the allowance for expected credit losses of the Group for the year ended December 31, 2021 and December 31, 2020, is provided below.

	Cash and cash equivalents	Due from financial institutions	Financial assets at FVTOCI	Other financial assets	Total
Note	*14*	*16*		*22*	
December 31, 2019	**1,7**	**0,1**	**219,3**	**2 442,3**	**2 663,4**
Net (reversal)/charge for the period	(1,6)	5,8	22,6	(25,9)	0,9
Write–offs	–	–	–	(8,9)	(8,9)
December 31, 2020	**0,1**	**5,9**	**241,9**	**2 407,5**	**2 655,4**
Net (reversal)/charge for the period	0,2	3,9	(106,4)	(525,1)	(627,4)
Write–offs	–	–	–	(990,3)	(990,3)
December 31, 2021	**0,3**	**9,8**	**135,5**	**892,1**	**1 037,7**

In the first quarter of 2019, a subsidiary of the Group that operated as a Commodity Delivery Operator (CDO), during regular inspections of commodities stored in grain warehouses, identified several instances where grain stockpiles used as collateral under swap trades were missing, allegedly due to theft. This risk is related to the use of a partner's infrastructure for storing commodity assets is inherent exclusively to the agricultural products market. The Group's risk protection system and risk monitoring on the grain market consists of evaluation of technical condition and financial position of counterparty (certification), regular independent surveys with rotation of surveyors, and insurance coverage, including covering the risk of fraud, which size was sufficient to cover possible losses based on previous cases in the market. The Group has undertaken all necessary actions, such as: has filed 12 claims for the initiation of criminal and civil proceedings, demanding the execution of trades, reclaiming missing collateral and claiming insurance.

In 2021 part of receivables from the accredited grain elevators was written-off (RUB 987,4 million) as unrecoverable.

The insurance case under one of the claims filed by the Group was settled in May 2021, and as a result the Group received compensation in the amount of RUB 675,4 million. In this regard, the respective receivables of a grain elevator, which had been included in Other assets in amount of RUB 516,7 million, were derecognised, and the corresponding 100% provision was recovered. The excess of the insurance payment over the amount of derecognized receivables is represented by insurance compensation of previously unrecognized claimed receivables from the grain elevator in the amount of RUB 102,2 million and interest accumulated during the court proceedings in the amount of RUB 56,5 million. The whole amount of the excess payment is included in other income.

The remaining amount receivable from the accredited grain elevators and warehouses is presented as Other assets (Note 22), for which a 100% provision has been created. The total amount of provisions for CDO operations as at December 31, 2021 is RUB 831,9 million (December 31, 2020: RUB 2 350,6 million).

(in millions of Russian rubles, unless otherwise indicated)

12. Movement in Allowance for Expected Credit Losses (continued)

The allowance for expected credit losses of the Group consists of the loss allowance measured at an amount equal to 12-month expected credit losses for Stage 1 assets, and the loss allowance measured at an amount equal to lifetime expected credit losses for Stage 2 and Stage 3 assets. The composition of the Group's financial assets and correspondent allowances for expected credit losses by stages as at December 31, 2021 and December 31, 2020 is provided below.

	Cash and cash equivalents	Due from financial institutions	Financial assets at FVTOCI	Other financial assets	Total
Note	*14*	*16*		*22*	
December 31, 2021					
Stage 1 assets	471 283,7	102 951,0	235 608,6	1 616,9	811 460,2
Stage 2 assets	–	–	2 212,6	3,2	2 215,8
Stage 3 assets	–	29,4	–	851,5	880,9
Total financial assets	**471 283,7**	**102 980,4**	**237 821,2**	**2 471,6**	**814 556,9**
Allowance for Stage 1 assets	(0,3)	(9,8)	(134,7)	(40,4)	(185,2)
Allowance for Stage 2 assets	–	–	(0,8)	(0,2)	(1,0)
Allowance for Stage 3 assets	–	–	–	(851,5)	(851,5)
Total allowance for expected credit losses	**(0,3)**	**(9,8)**	**(135,5)**	**(892,1)**	**(1 037,7)**
December 31, 2020					
Stage 1 assets	471 793,1	154 785,3	193 302,7	1 458,2	821 339,3
Stage 2 assets	–	–	–	3,9	3,9
Stage 3 assets	–	36,0	–	2 361,9	2 397,9
Total financial assets	**471 793,1**	**154 821,3**	**193 302,7**	**3 824,0**	**823 741,1**
Allowance for Stage 1 assets	(0,1)	(5,9)	(241,9)	(45,3)	(293,2)
Allowance for Stage 2 assets	–	–	–	(0,3)	(0,3)
Allowance for Stage 3 assets	–	–	–	(2 361,9)	(2 361,9)
Total allowance for expected credit losses	**(0,1)**	**(5,9)**	**(241,9)**	**(2 407,5)**	**(2 655,4)**

During the year ended December 31, 2021 and the year ended December 31, 2020 there were no transfers of Cash and cash equivalents and Due from financial institutions between Stages. All changes in the gross carrying amount of Cash and cash equivalents and Due from financial institutions and in the loss allowance relate to the recognition or derecognition of these financial assets in the normal course of the Group's business.

(in millions of Russian rubles, unless otherwise indicated)

12. Movement in Allowance for Expected Credit Losses (continued)

The tables below analyze information about the significant changes in the gross carrying amount of Financial assets at FVTOCI during the period that contributed to changes in the loss allowance as well as the movement of the loss allowance during the 2021:

	Stage 1	Stage 2	Total
Gross carrying amount at January 1, 2021	**193 302,7**	**–**	**193 302,7**
New financial assets originated or purchased less financial assets that have been derecognized due to being redeemed or sold, and changes in mark-to-market and forex revaluation	44 575,4	(56,9)	44 518,5
Transfer to stage 2	(4 715,3)	4 715,3	–
Transfer to stage 1	2 445,8	(2 445,8)	–
Gross carrying amount at December 31, 2021	**235 608,6**	**2 212,6**	**237 821,2**
Loss allowance at December 31, 2021	**(134,7)**	**(0,8)**	**(135,5)**

	Stage 1	Stage 2	Total
Loss allowance at January 1, 2021	**241,9**	**–**	**241,9**
New financial assets originated or purchased less financial assets that have been derecognized due to being redeemed or sold, and changes in mark-to-market and forex revaluation	40,6	(0,1)	40,5
Transfer to stage 2	(4,3)	4,3	–
Transfer to stage 1	8,4	(8,4)	–
Net increase/(decrease) in credit risk	(52,1)	5,0	(47,1)
Changes to models and inputs used	(99,8)	–	(99,8)
Loss allowance at December 31, 2021	**134,7**	**0,8**	**135,5**

During the year ended December 31, 2020 there were no transfers of Financial assets at FVTOCI from Stage 1 to the lower stages of impairment.

(in millions of Russian rubles, unless otherwise indicated)

12. Movement in Allowance for Expected Credit Losses (continued)

The tables below analyze information about the significant changes in the gross carrying amount of other financial assets during the period that contributed to changes in the loss allowance as well as the movement of the loss allowance during the 2020:

	Stage 1	Stage 2	Stage 3	Total
Gross carrying amount at January 1, 2020	**721,4**	**358,3**	**2 396,4**	**3 476,1**
New financial assets originated or purchased less financial assets that have been derecognized due to being redeemed or sold	736,8	(354,4)	(25,6)	356,8
Write-offs	–	–	(8,9)	(8,9)
Gross carrying amount at December 31, 2020	**1 458,2**	**3,9**	**2 361,9**	**3 824,0**
Loss allowance at December 31, 2020	**(45,3)**	**(0,3)**	**(2 361,9)**	**(2 407,5)**

	Stage 1	Stage 2	Stage 3	Total
Loss allowance at January 1, 2020	**6,2**	**39,7**	**2 396,4**	**2 442,3**
New financial assets originated or purchased less financial assets that have been derecognized due to being redeemed or sold	14,6	(33,4)	(25,6)	(44,3)
Net increase/(decrease) in credit risk	24,4	(6,0)	–	18,4
Write-offs	–	–	(8,9)	(8,9)
Loss allowance at December 31, 2020	**45,3**	**0,3**	**2 361,9**	**2 407,5**

(in millions of Russian rubles, unless otherwise indicated)

12. Movement in Allowance for Expected Credit Losses (continued)

The tables below analyze information about the significant changes in the gross carrying amount of other financial assets during the period that contributed to changes in the loss allowance as well as the movement of the loss allowance during the 2021:

	Stage 1	Stage 2	Stage 3	Total
Gross carrying amount at January 1, 2021	**1 458,2**	**3,9**	**2 361,9**	**3 824,0**
New financial assets originated or purchased less financial assets that have been derecognized due to being redeemed or sold	164,5	(0,2)	(526,4)	(362,1)
Transfer to stage 2	(5,8)	5,8	–	–
Transfer to stage 3	–	(6,3)	6,3	–
Write-offs	–	–	(990,3)	(990,3)
Gross carrying amount at December 31, 2021	**1 616,9**	**3,2**	**851,5**	**2 471,6**
Loss allowance at December 31, 2021	**(40,4)**	**(0,2)**	**(851,5)**	**(892,1)**

	Stage 1	Stage 2	Stage 3	Total
Loss allowance at January 1, 2021	**45,3**	**0,3**	**2 361,9**	**2 407,5**
New financial assets originated or purchased less financial assets that have been derecognized due to being redeemed or sold	4,6	(0,1)	(526,4)	(521,9)
Transfer to stage 2	(0,2)	0,2	–	–
Transfer to stage 3	–	(0,4)	0,4	–
Net increase/(decrease) in credit risk	(10,8)	0,2	5,9	(4,7)
Changes to models and inputs used	1,5	–	–	1,5
Write-offs	–	–	(990,3)	(990,3)
Loss allowance at December 31, 2021	**40,4**	**0,2**	**851,5**	**892,1**

Reduction of the amount of Other financial assets in Stage 3 during the year ended December 31, 2021 is mainly due to the reversal of the provision for the receivables from one of the grain elevators, which was repaid by insurance compensation following the winning of a lawsuit against the insurance company, and the write-off of part of receivables of the grain elevators.

13. Income Tax

The Group provides for taxes based on the tax accounts maintained and prepared in accordance with the tax regulations of countries where the Group and its subsidiaries operate and which may differ from IFRS.

Deferred taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for tax purposes.

Temporary differences relate mostly to different methods of income and expense recognition, as well as to recorded values of certain assets.The tax rate used for the reconciliations between tax expense and accounting profit is the corporate tax rate of 20% payable by corporate entities in the Russian Federation on taxable profits under the tax law in that jurisdiction.

