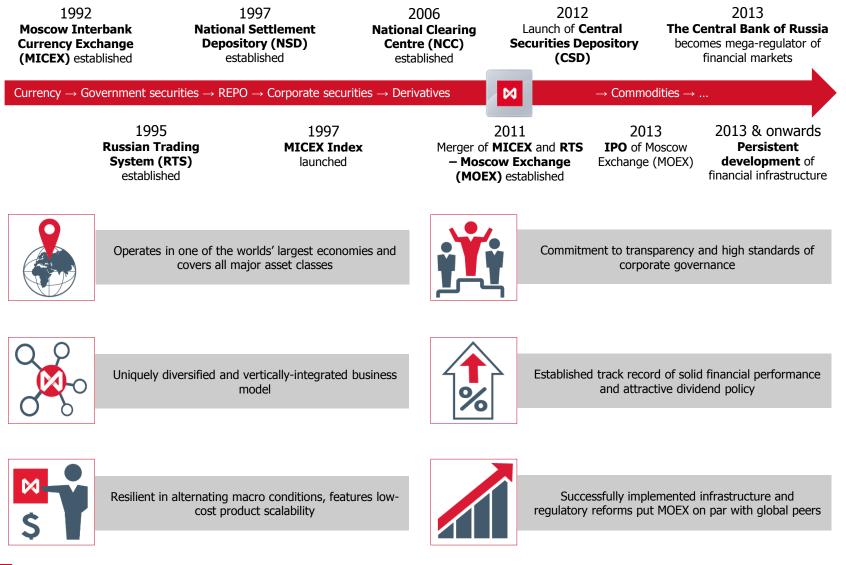


MOSCOW EXCHANGE

April 2018

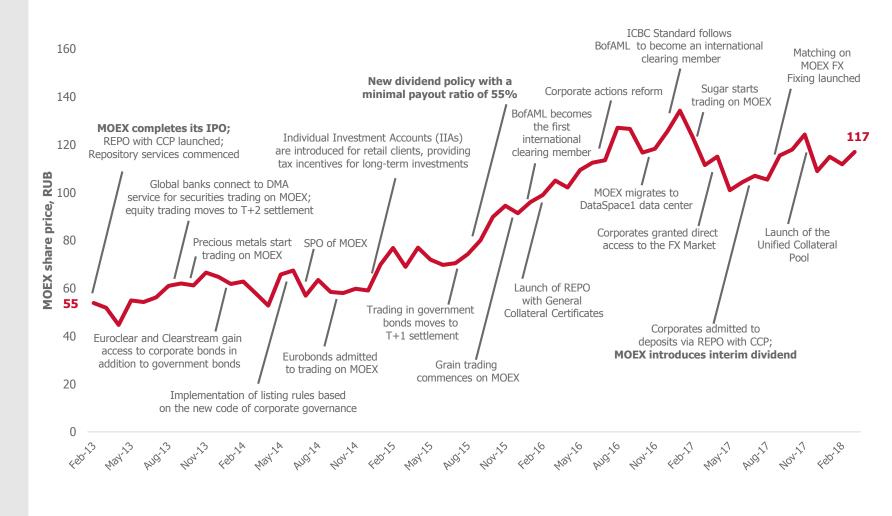
# Investor presentation

# **History of MOEX**





## MOEX share price performance and financial market reforms





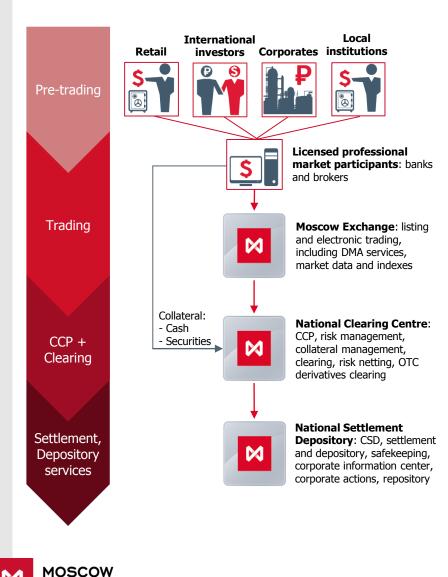


### **Business overview**

- **2** Corporate governance and dividends
- **3** Market position and competitive strategy
- 4 Financial track record
- 5 4Q and FY 2017 update



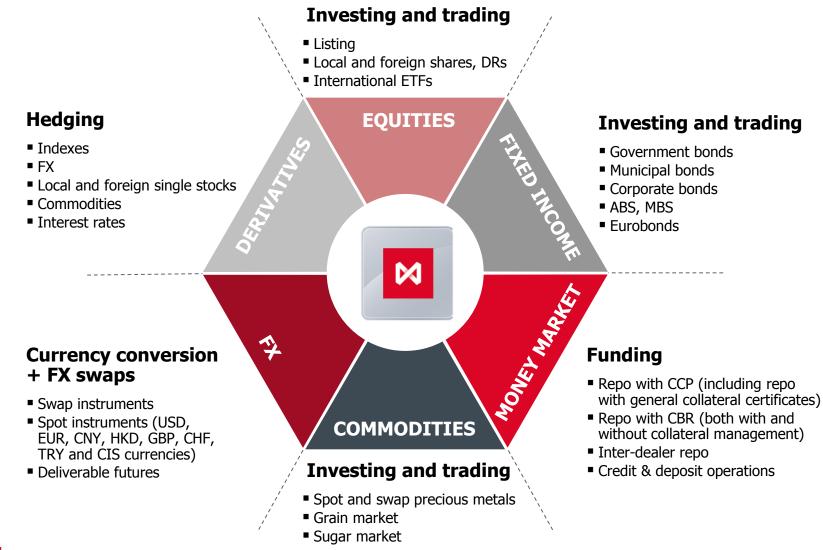
### **On-exchange market**: capturing the entire value chain



EXCHANGE

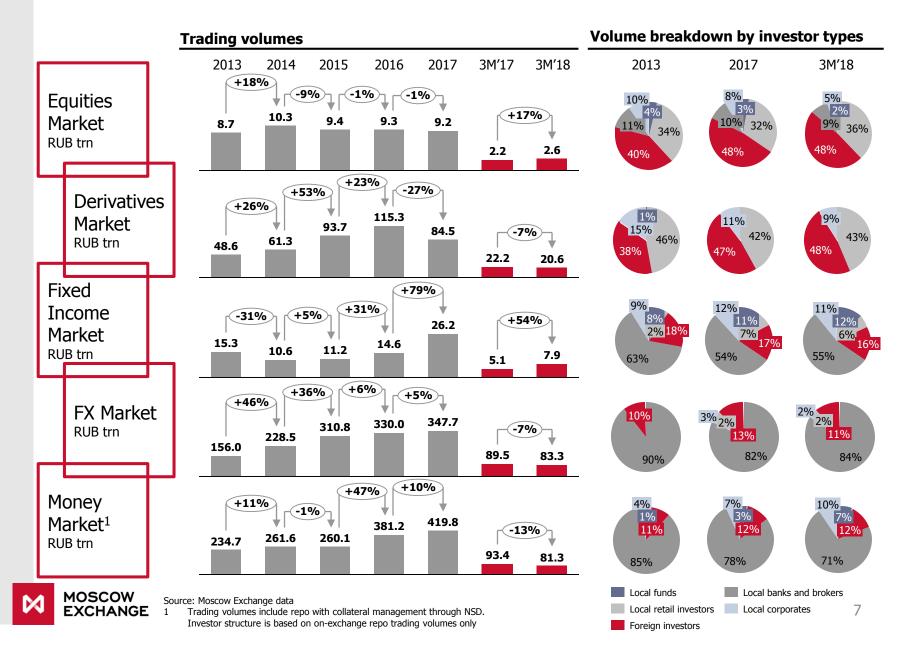
- ✓ MOEX captures the entire value chain for end-customers, offering a one-stop shop for listing, risk management, market data, multi-asset trading, clearing, settlement and custody.
- ✓ MOEX is strategically positioned to benefit from the development of Russia's capital markets in the coming years.
- ✓ Fully vertically integrated infrastructure with regulation and oversight by the Bank of Russia (CBR).
- ✓ Single-tier clearing system requires all participants to provide eligible collateral to trade any asset class, while pre-trade risk checks forestall any "fat fingers"/"flash crash" problems.
- The market has always been open for competition (except the CSD), but entry barriers are very high due to MOEX's post-trade infrastructure and **on-exchange market efficiency**.
   OTC is the key source of competition.
- Investors trade through brokers and banks, which are licensed locally and have access to MOEX markets. Foreign investors have DMA, SMA and ICM services at their disposal.

## Highly diversified product offering



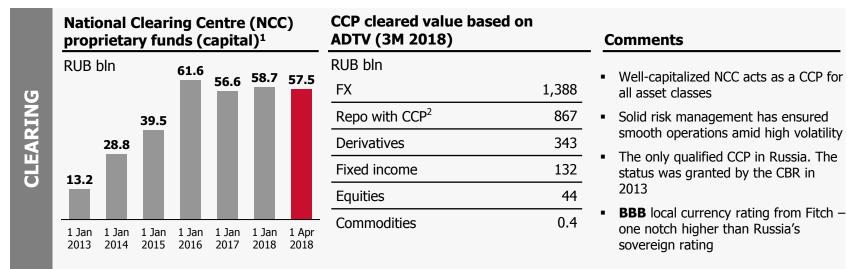
#### MOSCOW EXCHANGE

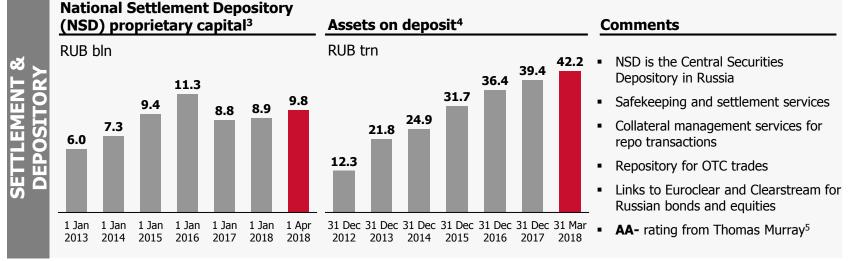
### Diversified investor base across different markets



## Robust post-trade infrastructure

Central Counterparty (CCP) and Central Securities Depository (CSD)





