Moscow Exchange Group’s Strategy 2024
Global trends and strategic focus of exchanges
Strategic focus of world exchanges

Focus on expanding traditional exchange business to other regions through **partnerships**

Building on **core business** with increased focus on **technology**

Expansion to attractive non-exchange markets through **M&A**, increased focus on **Market Data**

Cost control and raise of **operational efficiency** of **core business**
Capital markets infrastructure providers are diversifying across the value chain

<table>
<thead>
<tr>
<th>Trade facilitation/execution</th>
<th>Clearing</th>
<th>Custody¹</th>
<th>Settlement</th>
<th>Information services</th>
<th>Technology infrastructure</th>
<th>Capital markets utilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange groups</td>
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<td>Alternative venues</td>
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<td>Stand-alone CCP</td>
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<tr>
<td>Custodian</td>
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<td>CSD</td>
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<td>Info services provider</td>
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<tr>
<td>IT infrastructure provider</td>
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<tr>
<td>Buy side players</td>
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</tr>
</tbody>
</table>

¹ Non-bank custody

Source: McKinsey Capital Markets Infrastructure Practice

Expansion moves – examples

- **A**: Exchanges diversifying beyond traditional business to post-trade, market data, tech, ancillary services
- **B**: Exchange groups entering the alternative trading space
- **C**: Custodians entering settlement space by setting up CSD or tying up with associated players
- **D**: CSDs venturing into capital markets utilities
- **E**: Info service providers investing to provide trading services
- **F**: Infrastructure IT providers begun building industry utilities
- **G**: Buy-side players entering the market infrastructure space
## Summary of competitive environment

Direct competition is limited, there is a possibility of additional competition due to changes in technologies

### Big-tech, fintech and technology

- Big-tech companies attack the margin of traditional financial players – banks, insurance companies
- Exchanges consider most capital markets fintech teams as partners
- Emergence of Artificial Intelligence, DLT and Cloud technologies may partially or fully substitute some traditional financial companies

### Changing needs of buy-side

- Development of services providing disintermediation of financial infrastructure
- Developed markets trend: buy-side companies are looking for direct trading opportunities outside exchanges and market-makers

### Internalization by sell-side

- Markets with high concentration of the largest sell-side are most susceptible to internalisation
- Some intermediaries already internalize more than 40% and this share may increase to 60% by 2020

### Exchange platforms

- Most major exchanges don’t have ambitions to compete on the Russian market at this time
- Internal competition depends on local regulation

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### Level of competition

<table>
<thead>
<tr>
<th>Big-tech, fintech and technology</th>
<th>Changing needs of buy-side</th>
<th>Internalization by sell-side</th>
<th>Exchange platforms</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Bar Chart" /></td>
<td><img src="image2.png" alt="Bar Chart" /></td>
<td><img src="image3.png" alt="Bar Chart" /></td>
<td><img src="image4.png" alt="Bar Chart" /></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Level of competition</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5.png" alt="Scale" /></td>
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</tbody>
</table>

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| Strategy 2024 | 5 |
Challenges for the Russian financial market in a global context

<table>
<thead>
<tr>
<th>Trend</th>
<th>Duration</th>
<th>Global / Local</th>
<th>Potential impact on MOEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ageing population and migration</td>
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<tr>
<td>Global economic slowdown</td>
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<tr>
<td>Low growth rate of Russian economy</td>
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<tr>
<td>Competition from tech companies</td>
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<tr>
<td>Sanctions</td>
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</tbody>
</table>

In this environment, MOEX’s organic growth is limited by “low single digits”
Objectives and results of previous strategies. Current Group position
Strategy 2012-2015: bridging the gap with international infrastructure

Goals were achieved

MOEX after 2015

MOEX before 2012

CCP

CSD

T+2

DMA/SMA

Euroclear/Clearstream

Strategy 2024
Strategy 2015-2020: development of unified infrastructure for the Russian market, including its traditionally OTC segments

- Money market
  - FX
  - Commodities
- Equity market
- Derivatives market
- Bond market
- Unified collateral
- Netting
- Cross-margin
- Unified account

Key pillars:
- Diversification
- Penetration
- Integration
- Standardization
- Optimization

