

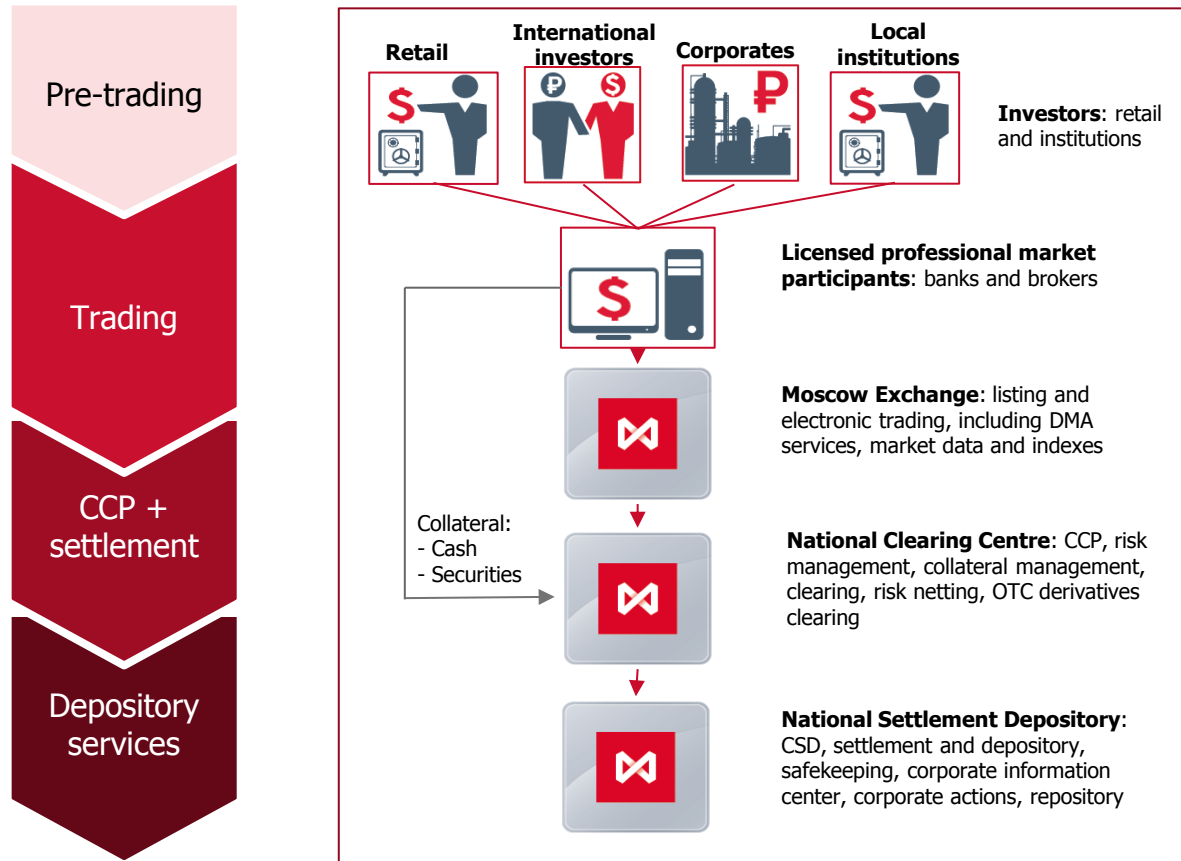


**MOSCOW  
EXCHANGE**

April, 2019

**RUSSIAN DEBT MARKET**

# Moscow Exchange Group: Capturing the whole value chain



- ✓ MOEX captures the whole 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)
- ✓ Investors trade through brokers and banks, which are licensed locally and have access to MOEX markets
- ✓ Single-tier clearing system requires all participants to provide eligible collateral to trade any asset class, while pre-trade risk checks prevent "fat fingers"/"flash crash" problems
- ✓ The market is open for competition (except the CSD) since its inception, but barriers to entry are very high due to MOEX's post-trade infrastructure and on-exchange market efficiency. However, the environment is competitive, with OTC being a key source of competition



**MOSCOW  
EXCHANGE**

# Leading positions in a global context in 2018

## 3<sup>rd</sup> largest exchange in fixed income<sup>1</sup>

Rank	Exchange	Country	Trading vol. (USD bln)	Incl. REPOs
1	BME	Spain	6 791	✓
2	Oslo Borse	Norway	3 885	✓
<b>3</b>	<b>Moscow Exchange</b>	<b>Russia</b>	<b>3 668</b>	<b>✓</b>
4	Johannesburg SE	South Africa	2 341	✓
5	Korea Exchange	Korea	2 193	×
6	Bolsa de Valores de Colombia	Columbia	333	×
7	LSE Group	UK	297	×
8	Shanghai SE	China	295	×
9	Nasdaq OMX	USA	277	✓
10	Santiago SE	Chile	249	✓

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

Rank	Exchange	Country	Mkt Cap (USD bln)	Securities listed	Trading vol. (USD bln)
1	ICE&NYSE	USA	20 679	2 285	19 341
2	Nasdaq OMX	USA	11 080	4 077	17 639
3	Shenzhen SE	China	2 405	2 134	7 563
4	Japan Exchange	Japan	5 297	3 657	6 297
5	Shanghai SE	China	3 919	1 450	6 116
6	LSE Group	UK	3 638	2 479	2 548
7	Korea Exchange	Korea	1 414	2 207	2 521
8	HKEx	Hong Kong	3 819	2 315	2 340
9	Euronext	EU	3 730	1 208	2 203
10	Deutsche Boerse	Germany	1 755	514	1 818
...	...	...	...	...	...
<b>24</b>	<b>Moscow Exchange</b>	<b>Russia</b>	<b>576</b>	<b>225</b>	<b>167</b>

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

Rank	Exchange	Country	Contracts traded (mln)
1	CME Group	USA	4 764
2	NSE India	India	3 808
3	BM&FBOVESPA	Brazil	2 246
4	ICE&NYSE	USA	2 212
5	Deutsche Boerse	Germany	1 931
<b>6</b>	<b>Moscow Exchange</b>	<b>Russia</b>	<b>1 499</b>
7	CBOE	USA	1 434
8	Korea Exchange	Korea	1 411
9	Nasdaq OMX	USA	1 270
10	Shanghai Fut. Exchange	China	1 175

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

Rank	Exchange	Country	Mkt Cap (USD bln)
1	CME	USA	66.7
2	ICE&NYSE	USA	43.2
3	HKEx	Hong Kong	38.4
4	Deutsche Boerse	Germany	25.3
5	LSE Group	UK	20.1
6	BM&FBovespa	Brazil	16.2
7	Nasdaq OMX	USA	13.7
8	CBOE	USA	10.9
9	Japan Exchange	Japan	9.8
10	ASX	Australia	8.8
11	SGX	Singapore	5.8
12	Euronext	EU	4.2
13	BATS	USA	3.4
<b>14</b>	<b>Moscow Exchange</b>	<b>Russia</b>	<b>3.2</b>



**MOSCOW  
EXCHANGE**

Sources: Moscow Exchange, WFE as of 22.01.2019, Bloomberg, LSE Group (for LSE Group data)

1. Due to different methodologies applied, data on fixed income trading may not be directly comparable among exchanges. Data for 2018

2. Data for 2018

3. Top equity trading exchanges are ranked by trading volume. Ranking without BATS (excluded due to absence of data for market capitalization and number of listed companies). Data for 2018

4. Market capitalization of public exchanges based on Bloomberg data as of 22 January 2019

# Key facts about Russia

## DOING BUSINESS 2019

31<sup>th</sup> place (35<sup>th</sup> in 2018)

All financial assets are available  
to foreign investors

## Diversified economic structure

High-yielding and underpriced assets  
MSCI Russia P/E **4.9x** vs **15.5x** MSCI World P/E  
One of the highest dividend yield: **7.0%**

No capital restrictions,  
RUB is fully convertible

International reserves  
**>USD 470 BLN**  
Foreign debt to GDP 33%

## Russian economy – the sixth largest in the world

Investment grade  
sovereign credit rating  
**(BBB-) S&P, FITCH**

Stable economic situation

Secure and reliable  
financial infrastructure  
Systemically important infrastructure as recognized  
by the Bank of Russia