Source: Moscow Exchange

1



onwards include skin in the game and other deductions in accordance with the regulation of CCPs by the CBR Including GCC-repo

Figures in accordance with Russian Accounting Standards as reported to and disclosed by the CBR on a monthly basis. Figures from the end of 2015

- 3 Figures in accordance with Russian Accounting Standards as reported to and disclosed by the CBR on a monthly basis
- 4 Assets on deposit based on Company's operational data
- 5 Thomas Murray is the leading global agency for depository services

1	Business overview
$\bowtie$	Corporate governance and dividends
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## Best-in-class corporate governance standards

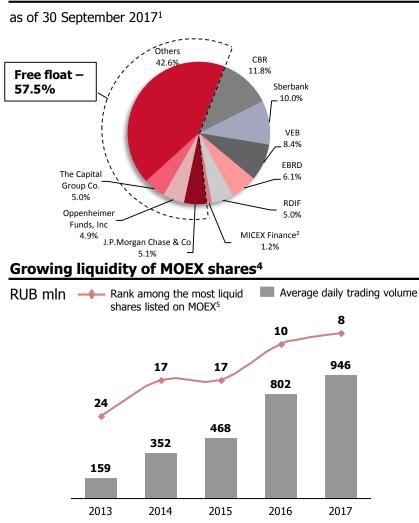
- Independent directors represent 42% of the 2017-2018 Supervisory Board vs. a minimum threshold of 20%<sup>1</sup>. Four of the six Supervisory Board committees are chaired by independent directors
- ✓ MOEX was a pioneer to adopt the new criteria of Director Independence aligned with the new Corporate Governance Code
- Alexei Kudrin, a well-known and respected financial expert who was acknowledged as the best Minister of Finance in 2004 ("The Banker") and 2010 ("Euromoney"), serves as Board Chairman
- ✓ 11 out of 12 Board members are non-executive, with CEO Alexander Afanasiev the only executive Director

	Supervisory Board members	Strategy Planning	Audit	Nomination and Remuneration	Budget	Technical Policy <sup>2</sup>	Risk Management
P.	Alexey Kudrin - Chairman Chairman of the Board at the Centre for Strategic Research						
R	Andrey Golikov - Deputy Chairman Deputy Chairman of the Supervisory Board at Moscow Exchange	$\checkmark$			Chair	$\checkmark$	
	Alexander Afanasiev CEO, Chairman of the Executive Board at Moscow Exchange						
	Anatoly Braverman First Deputy CEO at Russian Direct Investment Fund	$\checkmark$			$\checkmark$		$\checkmark$
ę	Valery Goreglyad Chief Auditor at the Bank of Russia				$\checkmark$		$\checkmark$
<del>,</del>	Yuriy Denisov Chairman of the Supervisory Board at National Clearing Centre	$\checkmark$		$\checkmark$			Chair
	Bella Zlatkis Deputy Chairman of the Executive Board at Sberbank of Russia						
	Oleg Viyugin Professor at Higher School of Economics	$\checkmark$		$\checkmark$			
	Maria Gordon Member of the Supervisory Board at Alrosa		$\checkmark$				
<u>Q</u>	Anatoly Karachinsky President at IBS LLC					Chair	
	Duncan Paterson Chairman at G. H. Financials Limited	$\checkmark$	Chair				
	Rainer Riess Director General at Federation of European Securities Exchanges (FESE)	Chair	$\checkmark$	Chair			



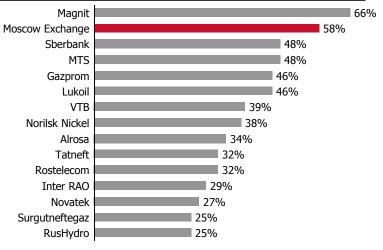
- \* Independent directors
- 1 The threshold is for stocks listed in the First level of the Quotation list as per the Listing Rules of Moscow Exchange
- 2 Technical Policy committee includes key industry IT professionals

## Dispersed ownership with one of the **highest free-floats** in Russia



### Dispersed ownership with no controlling shareholder...

### ...and one of the highest free-floats in Russia<sup>3</sup>



### Transparency and international recognition

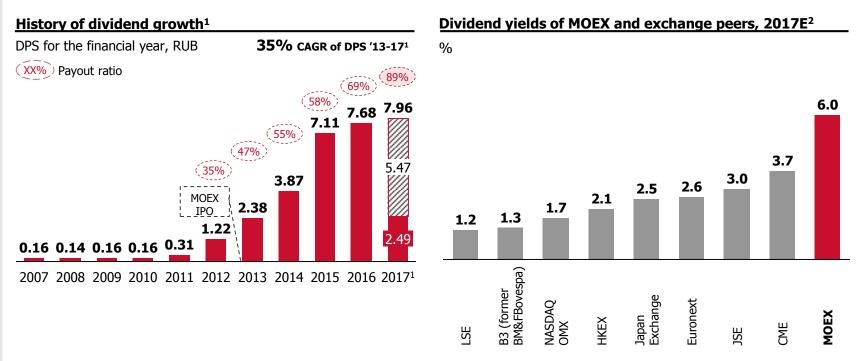
- International index providers MSCI and MVIS include MOEX shares in their indices
- Voluntary disclosures and regular updates of investor materials, including monthly trading results
- Annual MOEX Forums in Moscow, New York, London and Shanghai have become well-know venues to maintain dialogue with international market participants
- Robust investor relations program:
  - ✓ 355 investor meetings in 2017
  - ✓ IR activities in Russia, the UK, Europe and the US to maintain dialogue with overseas investors
  - ✓ IR awards in Russia in 2014-2017



Stakes of MICEX Finance, OppenheimerFunds, Capital Group, J. P. Morgan Chase & Co are as reported in most recent mandatory disclosure forms 100% owned subsidiary of the Moscow Exchange

- Largest locally registered Russian companies by market capitalization included in the MOEX Index 3 4
  - Trading volumes in the main trading mode (T0, T+2)
- 5 The ranking includes ordinary and preferred shares

## 2017: recommended payout of 89%



#### Comments

- Dividend policy approved in September 2015 sets 55% of net profit as the minimum payout
- In April 2017 MOEX's AGM voted to pay out a dividend of RUB 7.68 per share, or 69.4% of 2016 net profit
- In 2017 Moscow Exchange switched to more frequent dividend payments, paying out its first ever interim dividend
- On 2 March 2018, the Supervisory Board made a recommendation to the AGM to pay RUB 5.47 per share in dividends for 2017. If approved by the AGM, this will bring total DPS for FY 2017 to RUB 7.96, or 89% of consolidated net profit for the year



Sources: Bloomberg, Moscow Exchange

RUB 2.49 per share was paid for 1H 2017. In March 2018, the Supervisory Board made a recommendation to pay additional RUB 5.47 per share 1 for FY 2017. The recommendation is subject to approval by the AGM. 2

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# Leading positions in a global context in 2017

#### 2<sup>nd</sup> largest exchange in fixed income<sup>1</sup>

Ran	ık Exchange	Country	Trading vol. (USD bln)	Incl. REPOs	Ra
1	LSE Group	UK	9,196	×	1
2	Moscow Exchange	Russia	4,818	$\checkmark$	2
3	BME	Spain	4,804	$\checkmark$	3
4	Korea Exchange	Korea	2,144	×	4
5	Johannesburg SE	South Africa	2,083	$\checkmark$	
6	Nasdaq OMX	USA	1,704	$\checkmark$	f
7	Oslo Borse	Norway	1,041	$\checkmark$	-
8	Shanghai SE	China	355	×	, ,
9	Bolsa de Valores de Colombia	Colombia	312	×	(
10	Tel-Aviv SE	Israel	241	×	1

#### 5<sup>th</sup> largest exchange in derivatives<sup>2</sup>

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#### Among top 25 exchanges by equity trading volumes globally<sup>3</sup>

#### 13th largest publically listed exchange by Mkt Cap<sup>4</sup>

Rank	Exchange	Country	Mkt Cap (USD bln)	Securities listed	Trading vol. (USD bln)	Rank	Exchange	Country	Mkt Cap (USD bln)
1	ICE&NYSE	USA	22,081	2,286	14,535	1	CME	USA	55.1
2	Nasdag OMX	USA	10,039	3,933	12,138	2	ICE&NYSE	USA	42.1
3	Shenzhen SE	China	3,622	2,089	9,112	3	HKEx	Hong Kong	40.3
4	Shanghai SE	China		-		4	Deutsche Boerse	Germany	26.2
5	0		5,090	1,396	7,563	5	LSE Group	UK	20.1
-	Japan Exchange	Japan	6,223	3,604	5,813	6	BM&Fbovespa	Brazil	16.6
6	LSE Group	UK	4,290	2,498	2,330	7	Nasdaq OMX	USA	14.4
7	HKEx	Hong Kong	4,226	2,118	1,957	8	CBOE	USA	12.9
8	Euronext	EU	4,371	1,255	1,943	9	Japan Exchange	Japan	9.9
9	Korea Exchange	Korea	1,731	2,134	1,920	10	ASX	Australia	8.3
10	Deutsche Boerse	Germany	2,245	499	1,482	11	SGX	Singapore	6.0
						12	Euronext	EU	5.1
25	Moscow Exchange	Russia	619	234	144	13	Moscow Exchange	Russia	4.7

Sources: Moscow Exchange, WFE, Bloomberg

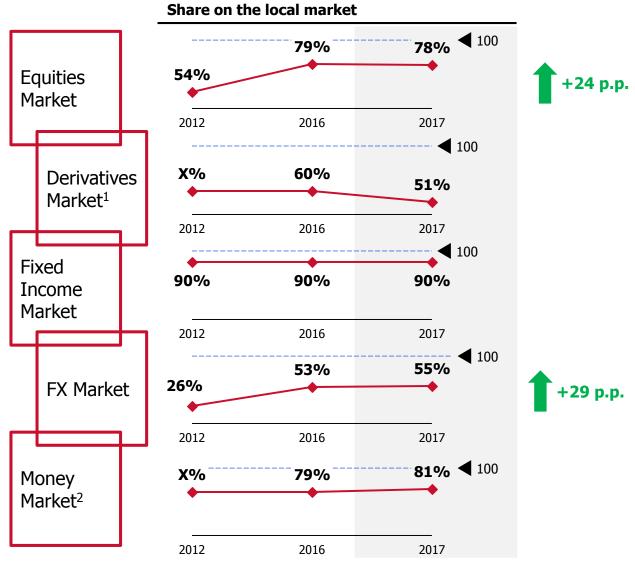
- Due to different methodologies applied, data on fixed income trading may not be directly comparable among exchanges. Data for 2017 1
- 2 Data for 2017