(in millions of Russian rubles, unless otherwise indicated)

13. Income Tax (continued)

The analysis of the temporary differences as at December 31, 2021 and 2020, is presented below:

	December 31, 2019	Recognised in profit or loss	Recognised in other comprehensive income	December 31, 2020	Recognised in profit or loss	Recognised in other comprehensive income	Effect of business combination (Note 4)	December 31, 2021
Tax effect from deductible temporary differences:								
Cash, cash equivalents and amounts due from financial institutions	0,4	0,8	–	1,2	0,8	–	–	2,0
Financial assets at FVTPL	87,2	(83,5)	–	3,7	7,8	–	–	11,5
Financial assets at FVTOCI	799,7	(787,9)	–	11,8	468,4	1 409,6	–	1 889,8
Investments in associates	–	5,9	–	5,9	(5,9)	–	–	–
Property and equipment	21,9	3,5	–	25,4	(5,5)	–	–	19,9
Intangible assets	1,6	16,0		17,6	18,0	–	–	35,6
Other assets	711,0	10,3	–	721,3	(223,1)	–	1,7	499,9
Other liabilities	506,4	164,5	–	670,9	271,2	–	0,3	942,4
Balances of market participants	5,2	–		5,2	–	–	–	5,2
Tax loss carried forward	10,1	0,3	–	10,4	2,5	–	–	12,9
Total tax effect from deductible temporary differences	**2 143,5**	**(670,1)**	**–**	**1 473,4**	**534,2**	**1 409,6**	**2,0**	**3 419,2**
Tax effect from taxable temporary differences:								
Due from financial institutions	–	–		–	(4,1)	–	–	(4,1)
Financial assets at FVTPL	(4,6)	(112,0)	–	(116,6)	42,7	–	–	(73,9)
Financial assets at FVTOCI	(6,1)	(862,3)	(10,8)	(879,2)	879,2	–	–	–
Property and equipment	(368,6)	(9,5)	–	(378,1)	58,1	–	–	(320,0)
Intangible assets	(2 417,3)	230,5		(2 186,8)	232,0		(104,2)	(2 059,0)
Other assets	(4,9)	(1,1)	–	(6,0)	6,1	–	(0,1)	–
Other liabilities	(1,5)	(0,1)	–	(1,6)	1,3	–	(0,5)	(0,8)
Total tax effect from taxable temporary differences	**(2 803,0)**	**(754,5)**	**(10,8)**	**(3 568,3)**	**1 215,3**	**–**	**(104,8)**	**(2 457,8)**
Deferred income tax assets	**1 701,5**	**(1 628,9)**	**–**	**72,6**	**1 079,5**	**1 409,6**	**2,0**	**2 563,7**
Deferred income tax liabilities	**(2 361,0)**	**204,3**	**(10,8)**	**(2 167,5)**	**670,0**	**–**	**(104,8)**	**(1 602,3)**

(in millions of Russian rubles, unless otherwise indicated)

13. Income Tax (continued)

Deferred tax assets increase as at December 31, 2021 was mainly driven by changes in mark-to-market and forex revaluation of financial assets at FVTOCI.

Tax effect from deductible temporary differences on other assets is mainly represented by the differences from created provisions on other financial assets. Deductible temporary differences on other liabilities is mainly represented by differences from the personnel remuneration provision and other accruals.

Reconciliation of income tax expense and accounting profit for the year ended December 31, 2021 and December 31, 2020, are explained below:

	Year ended December 31, 2021	Year ended December 31, 2020
Profit before income tax	**34 981,7**	**31 840,1**
Tax at the statutory tax rate (20%)	6 996,3	6 368,0
Tax effect of income taxed at rates different from the prime rate	(390,9)	(337,4)
Permanent differences relating to equity-settled share-based program	150,4	149,3
Non-deductible expenses for tax purposes	121,0	107,6
Adjustments in respect of current and deffered income tax of previous years	7,2	382,1
Differences between 20% and income tax rate adopted in jurisdiction of subsidiary	0,2	–
Income tax expense	**6 884,2**	**6 669,6**
Current income tax expense	8 626,5	5 242,1
Current and deferred income tax expense related to previous years	7,2	2,9
Deferred taxation movement due to origination and reversal of temporary differences	(1 749,5)	1 424,6
Income tax expense	**6 884,2**	**6 669,6**

14. Cash and Cash Equivalents

	December 31, 2021	December 31, 2020
Correspondent accounts and overnight deposits with banks	445 355,6	446 844,3
Balances with the CBR	25 920,7	24 921,8
Cash on hand	4,9	3,3
Receivables on broker and clearing operations	2,5	23,7
Total cash and cash equivalents before allowance for ECL	**471 283,7**	**471 793,1**
Less allowance for ECL (Note 12)	(0,3)	(0,1)
Total cash and cash equivalents	**471 283,4**	**471 793,0**

As at December 31, 2021, the Group has balances with five counterparties, each of which is greater than 10% of equity (December 31, 2020: six counterparties). The total aggregate amount of these balances is RUB 426 620,1 million or 91% of total cash and cash equivalents as at December 31, 2021 (December 31, 2020: RUB 447 392,1 million or 95% of total cash and cash equivalents).

(in millions of Russian rubles, unless otherwise indicated)

15. Financial Assets at Fair Value through Profit or Loss

	December 31, 2021	December 31, 2020
Bonds issued by foreign companies of Russian groups	14 564,3	18 312,0
Derivative financial instruments	542,3	1,2
Shares issued by foreign companies	421,2	412,9
Shares issued by Russian companies	111,3	126,1
Total financial assets at FVTPL	**15 639,1**	**18 852,2**

The table below shows the analysis of derivatives of the Group as at December 31, 2021 and as at December 31, 2020:

	Fair value of principal amount or agreed amount		Assets - positive fair value	Liabilities - negative fair value
	Receivables	Payables		
December 31, 2021				
Currency swaps	34 290,4	(33 748,8)	542,3	(0,7)
December 31, 2020				
Currency swaps	63 466,9	(63 605,3)	1,2	(139,6)

As at December 31, 2021, the negative fair value of derivative financial instruments in the amount of RUB 0,7 million is included in other liabilities (Note 25) (December 31, 2020: RUB 139,6 million).

16. Due from Financial Institutions

	December 31, 2021	December 31, 2020
Financial assets measured at amortised cost		
Term deposits with the CBR	43 012,7	40 004,6
Interbank loans and term deposits	31 541,5	60 566,5
Reverse repo receivables from financial institutions	23 451,8	49 436,2
Other loans	29,4	36,0
Receivables on broker and clearing operations	1,1	0,6
Total financial assets measured at amortised cost	**98 036,5**	**150 043,9**
Non-financial assets at FVTPL		
Correspondent accounts and deposits in precious metals	4 943,9	4 777,4
Total non-financial assets at FVTPL	**4 943,9**	**4 777,4**
Total due from financial institutions before allowance for ECL	**102 980,4**	**154 821,3**
Less allowance for ECL (Note 12)	(9,8)	(5,9)
Total due from financial institutions	**102 970,6**	**154 815,4**

As at December 31, 2021, the Group has balances with two counterparties, which is greater than 10% of equity (December 31, 2020: four counterparties). The amount of this balance is RUB 66 451,8 million or 65% of the total amount due from financial institutions as at December 31, 2021 (December 31, 2020: RUB 129 442,7 million or 84% of the total amount due from financial institutions).

As at December 31, 2021 the fair value of bonds pledged under reverse repo was RUB 28 697,5 million (December 31, 2020: RUB 60 493,5 million).

(in millions of Russian rubles, unless otherwise indicated)

16. Due from Financial Institutions (continued)

As at December 31, 2021, interbank loans and term deposits include restricted amounts on correspondent account with Euroclear Bank S.A./N.V., Brussels, which relate to foreign securities (coupon and principal repayments) owned by the depository clients, in the amount of RUB 9 370,3 million (December 31, 2020: RUB 9 181,8 million). Balances of market participants include balances due to these clients in respect of those securities in the amount of RUB 9 370,3 million (December 31, 2020: RUB 9 181,8 million).

17. Central Counterparty Financial Assets and Liabilities

	December 31, 2021	December 31, 2020
Repo transactions	5 252 855,2	4 047 661,8
Currency transactions	3 216,0	3 175,8
Total CCP financial assets and liabilities	**5 256 071,2**	**4 050 837,6**

CCP financial assets are receivables under currency and repo transactions and CCP financial liabilities are payables under offsetting transactions, which the Group entered with market participants as a CCP.

As at December 31, 2021 the fair value of securities purchased and sold by the Group under repo transactions is RUB 5 883 202,6 million (December 31, 2020: RUB 4 549 077,2 million). As at December 31, 2021 and December 31, 2020, none of these assets were past due.

As at December 31, 2021, the Group has CCP financial assets balances with thirty eight counterparties, each of which is greater than 10% of equity (December 31, 2020: thirty one counterparties). The total aggregate amount of these balances is RUB 5 018 480,4 million or 95% of total CCP financial assets as at December 31, 2021 (December 31, 2020: RUB 3 855 282,7 million or 95% of total CCP financial assets).

As at December 31, 2021, the Group has CCP financial liabilities balances with fifty counterparties, each of which is greater than 10% of equity (December 31, 2020: forty six counterparties). The total aggregate amount of these balances is RUB 4 927 090,6 million or 94% of total CCP financial liabilities as at December 31, 2021 (December 31, 2020: RUB 3 666 027,5 million or 91% of total CCP financial liabilities).

CCP financial assets and liabilities under currency transactions represent fair values of overnight currency deals. Gross claims and liabilities with individual counterparties are offset in accordance with IAS 32. Information about financial assets offset against financial liabilities in the statement of financial position is disclosed in Note 35.

18. Financial Assets at Fair Value through Other Comprehensive Income

	December 31, 2021	December 31, 2020
Bonds issued by the Russian Federation	109 622,4	83 130,0
Bonds issued by foreign companies of Russian groups	57 311,6	53 963,0
Bonds issued by Russian companies	44 166,3	38 424,3
Bonds issued by Russian banks	26 269,7	16 810,8
Bonds issued by foreign financial organizations	451,2	974,6
Total financial assets at FVTOCI	**237 821,2**	**193 302,7**

(in millions of Russian rubles, unless otherwise indicated)

19. Property and Equipment

	Land	Buildings and other real estate	Furniture and equipment	Construc-tion in progress	Right-of-use assets	Total
Cost						
December 31, 2019	**208,5**	**5 798,6**	**7 392,6**	**50,2**	**284,6**	**13 734,5**
Additions	–	–	866,4	4,0	1 019,6	1 890,0
Reclassification	–	–	49,7	(49,7)	–	–
Disposals	–	–	(236,0)	–	(266,9)	(502,9)
Modification and remeasurement	–	–	–	–	0,1	0,1
December 31, 2020	**208,5**	**5 798,6**	**8 072,7**	**4,5**	**1 037,4**	**15 121,7**
Additions	–	–	1 304,5	17,7	14,2	1 336,4
Acquisition through business combination	–	–	10,9	–	15,8	26,7
Reclassification	–	–	4,0	(4,0)	–	–
Disposals	–	–	(189,4)	–	(22,6)	(212,0)
Effect of movements in exchange rates	–	–	`	–	0,1	0,1
Modification and remeasurement	–	–	–	–	52,6	52,6
December 31, 2021	**208,5**	**5 798,6**	**9 202,7**	**18,2**	**1 097,5**	**16 325,5**
Accumulated depreciation						
December 31, 2019	**–**	**1 672,6**	**6 423,8**	**–**	**191,5**	**8 287,9**
Charge for the period	–	116,4	612,7	–	147,4	876,5
Disposals	–	–	(235,7)	–	(266,9)	(502,6)
December 31, 2020	**–**	**1 789,0**	**6 800,8**	**–**	**72,0**	**8 661,8**
Charge for the period	–	116,1	743,4	–	112,4	971,9
Disposals	–	–	(188,4)	–	(16,0)	(204,4)
December 31, 2021	**–**	**1 905,1**	**7 355,8**	**–**	**168,4**	**9 429,3**
Net book value						
December 31, 2020	**208,5**	**4 009,6**	**1 271,9**	**4,5**	**965,4**	**6 459,9**
December 31, 2021	**208,5**	**3 893,5**	**1 846,9**	**18,2**	**929,1**	**6 896,2**

(in millions of Russian rubles, unless otherwise indicated)

19. Property and Equipment (continued)

As at December 31, 2021, historical cost of fully depreciated property and equipment amounts to RUB 6 111,4 million (December 31, 2020: RUB 5 447,7 million).