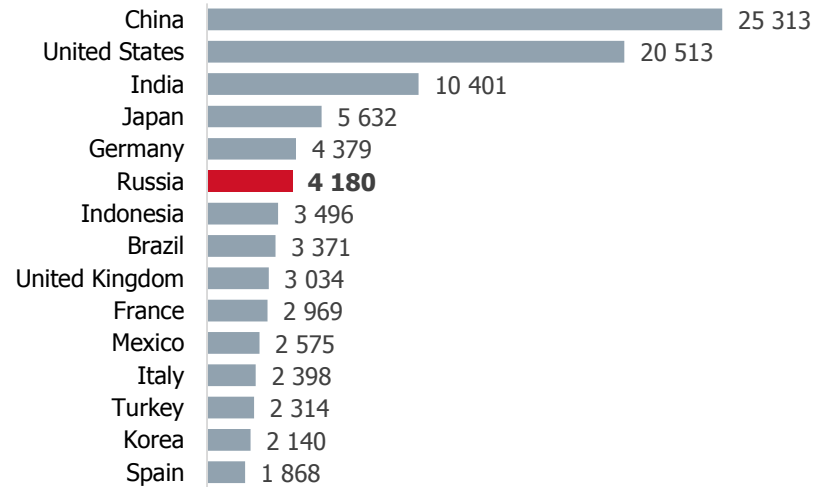
**MOSCOW  
EXCHANGE**

Foreign reserves as of December 2018  
Minor restrictions on foreign investments are in banks, insurance and strategic enterprises

# Russian economy outlook

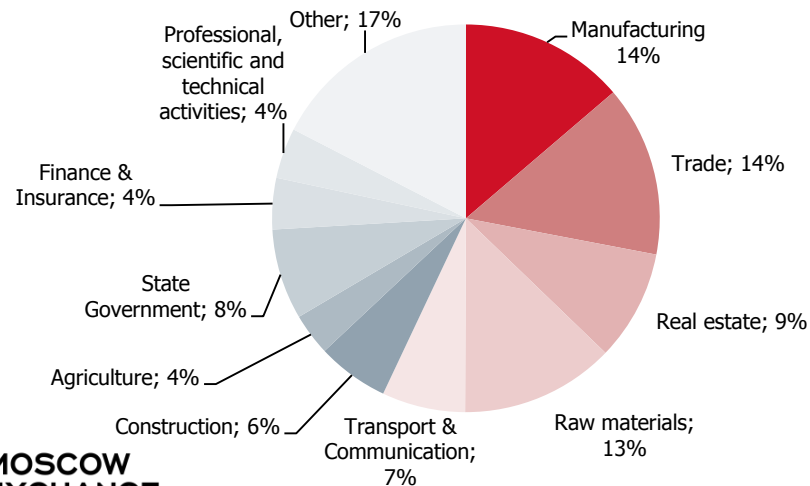
## World 6th largest economy

'2018 GDP in USD bln (purchasing power parity) IMF data



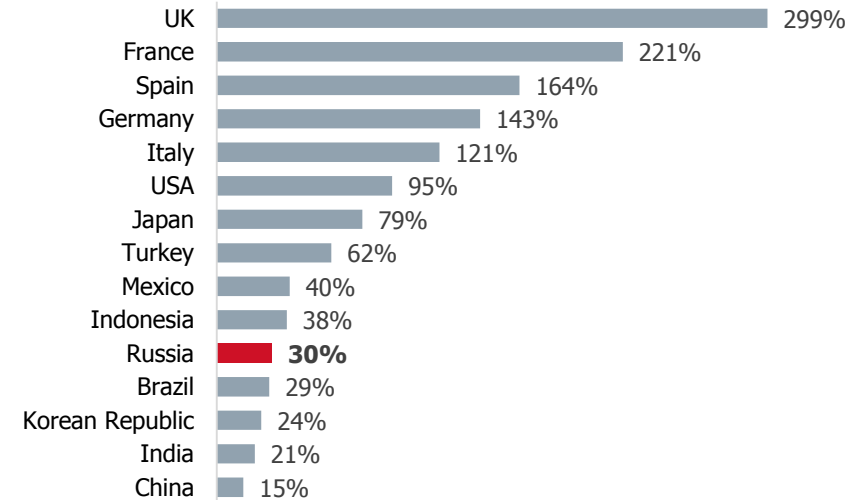
## Diversified economy despite oil and gas shift