MOSCOW

**EXCHANGE** 

- Top equity trading exchanges are ranked by trading volume. Ranking without BATS (excluded due to absence of data for market capitalization and 3 number of listed companies). Data for 2017
- Market capitalization of public exchanges based on Bloomberg data as of 31 March 2018 4

## High and increasing market share versus OTC trading





Source: Moscow Exchange data

1 Data before the launch of obligatory reporting to repository are unavailable

2 Repo trading volumes only. Data before the launch of obligatory reporting to repository are unavailable

# Building on the success of Strategy 2012-2015

### Key initiatives of Strategy 2012-2015 successfully implemented

- Central Securities Depository (CSD)
- CCP across all markets
- T+ settlement cycle
- **DMA** across all markets

- ☑ ICSDs access to local infrastructure
- USD/RUB futures emergence as a flagship derivative contract
- Crucial regulatory reforms (corporate governance, individual investment accounts, "non-loss" rule elimination for NPFs, revival of pension savings)
- Total trading volume CAGR of ~23% in 2012-2015
- Operating income CAGR of ~29% in 2012-2015
- EPS for 2015 up **4.0 times** versus 2011 to RUB 12.5
- Dividend per share up **22.9 times** versus 2011 to RUB 7.11 with a payout ratio of 58% for 2015



# **Competitive strategy 2015-2020**: key pillars (1)

Diversification	Market penetration	Optimization Sophistication Standardization
	Strategy	Drivers and initiatives
Equities	Aggressive growth: development of the equity market	<ul> <li>✓ Benefits from infrastructure put in place, tax and regulatory reforms (T+2, CSD and access of ICSDs, IIA)</li> <li>✓ Growth of the retail investor base</li> <li>✓ New listings and IPOs, repatriation of capital</li> <li>✓ Further simplification of access for international investors (SMA, ICM)</li> </ul>
Fixed income	Aggressive growth: bonds to substitute bank loans as a funding tool	<ul> <li>✓ Development of short-term and ultra short-term bonds, securitization</li> <li>✓ Easier access to the bond market for corporates</li> <li>✓ Growth of the retail investor base</li> <li>✓ Benefits from completed reforms (shift to T+1 for OFZs, large block auctions, ICSDs)</li> <li>✓ Development of an OTC platform</li> </ul>
Derivatives	Aggressive growth through new asset classes and tariff reform	<ul> <li>Tariff reform to increase effective fees</li> <li>Development of commodity derivatives</li> <li>Approval of CFTC registration application in order to permit access for US market participants</li> <li>Options market development</li> <li>Synergies with spot markets via a unified collateral pool</li> <li>OTC derivatives clearing</li> </ul>
Market data	Aggressive growth through enhancement of the product offering	<ul> <li>✓ Growth of market data sales</li> <li>✓ Improvement of data dissemination: development of a real-time and non-real time data platform</li> <li>✓ Development of the corporate information center</li> <li>✓ Development of the pricing center</li> <li>✓ Expansion of the repository offering</li> </ul>



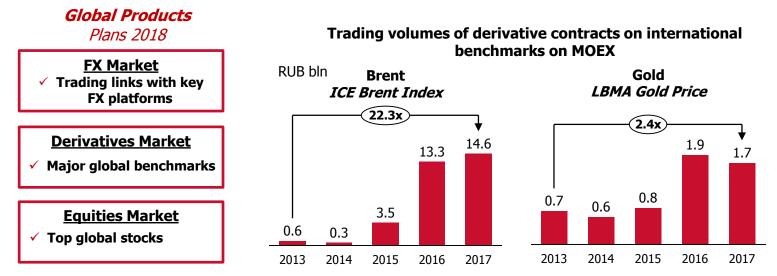
# Competitive strategy 2015-2020: key pillars (2)

Diversification	Market penetration	Optimization Sophistication Standardization
	Strategy	Drivers and initiatives
FX Market	Protecting market share through further expansion	<ul> <li>✓ Development of international clearing membership</li> <li>✓ Direct access of corporates to the market</li> <li>✓ Development of SMA services</li> </ul>
Money Market	Protecting market share through further product development	<ul> <li>✓ Further enhancement of the existing product portfolio – collateral management services, repo with the General collateral pool</li> <li>✓ Direct access of corporates to repo with CCP in the "net creditor" mode</li> </ul>
Depository services	Steady growth via development of new services	<ul> <li>✓ Corporate actions reform</li> <li>✓ Launch of the corporate information center</li> <li>✓ Expansion of the repository offering</li> </ul>
Treasury business	Gradual replacement of NII with F&C income	<ul> <li>Reduction of NII's contribution to revenue through implementation of the single collateral pool as a fee-based service, including single account, single limit transfer, netting, cross-margining functionality</li> </ul>
IT	Ongoing enhancement of IT systems	<ul> <li>Focus on reliability of hardware</li> <li>Improved processes of software development and installation</li> <li>Initiatives to foster fintech startups that develop technologies complementary to MOEX's product offering</li> </ul>



# **Global products and international investors**

### MOEX offers global products to Russian investors ...



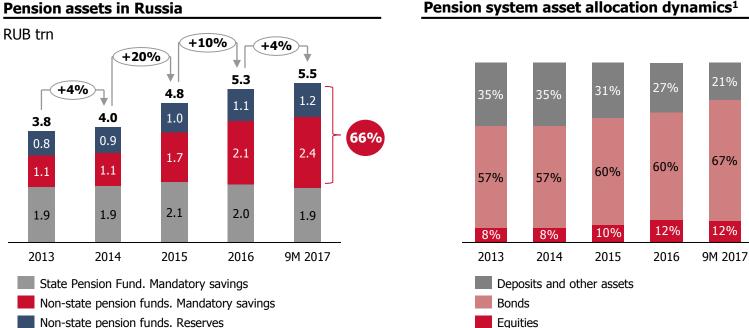
### ... and Russian products to international investors

Plans 2018



- Development of SMA: introduction of pre-trade controls
- Development of ICM
- Tradable FX Fixing instruments for international participants
- Declaration of adherence to FX Global Code
- Launch of ICM: remote clearing membership for international banks
- Launch of SMA: introduction of pre-trade controls and cancellation of orders on disconnection
- Onboarding of international HFT clients
- Development of SMA
- Launch of ICM
- Onboarding of international HFT clients

## Local institutional investors: the potential of **pension funds**



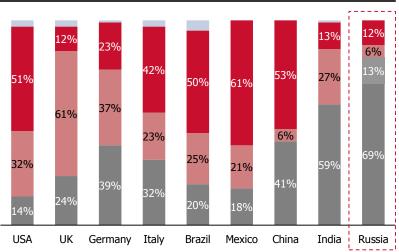
### Key highlights of the pension reform

- Bank of Russia became a regulator of the pension system in 2013
- Adopted changes in non-state pension fund regulation:
  - "One year non-loss" rule was abolished
  - Investment horizon of NPFs was extended to 5 years
  - Customers are now incentivized to stay with the fund for not less than 5 years
  - $\geq$  Guarantee fund mechanism (similar to the Deposit Insurance Agency in the banking system)
  - New allocations to NPFs remained under moratorium until 2019, which reduced growth potential and left room for organic growth only



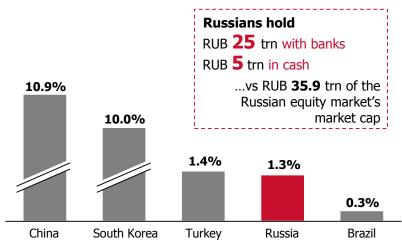
### Pension system asset allocation dynamics<sup>1</sup>

## Retail money: aiming to grow the culture of investing



#### Russians hold majority of savings in banks and cash<sup>1</sup>

### Number of retail broker accounts as % of population<sup>2</sup>

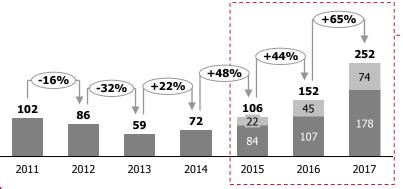


Other Securities Insurance and pension assets Cash Bank deposits

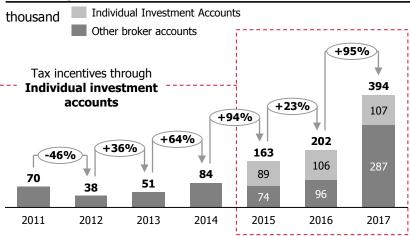
### Newly opened retail accounts of first-time (unique) clients



Individual investment accounts (IIA) as the first broker account Other broker accounts as the first broker account



### Net change in the number of retail accounts



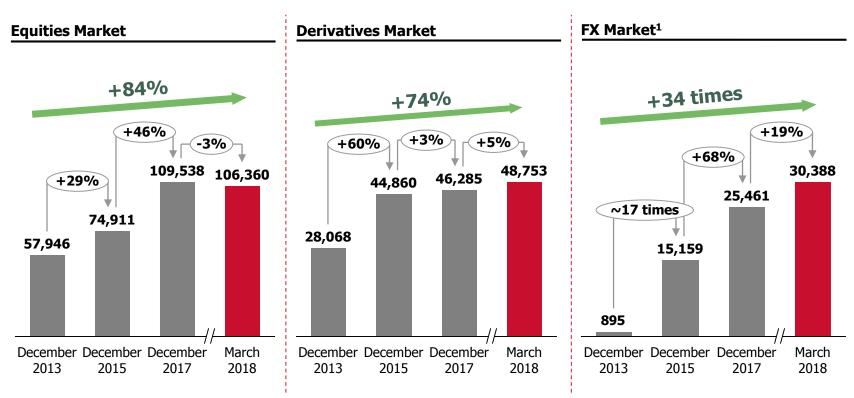


Sources: EIU, World Bank, IMF, central banks of South Korea, Turkey, Mexico, National Bureau of Statistics of China, Allianz, SZSE Factbook, CBR, Moscow Exchange