As at December 31, 2021, the book value of right-of-use assets is represented by leased buildings in the amount of RUB 918,6 million and IT equipment (furniture and equipment) in the amount of RUB 10,5 million (December 31, 2020: RUB 963,4 million and RUB 2 million).

The amounts recognized in profit or loss related to Group's lease contracts are as follows:

	Year ended December 31, 2021	Year ended December 31, 2020
Amounts recognised in profit or loss		
Depreciation expense on right-of-use assets	112,4	147,4
Interest expense on lease liabilities	83,0	49,4
Expense relating to short-term leases	20,1	25,3
Total	**215,5**	**222,1**

(in millions of Russian rubles, unless otherwise indicated)

20. Intangible Assets

	Software and licenses	Client base	Intangible assets development	Total
Cost				
December 31, 2019	**6 915,6**	**19 606,7**	**1 414,3**	**27 936,6**
Additions	1 527,0	–	843,8	2 370,8
Reclassification	1 015,1	–	(1 015,1)	–
Disposals	(19,8)	–	(0,5)	(20,3)
December 31, 2020	**9 437,9**	**19 606,7**	**1 242,5**	**30 287,1**
Acquisition through business combination	380,7	157,6	8,9	547,2
Additions	1 358,7	**–**	927,7	2 286,4
Reclassification	677,1	**–**	(677,1)	–
Disposals	(64,9)	–	(9,6)	(74,5)
December 31, 2021	**11 789,5**	**19 764,3**	**1 492,4**	**33 046,2**
Accumulated amortisation and impairment				
December 31, 2019	**3 485,1**	**7 462,5**	**–**	**10 947,6**
Charge for the period	1 295,9	1 176,4	–	2 472,3
Disposals	(1,4)	–	–	(1,4)
December 31, 2020	**4 779,6**	**8 638,9**	**–**	**13 418,5**
Charge for the period	1 538,3	1 179,3	**–**	2 717,6
Disposals	(61,0)	–	–	(61,0)
December 31, 2021	**6 256,9**	**9 818,2**	**–**	**16 075,1**
Net book value				
December 31, 2020	**4 658,3**	**10 967,8**	**1 242,5**	**16 868,6**
December 31, 2021	**5 532,6**	**9 946,1**	**1 492,4**	**16 971,1**

The client bases have been recognized on acquisition of subsidiaries by the Group. The Group's purchased client bases represent the customer relationships with professional market participants acquired in 2011 and the customer relationships with financial institutions acquired in 2021. The amortization periods remaining on these assets are between 8,06 to 9,83 years.

Based on the results of the impairment tests performed no impairment of intangible assets was identified in 2021 and 2020.

(in millions of Russian rubles, unless otherwise indicated)

21. Goodwill

As at December 31, 2021 the Group's goodwill amounted to RUB 17 267,2 million (December 31, 2020: RUB 15 971,4 million).

Goodwill is allocated to the following cash-generating units ("CGU") as at December 31, 2021 and 2020:

	Trading services	Clearing	Depository	MB Marketplace LLC and Insveb LLC *	Bierbaum Pro AG **	Total
December 31, 2020	**10 774,1**	**3 738,7**	**1 458,6**	**–**	**–**	**15 971,4**
Acquisition through business combination	–	–	–	275,4	1 020,4	1 295,8
December 31, 2021	**10 774,1**	**3 738,7**	**1 458,6**	**275,4**	**1 020,4**	**17 267,2**

* MB Marketplace LLC and Insveb LLC business being the part of operating segment "Marketplace" related acquired MB Marketplace LLC (formerly Disovers LLC) and Insveb LLC.

** Bierbaum Pro AG being the part of operating segment "Trading services".

The Group acquired MB Marketplace LLC (formerly Disovers LLC) and Insveb LLC in May 2021 and Bierbaum Pro AG in October 2021, which resulted in additions to goodwill of RUB 275,4 million and RUB 1 020,4 million respectively (Note 4). The goodwill arising on consolidation represents the growth potential synergies expected to be achieved from integrating the companies into the Group's existing businesses.

Impairment Test for Goodwill

Goodwill must be tested annually for impairment, or more frequently when there are indicators that impairment may have occurred. Goodwill is recorded at cost less accumulated impairment losses. Impairment losses recognised on goodwill are not reversed.

Trading services, Clearing, Depository

The recoverable amounts of these CGUs have been determined based on value in use calculations, using discounted cash flow projections prepared by Management of the Group covering the five-year period. Discount rate of 13,4% p.a. is applied to cash flows. Value in use calculations for each CGU are based on key assumptions about short and medium term revenue and cost growth and long-term economic growth rates (used to determine terminal values). Terminal growth rate applied is 1% p.a.

Based on the results of the impairment tests performed no impairment of the carrying value of the goodwill in any CGU was identified.

Value in use calculations for each CGU are sensitive to changes in discount rates. Management of the Group carried out sensitivity analysis to determine the impacts of changes in this variable on the calculated value in use: change of 150 bps in the discount rate. As at December 31, 2021 the sensitivity analysis revealed the cumulative value in use of the segments 9,5% lower or 12,0% higher than the value in use estimated, which does not lead to goodwill impairment in any CGU (December 31, 2020: 11,4% lower or 14,8% higher, which does not lead to goodwill impairment in any CGU).

MB Marketplace LLC and Insveb LLC

The recoverable amount of this CGUs has been determined based on value in use calculations, using discounted cash flow projections prepared by Management of the Group covering the five-year period. Discount rate of 25,9% p.a. is applied to cash flows. Value in use calculations for each CGU are based on key assumptions about short and medium term revenue and cost growth and long-term economic growth rates (used to determine terminal values). Terminal growth rate applied is 2,5% p.a.

(in millions of Russian rubles, unless otherwise indicated)

21. Goodwill (continued)

Based on the results of the impairment tests performed no impairment of the carrying value of the goodwill in any CGU was identified.

Value in use calculations for each CGU are sensitive to changes in discount rates. Management of the Group carried out sensitivity analysis to determine the impacts of changes in this variable on the calculated value in use: change of 150 bps in the discount rate. As at December 31, 2021 the sensitivity analysis revealed the cumulative value in use of the segments 2,9% lower or 3,0% higher than the value in use estimated, hich does not lead to goodwill impairment in CGU.

Bierbaum Pro AG

The recoverable amount of this CGUs has been determined based on value in use calculations, using discounted cash flow projections prepared by Management of the Group covering the four-year period. Discount rate of 15,8% p.a. is applied to cash flows. Value in use calculations for each CGU are based on key assumptions about short and medium term revenue and cost growth and long-term economic growth rates (used to determine terminal values). Terminal growth rate applied is 5,8% p.a. for the time period 2026-2030 and 4% p.a. starting 2031.

Based on the results of the impairment tests performed no impairment of the carrying value of the goodwill in any CGU was identified.

Value in use calculations for each CGU are sensitive to changes in discount rates. Management of the Group carried out sensitivity analysis to determine the impacts of changes in this variable on the calculated value in use: change of 150 bps in the discount rate. As at December 31, 2021 the sensitivity analysis revealed the cumulative value in use of the segments 5,4% lower or 5,8% higher than the value in use estimated, which does not lead to goodwill impairment in CGU.

22. Other Assets

	December 31, 2021	December 31, 2020
Other financial assets:		
Receivables on services rendered and other operations	2 471,6	3 824,0
Less allowance for ECL (Note 12)	(892,1)	(2 407,5)
Total other financial assets	**1 579,5**	**1 416,5**
Other non-financial assets:		
Precious metals	12 146,2	255,1
Prepaid expenses	1 092,3	797,2
Non-current assets prepaid	741,0	202,5
Taxes receivable other than income tax	79,9	88,3
Other	11,4	18,0
Total other assets	**15 650,3**	**2 777,6**

(in millions of Russian rubles, unless otherwise indicated)

23. Balances of Market Participants

	December 31, 2021	December 31, 2020
Financial liabilities measured at amortised cost		
Accounts of clearing participants	518 140,4	548 847,5
Other current and settlement accounts	141 822,3	141 813,2
Stress collateral	35 972,3	15 387,3
Risk-covering funds	5 370,3	5 812,7
Total financial liabilities measured at amortised cost	**701 305,3**	**711 860,7**
Non-financial liabilities at FVTPL		
Accounts of clearing participants in precious metals	17 089,9	5 032,4
Total non-financial liabilities at FVTPL	**17 089,9**	**5 032,4**
Total balances of market participants	**718 395,2**	**716 893,1**

Accounts of clearing participants include margins deposited by clearing participants. The purpose of margins is to support clearing settlements on the market and to cover risks arising from open positions of market participants, including operations of market participants, where the Group acts as a central counterparty. If an initial margin requirement exceeds the collateral posted by a market participant in the guarantee fund, the participant is required to cover the deficit by posting additional margin for the unsettled trades or to reduce the open position to an appropriate level. The margins are payable to a market participant when it closes its positions. The Group places guarantee fund amounts on current accounts and deposits with reputable banks or repo receivables (Notes 14, 16).

Market participants also pledge traded securities to the guarantee fund as collateral for their obligations. These securities are blocked at the participants' custody accounts in NSD. These securities are not assets of the Group and are not recognised in the Consolidated Statement of the Financial Position.

Stress collateral is an additional individual clearing collateral used on foreign exchange, securities and derivative markets. Stress collateral is calculated based on the volume of risk on transactions with partial collateral concluded by the clearing participants with the Central Counterparty. Requirements for depositing stress collateral arise for clearing participants who have average daily positions in excess of positions of other participants in the relevant market. NCC is obliged to pay an interest to the clearing participants for the right to use funds deposited as stress collateral.

The risk-covering funds comprise contributions deposited by market participants. The purpose of these funds is to provide additional insurance to the market participants in respect of the ability of the Group to guarantee proper settlements of open positions in case of a market participant default. The minimum contribution amount per one participant is determined by the NCC Supervisory Board and it is approved by the Derivatives Market Committee, the Currency Market Committee, the Securities Market Committee and the Securities Lending & REPO Committee. Risk-covering funds amounts are only used to cover the deficit if a margin posted by a trading participant is not sufficient to cover its losses. Cash received from the market participants in the risk-covering funds is placed with top-rated banks (Notes 14, 16).

(in millions of Russian rubles, unless otherwise indicated)

23. Balances of Market Participants (continued)

The Group acting as the central counterparty makes clearing and settlement of all exchange transactions with gold and silver. The delivery of precious metals is performed on unallocated precious metals accounts of clearing participants opened in the Group.