Russia: GDP by industry, 2018

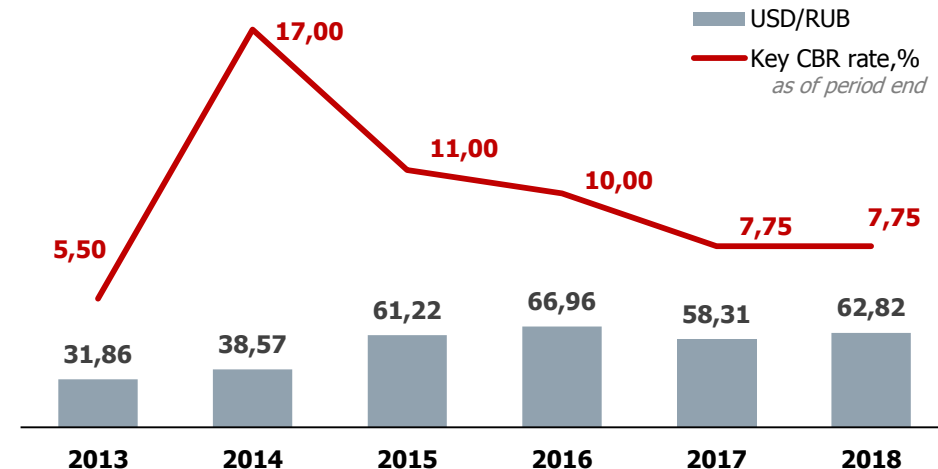


## One of the lowest debt burdens

External debt/GDP %



## CBR Key rate steadily decreases on the back of stabilized RUB exchange rate



Current value of CBR Key rate: 7.5

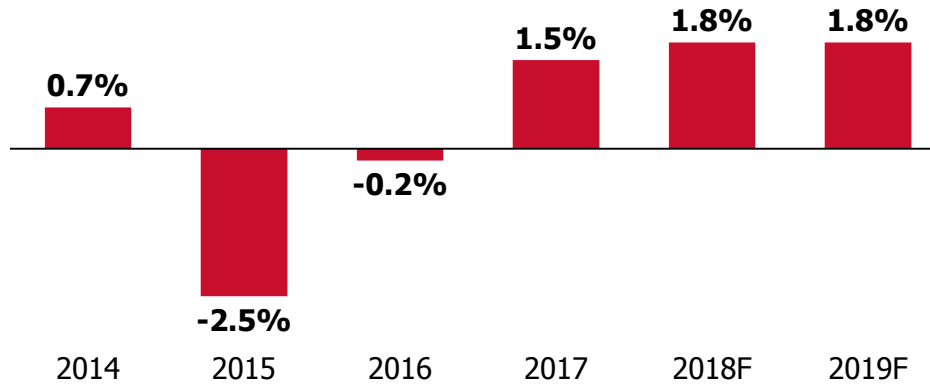


**MOSCOW  
EXCHANGE**

# Russian macro (1/2)

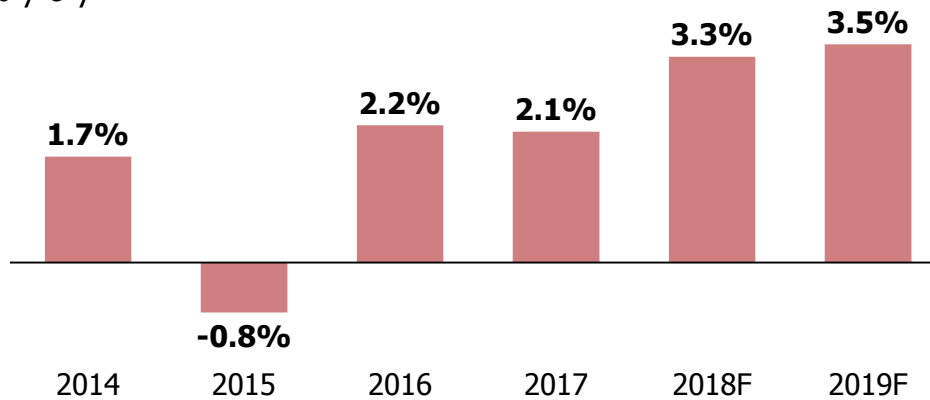
## Real GDP growth

% y-o-y



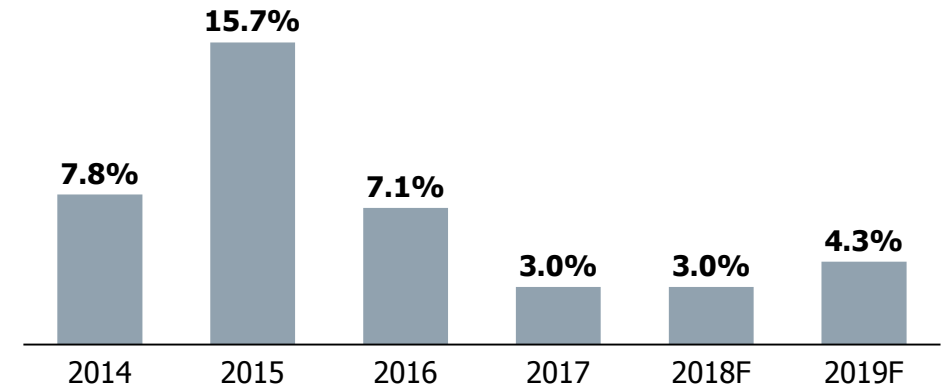
## Industrial production growth

% y-o-y



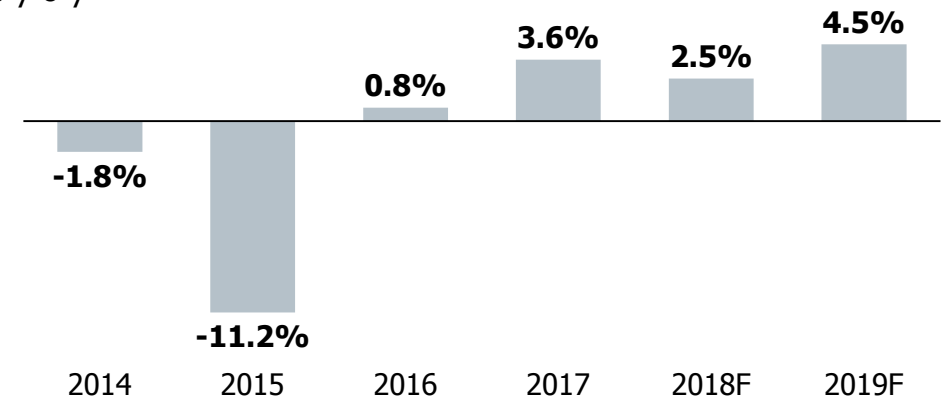
## Inflation

year average % y-o-y



## Gross fixed investment

% y-o-y

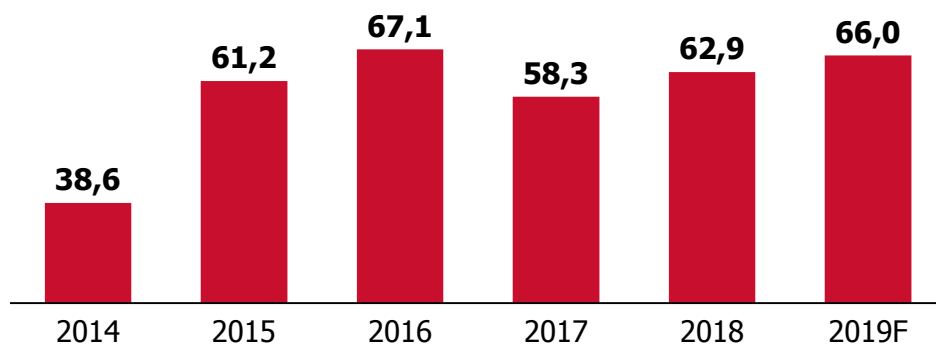


MOSCOW  
EXCHANGE

Source: Sberbank CIB as of 12.12.2018

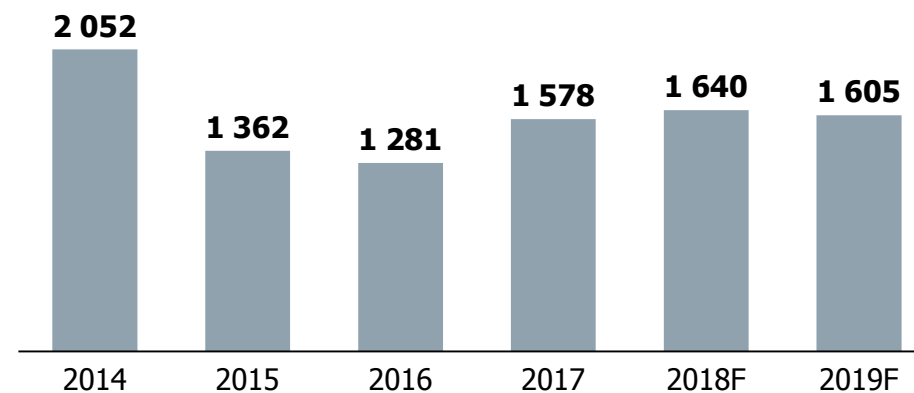
# Russian macro (2/2)