- 1 As of the end of 2016
- 2 Russia 2017, South Korea, Turkey, Brazil 2014, China 2015

# Retail clients: a growing segment of the Russian financial market

Number of active retail client accounts

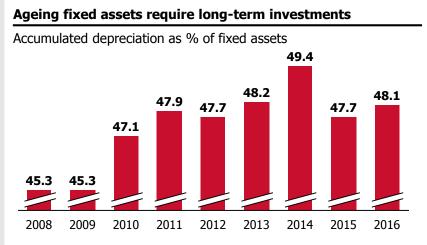


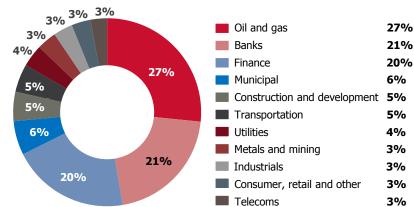
### Recent regulatory changes:

- Introduction of individual investment accounts for private investors since 2015: more than 328,000 accounts opened as of March 2018
- Tax breaks on capital gains on securities held for more than 3 years (up to RUB 9 mln for securities purchased after 1 Jan 2014)
- Retail investors allowed to **remotely open a brokerage account**. This simplifies the process for retail investors in Russia's farflung regions



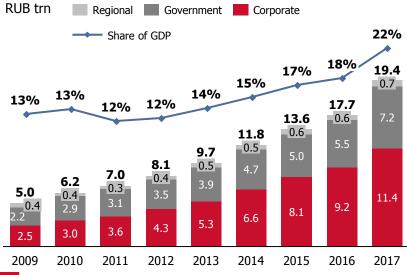
### Bond market – why we are strong believers



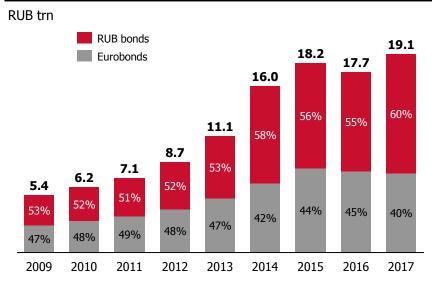


#### Breakdown of bond issuers<sup>1</sup> by industry

### Growth of outstanding local bonds



#### Local bonds vs Eurobonds of Russian corporates<sup>2</sup>





Sources: Bank of Russia, Cbonds, Rosstat, Moscow Exchange

1 RUB-denominated bonds traded on MOEX's Bond Market in January 2018

2 Including banks and financial institutions. Data for 2017 as of 1 December 2017

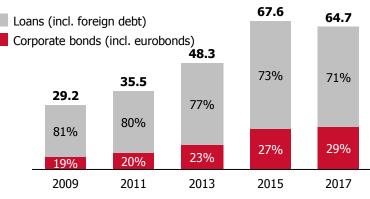
## "Bondization": growing a deeper Bond Market

### Completed in 2017

- **Issuance documents constructor** for exchangetraded bonds was implemented in the user account, it reduces the time for preparation of each document to 15-20 minutes
- Bonds can now be admitted to trading without a prospectus
- 60 new exchange-traded bond programs were registered in 2017 (+56% vs 2016)
- On-exchange bookbuilding
- Increase of OFZ liquidity due to market-maker programs and change in tick size (+32% trading volumes in 2017 vs 2016)
- Cross-product OFZ spreads

### Corporate loans vs corporate bonds in Russia

### RUB trn



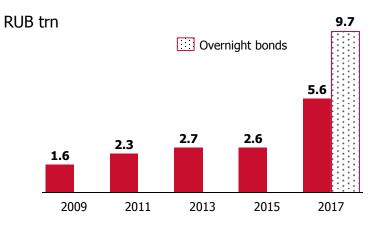


Source: Moscow Exchange, Cbonds

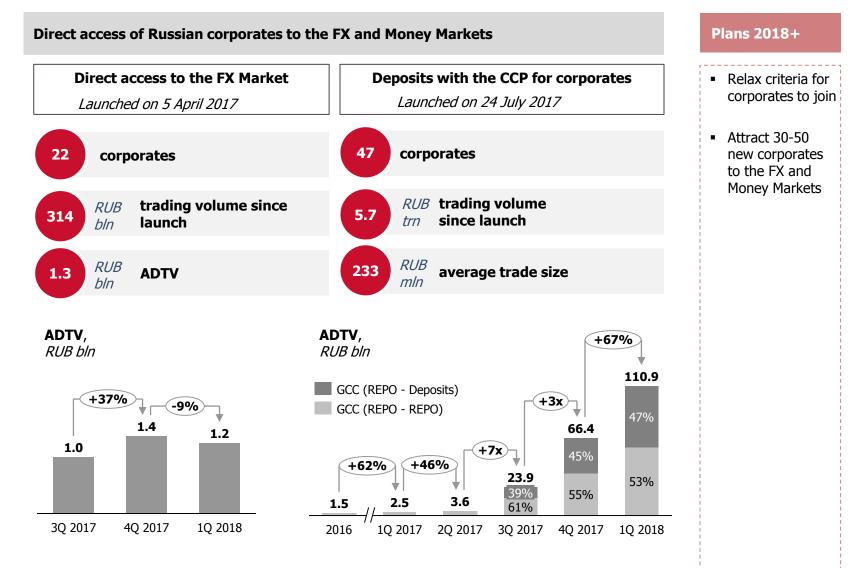
### Plans for 2018 and beyond

- OTC fixed income trading platform
  - Additional features not offered through electronic order book
  - MiFID II favors electronic OTC platforms due to transparency
  - The initiative takes advantage of data on ownership of more than 15,700 security issues kept by NSD
- Increase of market liquidity:
  - Transactions with bonds ex-date (coupon)
  - Further development of exchange bookbuilding

### Bond primary market trading volume



## **Corporates on the FX and Money Markets**





## Trend of local placements continued

### Major public capital raisings by Russian companies in 2016 were held exclusively on MOEX

March 2018

Company	Date	Transaction type	Transaction value, RUB bln
Europlan	December 2016	SPO	15.0
RussNeft'	November 2016	IPO	32.4
FG Future	October 2016	IPO	11.7
Alrosa	July 2016	SPO	54.4
UWC	May 2016	SPO	5.0
Promsvyazbank	April 2016	SPO	2.6
Total 2016			121.1

### Capital raisings on MOEX in 2017

Company	Date	Transaction type	Transaction value, RUB bln
ТМК	February 2017	SPO	10.0
Detski Mir	February 2017	IPO	21.1
Phosagro	February 2017	SPO	15.0
UWC	May 2017	SPO	1.9
Polyus <i>(dual)</i>	June 2017	SPO	52.3
Bank Saint Petersburg	July 2017	SPO	3.2
MVideo	July 2017	SPO	18.0
Norilsk Nickel'	July 2017	SPO	23.8
Magnitogorsk Iron & Steel Works	September 2017	SPO	13.0
Aeroflot	September 2017	SPO	9.8
Megafon	October 2017	SPO	22.5
Obuv Rossii	October 2017	IPO	5.9
Credit bank of Moscow	October 2017	SPO	14.4
Globaltruck	November 2017	IPO	3.5
Magnit	November 2017	SPO	43.9
En+ <i>(dual)</i>	November 2017	listing	
Total 2017			258.3
A good start for 2018			
Company	Date	Transaction type	Transaction value, RUB bln
X5 Retail Group	February 2018	listing	

SPO



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## **Corporate actions reform** in Russia: From paper to marketleading digital technology

From 1 July 2016	New approach to corporate actions processing
LOWER COSTS	<ul> <li>Power of attorney no longer necessary for corporate actions</li> <li>No mailing costs and hard copies needed for investors to participate in corporate actions</li> <li>CSD's service pricing based on principles of covering costs, simplicity and fairness</li> </ul>
LOWER RISKS	<ul> <li>Creation of a single source of reliable and comprehensive information on corporate actions at the Russian CSD</li> <li>Unified electronic ISO-based standards for corporate actions</li> <li>Control over assets and settlement oversight by the Russian CSD</li> </ul>
BETTER CORPORATE GOVERNANCE	<ul> <li>Direct electronic access to AGMs for investors</li> <li>Standardized electronic meeting convocations, nomination of directors, participation in corporate actions through custodians</li> <li>No more special requirements set for holders' incorporation</li> </ul>



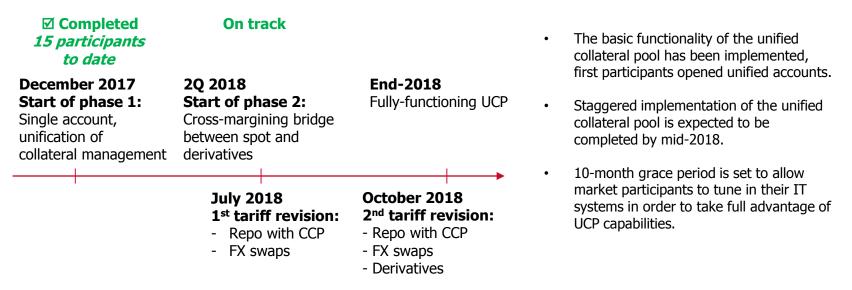
# NCC is now regulated as a clearing organization and a CCP

Dec 2015	Dec 2016	Nov 2017	Dec 2017		
Changes to law "On Clearing" that regulate NCC as a CCP instead of a banking institution were approved	Bank of Russia developed a set of new regulatory ratios for the CCP	NCC applied for a new license, switching from banking regulation to CCP regulation	NCC operates and is regulated as a CCP, licensed as a non- banking credit organization		
Target capital	Target capital in FY 2018 that c	omplies with new regulatory require	ments: <b>RUB 55 bin</b>		
New regulation requires:					
Capital adequacy		shall exceed the sum of "skin in the serve of 75% of annual operating ex			
Adequacy of total resources	At all times the sum of "skin in the event of default of the two	n the game" and the guarantee fund largest counterparties	d shall exceed potential losses in		
Adequacy of initial margin	Price fluctuations of each asset shall not exceed the initial margin amount in at least 99% of cases of price changes				
Liquidity ratio	The amount of liquid assets of the CCP at any time shall exceed the amount of potential losses in the event of default of the two largest counterparties				
Collateral concentration	A certain type of asset is eligible as collateral as long as its addition does not exceed 25% in total assets placed as collateral by market participants				



## **Update on the Unified Collateral Pool**

### Unified Collateral Pool (UCP) phase-in schedule



### Fee structure changes following completion of key project stages

	Money Market	Derivatives Market	FX Market
	Repo with CCP	All products	FX swaps
July 2018	+3%	+0%	+10%
October 2018	+3%	+10%	+10%
Total increase vs current	+6%	+10%	+20%

- Completion of key project stages will be followed by corresponding changes to the fee structure of the Money, Derivatives and FX Markets.
- July 2018 increase applies to UCP accounts only.
- October 2018 increase applies to all accounts.