24. Distributions payable to holders of securities

Distributions payable to holders of securities comprise dividends and coupon amounts received by the Group from the issuers of securities on behalf of customers of the Group, for which the Group provides depository services.

The normal settlement period for distribution of dividends and coupon amounts to its customers is three days. Amounts of dividends and coupons payable to clients are stated at their contractual values.

25. Other Liabilities

	December 31, 2021	December 31, 2020
Other financial liabilities		
Trade and other payables	1 321,8	649,9
Lease liabilities	981,0	985,5
Payables to employees	407,3	424,2
The financial liability for the NCI put	160,0	–
Dividends payable	1,6	1,1
Derivative financial liabilities	0,7	139,6
Total other financial liabilities	**2 872,4**	**2 200,3**
Other non-financial liabilities		
Tax agent liabilities regarding distributions payable to holders of securities	3 213,6	422,3
Personnel remuneration provision	2 350,6	2 086,0
Taxes payable, other than income tax	787,0	594,1
Advances received	401,6	387,6
Provision	–	14,4
Total other liabilities	**9 625,2**	**5 704,7**

	December 31, 2021	December 31, 2020
Maturity analysis of lease liabilities		
Less than one year	171,7	157,2
One to two years	166,2	155,9
Two to three years	164,3	152,0
Three to four years	158,5	149,7
Four to five years	158,5	149,7
More than 5 years	552,2	664,0
Less: unearned interest	**(390,3)**	**(442,9)**
Lease liabilities	**981,0**	**985,5**

(in millions of Russian rubles, unless otherwise indicated)

25. Other Liabilities (continued)

The table below details changes in the Group's lease liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be, classified in the Group's consolidated statement of cash flows as cash flows from financing activities.

January 1, 2020	**86,6**
Financing cash flows	(178,0)
Modification and remeasurement	0,1
New leases	1 019,6
Other changes	57,2
December 31, 2020	**985,5**
Financing cash flows	(163,0)
Modification and remeasurement	52,6
New leases	14,2
Acquisition through business combination	15,8
Other changes	75,9
December 31, 2021	**981,0**

26. Share Capital and Share Premium

The share capital of Moscow exchange comprises ordinary shares with a par value of RUB 1 each:

	Ordinary shares issued and fully paid (number of shares)	Treasury shares (number of shares)
December 31, 2019	**2 276 401 458**	**(22 131 768)**
Treasury shares transferred	–	7 000
Exercised equity instruments (Note 11)	–	3 573 530
December 31, 2020	**2 276 401 458**	**(18 551 238)**
Treasury shares transferred	–	483
Purchase of treasury shares	–	(2 600 000)
Exercised equity instruments (Note 11)	–	2 228 138
December 31, 2021	**2 276 401 458**	**(18 922 617)**

Share premium represents an excess of contributions received over the nominal value of shares issued.

As at December 31, 2021 and December 31, 2020, the number of authorized shares is 12 095 322 151.

(in millions of Russian rubles, unless otherwise indicated)

26. Share Capital and Share Premium (continued)

During the year ended December 31, 2021 the Group distributed to employees 2 228 138 treasury shares under exercised equity instruments (December 31, 2020: 3 573 530 treasury shares) (Note 11).

27. Retained Earnings

During the year ended December 31, 2021 and December 31, 2020 the Group declared and paid to the owners of the parent dividends for the year ended December 31, 2020 of RUB 21 369,1 million (for the year ended December 31, 2019 of RUB 17 899,4 million). The amount of dividends per share is RUB 9,46 per ordinary share (for the year ended December 31, 2019 dividends per share: RUB 7,94).

The Group's distributable reserves are limited to the amount of reserves reported in the statutory financial statements of the Group members. Non-distributable reserves comprise a reserve fund, which is created according to the statutory regulations, to cover risks, including future losses and other unforeseen risks and contingencies, as well as funds of NCC required to comply with regulations of CBR relating to CCP activities.

28. Earnings per Share

The calculation of earnings per share is based on the profit for the period attributable to shareholders of the Group and the weighted average number of ordinary outstanding during the period, calculated as shown below.

	Year ended December 31, 2021	Year ended December 31, 2020
Net profit attributable to ordinary equity holders of the parent	**28 097,5**	**25 158,0**
Weighted average number of shares	**2 257 681 433**	**2 254 888 346**
Effect of dilutive share options	17 885 066	3 907 080
Weighted average number of shares adjusted for the effect of dilution	**2 275 566 499**	**2 258 795 426**
Basic earnings per share, RUB	12,45	11,16
Diluted earnings per share, RUB	12,35	11,14

29. Operating Segments

In 2021 the Group added additional operating segment **"Marketplace"** due to the increase in the business operations volume and significant to the Group, the comparative information was amended accordingly. Thus the Group distinguishes the following operating segments for management purposes depending on the types of products and services:

Operating segment **"Trading services"** includes the Group's trading services in foreign exchange, securities, derivatives and money markets, listing and other trading services.

29. Operating Segments (continued)

In the **Foreign Exchange Market** of Moscow Exchange spot and swap transactions are performed with different maturities in the following currencies: USD, EUR, CNY, HKD, GBP, CHF, JPY, TRY, KZT and BYR. Deliverable forward contracts for currency pairs are also traded in the foreign exchange market, and transactions with precious metals are performed (gold and silver).

In the **Money Market** Moscow Exchange provides repo services with shares and bonds of the following types: repo with the CCP, including repo with General Collateral Certificates with CCP (GCC-repo), inter-dealer repo, direct repo with the CBR. Participants can also perform depositary-credit operations, in particular, funds placement auctions on bank deposits.

In the **Securities Market** of Moscow Exchange primary and secondary trades in shares, Russian government bonds (OFZ), municipal and corporate bonds, foreign state and corporate eurobonds, depositary receipts, fund shares, ETFs are performed.

In the **Derivatives Market** of Moscow Exchange the following derivative instruments are traded: futures contracts on indices, Russian and foreign shares, Russian government bonds (OFZ) and eurobonds Russia-30, currency pairs, interest rates, commodities, and option contracts on futures.

Operating segment **"Clearing"** includes mainly CCP clearing services and other clearing services.

Listing services – inclusion and maintenance of securities in the List of securities admitted to on-exchange trading.

The CCP guarantees stability in the serviced market segments through the risk-management system implementation, and provides clearing services to the market participants.

The CCP guarantees that all obligations to all non-defaulting parties of the contracts signed with the CCP, regardless of whether obligations to the CCP are met or not, are fulfilled.

Operating segment **"Depository"** includes depository and settlement services provided to participants in the on-exchange and OTC markets, OTC transaction registration services (repository services), collateral management services and information services.

Operating segment **"Marketplace"** includes income and expenses from Finuslugi project. Finuslugi is a platform for online processing financial services (mortgages, consumer loans, credit cards, car loans, deposits, debit cards, microloans, investment in bonds) and insurance products ("OSAGO" compulsory automobile insurance, "KASKO" comprehensive insurance, mortgage insurance).

Operating segment **"Other services"** includes the Group's results from information products, software and technical services provision.

Software, technical and information services include a wide range of professional instruments used for access to the Exchange markets, electronic trade based on modern exchange trade technologies, real time market data, trading results data and indices.

Financial results of the operating segments are defined before the income tax expense. Therefore, the income tax is not allocated to operating segments.Segment reports and the segment financial results provided to Management of the Group for analysis are prepared according to the International Financial Reporting Standards and are adjusted for intersegment transfers. Management of the Group evaluates the segment financial results, using the segment total income and operating profit figures, taking into account differences in products and services of different segments.

(in millions of Russian rubles, unless otherwise indicated)

29. Operating Segments (continued)

The information on income and expenses of the Group broken down into operating segments for the year ended December 31, 2021 and December 31, 2020, is provided below.

	Year ended December 31, 2021					
	Trading services	**Clearing**	**Depository**	**Marketplace**	**Other services**	**Total**
Income						
Fee and commission income	14 329,8	15 638,3	8 812,9	500,6	2 272,4	41 554,0
Net interest and other finance income*	3 539,4	7 133,4	2 229,4	–	–	12 902,2
Other operating income	172,5	206,1	34,1	–	–	412,7
Total income	**18 041,7**	**22 977,8**	**11 076,4**	**500,6**	**2 272,4**	**54 868,9**
Expenses						
Personnel expenses	(4 301,2)	(1 713,9)	(2 591,7)	(532,8)	(742,1)	(9 881,7)
General and administrative expenses,	(4 595,1)	(1 195,4)	(2 927,8)	(972,2)	(942,4)	(10 632,9)
Incl. depreciation and amortisation	*(1 625,6)*	*(461,4)*	*(1 134,3)*	*(102,8)*	*(365,4)*	*(3 689,5)*
Total expenses before other operating expenses	**(8 896,3)**	**(2 909,3)**	**(5 519,5)**	**(1 505,0)**	**(1 684,5)**	**(20 514,6)**
Total profit before other operating expenses and tax	**9 145,4**	**20 068,5**	**5 556,9**	**(1 004,4)**	**587,9**	**34 354,3**
Movement in allowance for expected credit losses	8,0	698,2	(0,1)	–	(78,7)	627,4
Total profit before tax	**9 153,4**	**20 766,7**	**5 556,8**	**(1 004,4)**	**509,2**	**34 981,7**

* Including net gain on financial assets at FVTOCI and net financial result from foreign exchange.

(in millions of Russian rubles, unless otherwise indicated)

29. Operating Segments (continued)

	Year ended December 31, 2020					
	Trading services	**Clearing**	**Depository**	**Marketplace**	**Other services**	**Total**
Income						
Commission income	12 567,0	12 885,8	6 820,0	5,8	1 989,6	34 268,2
Net interest and other finance income**	3 461,4	9 302,0	1 395,3	–	–	14 158,7
Other operating income	–	–	–	–	164,1	164,1
Total income	**16 028,4**	**22 187,8**	**8 215,3**	**5,8**	**2 153,7**	**48 591,0**
Expenses						
Personnel expenses	(3 935,0)	(1 416,5)	(2 304,8)	(111,9)	(691,1)	(8 459,3)
General and administrative expenses,	(3 966,8)	(1 144,4)	(2 529,3)	(91,9)	(558,3)	(8 290,7)
Incl. depreciation and amortisation	*(1 566,5)*	*(529,5)*	*(1 096,7)*	*(25,2)*	*(130,9)*	*(3 348,8)*
Total expenses before other operating expenses	**(7 901,8)**	**(2 560,9)**	**(4 834,1)**	**(203,8)**	**(1 249,4)**	**(16 750,0)**
Total profit before other operating expenses and tax	**8 126,6**	**19 626,9**	**3 381,2**	**(198,0)**	**904,3**	**31 841,0**
Movement in allowance for expected credit losses	0,6	(1,6)	–	–	0,1	(0,9)
Total profit before tax	**8 127,2**	**19 625,3**	**3 381,2**	**(198,0)**	**904,4**	**31 840,1**

** Including net gain on financial assets at FVTOCI and net financial result from foreign exchange.

(in millions of Russian rubles, unless otherwise indicated)

30. Commitments and Contingencies

Legal proceedings – from time to time and in the normal course of business, claims against the Group may be received from customers and counterparties. Management of the Group believes that such claims may not have a material impact on its financial and operational activities and that no material losses will be incurred, and accordingly no provision has been made in these Consolidated Financial Statements.