## USD/RUB



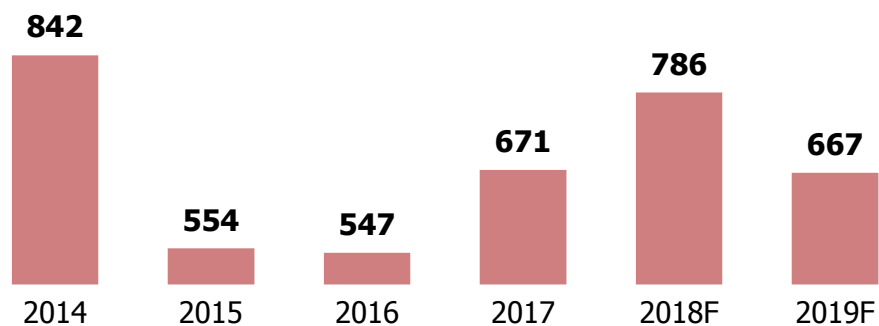
## Nominal GDP

Bln USD



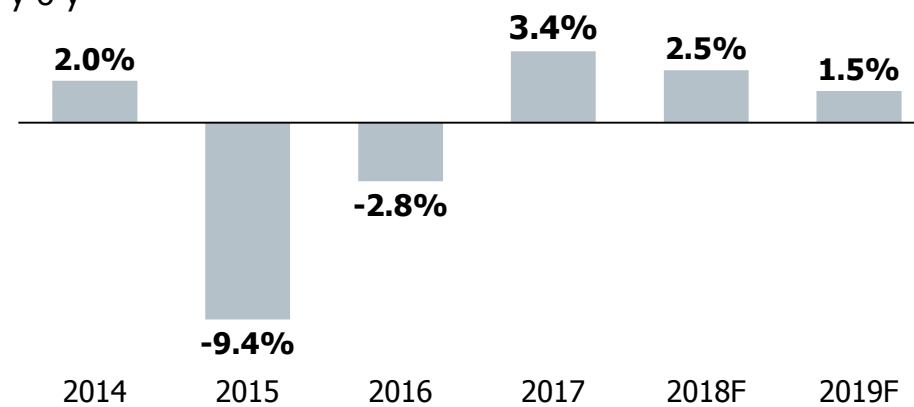
## Average wages

USD



## Personal Consumption expenditures

% y-o-y

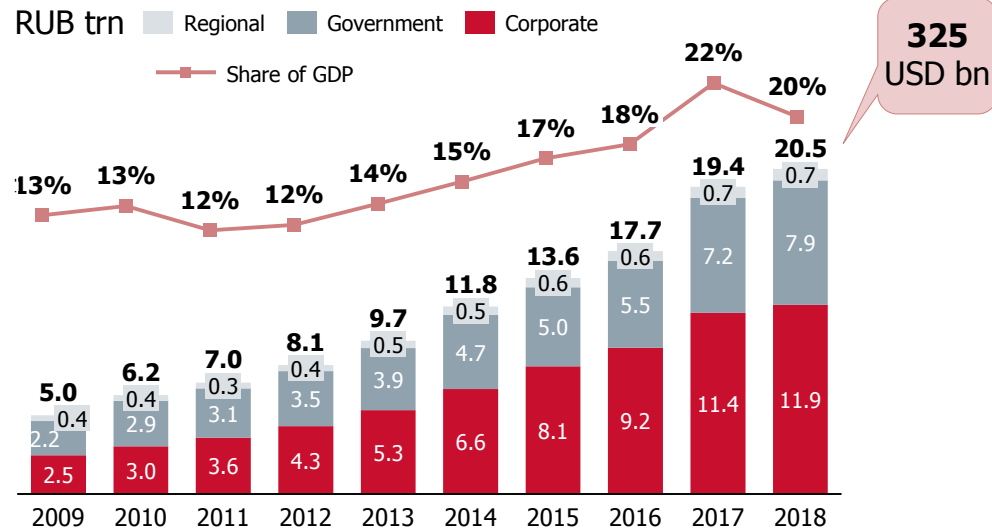


MOSCOW  
EXCHANGE

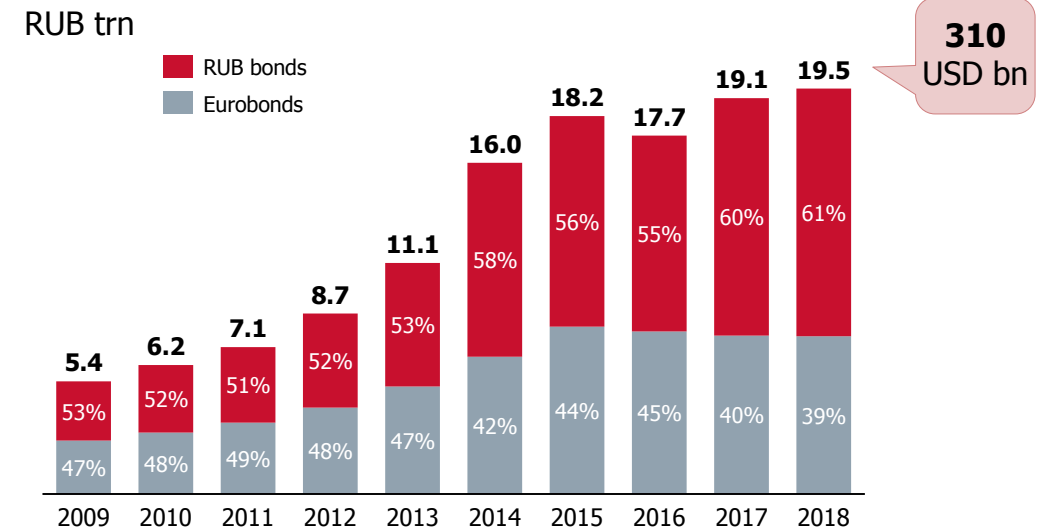
Source: Sberbank CIB as of 12.12.2018

# Bond market: High potential

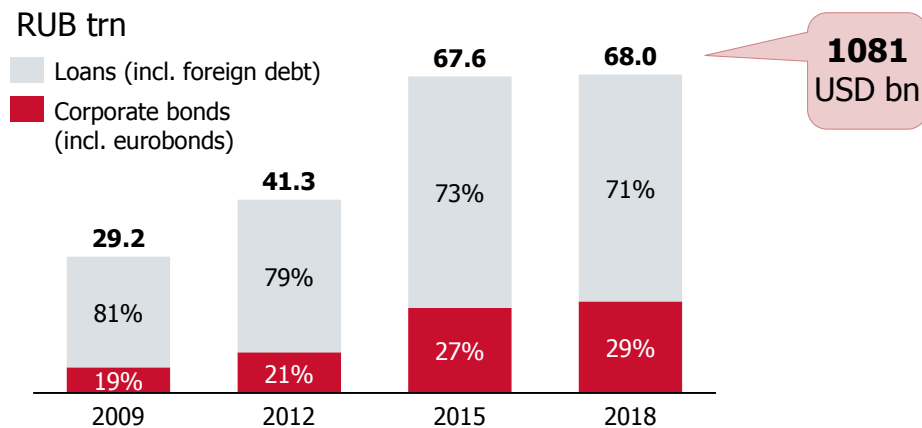
## Growth of outstanding local bonds



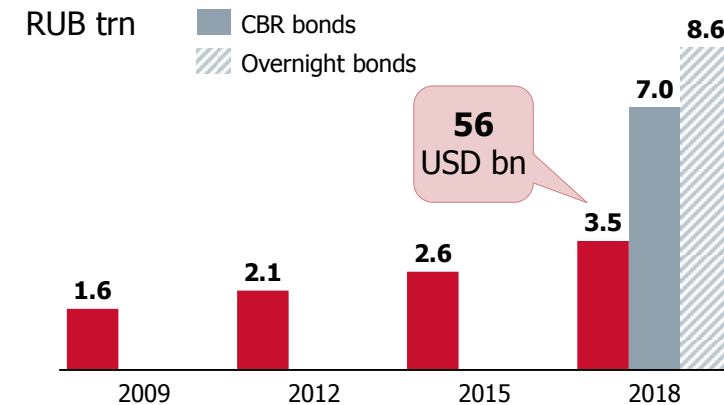
## Local bonds vs Eurobonds of Russian corporates<sup>2</sup>



## Corporate loans vs corporate bonds in Russia



## Bond primary market trading volume



**MOSCOW  
EXCHANGE**

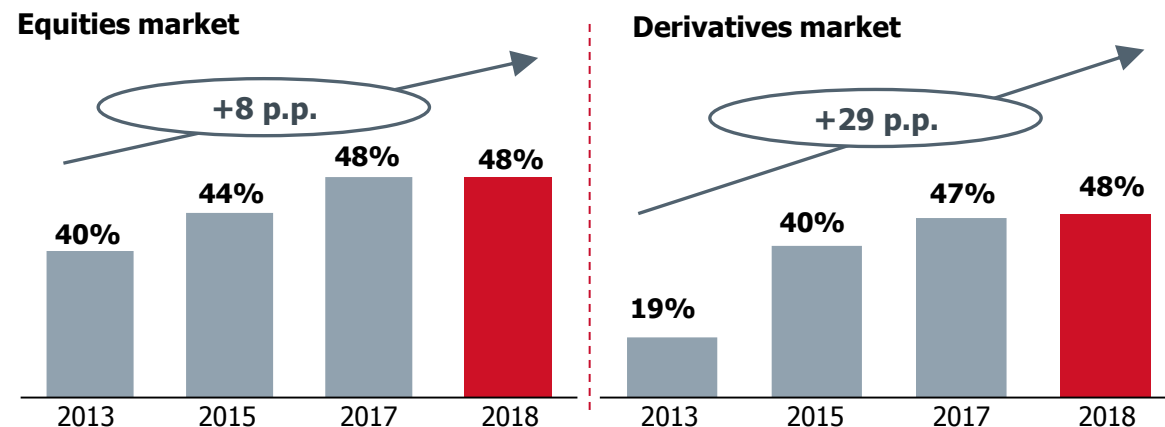
Sources: Bank of Russia, Cbonds, Rosstat, Moscow Exchange

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

2 Including banks and financial institutions. Data for 2018 as of 31 December 2018

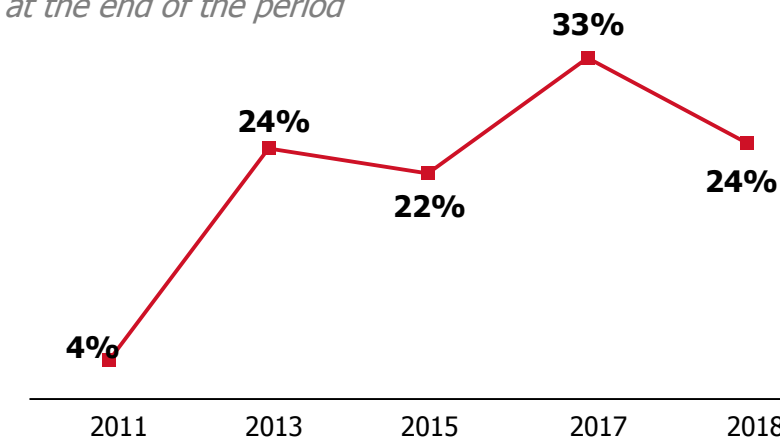
# Russian assets attracting foreign investors