## E-voting and Blockchain implemented on Moscow Exchange

E-voting for equity and bond holders

✓ NSD has developed **e-voting platform for shareholders: www.e-vote.ru** 

Sberbank, MOEX, Alrosa – the first Russian companies to provide shareholders with the opportunity to remotely participate in shareholder meetings (via online voting) in 2017

**E-voting for bondholders** has been implemented and successfully tested

### **Blockchain technology**

✓ NSD used a **blockchain-based settlement platform** to complete an inaugural placement of a RUB 500 mln bond issue in 2017

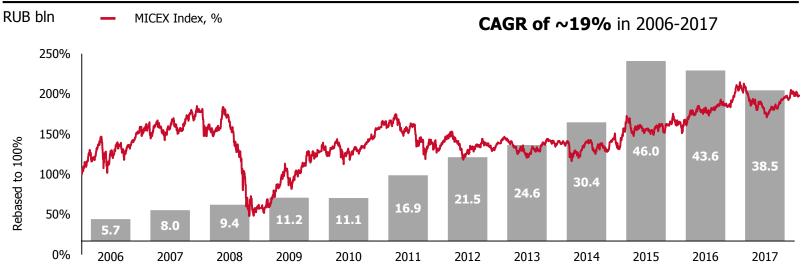


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## MOEX business model **continues to deliver**

**Operating income**<sup>1</sup>



### **Key highlights**

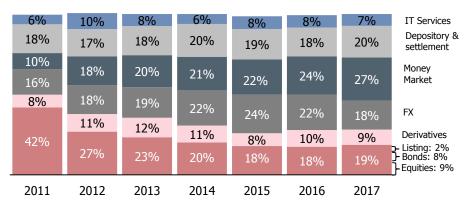
**Unique business model** allows MOEX to increase operating income regardless of the stage of the economic cycle:

- Business lines are diversified, while markets
   have limited growth correlation
- Growth drivers differ across markets and products

3

### Fee & commission income evolution<sup>1</sup>

Equities+ Derivatives FX Money Market Depository & Settlement IT Services Bonds <sup>2</sup>





According to Moscow Exchange Consolidated Financial Statements for the relevant period

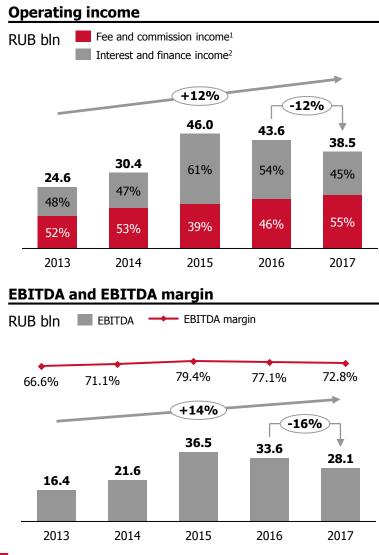
1 RTS data is consolidated from 29 June 2011

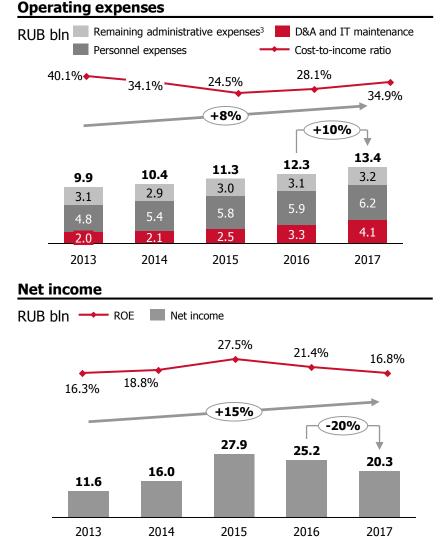
2 Includes Listing and other service fees related to the Securities Market

IT Services includes Information services, Sale of software and technical services and Other fee income

## **Summary of financials**

\_\_\_\_\_X% → CAGR '13-17







Source: Moscow Exchange

1 Includes Other operating income

2 Includes Interest and other finance income, Interest expense, Net loss on financial assets available-for-sale and Foreign exchange gains less losses

3 Remaining administrative expenses are calculated as Administrative expenses less Depreciation of property and equipment, Amortisation of intangible assets and Equipment and intangible assets maintenance

## Fee & commission income: strong and sustainable growth

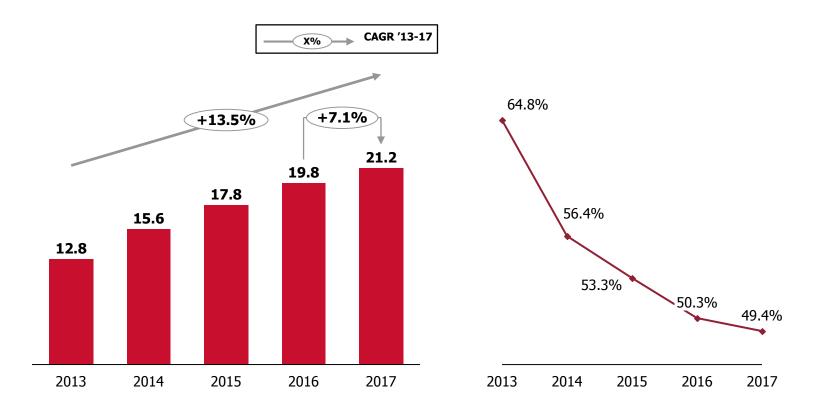
Fee and commission income (F&C)

RUB bln

F&C income shows sustainable growth

Cost (ex D&A) to fee income ratio

F&C growth is delivered in a cost efficient way





### **Interest and finance income**

\_\_\_\_\_X% → CAGR '13-17

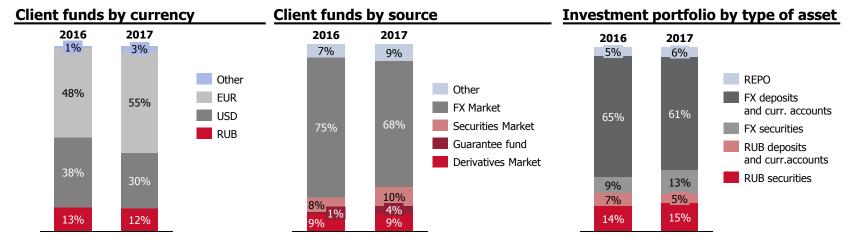
749

11%

89%

2017

#### Interest and finance income<sup>1</sup> Investment portfolio sources<sup>3</sup> RUB bln MOEX's own funds Client funds 13.0 10.7 9.2 8.8 6.3 -2.6 2.3 2.0 2.4 +21.4% 3.4 -17.3% 1.0 1 1 4 9 0.4 0.1 0.1 0.1 5% +10.1% 905 -27.1% 8% 700 28.1 23.7 95% 17.3 345 14.3 92% 11.8 11% 93% 89% 2013 2014 2015 2016 2017 2013 2014 2015 2016





- 1 Interest and finance income includes Interest and other finance income, Interest expense, Net loss on financial assets available-for-sale, Foreign exchange gains less losses
- 2 Average overnight rate for the period

MOSCOW

**EXCHANGE** 

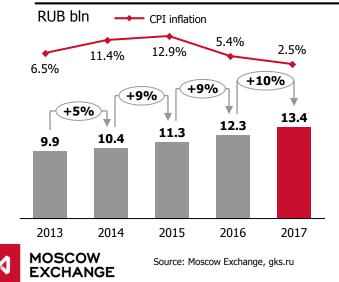
3 Based on average daily investment portfolio sources for the period according to management accounts

## **CAPEX and OPEX: 2017-2018**

#### RUB bln Capex % of operating income 8.2% 5.4% 5.0% 2.6% 4.2% +42% -46% +219% 3.6 2.5 -25% 1.9 1.0 0.8 2013 2014 2015 2016 2017

**Operating expenses** 

**Capital expenditures** 



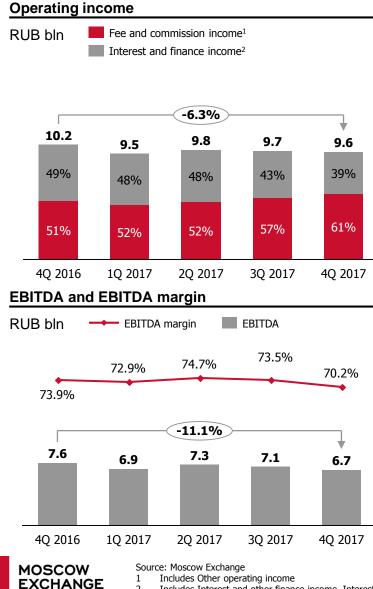
- In 2017, CAPEX was RUB 1.94 bln, including intangible asset additions of RUB 1.45 bln and fixed asset additions of RUB 0.49 bln.
- In 2018, capital expenditures are expected to be RUB 2.0-2.2 bln, in line with CAPEX for FY 2017. The split between maintenance CAPEX and CAPEX allocated to new projects is expected to be roughly equal (55% new projects/ 45% maintenance capex).
- 2018 CAPEX estimate does not include Ecosystem investments.

- The actual growth of OPEX in 2017 was 10%, below the latest guidance of 11-13% as a result of:
  - More conservative hiring
  - Stronger RUB
- In 2018, growth of operating expenses is expected to be in the range of 7-9%.