Non-classic assets traded on MOEX

Unified infrastructure

Traditional exchange
The most diversified range of asset classes and services globally

<table>
<thead>
<tr>
<th>Exchange</th>
<th>Country</th>
<th>Equity</th>
<th>Bonds</th>
<th>Derivatives</th>
<th>Repo</th>
<th>FX</th>
<th>Commodities</th>
<th>Listing</th>
<th>Market Data</th>
<th>Clearing</th>
<th>Depository</th>
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<tbody>
<tr>
<td>HKEx</td>
<td>Hong Kong</td>
<td>✔️</td>
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<td>Japan</td>
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<td>JSE</td>
<td>South Africa</td>
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<td>✔️</td>
</tr>
</tbody>
</table>

- ✔️ absence
- ✔ presence
- ✔️ Strong business

Sources: web-sites of international exchanges
Key MOEX results in 2012-2018

- **Trading volume**
  - RUB trln
  - 2012: 370
  - 2018: 861
  - ▲ 15%
  - CAGR 2012-2018

- **Fee & Commission Income**
  - RUB bln
  - 2012: 11
  - 2018: 23
  - ▲ 13%
  - CAGR 2012-2018

Source: Moscow Exchange
Key pillars of the new Strategy
Exchange and economy

FAIR PRICE

STANDARD FOR TRADED ASSETS

TRUSTED PLATFORM

LIQUIDITY CENTER
Growing share of international investors on MOEX markets

### Share of international investors in equities and derivatives trading

<table>
<thead>
<tr>
<th>Equities market</th>
<th>Derivatives market</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Graph" /></td>
<td><img src="image2" alt="Graph" /></td>
</tr>
</tbody>
</table>

- **Equities market**
  - 2013: 40%
  - 2015: 44%
  - 2017: 48%
  - 9M'19: 50%

- **Derivatives market**
  - 2013: 19%
  - 2015: 40%
  - 2017: 47%
  - 9M'19: 46%

**Source:** Moscow Exchange, the Central Bank of the Russian Federation

### OFZ holdings of non-residents

<table>
<thead>
<tr>
<th>Share of non-residents in OFZ, as of period end</th>
<th>2011</th>
<th>2013</th>
<th>2015</th>
<th>2017</th>
<th>2018</th>
<th>01.09.2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Share of foreign investors in OFZ secondary trading in 1H2019</strong></td>
<td>4%</td>
<td>24%</td>
<td>22%</td>
<td>33%</td>
<td>24%</td>
<td>30%</td>
</tr>
</tbody>
</table>

**Record**

**Share of foreign investors in OFZ**, as of period end
- **35%**
MOEX – universal platform
MOEX – trusted platform

Trading (MOEX)
- World rankings by trading volumes:
  - Top-3 by bonds
  - Top-10 by derivatives
  - Top-30 by equities
- Trading volumes on MOEX markets, RUB trln:
  - 2014: 572
  - 2016: 850
  - 2018: 861

Clearing (NCC)
- Central Counterparty for all asset classes:
  - 2014: 40
  - 2016: 57
  - 2018: 66
  - 9M’19: 70

Neutrality
- Free float is 57.6%
- No shareholder exceeds 12% ownership
- MOEX Shareholders structure, %:
  - CBR: 11.8%
  - Sberbank: 10.0%
  - VEB: 8.4%
  - EBRD: 6.1%
  - RDIF: 5.0%
  - MICEX Finance: 1.1%
  - Free float: 57.6%

Depository (NSD)
- Central Depository:
  - Assets on deposit, RUB trln:
    - 2014: 25
    - 2016: 36
    - 2018: 45
    - 9M’19: 49

Source: Moscow Exchange, NCC, NSD
Reliability of MOEX as a key financial infrastructure

**IT systems availability on MOEX**

<table>
<thead>
<tr>
<th>Year</th>
<th>Availability %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>99.99%</td>
</tr>
<tr>
<td>2013</td>
<td>99.99%</td>
</tr>
<tr>
<td>2014</td>
<td>99.996%</td>
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<tr>
<td>2015</td>
<td>99.996%</td>
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<tr>
<td>2016</td>
<td>99.99%</td>
</tr>
<tr>
<td>2017</td>
<td>99.99%</td>
</tr>
<tr>
<td>2018</td>
<td>99.99%</td>
</tr>
</tbody>
</table>