Commodities – acting as CDO the Group provides safekeeping of commodities required for clearing purposes. As at December 31, 2021 the Group had 5,1 tonns of grain in safekeeping (December 31, 2020: 1 334 tonns of sugar and 5,1 tonns of grain). The Group accepts the operational risk on these activities, but the Group's customers bear the credit and market risks associated with such operations.

Fiduciary activities – The Group provides depositary services to its customers. As at December 31, 2021 and 2020, the Group had customer securities totaling 85 967 bln items and 93 607 bln items, respectively, in its nominal holder accounts. The Group accepts the operational risk on these activities, but the Group's customers bear the credit and market risks associated with such operations.

Taxation – Major part of the Group's business activity is carried out in the Russian Federation. Russian tax, currency and customs legislation as currently in effect is vaguely drafted and is subject to varying interpretations, selective and inconsistent application and changes, which can occur frequently, at short notice and may apply retrospectively. Management's interpretation of such legislation as applied to the transactions and activity of the Group may be challenged by the relevant regional and federal authorities. Recent trends in tax law enforcement practice indicate that the tax authorities and courts may be taking a more assertive position in their interpretation and application of this legislation and assessments. It is therefore possible that transactions and activities of the Group that have not been challenged in the past may be challenged at any time in the future. As a result, significant additional taxes, penalties and late payment interest may be assessed by the relevant authorities. Generally fiscal periods remain open and subject to review by the Russian tax authorities for a period of three calendar years immediately preceding the year in which the decision to conduct a tax review is taken. Under certain circumstances tax reviews may cover longer periods.

As at December 31, 2021 management believes that its interpretation of the relevant legislation is appropriate and that the Group's tax, currency and customs positions should be sustained vis-à-vis tax authorities and courts.

31. Transactions with Related Parties

Intragroup transactions have been eliminated on consolidation and are not disclosed in this note. Details of transactions between the Group and other related parties are disclosed below.

(a) Transactions with key management

Key management personnel comprises members of the Executive Board and the Supervisory Board. The total remuneration paid to key management personnel includes short-term benefits (salary, bonuses, payroll related taxes, insurance, health care, etc.), long-term benefits and share-based payment expense.

Included in the Consolidated Statement of Financial Position are the following amounts that arose on transactions with key management personnel:

	December 31, 2021	December 31, 2020
Other assets	1,2	0,5
Other liabilities	584,7	385,7
Share-based payments	89,0	88,4

(in millions of Russian rubles, unless otherwise indicated)

31. Transactions with Related Parties (continued)

(a) Transactions with key management (continued)

Included in the Consolidated Statement of Profit or Loss are the following amounts that arose due to transactions with key management personnel:

	Year ended December 31, 2021	Year ended December 31, 2020
Short-term employee benefits	516,9	660,0
Long-term employee benefits	74,2	89,9
Share-based payment expense on equity settled instruments	59,4	45,1
Total remuneration of key management personnel	**650,5**	**795,0**

(b) Transactions with associates and joint ventures

Included in the Consolidated Statement of Financial Position are the following amounts that arose on transactions with associates and joint ventures:

	December 31, 2021	December 31, 2020
Investments in associates and joint ventures	99,2	329,0

Included in the Consolidated Statement of Profit or Loss are the following amounts that arose due to transactions with associates and joint ventures:

	Year ended December 31, 2021	Year ended December 31, 2020
Interest income calculated using the effective interest method	–	0,5
Other operating income	89,4	–
Movement in allowance for expected credit losses	–	15,6

(c) Transactions with government-related entities

As at December 31, 2021 the Russian Federation exercises significant influence over Moscow Exchange.

(in millions of Russian rubles, unless otherwise indicated)

31. Transactions with Related Parties (continued)

(c) Transactions with government-related entities (continued)

In the ordinary course of business the Group provides trading, clearing and depositary services to government-related entities, places funds with government-related banks and bonds issued by the Russian Federation and government-related entities. According to p.26 (b) of IAS 24 the Group discloses the following significant outstanding balances and financial results on operations with government-related entities as at December 31, 2021 and December 31, 2020, and for the year ended December 31, 2021 and December 31, 2020:

	December 31, 2021	December 31, 2020
Assets		
Cash and cash equivalents	55 741,8	89 784,7
Due from financial institutions	57 162,3	82 931,7
Central counterparty financial assets	2 044 507,1	1 339 890,2
Financial assets at FVTOCI	162 212,4	131 410,7
Other assets	656,9	767,4
Liabilities		
Balances of market participants	253 942,8	297 165,6
Central counterparty financial liabilities	3 025 584,7	2 448 407,4
Distributions payable to holders of securities	12 186,9	12 699,4
Other liabilities	213,8	158,1

	Year ended December 31, 2021	Year ended December 31, 2020
Fee and commission income	17 219,1	13 123,1
Interest income calculated using the effective interest method	8 702,6	8 715,6
Other interest income	340,8	170,4
Interest expense	(259,1)	(431,7)
Foreign exchange losses less gains	(144,1)	(197,9)
Other operating income	184,8	16,5
General and administrative expenses	(365,3)	(214,8)

During the year ended December 31, 2021 the Group purchased financial assets at FVTOCI for RUB 67 262,0 million and sell securities for RUB 535,5 million with government-related entities (during the year ended December 31, 2020: purchases for RUB 62 684,4 million, sales for RUB 3 541,2 million).

All transactions were concluded on the arms' length basis.

32. Fair Value Measurements

The Group performs a fair value assessment of its assets and liabilities, as required by IFRS 13 *Fair Value Measurement*. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market for the asset or liability.

(in millions of Russian rubles, unless otherwise indicated)

32. Fair Value Measurements (continued)

The Group measures fair values for assets recorded on the statement of financial position at fair value using the following fair value hierarchy that reflects the significance of the inputs used in making the measurements:

- Level 1: Quoted market prices in an active market (that are unadjusted) 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).

The foreign currency forward and swap contracts are measured based on observable spot and forward exchange rates and the yield curves of the respective currencies.

The fair value of the unquoted securities has been determined using a discounted cash flow model, by reference to quoted market prices for similar instruments and market approach using price/net assets ratio for similar companies.

Gold and other precious metals are recorded at CBR bid prices, which approximate fair values and are quoted at a discount to London Bullion Market rates.

The table below analyses assets and liabilities measured at fair value at December 31, 2021, by the level in the fair value hierarchy into which the fair value measurement is categorised:

	December 31, 2021			
	Level 1	**Level 2**	**Level 3**	**Total**
Financial assets measured at fair value				
Financial assets at FVTPL	14 564,3	542,3	532,5	**15 639,1**
CCP financial assets and liabilities (currency transactions)	3 216,0	–	–	**3 216,0**
Financial assets at FVTOCI	232 113,8	5 707,4	–	**237 821,2**
Non-financial assets measured at fair value				
Due from financial institutions (correspondent accounts and deposits in precious metals)	–	4 943,9	–	**4 943,9**
Other assets (Precious metals)	–	12 146,2	–	**12 146,2**
Financial liabilities measured at fair value				
Other liabilities (Derivative financial liabilities)	–	(0,7)	–	**(0,7)**
Non-financial liabilities measured at fair value				
Balances of market participants (accounts of clearing participants in precious metals)	–	(17 089,9)	–	**(17 089,9)**

(in millions of Russian rubles, unless otherwise indicated)

32. Fair value Measurments (continued)

Financial assets and liabilities measured at fair value at December 31, 2020, by the level in the fair value hierarchy into which the fair value measurement is categorised:

	December 31, 2020			
	Level 1	**Level 2**	**Level 3**	**Total**
Financial assets measured at fair value				
Financial assets at FVTPL	18 312,0	1,2	539,0	**18 852,2**
CCP financial assets and liabilities (currency transactions)	3 175,8	–	–	**3 175,8**
Financial assets at FVTOCI	183 063,2	10 239,5	–	**193 302,7**
Non-financial assets measured at fair value				
Due from financial institutions (correspondent accounts and deposits in precious metals)	–	4 777,4	–	**4 777,4**
Other assets (Precious metals)	–	255,1	–	**255,1**
Financial liabilities measured at fair value				
Other liabilities (Derivative financial liabilities)	–	(139,6)	–	**(139,6)**
Non-financial liabilities measured at fair value				
Balances of market participants (accounts of clearing participants in precious metals)	–	(5 032,4)	–	**(5 032,4)**

The fair value of cash and cash equivalents, due from financial institutions, other financial assets, balances of market participants and other financial liabilities as of December 31, 2021 and 2020, refer to level 2 hierarchy of fair value.

Management of the Group considers that the fair value of cash and cash equivalents, due from financial institutions (except for correspondent accounts and deposits in precious metals), CCP financial assets and liabilities (REPO transactions), other assets (except for precious metals), balances of market participants (except for accounts of clearing participants in precious metals), due to financial institutions and other liabilities (except for derivative financial liabilities) not carried at fair value in Consolidated Statement of Financial Position approximates their carrying value due to their short-term nature.

Transfers between level 1 and 2

For assets and liabilities that are recognised at fair value on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

(in millions of Russian rubles, unless otherwise indicated)

32. Fair value Measurments (continued)

The following table shows total amount of transfers of financial assets between level 1 and level 2. Transfers from level 2 to level 1 (from level 1 to level 2) occurred due to fact that markets for certain financial assets became (ceased to be) active during the period.

	Transfers between Level 1 and Level 2	
	Year ended December 31, 2021	**Year ended December 31, 2020**
From Level 1 to Level 2		
Financial assets at FVTOCI	1 052,1	4 889,4
From Level 2 to Level 1		
Financial assets at FVTOCI	4 570,6	4 205,9

Level 3 fair value measurements reconciliation

In the year ended December 31, 2020 the Group did not recognise a gain in amount of RUB 96,4 million from the difference between the fair value at initial recognition of a financial asset at FVTPL (equity instruments) and the transaction price because the fair value was not evidenced by Level 1 or Level 2 inputs. This difference will be recognised in profit or loss when the observable market data becomes available for the fair value measurement. As at December 31, 2021 this difference remains unchanged at amount of RUB 96,4 million.

The reconciliation of Level 3 fair value measurements of financial assets is presented as follows:

	Financial assets at FVTPL
	Unquoted equities
December 31, 2019	**207,3**
Total gain in profit or loss	41,5
Purchases	597,6
Recognition of financial asset at FVTPL due to ceding control over subsidiary	21,6
Reclassification to investments in associates	(329,0)
December 31, 2020	**539,0**
Total losses in profit or loss	(30,6)
Purchases	24,1
December 31, 2021	**532,5**

(in millions of Russian rubles, unless otherwise indicated)

32. Fair value Measurments (continued)

Unobservable inputs used in measuring fair value

The following table sets out information about significant unobservable inputs used at December 31, 2021 in measuring financial instruments categorised as Level 3 in the fair value hierarchy:

Type of financial instrument	Fair values at December 31, 2021	Valuation technique	Significant unobservable input	Estimates used for significant unobservable input
Financial assets at FVTPL (unquoted shares)	532,5	Discounted cash flow model	Discount rate	24,7%
			Long-term growth	3,5%

The Group has performed a sensitivity analysis on how fair value of unquoted shares categorised as Level 3 in the fair value hierarchy will change if the key unobservable inputs used to calculate fair value change by a certain percentage.