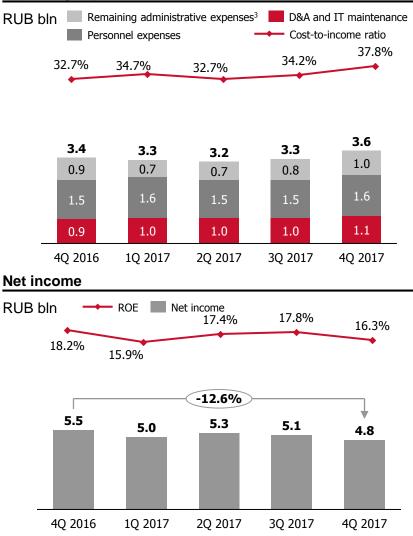
1	Business overview
2	Corporate governance and dividends
3	Market position and competitive strategy
4	Financial track record
M	4Q and FY 2017 update



### 4Q 2017 summary of financials



#### **Operating expenses**

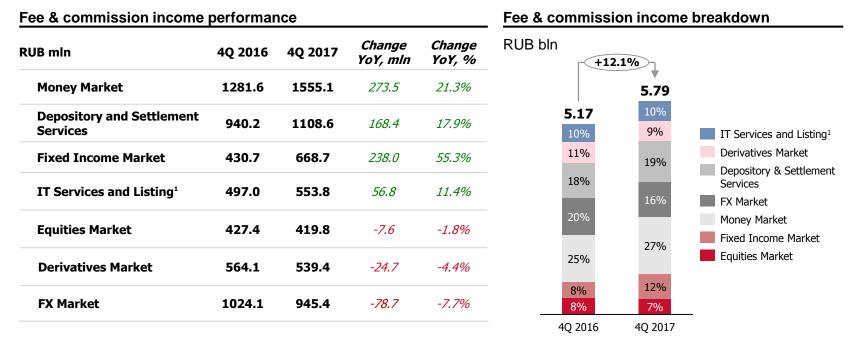


1 Includes Other operating income

2 Includes Interest and other finance income, Interest expense, Net loss on financial assets available-for-sale and Foreign exchange gains less losses

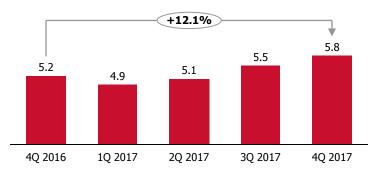
3 Remaining administrative expenses are calculated as Administrative expenses less Depreciation of property and equipment, Amortisation of intangible assets and Equipment and intangible assets maintenance

### Diversified fee and commission income



#### Fee & commission income dynamics

RUB bln

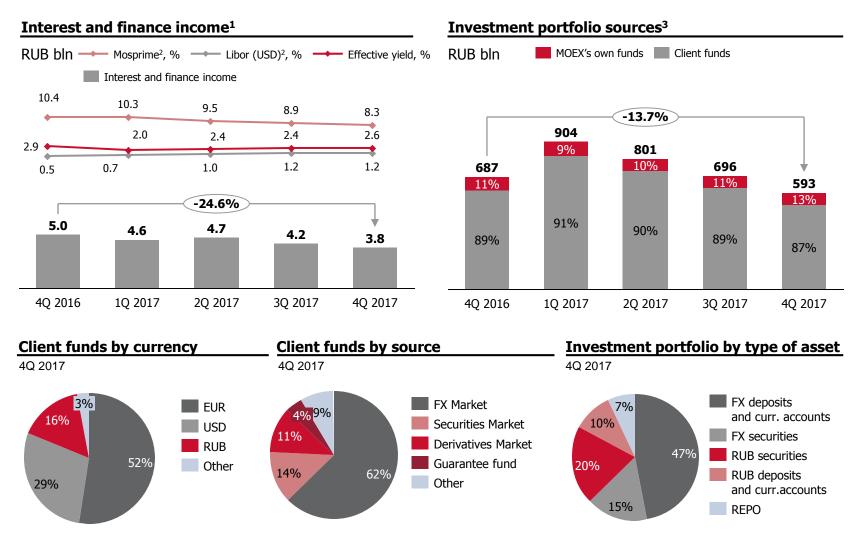




Source: Consolidated Financial Statements

1 IT Services and Listing includes Information services, Sale of software and technical services, Listing and other service fees and Other fee income

### **Interest and finance income**





Source: NFEA, Bloomberg, Moscow Exchange operational information and Consolidated Financial Statements Interest and finance income includes Interest and other finance income, Interest expense, Net loss on financial assets available-for-sale, Foreign exchange gains less losses

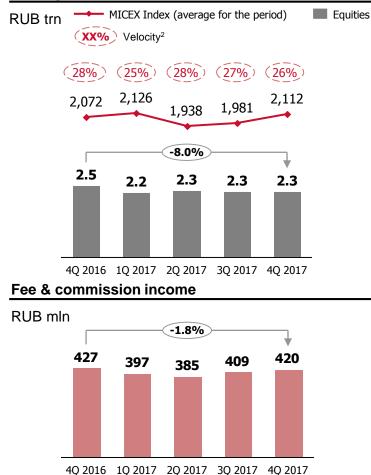
2 Average overnight rate for the period

3 Based on average daily investment portfolio sources for the period according to management accounts

**Equities Market** 

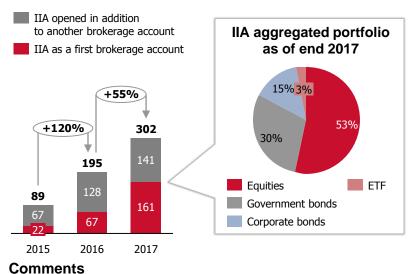
#### Trading volumes<sup>1</sup>

4Q 2017



#### **Individual Investment Accounts**

Individual Investment Accounts, thousands, end-of-period



- F&C income in 4Q 2017 was down 1.8% YoY; trading volumes declined 8.0% YoY. In 2017, F&C income increased 1.3% YoY and amounted to RUB 1.6 bln; trading volumes were down 1.0% YoY.
- In 2017 the market share was stable. The market share vs LSE for dual-listed stocks was 58%. The market share vs the onshore OTC market was 78%.
- Projects completed: launch of SMA; updated methodology for calculating RTS and MOEX indices; launch of Marketplace in collaboration with largest brokers; educational initiatives for retail investors.
- Future plans: further upgrade of Marketplace; marketing of SMA.

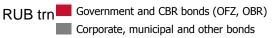


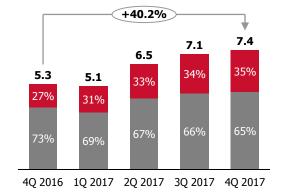
Source: Moscow Exchange operational information and Consolidated Financial Statements, WFE 1 Volumes of both primary and secondary markets

## **Fixed Income Market**

Trading volumes<sup>1</sup>

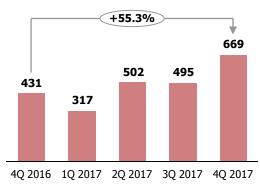
4Q 2017



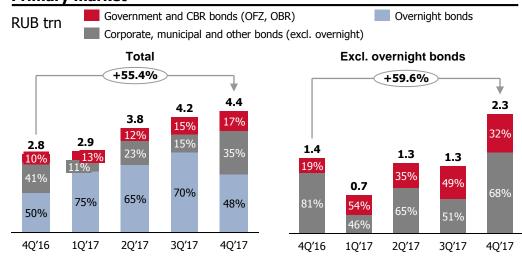


### Fee & commission income

RUB mln



#### **Primary market**



#### Comments

- F&C income in 4Q'17 was up 55.3% YoY, while trading volumes<sup>2</sup> increased 36.3% YoY. FY 2017 F&C income increased 33.7% YoY to RUB 2.0 bln, trading volumes<sup>2</sup> rose 25.3%.
- Trading volumes of government and CBR bonds increased 85.5% YoY in 4Q 2017 thanks to 2.7x YoY growth in placements. Trading of corporate and other bonds increased 8.1% YoY<sup>2</sup> in 4Q 2017 due to primary placements (+43.1% YoY).
- Thanks to the increase of a tick size in the OFZ order book, the share of EOB vs Negotiated Deals grew from 34% in 2016 to 43%.
- Projects completed: document constructor for issuing exchange bonds; admission of exchange bonds to trading without a prospectus under specific conditions.
- Future plans: OTC platform for bonds trading; simplification of bond issuance.

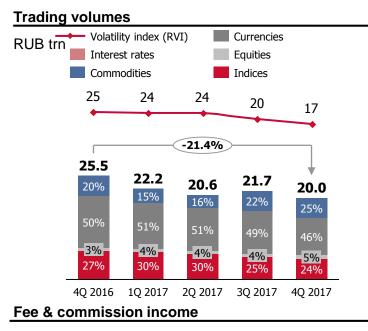


Source: Moscow Exchange operational information and Consolidated Financial Statements

1 Trading volumes on the Fixed Income Market include placements

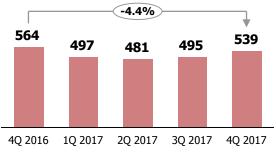
2 Excluding overnight bonds

### **Derivatives Market**



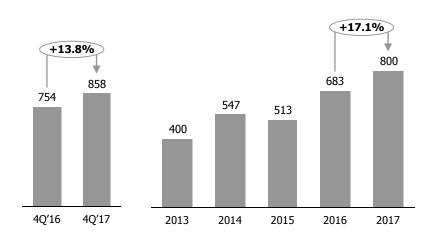
RUB mln

4Q 2017



#### **Open interest**

RUB bln, daily average

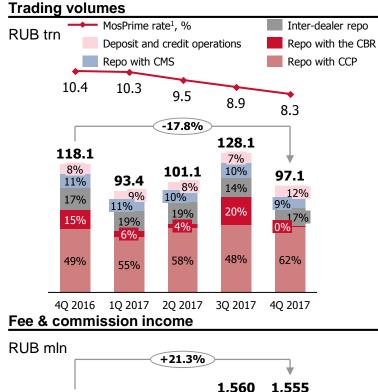


- F&C income in 4Q 2017 declined 4.4% YoY, while trading volumes were down 21.4% YoY. In 2017, F&C income declined 2.0% YoY at RUB 2.0 bln, and trading volumes were down 26.7% YoY. Decreased volatility was behind the slowdown of trading.
- F&C income in 4Q 2017 was supported by adjustment in fees and an improvement in the mix of trading volumes in favor of contracts on commodities and single stocks as well as options.
- Projects completed: launch of new maturities of RTS and USD/RUB options; new FX contracts.
- Future plans: launch of new contracts; development of SMA; launch of Indicative Quotation System.