## Share of non-residents in trade volumes on the Moscow Exchange markets, %

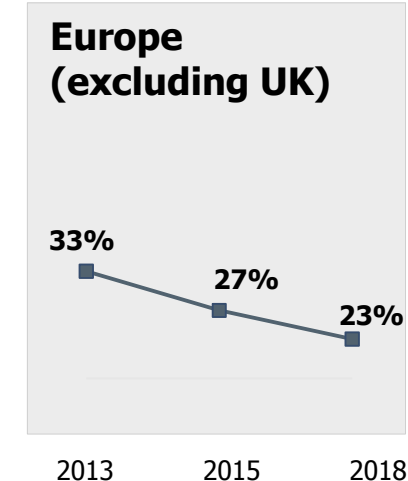
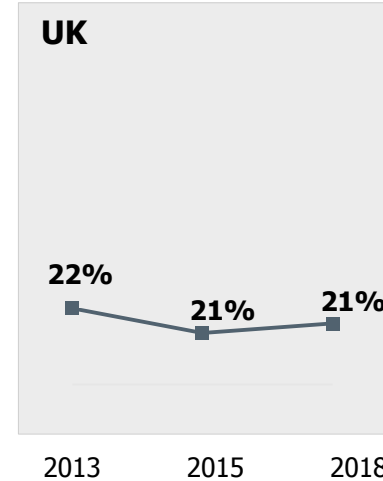
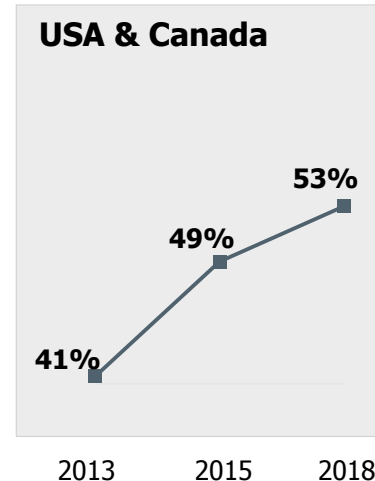
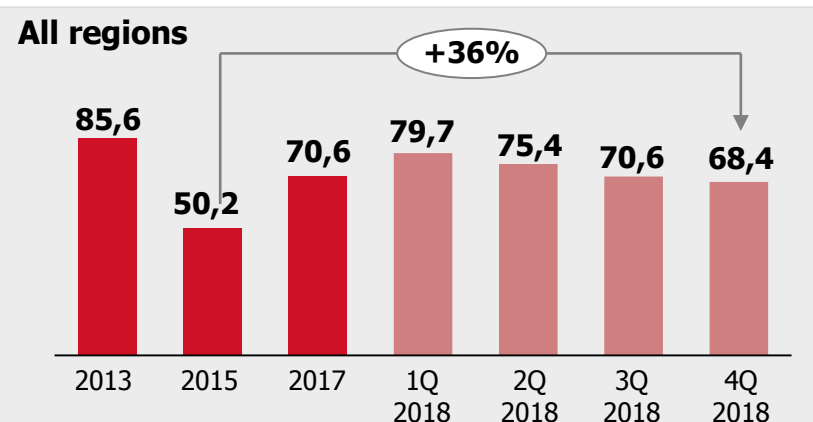


## Share of non-residents in OFZ, %

at the end of the period



## UK, Europe and North America Foreign funds investment in Russian equities, bln USD



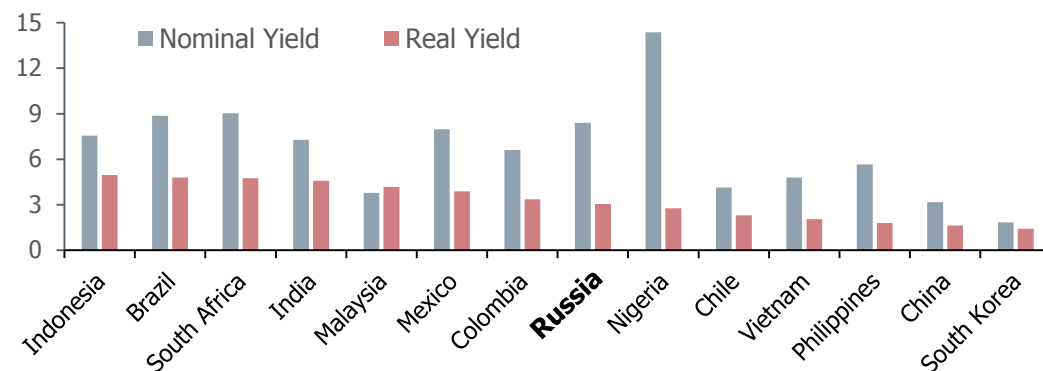
**MOSCOW  
EXCHANGE**

Source: Moscow Exchange, Bank of Russia  
ThomsonONE – at the end of the reporting period, including DRs on Russian equities

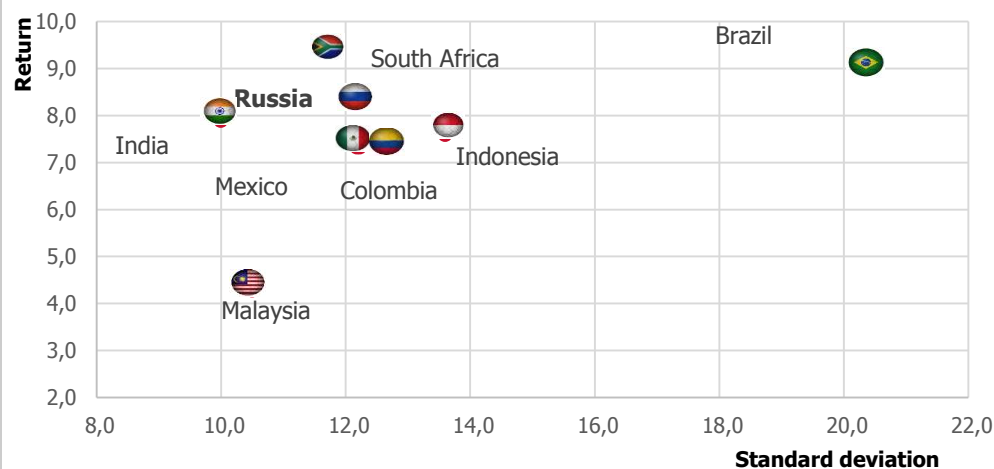
XX% → - CAGR ◆ - Share in investment volume