The table below outlines the change in fair value of unquoted shares with effect on profit or loss if the key unobservable inputs change by plus or minus 3% while all other inputs stay unchanged:

Significant unobservable input	Change in significant unobservable input	Change in fair value
Discount rate	+3%	(12,2)
	-3%	13,9
Long-term growth	+3%	12,6
	-3%	(9,5)

33. Capital Management

The Group's policy is to maintain a strong capital base to maintain investor, creditor and market confidence and to sustain future development of the business. The Supervisory Board monitors the return on capital, which the Group defines as net profit divided by total equity, excluding non-controlling interests. The Supervisory Board also monitors the level of dividends to ordinary shareholders.

The capital structure of the Group consists of the shareholder's equity, which includes capital issued, reserves and retained earnings. The allocation of capital between specific operations and activities is, to a large extent, driven by optimization of the return achieved on the capital allocated. Although maximization of return on risk-adjusted capital is the principal basis used in determining how capital is allocated within the Group to particular operations or activities, it is not the sole basis used for decision making. Account is also taken of synergies with other operations and activities, the availability of management and other resources and the fit of the activity with the longer term strategic objectives. The policies in respect of capital management and allocation are regularly reviewed by the Supervisory Board through approval and review within annual budgets.

The Group entities are subject to capital requirements established by the CBR in respect of the minimum amount of own funds for each entity depending on the nature of their activities. NSD and NCC as credit institutions have to maintain a ratio of capital to risk weighted assets (statutory capital ratio N1) above the prescribed minimum level, which is 12% for NSD and 100% for NCC as a central counterparty.

(in millions of Russian rubles, unless otherwise indicated)

33. Capital Management (continued)

Moscow Exchange and NAMEX have to maintain capital adequacy ratio at minimum level 100%.

Regulatory capital ratios for the major Group companies were as follows:

	Own funds		Own funds requirements		Capital adequacy ratio	
	December 31, 2021	**December 31, 2020**	**December 31, 2021**	**December 31, 2020**	**December 31, 2021**	**December 31, 2020**
Moscow Exchange	46 086,2	51 315,1	100,0	100,0	164,29	330,96
NCC	80 449,6	73 302,6	300,0	300,0	146,71	148,35
NSD	14 949,5	12 337,9	4 000,0	4 000,0	29,00	27,90
NAMEX	200,9	224,1	100,0	100,0	616,61	261,62

The Group companies had complied in full with all its externally imposed capital requirements at all times.

34. Risk Management Policies

Risk management is an integral part of the Group's activities. Moscow Exchange Group distinguishes the following significant risks: credit, liquidity, market, operational. Risk management core objectives include identification of sources of risks, measurement of risk levels, development of risk management policies and implementation of risk controls, including setting limits and further compliance with them.

A description of the Group's risk management policies in relation to each significant risk is as follows.

Credit risk

The Group uses credit risk risk management approaches under requirements of the Russian regulators, based on the best international practices and standards. The Group's assets are exposed to credit risk, which is defined as the risk of losses resulting from a default or improper performance of their obligations to the Group by its counterparties.

The goal of credit risk management is to timely define and efficiently evaluate the level of risk necessary to ensure sustainable growth determined by the Group's development strategy.

The objectives of the Group in credit risk management:

- implement a systemic and enhanced approach to optimize the structure of the assets in order to limit credit risk level;
- enhance the competitive advantages of the Group through implementation of more precise risk measures;
- maintain stability during the introduction of new complex products and services.

The Group controls credit risk by setting limits on a counterparty and groups of related counterparties. Credit risk limits are set on the basis of a comprehensive and in-depth evaluation of the counterparties financial conditions, analysis of the macroeconomic environment of counterparties' activities, the level of information transparency, business reputation and other financial and non-financial factors. The Group has developed and constantly improves an internal ratings system, providing a prudent assessment of its counterparties and the level of accepted credit risk.

Credit risk limits are approved by authorized bodies. Credit risk limits are monitored and reviewed on a regular basis. Also the Group constantly monitors the concentration of credit risk in compliance with applicable prudential requirements.

(in millions of Russian rubles, unless otherwise indicated)

34. Risk Management Policies (continued)

To reduce credit risk the Group applies specific requirements to the financial conditions of its counterparties and to the types and quality of collateral accepted by the Group. Accepted collateral includes liquid securities and cash contributions in Rubles and foreign currencies. Eligible types of collateral depend on the market and the type of exposure. To mitigate credit risk from its CCP activities the Group has introduced a multi-level default waterfall structure in compliance with the highest international standards and consisting of various lines of defence applicable in case of a clearing participant default.

As explained in Note 2, the Group monitors all financial assets that are subject to impairment requirements to assess whether there has been a significant increase in credit risk since initial recognition. If there has been a significant increase in credit risk the Group will measure the loss allowance based on lifetime rather than 12-month ECL.

The Group uses forward-looking information in its assessment of significant increase in credit risk as well as in its measurement of ECL. The Group uses CDS curves quotes in its measurement of ECL. The Group has identified and documented the key driver of credit risk and credit losses – CDS of Russia.

The Group has performed a sensitivity analysis on how ECL on the main portfolios will change if the key assumptions used to calculate ECL change by a certain percentage.

The table below outlines the total ECL per portfolio as at December 31, 2021 if the assumptions used to measure ECL remain as expected (amount as presented in the statement of financial position), as well as if the key assumption used change by plus or minus 25 % (parallel shift of CDS curve).

	As expected	ECL Cumulative
	+25%	1 065
CDS of Russia 1y	–	1 038
	-25%	933
	+25%	985
CDS of Russia 2y	–	1 038
	-25%	1 123

As at December 31, 2021 and 2020, the Group has no modified financial assets as a result of the Group's forbearance activities and no amounts outstanding on financial assets that were written off during the reporting period and are still subject to enforcement activity.

Maximum credit risk exposure

The Group's maximum exposure to credit risk equals to the carrying value of assets that bear credit risk.

As at December 31, 2021 included into other assets are overdue receivables of RUB 854,7 million (December 31, 2020: RUB 2 365,8million).

Financial assets are classified according to the current credit ratings issued by international rating agencies (Fitch Ratings, Standard & Poor's and Moody's Investor Service). The highest possible rating is AAA. Investment grade financial assets have ratings from AAA to BBB-. Financial assets which have ratings lower than BBB- are classed as speculative grade.

As at December 31, 2021 and 2020, balances with the CBR are classified at the sovereign credit rating level of the Russian Federation.

The following table details the credit ratings of the financial assets held by the Group as at December 31, 2021. Table below does not include equity instruments.

(in millions of Russian rubles, unless otherwise indicated)

34. Risk Management Policies (continued)

Maximum credit risk exposure (continued)

	AA	**A**	**BBB**	**Less BBB-**	**Not rated**	**December 31, 2021 Total**
Financial assets:						
Cash and cash equivalents	367 986,8	39 643,9	60 300,5	176,7	3 170,8	**471 278,7**
Stage 1 assets	*367 986,8*	*39 643,9*	*60 300,5*	*176,7*	*3 170,8*	*471 278,7*
Financial assets at fair value though profit or loss	–	542,2	11 676,3	2 888,1	–	**15 106,6**
Due from financial institutions	9 370,3	–	57 039,7	31 587,3	29,4	**98 026,7**
Stage 1 assets	*9 370,3*	–	*57 039,7*	*31 587,3*	–	*97 997,3*
Stage 3 assets	–	–	–	–	*29,4*	*29,4*
Central counterparty financial assets	–	–	1 441 791,6	1 313 245,3	2 501 034,3	**5 256 071,2**
Stage 1 assets	–	–	1 441 791,6	1 313 245,3	2 501 034,3	**5 256 071,2**
Financial assets at FVTOCI	–	326,2	199 840,4	33 230,9	4 423,7	**237 821,2**
Stage 1 assets	–	*326,2*	*197 627,8*	*33 230,9*	*4 423,7*	*235 608,6*
Stage 2 assets	–	–	*2 212,6*	–	–	*2 212,6*
Other financial assets	226,8	0,5	529,6	190,1	632,5	**1 579,5**
Stage 1 assets	*226,8*	*0,5*	*529,6*	*189,9*	*629,8*	*1 576,6*
Stage 2 assets	–	–	–	*0,2*	*2,7*	*2,9*
Stage 3 assets	–	–	–		–	–

The following table details the credit ratings of the financial assets held by the Group as at December 31, 2020. Table below does not include equity instruments.

	AA	**A**	**BBB**	**Less BBB-**	**Not rated**	**December 31, 2020 Total**
Financial assets:						
Cash and cash equivalents	291 118,9	83 901,1	72 765,7	22 719,3	1 284,7	**471 789,7**
Stage 1 assets	*291 118,9*	*83 901,1*	*72 765,7*	*22 719,3*	*1 284,7*	*471 789,7*
Financial assets at fair value though profit or loss	–	0,5	10 804,0	7 508,7	–	**18 313,2**
Due from financial institutions	9 215,8	143,3	82 763,7	57 879,2	36,0	**150 038,0**
Stage 1 assets	*9 215,8*	*143,3*	*82 763,7*	*57 879,2*		*150 002,0*
Stage 3 assets	–	–	–	–	*36,0*	*36,0*
Central counterparty financial assets	–	–	562 414,3	1 509 083,1	1 979 340,2	**4 050 837,6**
Stage 1 assets	–	–	*562 414,3*	*1 509 083,1*	*1 979 340,2*	*4 050 837,6*
Financial assets at FVTOCI	–	336,1	156 257,3	34 526,7	2 182,6	**193 302,7**
Stage 1 assets	–	*336,1*	*156 257,3*	*34 526,7*	*2 182,6*	*193 302,7*
Other financial assets	100,5	2,3	534,1	249,6	530,0	**1 416,5**
Stage 1 assets	*100,5*	*2,3*	*533,4*	*249,0*	*527,7*	*1 412,9*
Stage 2 assets	–	–	*0,7*	*0,6*	*2,3*	*3,6*
Stage 3 assets	–	–	–	–	–	–

(in millions of Russian rubles, unless otherwise indicated)

34. Risk Management Policies (continued)

Geographical concentration

The analysis of the geographical concentration of the financial assets and liabilities of the Group as at December 31, 2021 is presented below:

	Russia	OECD	Other	December 31, 2021 Total
Financial assets				
Cash and cash equivalents	33 041,9	438 006,2	235,3	**471 283,4**
Financial assets at FVTPL	111,5	15 143,1	384,5	**15 639,1**
Due from financial institutions	88 627,0	9 370,3	29,4	**98 026,7**
CCP financial assets	5 256 068,3	–	2,9	**5 256 071,2**
Financial assets at FVTOCI	180 384,7	57 311,5	125,0	**237 821,2**
Investments in associates and joint ventures	99,2	–	–	**99,2**
Other financial assets	1 267,6	284,0	27,9	**1 579,5**
Total financial assets	**5 559 600,2**	**520 115,1**	**805,0**	**6 080 520,3**
Financial liabilities				
Balances of market participants	666 184,8	25 538,0	9 582,5	**701 305,3**
Due to financial institutions	182,2	–	–	**182,2**
CCP financial liabilities	5 254 556,7	1 514,4	0,1	**5 256 071,2**
Distributions payable to holders of securities	14 336,8	2 354,4	324,2	**17 015,4**
Other financial liabilities	2 623,8	233,6	15,0	**2 872,4**
Total financial liabilities	**5 937 884,3**	**29 640,4**	**9 921,8**	**5 977 446,5**