### Money Market

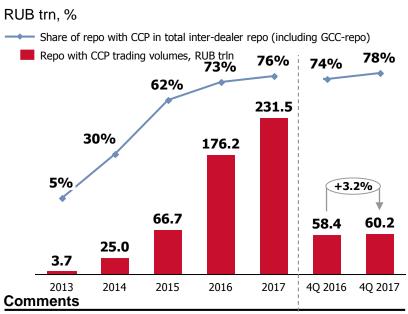
40 2017



## 1,560 1,555 1,282 1,282 1,253 4Q 2016 1Q 2017 2Q 2017 3Q 2017 4Q 2017



#### Trading volumes for repo with CCP



- F&C income grew 21.3% YoY in 4Q 2017, while trading volumes were down 15.7%<sup>2</sup> YoY. In 2017, F&C income increased 16.8% YoY to RUB 5.7 bln, trading volumes grew 13.0% YoY<sup>2</sup>.
- Trading continued to shift towards higher share of repo with CCP, its share in total repo reached 77.9% in 4Q 2017. GCC repo through CCP grew at the fastest pace (2.7x QoQ in 4Q 2017).
- Average term of on-exchange repo in 4Q 2017 was 3.0 days (2017: 3.1 days), compared to 3.1 days in 4Q 2016 (2016: 3.4 days).
- Projects completed: GCC for corporates, regulation changes regarding GCC, marketing program and new maturities on GCC repo.
- Future plans: GCC FX, second-tier securities.

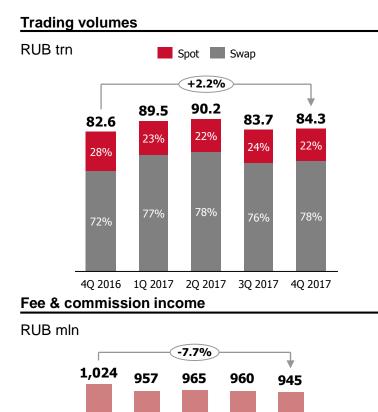
Source: Moscow Exchange operational information and Consolidated Financial Statements

- Overnight rate, average for the period 1 2
  - Not including repo with CMS

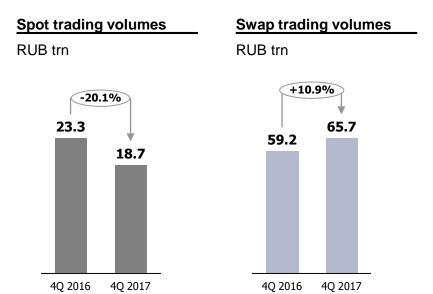
44



### **FX Market**



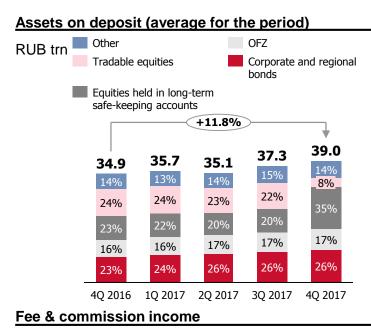
4Q 2016 1Q 2017 2Q 2017 3Q 2017 4Q 2017



- F&C income declined 7.7% YoY in 4Q 2017. Trading volumes were up 2.2% YoY. In 2017, F&C income was down 11.9% YoY at RUB 3.8 bln, while trading volumes increased 5.4% YoY.
- Lower F&C income in 4Q 2017 and in 2017 was due to a change in the trading volume mix in favor of swaps. In 4Q 2017 spot trading volumes decreased 20.1% YoY due to lower volatility, while swaps volumes rose 10.9% YoY.
- Projects completed: direct access for corporates, launch of matching on FX Fixing.
- Future plans: development of SMA; new currency pairs; trading links with other platforms/exchanges.



### **Depository and Settlement Services**



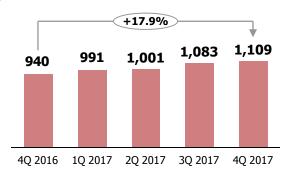
**RUB** mln

MOSCOW

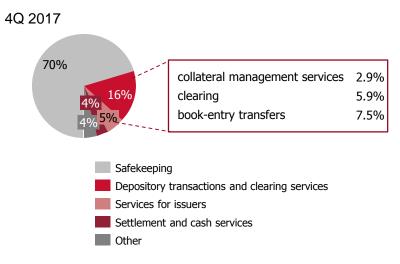
EXCHANGE

4Q 2017

19%



#### Fee & commission income breakdown



- F&C income in 4Q 2017 increased 17.9% YoY. FY 2017 F&C income increased 17.4% and amounted to RUB 4.2 bln. Average assets on deposit were up 11.8% YoY in 4Q 2017 and 11.1% YoY in 2017.
- The growth in assets under custody was universal across all asset classes, with corporate and regional bonds and OFZs growing the fastest (+22.2% and +18.7% YoY in 2017, respectively).
- Fee income in 4Q 2017 and in 2017 was supported by income on settlement and cash services and book-entry transactions.
- Projects completed: E-Voting; blockchain bond platform; platform for distributing shares of mutual funds.
- Future plans: development of electronic document flow to facilitate communication between NSD and its clients.

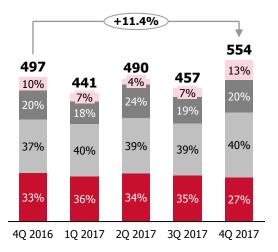
### 4Q 2017

### **IT Services and Listings**

#### IT Services and Listings<sup>1</sup>

#### RUB mln

- Other fee and commission income
- Listing and other fees related to Securities Market
  - Information services
  - Sale of software and technical services

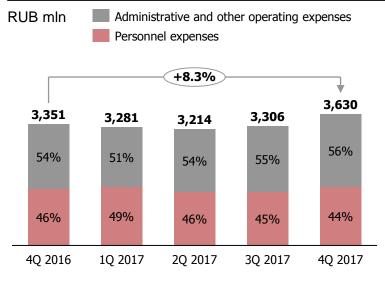


- Listing and other fees related to the Securities Market grew 11.8% YoY in 4Q 2017 but declined 5.5% YoY for the full year to RUB 392 mln. The decline was due to a lower number of non-overnight bonds accompanied by an increase in the average size of bond issues.
- Sales of software and technical services were down 9.3% YoY in 4Q 2017 and down 0.9% YoY in 2017 and amounted to 631 mln for full year.
- Sales of information services grew 20.9% YoY in 4Q 2017 and 2.4% YoY in 2017, reaching RUB 770 mln for full year.



### **Operating expenses**

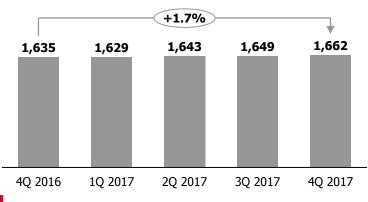
#### **Operating expenses**



#### Major expense items

4Q 2016	4Q 2017	Change YoY
1549.4	1597.3	3.1%
948.9	1075.8	13.4%
852.3	957.0	12.3%
3350.6	3630.1	<b>8.3</b> %
32.7%	37.8%	3.6 p.p.
	1549.4 948.9 852.3 3350.6	1549.4       1597.3         948.9       1075.8         852.3       957.0         3350.6       3630.1

Headcount



#### Comments

- Operating expenses grew 8.3% YoY in 4Q 2017 and 9.6% YoY in 2017.
- Administrative expenses grew 12.9% YoY in 4Q 2017 and 15.3% in 2017, largely due to increases in D&A expenses (+12.8% YoY in 4Q 2017 and +28.7% YoY in 2017) and IT maintenance (+14.7% YoY in 4Q'17 and +16.0% YoY in 2017) after large capital expenditures in 2016.
- Personnel expenses grew 3.1% YoY in 4Q 2017 and 3.5% in 2017.



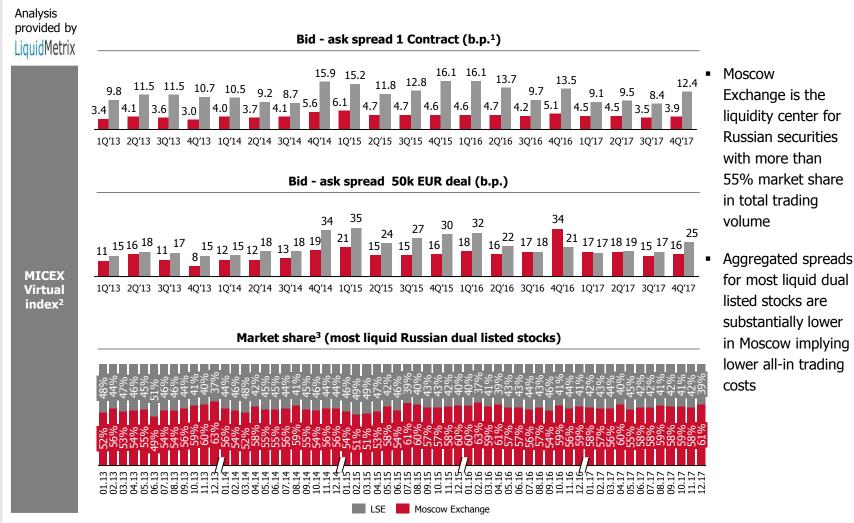
Source: Moscow Exchange, Consolidated Financial Statements

1 Remaining administrative expenses are calculated as Administrative expenses less Depreciation of property and equipment, Amortisation of intangible assets, Equipment and intangible assets maintenance

## Appendix



### Dual listed stocks virtual index spread dynamics



Notes:

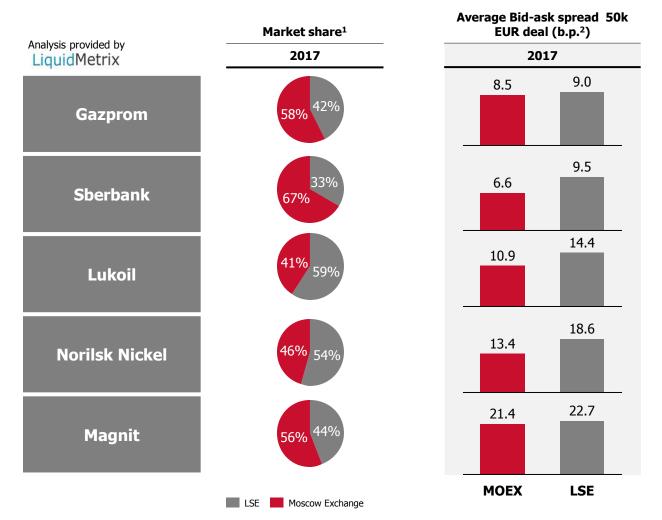
Spreads measure the bid to offer spread of the best visible orders in the book, the result based on measurements of the order books every 30 seconds