# Sovereign Bonds (OFZ): macro and EM debt

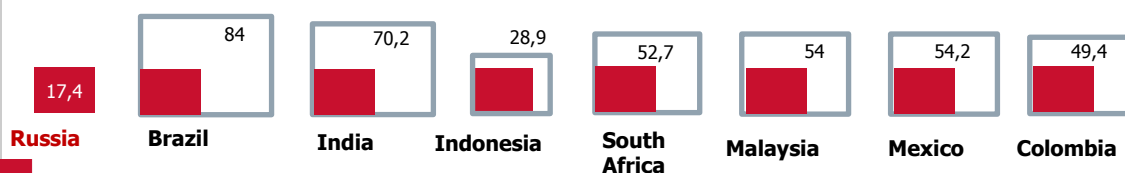
## 10Y Yields, %



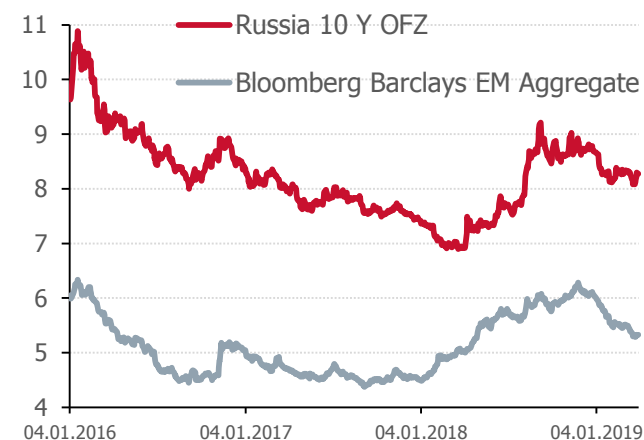
## Expected Return / Risk



## Debt (public) to GDP



## Yield

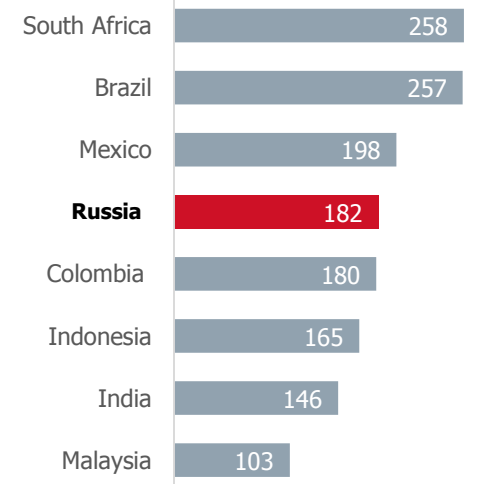


**Non-resident share ~27% as of 2018.**

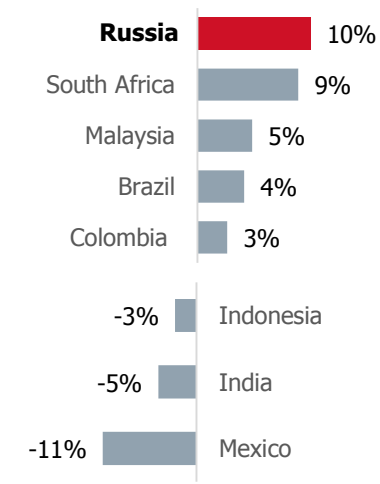
Top fund holders:

- BlackRock
- Stone Harbor Investment
- Fidelity Investment
- Allianz
- Pitcet Funds

## 10Y CDS



## Currency performance 3 year horizon 2016-2019

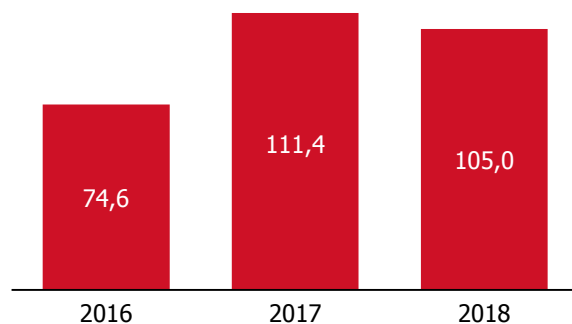


**MOSCOW  
EXCHANGE**

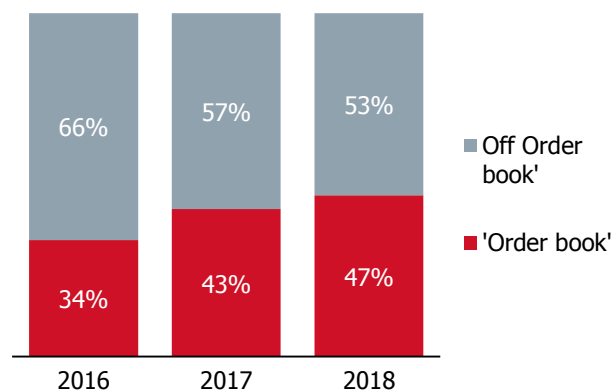
Source: Bloomberg, MOEX

# OFZ liquidity growth

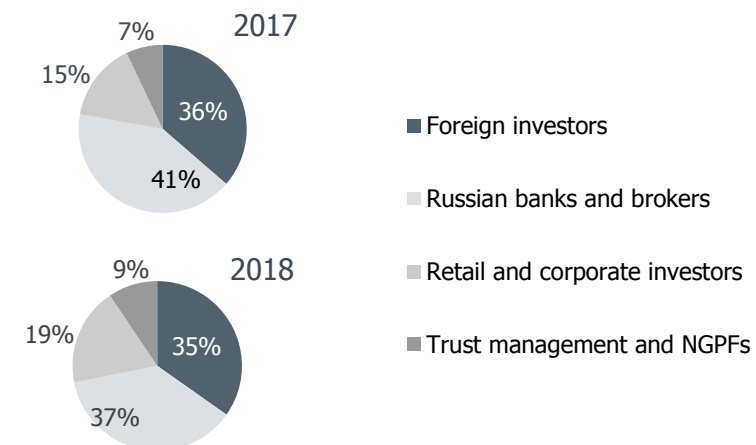
## Secondary market trading, USD bln



## Share of the CLOB

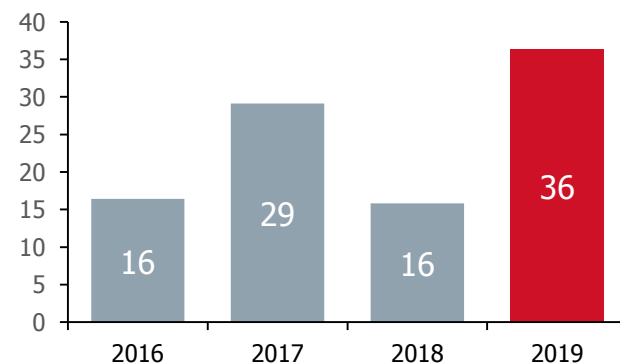


## Trading activity by client groups

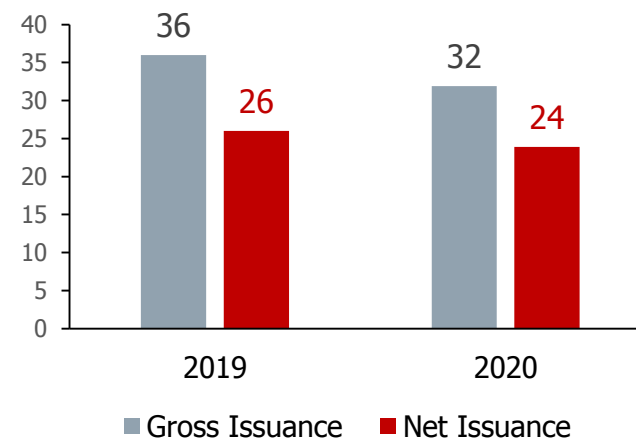


- Strong growth prospect for trading volumes and order book trading share
- Retail and domestic entities increase their trading volume
- Significant growth of new debt including new type of floaters

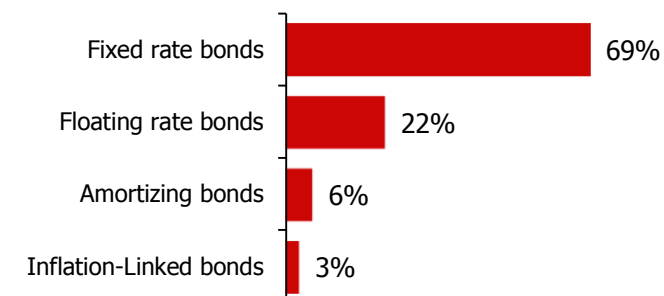
## New Issue amount, USD bln



## Redemption Schedule



## Current Debt Structure



**MOSCOW  
EXCHANGE**

Source: MOEX

## MOEX solution for OFZ market:

- ✓ T+1 settlement cycle
- ✓ Partial pre-funding (collateral requirements from 4% to 10%)
- ✓ Central limit order book (CLOB) and negotiated bilateral trades
- ✓ Market-making in CLOB
- ✓ OFZs used as collateral in repo trades
- ✓ Primarily placements on a weekly basis (for all market participants)
- ✓ OFZs used as underlying of derivatives contracts
- ✓ DMA/SMA for international investors
- ✓ Highly liquid OFZ REPO market with CCP
- ✓ OFZ deliverable futures with quarter expiration available