The analysis of the geographical concentration of the financial assets and liabilities of the Group as at December 31, 2020 is presented below:

	Russia	OECD	Other	December 31, 2020 Total
Financial assets				
Cash and cash equivalents	31 245,9	440 292,3	254,8	**471 793,0**
Financial assets at FVTPL	126,8	18 326,5	398,9	**18 852,2**
Due from financial institutions	140 642,9	9 359,1	36,0	**150 038,0**
CCP financial assets	4 050 828,6	–	9,0	**4 050 837,6**
Financial assets at FVTOCI	138 786,7	53 963,0	553,0	**193 302,7**
Investments in associates and joint ventures	–	329,0	–	**329,0**
Other financial assets	1 237,2	173,6	5,7	**1 416,5**
Total financial assets	**4 362 868,1**	**522 443,5**	**1 257,4**	**4 886 569,0**
Financial liabilities				
Balances of market participants	688 814,8	13 848,6	9 197,3	**711 860,7**
CCP financial liabilities	4 050 827,0	–	10,6	**4 050 837,6**
Distributions payable to holders of securities	14 487,5	672,2	529,5	**15 689,2**
Other financial liabilities	1 765,0	430,4	4,9	**2 200,3**
Total financial liabilities	**4 755 894,3**	**14 951,2**	**9 742,3**	**4 780 587,8**

34. Risk Management Policies (continued)

Geographical concentration (continued)

As at December 31, 2021, the balances with OECD counterparties include the following balances with OECD subsidiaries of Russian companies:

Cash and cash equivalents in the amount of RUB 29 503,5 mln (December 31, 2020: RUB 64 419,8 mln);

Financial assets at fair value through profit or loss in the amount of RUB 14 564,3 mln (December 31, 2020: RUB 18 312,0 mln);

Financial assets at fair value through other comprehensive income in the amount of RUB 57 311,5 mln (December 31, 2020: RUB 53 963,0 mln);

Balances of market participants in the amount of RUB 9 094,4 mln (December 31, 2020: RUB 13 049,9 mln);

Distributions payable to holders of securities in the amount of RUB 27,7 mln (December 31, 2020: RUB 93,7 mln).

Liquidity risk

Liquidity risk is the risk of facing the situation where available funds are insufficient to meet current financial liabilities. The main purpose of liquidity management is to ensure Group's ability to perform its obligations not only under normal market conditions but also in cases of unforeseen emergencies without suffering unacceptable losses or risk of damaging its business reputation.

Group's liquidity management procedures cover various forms of liquidity risk:

- operating liquidity risk arising from the inability to timely meet its current obligations due to the existing structure of current cash credits and debits (operating analysis and control of liquidity);
- risk of mismatch between the amounts and dates of repayment of claims and obligations – analysis and assessment of prospective liquidity (GAP analysis);
- risk of unforeseen claims on liquidity, i.e. the consequences of the risk that unforeseen future events may claim more resources than allocated for this purpose (stress testing).

Liquidity risk management plays an important role in the whole risk management system and includes such procedures as: forecasting/monitoring payment flow and liquidity ratios, planning measures to recover the required liquidity level considering unfavourable and crisis situations, ensuring an optimal structure of assets in accordance with the resource base, taking into account the maturities of fund sources and their volumes when allocating assets to financial instruments.

The maturities of assets and liabilities and the ability to replace, at an acceptable cost, interest-bearing liabilities as they mature, are important factors in assessing the liquidity of the Group and its exposure to changes in interest and exchange rates.

Management of the Group expects that the cash flows from certain financial assets will be different from their contractual terms either because the Group has the discretionary ability to manage the cash flows or because past experience indicates that cash flows will differ from contractual terms. In the tables below the financial assets and liabilities are presented on a discounted basis and are based on their expected cash flows.

In case of any liquidity shortages the following liquidity management tools are used by the Group: overdraft borrowing from the CBR, Lombard and interbank borrowings, repo deals, currency SWAPs. The presentation below is based upon the information provided internally to key management personnel of the Group.

(in millions of Russian rubles, unless otherwise indicated)

34. Risk Management Policies (continued)

Liquidity risk (continued)

	Up to 1 month	1 to 3 months	3 months to 1 year	More than 1 year	Maturity undefined	Total
December 31, 2021						
Financial assets						
Cash and cash equivalents	471 283,4	–	–	–	–	**471 283,4**
Financial assets at FVTPL	542,3	–	4 797,7	9 766,6	532,5	**15 639,1**
Due from financial institutions	48 058,3	24 798,8	15 769,9	29,4	9 370,3	**98 026,7**
CCP financial assets	4 572 963,3	548 931,0	134 176,9	–	–	**5 256 071,2**
Financial assets at FVTOCI	168 381,5	4 250,9	17 126,5	48 062,3	–	**237 821,2**
Investments in associates and joint ventures	–	–	–	–	99,2	**99,2**
Other financial assets	1 150,0	429,5	–	–	–	**1 579,5**
Total financial assets	**5 262 378,8**	**578 410,2**	**171 871,0**	**57 858,3**	**10 002,0**	**6 080 520,3**
Financial liabilities						
Balances of market participants	691 935,0	–	–	–	9 370,3	**701 305,3**
Due to financial institutions	182,2	–	–	–	–	**182,2**
CCP financial liabilities	4 572 963,3	548 931,0	134 176,9	–	–	**5 256 071,2**
Distributions payable to holders of securities	17 015,4	–	–	–	–	**17 015,4**
Other financial liabilities	1 279,3	174,0	487,1	932,0	–	**2 872,4**
Total financial liabilities	**5 283 375,2**	**549 105,0**	**134 664,0**	**932,0**	**9 370,3**	**5 977 446,5**
Liquidity gap	**(20 996,4)**	**29 305,2**	**37 207,0**	**56 926,3**	**631,7**	
Cumulative liquidity gap	**(20 996,4)**	**8 308,8**	**45 515,8**	**102 442,1**	**103 073,8**	

(in millions of Russian rubles, unless otherwise indicated)

34. Risk Management Policies (continued)

Liquidity risk (continued)

	Up to 1 month	1 to 3 months	3 months to 1 year	More than 1 year	Maturity undefined	Total
December 31, 2020						
Financial assets						
Cash and cash equivalents	471 793,0	–	–	–	–	**471 793,0**
Financial assets at FVTPL	1,2	–	5 054,8	13 257,2	539,0	**18 852,2**
Due from financial institutions	82 941,0	34 221,5	23 657,7	36,0	9 181,8	**150 038,0**
CCP financial assets	3 342 980,1	582 611,5	125 246,0	–	–	**4 050 837,6**
Financial assets at FVTOCI	135 744,9	5 420,8	5 436,7	46 700,3	–	**193 302,7**
Investments in associates and joint ventures	–	–	–	–	329,0	**329,0**
Other financial assets	1 124,5	292,0	–	–	–	**1 416,5**
Total financial assets	**4 034 584,7**	**622 545,8**	**159 395,2**	**59 993,5**	**10 049,8**	**4 886 569,0**
Financial liabilities						
Balances of market participants	702 678,9	–	–	–	9 181,8	**711 860,7**
CCP financial liabilities	3 342 980,1	582 611,5	125 246,0	–	–	**4 050 837,6**
Distributions payable to holders of securities	15 689,2	–	–	–	–	**15 689,2**
Other financial liabilities	665,8	204,2	422,6	907,7	–	**2 200,3**
Total financial liabilities	**4 062 014,0**	**582 815,7**	**125 668,6**	**907,7**	**9 181,8**	**4 780 587,8**
Liquidity gap	**(27 429,3)**	**39 730,1**	**33 726,6**	**59 085,8**	**868,0**	
Cumulative liquidity gap	**(27 429,3)**	**12 300,8**	**46 027,4**	**105 113,2**	**105 981,2**	

Undiscounted cash flows on financial liabilities are approximately equal to cash flows presented in the analysis of liquidity risk above.

The Group presents securities included in the CBR Lombard list as matured in one month.

Market risk

Market risk is the risk of losses due to changes in market variables such as interest rates, foreign exchange rates, and prices of financial instruments, as well as due to the low liquidity of the market for the purpose of the liquidation restructuring of the market position of the defaulted clearing participant.

The key components of market risk are interest and currency risks.

(in millions of Russian rubles, unless otherwise indicated)

34. Risk Management Policies (continued)

Interest rate risk

Interest rate risk is the risk of changes in interest income or the financial instruments price due to the interest rate changes.

The Group's result is exposed to the effects of fluctuations in the prevailing levels of market interest rates on its financial positions and cash flows. Interest margin may increase, decrease or lead to losses as a result of unexpected movements.

Management of the relevant Group entities is responsible for asset-liability management regarding relevant individual Group entities.

Designated functional units within individual Group entities and at the Group level are responsible for interest rate risk management.

In order to measure the impact of interest rate risk on the fair value of financial instruments the Group conducts periodic assessments of potential losses, which may be triggered by negative changes in market environment. The Risk Management Department conducts periodic monitoring of the current financial results of the Group and its entities, assesses the sensitivity of the impact of interest rate risk on portfolio fair value and income.

The majority of the Group's transactions is represented by fixed income instruments, and hence the contractual maturity dates are also the dates of changes in interest rates.

The impact of changes in fair value of financial assets on the income, losses and equity is conducted based on the interest rates existing as at December 31, 2021 and 2020, and reasonably possible changes of 250 bps. Corresponding negative and positive results shown on the yield curve are as follows:

	Year ended December 31, 2021		Year ended December 31, 2020	
	Net profit	**Equity**	**Net profit**	**Equity**
250 bp parallel rise	(391,5)	(13 180,7)	(887,6)	(11 933,0)
250 bp parallel fall	319,0	12 010,3	648,4	15 885,0

Currency risk

Currency risk is the risk of changes in financial instruments value due to the exchange rates fluctuations. The financial state and cash flows of the Group are subject to the influence of such fluctuations. The main source of currency risk are open foreign currency positions.

NCC being part of the Group is a CCP on the of FX market. NCC limits currency risk on FX market through the application of the following instruments: mechanism of currency rates restrictions within trading session, trading limits system, margining system, mechanism of open currency positions assurance, DVP principle, special swap facilities.

NCC defines currency risk in the course of clearing arising from currency pairs volatility. In this regard for market risk management NCC monitors the conditions of internal and external FX markets and sets limits on intraday rate fluctuations within trading sessions in accordance with current market environment.