- The value for the spread is quoted in basis points (0.01%)
- 2 MICEX Virtual Index index calculated based on prices and EOB data of the most liquid Russian dual listed stocks
- 3 Data since December 2015 includes trading auctions on MOEX

Source: LiquidMetrix

### Blue Chips bid-ask spread dynamics for 50k EUR deal (1)



Bid-ask spreads for majority of the Russian "Blue Chips" are substantially lower on Moscow Exchange than on other trading venues

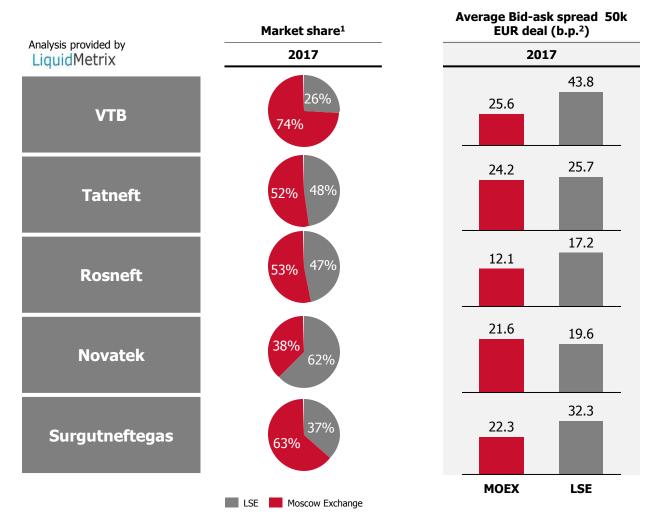


1 Data since December 2015 includes trading auctions on MOEX

2 The value for the spread is quoted in basis points (0.01%)

Source: LiquidMetrix

### Blue Chips bid-ask spread dynamics for 50k EUR deal (2)



Bid-ask spreads for majority of the Russian "Blue Chips" are substantially lower on Moscow Exchange than on other trading venues



1 Data since December 2015 includes trading auctions on MOEX

2 The value for the spread is quoted in basis points (0.01%)

Source: LiquidMetrix

### DR holders pay substantial **EXTRA FEES** to depository banks

Fees to be paid	to depositary ba	inks for some	of DK progr	ams of Russie	an companie
DR program	Depositary bank	Depositary Service Fee <sup>1</sup> (DSF), USD per DR	Dividend Fee <sup>2</sup> , USD per DR	DSF + Dividend Fee as % of dividend amount <sup>3</sup>	DRs cancellatio ns fee, USD per DR
VTB Bank	BNY Mellon	0.03	0.005	84%	0.05
RusHydro	BNY Mellon	0.02	0.009	38%	0.05
Surgutneftgaz	Deutsche Bank	0.02	0.012	32%	0.05
ТМК	BNY Mellon	0.01	0.016	20%	0.05
AFKS	Citi	0.03	-	11%	0.05
ММК	BNY Mellon	-	0.020	7%	0.05
Phosagro	Citi	0.02	-	7%	0.05
Megafon	BNY Mellon	0.03	-	7%	0.05
Rostelecom	JP Morgan	0.01	0.030	7%	0.05
Gazprom	BNY Mellon	-	0.020	7%	0.05
Sberbank	JP Morgan	0.01	0.020	6%	0.05
Norilsk Nickel	BNY Mellon	0.01	0.020	4%	0.05
Magnit	JP Morgan	0.01	-	4%	0.05
NLMK	DB	0.02	-	4%	0.05
Tatneft'	BNY Mellon	0.02	0.020	2%	0.05
Rosneft	JP Morgan	0.003	-	2%	0.05
Severstal	DB	-	0.020	2%	0.05
Novatek	BNY Mellon	-	0.020	2%	0.05
Lukoil	Citi	-	0.020	1%	0.05
Lenta	DB	0.03	-	NA <sup>5</sup>	0.05
Average		0.013	0.012	13%	0.05

#### Fees to be paid to depositary banks for some of DR programs of Russian companies

#### Gross DSF and dividend fees calculated for Top-3 international funds holding DRs of Russian companies<sup>4</sup>

Fund A	3,834,533 USD
Fund B	2,791,936 USD
Fund C	6,118,199 USD

# Cost of cancellations of all DRs in portfolios to local shares for Top-3 funds

Fund A	8,627,079 USD
Fund B	5,418,791 USD
Fund C	5,697,296 USD

- A depository service fee and a dividend fee are to be paid by DR holder to the depositary bank while there are no such fees for holders of local shares
- Majority of DRs cancellations are also charged 0.05 USD per DR



Service fees are charged annually, on an arbitrary date. Calculated based on number of DR in a client's account on the record date

2 Dividend fees are charged when dividends are paid

3 As % of dividend amount after tax 4 Calculations based on Thomson Reu

1

5

Calculations based on Thomson Reuters data as of December 2017

Data for dividend amount is unavailable

Source: BNY Mellon, Deutsche Bank, JP Morgan, Citi, Thomson Reuters

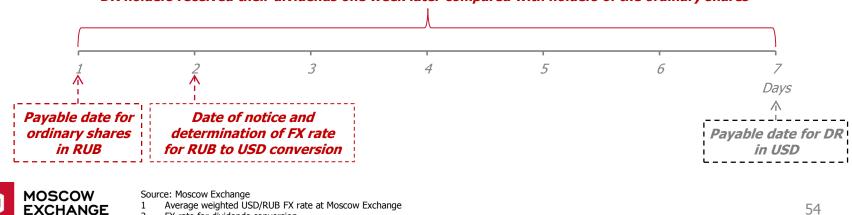
### **Dividend payments for DR holders**

#### FX rate determination for dividends

- FX rates for conversion of dividends are determined in non-transparent manner
- According to information from notices for DR holders<sup>3</sup>:
- Custodian DR issuer has no obligation to  $\geq$ obtain the "best price" for any FX Trade
- The conversion rate reflects a foreign  $\geq$ currency transaction Trade") ("FX executed by the Custodian - DR issuer as principal counterparty and not as agent, fiduciary or broker

Issuer	Record date	Local Shares		DR		
	uate	Payable date	FX rate <sup>1</sup>	Payable date	FX rate <sup>2</sup>	Diff.
ММК	11 Jun 17	21 Jun 17	59.6	28 Jun 17	60.2	1.0%
Akron	11 Jul 17	18 Jul 17	59.1	25 Jul 17	59.7	1.0%
MTS	10 Jul 17	25 Jul 17	59.5	1 Aug 17	60.0	1.0%
NCSP	30 May 17	22 Jun 17	59.6	29 Jun 17	60.0	0.7%
Novatek	2 May 17	23 May 17	56.3	30 May 17	56.7	0.7%
Norilsk Nickel	23 Jun 17	10 Jul 17	60.3	17 Jul 17	60.7	0.7%
Tatneft	7 Jul 17	26 Jul 17	59.5	2 Aug 17	59.8	0.5%

#### DR holders received their dividends one week later compared with holders of the ordinary shares



2 FX rate for dividends conversion

Publicly available information on the Custodian - DR issuer web site 3

### Consolidated Statement of **Profit or Loss**

RUB mln	2017	2016	% chg. 2017/2016
Fee and commission income	21,207.6	19,797.6	7%
Interest and finance income <sup>1</sup>	17,285.3	23,695.0	-27%
Other operating income	46.0	74.6	-38%
Operating Income	38,538.9	43,567.2	-12%
Administrative and other operating expenses	-7,278.9	-6,312.3	15%
Personnel expenses	-6,152.9	-5,947.1	3%
Operating Expense	-13,431.8	-12,259.4	10%
Operating Profit Before Tax	25,107.1	31,307.8	-20%
Income tax expense	-4,851.9	-6,125.2	-21%
Net Profit	20,255.2	25,182.6	-20%
Earnings per share			
Basic earnings per share, rubles	9.02	11.22	-20%
Diluted earnings per share, rubles	8.98	11.16	-20%



### Consolidated Statement of Financial Position

RUB mln	31 December 2017	31 December 2016	% chg. 31 December 2017/ 31 December 2016
Assets:			
Cash and cash equivalents	273,248.6	380,516.6	-28%
Central counterparty financial assets	2,430,083.8	1,733,263.8	40%
Financial assets <sup>1</sup>	279,152.7	282,339.3	-1%
Property and equipment and intangible assets	24,944.1	26,064.3	-4%
Goodwill	15,971.4	15,971.4	0%
Other assets <sup>2</sup>	4,369.1	3,782.5	16%
Total Assets	3,027,769.7	2,441,937.9	24%

RUB min	31 December 2017	31 December 2016	% chg. 31 December 2017/ 31 December 2016
Liabilities:			
Balances of market participants	466,860.2	574,590.1	-19%
Central counterparty financial liabilities	2,430,083.8	1,733,263.8	40%
Distributions payable to holders of securities	2,507.8	2,952.3	-15%
Other liabilities <sup>3</sup>	7,039.1	7,748.1	-9%
Total Liabilities	2,906,490.9	2,318,554.3	25%
Total Equity	121,278.8	123,192.4	-2%
Total Liabilities and Equity	3,027,769.7	2,441,937.9	24%



Source: Moscow Exchange, Consolidated Financial Statements

1 Financial assets at fair value though profit or loss, Due from financial institutions, Investments available-for-sale

2 Current tax prepayments, Deferred tax asset, Other assets

3 Margin account, Deferred tax liability, Current tax payables, Other liabilities

### Disclaimer

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- -changes in (a) domestic and international legislation and tax regulation and (b) state policies related to financial markets and securities markets;
- -competition increase from new players on the Russian market;
- -the ability to keep pace with rapid changes in science and technology environment, including the ability to use advanced features that are popular with the Company's and its subsidiaries' customers;
- -the ability to maintain continuity of the process of introduction of new competitive products and services, while keeping the competitiveness;
- -the ability to attract new customers on the domestic market and in foreign jurisdictions;
- -the ability to increase the offer of products in foreign jurisdictions.

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