# International investors at MOEX

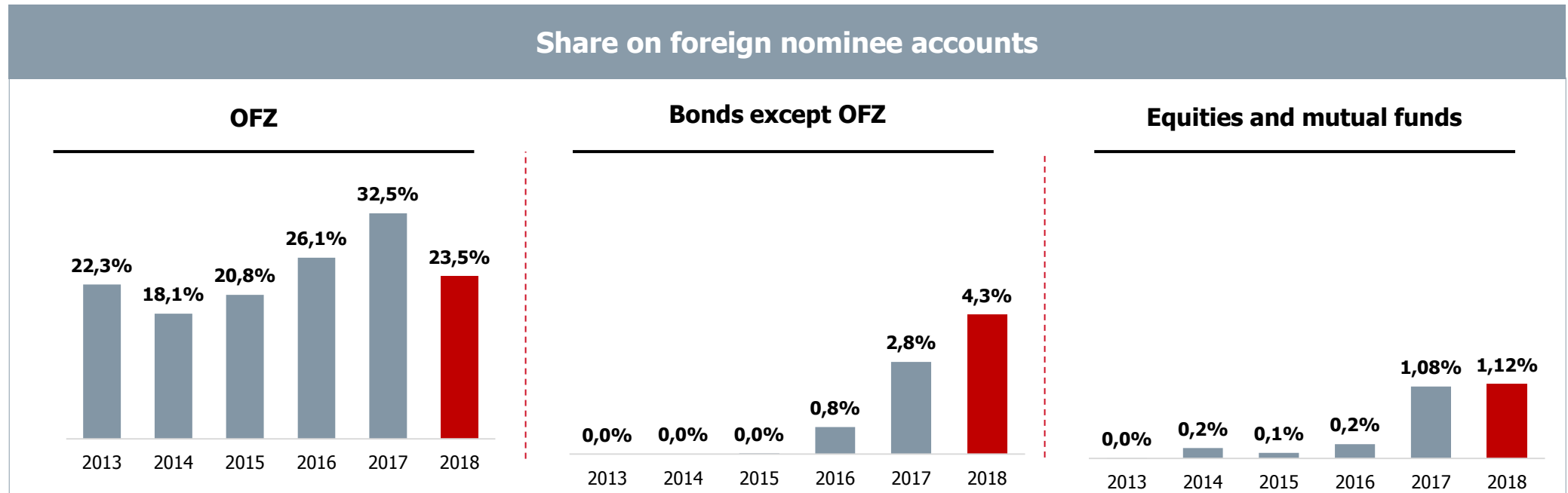
## Foreign banks and brokers trade on MOEX via Russian subsidiaries

- ~16 000 accounts of foreign investors
- 25 subsidiaries of foreign banks are MOEX trading participants
- 15 subsidiaries of foreign banks have DMA access to MOEX

## Key foreign participants of Equity and Bond markets at MOEX:

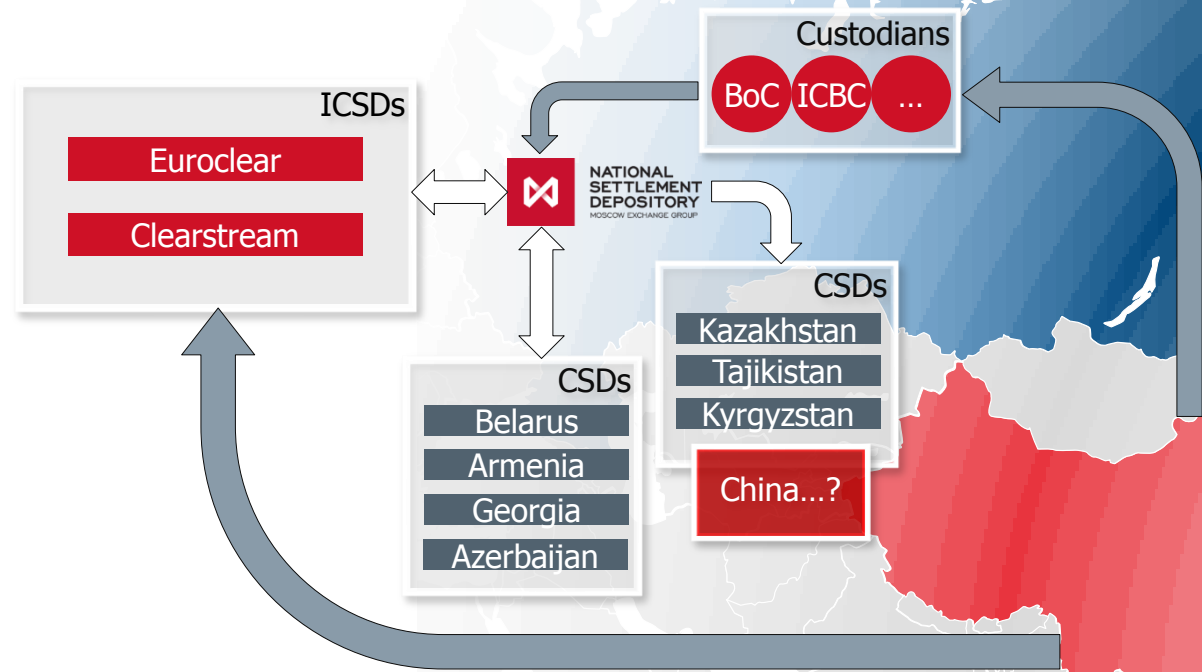
- |                    |                  |                           |
|--------------------|------------------|---------------------------|
| ▪ Barclays Capital | ▪ JP Morgan      | ▪ ICBC                    |
| ▪ BNP Paribas      | ▪ Merrill Lynch  | ▪ Bank of China           |
| ▪ Citigroup        | ▪ Morgan Stanley | ▪ China Construction Bank |
| ▪ Credit Suisse    | ▪ HSBC           | ▪ Unicredit Bank          |
| ▪ ING Bank         | ▪ Raiffaisenbank | ▪ Commerzbank             |
| ▪ Goldman Sachs    | ▪ UBS            |                           |

## Share on foreign nominee accounts



# Infrastructure: accessing Russian market is easy

- ✓ No restrictions on investments in Russian local securities
- ✓ No approval is required to start investing
- ✓ RUB is fully convertible since 2006
- ✓ RUB can be acquired on MOEX for other currencies (HKD, CNY, USD, EUR, etc.)
- ✓ Opening an account with ICSD, global or local custodian
- ✓ An account may be opened at Russian subsidiaries of foreign banks
- ✓ Access through a local broker to MOEX may allow to trade all asset classes



# Market post-trade infrastructure

## Regulator

- The Bank of Russia

## Trading platform

- Moscow Exchange

## Central Counterparty (CCP)

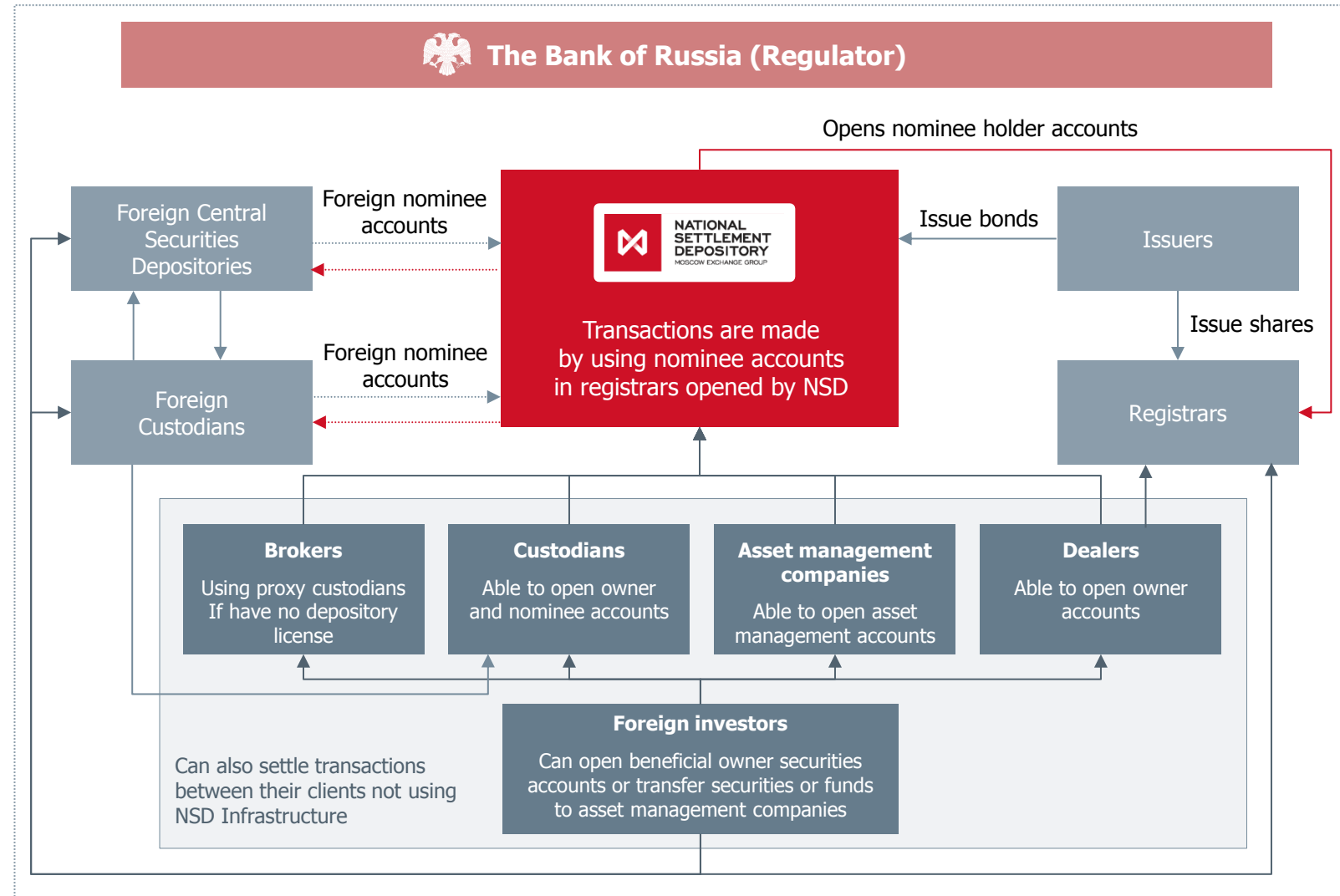
- National Clearing Centre (NCC)