(in millions of Russian rubles, unless otherwise indicated)

34. Risk Management Policies (continued)

Currency risk (continued)

The Group's exposure to foreign currency exchange rate risk is presented in the tables below:

	RUB	USD	EUR	Other currencies	December 31, 2021, Total
Financial assets					
Cash and cash equivalents	27 207,3	268 845,5	137 479,6	37 751,0	**471 283,4**
Financial assets at FVTPL	111,3	14 564,3	36,7	384,5	**15 096,8**
Due from financial institutions	66 150,5	31 867,5	8,7	–	**98 026,7**
Central counterparty financial assets	3 790 785,8	1 288 415,3	176 870,1	–	**5 256 071,2**
Financial assets at FVTOCI	128 387,0	75 756,0	33 678,2	–	**237 821,2**
Investments in associates and joint ventures	99,2	–	–	–	**99,2**
Other financial assets	1 221,9	241,4	105,8	10,4	**1 579,5**
Total financial assets	**4 013 963,0**	**1 679 690,0**	**348 179,1**	**38 145,9**	**6 079 978,0**
Financial liabilities					
Balances of market participants	105 377,3	421 070,1	137 122,8	37 735,1	**701 305,3**
Due to financial institutions	0,2	182,0	–	–	**182,2**
Central counterparty financial liabilities	3 790 785,8	1 288 415,3	176 870,1	–	**5 256 071,2**
Distributions payable to holders of securities	14 349,0	2 497,9	164,1	4,4	**17 015,4**
Other financial liabilities	2 629,3	113,2	118,6	10,6	**2 871,7**
Total financial liabilities	**3 913 141,6**	**1 712 278,5**	**314 275,6**	**37 750,1**	**5 977 445,8**
Derivatives	**111,5**	**34 067,4**	**(33 637,3)**	**–**	**541,6**
Open position	**100 932,9**	**1 478,9**	**266,2**	**395,8**	

(in millions of Russian rubles, unless otherwise indicated)

34. Risk Management Policies (continued)

Currency risk (continued)

	RUB	USD	EUR	Other currencies	December 31, 2020, Total
Financial assets					
Cash and cash equivalents	26 033,2	174 308,8	240 555,3	30 895,7	**471 793,0**
Financial assets at FVTPL	126,1	18 312,0	14,0	398,9	**18 851,0**
Due from financial institutions	92 156,7	57 875,0	6,3	–	**150 038,0**
Central counterparty financial assets	3 253 266,9	644 826,7	152 744,0	–	**4 050 837,6**
Financial assets at FVTOCI	118 491,9	44 974,0	29 836,8	–	**193 302,7**
Investments in associates and joint ventures	329,0	–	–	–	**329,0**
Other financial assets	1 294,4	120,4	0,3	1,4	**1 416,5**
Total financial assets	**3 491 698,2**	**940 416,9**	**423 156,7**	**31 296,0**	**4 886 567,8**
Financial liabilities					
Balances of market participants	117 669,0	356 684,0	206 630,3	30 877,4	**711 860,7**
Central counterparty financial liabilities	3 253 266,9	644 826,7	152 744,0	–	**4 050 837,6**
Distributions payable to holders of securities	14 586,5	1 101,9	0,2	0,6	**15 689,2**
Other financial liabilities	1 916,3	50,3	191,4	42,3	**2 200,3**
Total financial liabilities	**3 387 438,7**	**1 002 662,9**	**359 565,9**	**30 920,3**	**4 780 587,8**
Derivatives	**103,7**	**63 234,8**	**(63 485,3)**	**8,4**	**(138,4)**
Open position	**104 363,2**	**988,8**	**105,5**	**384,1**	

The following exchange rates are applied during the period:

	December 31, 2021		**December 31, 2020**	
	USD	**EUR**	**USD**	**EUR**
Minimum	69,5526	80,7019	60,9474	67,8162
Maximum	77,7730	92,3321	80,8815	93,7570
Average	73,6685	87,0861	72,3230	82,8358
Year-end	74,2926	84,0695	73,8757	90,6824

(in millions of Russian rubles, unless otherwise indicated)

34. Risk Management Policies (continued)

Currency risk (continued)

In addition to projecting and analysing its earnings and debt profile by currency, the Group reviews sensitivities to movements in exchange rates which are appropriate to market conditions. The Group has considered movements in the Euro and the US Dollar over the year ended December 31, 2021 and 2020, and has concluded that the following movements in rates are reasonable levels to measure the risk to the Group:

	December 31, 2021	December 31, 2020
Movement in USD/RUB rate	10%	10%
Movement in EUR/RUB rate	10%	10%

The impact of these movements on post-tax profit for the years ended December 31, 2020 and 2019, and equity as at December 31, 2021 and 2020, is set out in the table below:

	December 31, 2021		December 31, 2020	
	USD	EUR	USD	EUR
	10%	10%	10%	10%
Ruble appreciation	(133,1)	(24,0)	(89,0)	(9,5)
Ruble depreciation	133,1	24,0	89,0	9,5

Operational risk

Operational risk is the risk of direct or indirect losses arising from a wide variety of risk events associated with the internal processes, personnel, technology and infrastructure, and from external factors (other than credit, market and liquidity risks) such as those arising from legal and regulatory requirements and generally accepted standards of corporate behaviour or IT failure.

The Supervisory Board has overall responsibility for the oversight of operational risk management, reviewing risk management policies and procedures. The risk assessment, reporting and control procedures vary by exposure type, but share a common methodology developed and updated periodically by the risk management personnel.

Both external and internal risk factors are identified and managed throughout the business units within their functional duties. The primary responsibility for the implementation of controls to address operational risk is assigned to management within each business unit.

Operational risk management includes reputational, compliance and legal risks governance as well.

Moreover, strategic risk (risk of non-achievement of strategic goals within certain deadline or resources) is also monitored and managed under the operational risk management framework.

Legal risk

Legal risk is associated with losses due to breaches of contractual obligations, trial, criminal and administrative liability of the group entities and/or their management in the performance of their official duties. Losses attributed to legal risk are recorded in risk events database along with operational risk losses.

34. Risk Management Policies (continued)

Legal risk (continued)

Legal risk management procedures include:

- monitoring of legislation and internal procedures for compliance with the up-to-date requirements on a regular basis;
- setting quantitative and volume limits for legal claims and control over limits set;
- analysis of legal basis for all new products and services;
- update of internal regulations in order to prevent fines.

Compliance risk

Compliance risk is the risk of losses resulting from Group activities being inconsistent with the law, the Charter and internal regulations. Compliance risk is solely managed by Internal Control department that takes the following actions in order to prevent losses due to compliance risk realization:

- legislation monitoring;
- interaction with the regulatory authorities regarding the specifics of upcoming regulation;
- compliance risk identification in existing and planned internal procedures;
- best-practice analysis of internal control measures.

Reputational risk

Reputational risk is the risk of losses due to the negative public view on the operational (technical) stability of the Group, its service quality and business in general. In order to avoid such losses the Group constantly monitor its appearance in media along with internal processes using the methodology of assessment the impact of each event. The major source of reputational risk is realization of operational risk, specifically when it becomes public. Thus, all actions taken to prevent the Group from operational risk at the same time help to decrease the level of reputational risk.

35. Offsetting of Financial Instruments

Gross claims and liabilities with individual counterparties under CCP currency transactions are offset in accordance with IAS 32.

Direct and reverse repo transactions of CCP with individual counterparties are subject to clearing rules that create a contingent right of set-off that does not qualify for offsetting. Clearing participants are required to deposit collateral in the form of cash or securities for current deals and make contribution to a risk-covering fund, as described in Note 34. Clearing rules give the Group right to use these amounts under certain conditions (e.g. in case of default). However, offsetting criteria is not met as there is no intention either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Reverse repo transactions with financial institutions are subject to master agreement that gives the Group right to settle amounts relating to these transactions on a net basis under certain conditions (e.g. in case of default), but offsetting criteria is not met as there is no enforceable right to set off in the normal course of business.

The table below shows financial assets and liabilities offset in the statement of financial position, as well as the effect of clearing agreements that do not result in an offset in the statement of financial position:

(in millions of Russian rubles, unless otherwise indicated)

35. Offsetting of Financial Instruments (continued)

	December 31, 2021			Related amounts not set off in the statement of the financial position		
	Gross claims	Gross liabilities	Net amount presented in financial statements	Financial instruments	Collateral received	Net amount
Due from financial institutions (reverse repo receivables from financial institutions)	23 451,8	–	23 451,8	(23 451,8)	–	–
Central counterparty financial assets (repo transactions)	5 252 855,2	–	5 252 855,2	(5 252 855,2)	–	–
Central counterparty financial assets (currency transactions)	3 216,0	–	3 216,0	(2 386,0)	(830,0)	–
Financial assets at fair value through profit or loss (derivative financial assets)	542,3	–	542,3	(0,7)	(182,0)	359,6
Central counterparty financial liabilities (repo transactions)	–	(5 252 855,2)	(5 252 855,2)	5 252 855,2	–	–
Central counterparty financial liabilities (currency transactions)	–	(3 216,0)	(3 216,0)	2 386,0	830,0	–
Other liabilities (derivative financial liabilities)	–	(0,7)	(0,7)	0,7	–	–

	December 31, 2020			Related amounts not set off in the statement of the financial position		
	Gross claims	Gross liabilities	Net amount presented in financial statements	Financial instruments	Collateral received	Net amount
Due from financial institutions (reverse repo receivables from financial institutions)	49 436,2	–	49 436,2	(49 436,2)	–	–
Central counterparty financial assets (repo transactions)	4 047 661,8	–	4 047 661,8	(4 047 661,8)	–	–
Central counterparty financial assets (currency transactions)	3 175,8	–	3 175,8	(2 660,0)	(515,8)	–
Financial assets at fair value through profit or loss (derivative financial assets)	1,2	–	1,2	(0,5)	–	0,7
Central counterparty financial liabilities (repo transactions)	–	(4 047 661,8)	(4 047 661,8)	4 047 661,8	–	–
Central counterparty financial liabilities (currency transactions)	–	(3 175,8)	(3 175,8)	2 660,0	515,8	–
Other liabilities (derivative financial liabilities)	–	(139,6)	(139,6)	0,5	138,7	(0,4)

(in millions of Russian rubles, unless otherwise indicated)

36. Events after the reporting date

In February 2022, certain countries announced new packages of sanctions against the public debt of the Russian Federation and a number of Russian banks, as well as personal sanctions against a number of individuals.

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 ruble against the US dollar and the euro.

It is expected that these events may affect the activities of Russian enterprises in various sectors of the economy.

In order to adapt the financial sector to increased volatility, the Bank of Russia announced measures to support the financial sector, including certain changes to regulatory requirements.

Due to a significant change in the financial market environment, the Bank of Russia has established for NCC, the Group's subsidiary, new control level of the N1 CC capital adequacy ratio having decreased it from 100% to 50%. As of March 1, 2022 N1 CC ratio comprised 77,5%.

Clearing and trading activities of the Group are carried out in coordination with the Bank of Russia. The regulator also decides on the trading schedule for certain markets.

The exchange rate of the main currencies the Group operates with against the Russian ruble as of the date of issue of the financial statements increased significantly and amounted to:

USD	111,7564
EUR	124,0161

The key rate of the Bank of Russia as of the date of issue of the financial statements was 20% (December 31, 2021: 8,5%).

In order to avoid mass sales of Russian securities and expatriation of funds out of financial market, and support financial stability, the Bank of Russia circulated the ruling by which it temporarily prohibits brokers to execute foreign clients' securities sale orders. Also another ruling circulated to custodians and registrars prohibits outgoing transfers of Russian securities from foreign investors' depo accounts and suspends transfers of payouts on such securities.

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.

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.