## Clearing platform

- On-exchange trades – National Clearing Centre (NCC);
- OTC trades – National Settlement Depository (NSD)

## Central Securities Depository (CSD)

- National Settlement Depository (NSD)



# Doing business with Asia

## DEVELOPING LINKS WITH ASIAN CSDs

- China
- Hong Kong
- Republic of Korea
- Japan

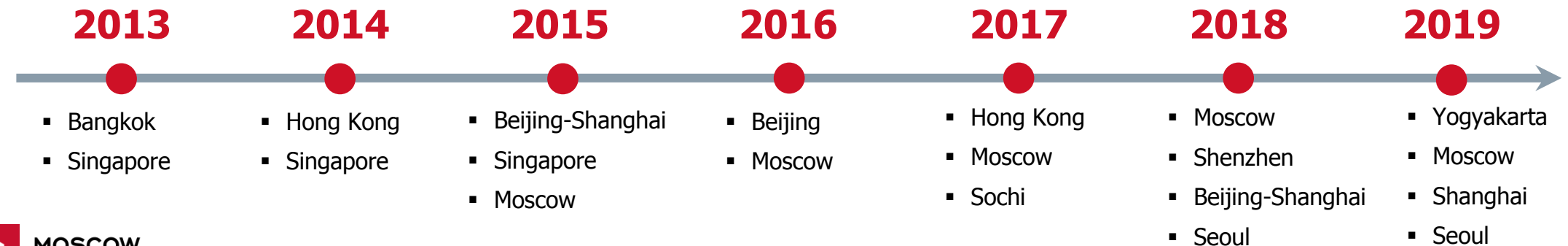
## MEMORANDUMS OF UNDERSTANDING

- China: CCDC, SHCH, CSDC
- Japan: JASDEC
- Hong Kong: HKSCC
- India: NSDL, SDSL
- Uzbekistan: CSD of Uzbekistan
- Republic of Korea: KSD
- Mongolia: MCSD
- Turkey: MKK
- Kyrgyzstan: CD

## NOSTRO ACCOUNTS NETWORK (CASH)

▪ Industrial and Commercial Bank of China (Asia) Limited, Hong Kong	USD, HKD
▪ Industrial and Commercial Bank of China (Moscow)	CNY
▪ Bank of China (Russia)	CNY
▪ National Bank of Kazakhstan	KZT
▪ Central Securities Depository (Kazakhstan)	KZT

## REGULAR MEETINGS WITH ASIAN REGULATORS, CSDs AND INVESTORS



# Disclaimer

NOT FOR RELEASE OR DISTRIBUTION OR PUBLICATION IN WHOLE OR IN PART IN OR INTO THE UNITED STATES, AUSTRALIA, CANADA OR JAPAN.

•This presentation has been prepared and issued by Public Joint Stock Company "Moscow Exchange MICEX-RTS" (the "Company"). Unless otherwise stated, the Company is the source for all data and assumptions contained in this document. Such data and assumptions are provided as at the date of this document and is subject to change without notice. Certain industry, market and competitive position data contained in this document come from official or third party sources believed to be reliable but the Company does not guarantee its accuracy or completeness. The Company does not intend to have any duty or obligation to update or to keep current any information contained in this presentation.

•Neither the presentation nor any copy of it may be taken or transmitted into the United States of America, its territories or possessions, or distributed, directly or indirectly, in the United States of America, its territories or possessions as defined in Regulation S under the US Securities Act 1933, as amended (the "Securities Act"), except to "qualified institutional buyers" as defined in Rule 144A under the Securities Act. Any failure to comply with this restriction may constitute a violation of United States securities laws. The presentation is not an offer or sale of securities in the United States. Moscow Exchange Group has not registered and does not intend to register any securities in the United States or to conduct a public offering of any securities in the United States.

•This presentation does not constitute an advertisement or a public offer of securities in any jurisdiction. It is not intended to be publicly distributed in any jurisdiction. This document is only being made available to interested parties on the basis that: (A) if they are UK persons, they are persons falling within Articles 19 or 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005; or (B) they are outside the United Kingdom and are eligible under local law to receive this document. Recipients of this document in jurisdictions outside the UK should inform themselves about and observe any applicable legal requirements.

This presentation is not a prospectus for purposes of Directive 2003/71/EC (and amendments thereto, including Directive 2010/73/EU, to the extent implemented in any relevant Member State and any relevant implementing measure in the relevant Member State) (the "Prospectus Directive"). In any EEA Member State that has implemented the Prospectus Directive, this presentation is only addressed to and is only directed at qualified investors in that Member State within the meaning of the Prospectus Directive.

This presentation is not directed to, or intended for distribution to or use by, any person or entity that is a citizen or resident or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would require any registration or licensing within such jurisdiction.

•This document does not constitute or form part of, and should not be construed as, an offer or invitation for the sale or subscription of, or a solicitation of any offer to buy or subscribe for, any securities, nor shall it or any part of it or the fact of its distribution form the basis of, or be relied on in connection with, any offer, contract, commitment or investment decision, nor does it constitute a recommendation regarding the securities of the Company.

•The information in this document has not been independently verified. No representation or warranty, express or implied, is made as to, and no reliance should be placed on, the fairness, accuracy or completeness of the information, assumptions or opinions contained herein. None of the Company, or any of its subsidiaries or affiliates or any of such person's directors, officers or employees, advisers or other representatives, accepts any liability whatsoever (whether in negligence or otherwise) arising, directly or indirectly, from the use of this document or otherwise arising in connection therewith.

•This presentation includes forward-looking statements. All statements other than statements of historical fact included in this presentation, including, without limitation, those regarding MOEX financial position, business strategy, management plans and objectives for future operations are forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause our actual results, performance, achievements or industry results to be materially different from those expressed or implied by these forward-looking statements. These forward-looking statements are based on numerous assumptions regarding our present and future business strategies and the environment in which we expect to operate in the future. Important factors that could cause our actual results, performance, achievements or industry results to differ materially from those in the forward-looking statements include, among other factors:

- perception of market services offered by the Company and its subsidiaries;
- volatility (a) of the Russian economy and the securities market and (b) sectors with a high level of competition that the Company and its subsidiaries operate;
- 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.

•Forward-looking statements speak only as of the date of this presentation and we expressly disclaim any obligation or undertaking to release any update of, or revisions to, any forward-looking statements in this presentation as a result of any change in our expectations or any change in events, conditions or circumstances on which these forward-looking statements are based. Past performance should not be taken as an indication or guarantee of future results, and no representation or warranty, express or implied, is made regarding such future performance.