**Share of REPO with CCP in inter-dealer REPO volume, %**

<table>
<thead>
<tr>
<th>Year</th>
<th>Share %</th>
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</thead>
<tbody>
<tr>
<td>2013</td>
<td>5%</td>
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<tr>
<td>2014</td>
<td>62%</td>
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<tr>
<td>2015</td>
<td>30%</td>
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<tr>
<td>2016</td>
<td>73%</td>
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<tr>
<td>2017</td>
<td>76%</td>
</tr>
<tr>
<td>2018</td>
<td>84%</td>
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</table>

**Share of MOEX FX market vs. OTC**

<table>
<thead>
<tr>
<th>Year</th>
<th>Share %</th>
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</thead>
<tbody>
<tr>
<td>2012</td>
<td>26%</td>
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<tr>
<td>2013</td>
<td>31%</td>
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<tr>
<td>2014</td>
<td>42%</td>
</tr>
<tr>
<td>2015</td>
<td>49%</td>
</tr>
<tr>
<td>2016</td>
<td>53%</td>
</tr>
<tr>
<td>2017</td>
<td>55%</td>
</tr>
<tr>
<td>2018</td>
<td>53%</td>
</tr>
</tbody>
</table>

Source: Moscow Exchange
Exchange and economy

- Fair Price
- Standard for Traded Assets
- Trusted Platform
- Liquidity Center
Financial market map: movement of MOEX, exchanges and aggregators
Strategy 2019-2024

Data and IT services
Collateral management
CCP and financing
Settlement / Clearing
Depository
Price discovery

High standardization
Equities
Derivatives
Bonds
FX
Deposits
Insurance
Loans
Agricultural commodities
Industrial commodities
High fragmentation

World exchanges 2019
MOEX 2019
Marketplaces 2019

Standardization
Mission, areas of responsibility and areas of development

**Mission**
We bring trust, efficiency and innovation to the financial markets, helping companies and citizens achieve tomorrow's goals

**Core Markets Penetration**

**Culture of Trust and Responsibility**

**Market Gateway**

**Financial Platform**

**Balance Sheet Management**

1. Mission
2. Areas of responsibility
3. Areas of development
MOEX stakeholders

Shareholders
- ~55 thousand

State and Regulator
- The Central Bank of Russia
- The Ministry of Finance
- The Federal Treasury
- The Pension Fund of Russia

Trading participants
- >500

Issuers
- >600 issuers

Participants’ clients
- >3 million retail clients

Investment banks

Group employees
- ~1,700 employees

Professional community and media

Source: Moscow Exchange
Business opportunities

Market gateway
Retail investor evolution

01 Trading
- Admission of individuals to FX and sovereign bond trading since 2012
- Mostly speculative nature of transactions

02 Investments
- Tax incentives, Individual Investment Accounts (IIAs)
- Market digitalization, online apps

03 Savings
- New instruments: Foreign-law ETFs, Russian-law ETFs
- Investment Marketplace

70% of accounts are opened remotely

- 34% Share of retail investors in equities secondary trading
- 45% Share of retail investors in derivatives trading

Share of retail investors in bonds secondary trading, %

- 2% in 2012
- 7% in 9M’19

30 ETFs
- 17 on equities
- 12 on bonds
- 1 on commodities

9 countries
- which benchmarks are ETFs underlying

Source: Moscow Exchange
Growing number of retail clients on Securities market
unique clients, mln

- 2015: 1.0
- 2017: 1.3
- September 2019: 3.1 (134% increase)

Growing number of Individual Investment Accounts (IIAs)
Cumulative, thousand accounts
- 2015: 89
- 2017: 301
- 9M'19: 1,175

Share of retail investors in total population, %

- China: 11%
- S. Korea: 10%
- Malaysia: 6%
- Thailand: 3%
- Russia: 2%
- Turkey: 1%
- Kazakhstan: 1%
- Brazil: 0.3%

Source: Moscow Exchange, WFE
Potential to attract retail investors

Household financial assets | 39 RUB trln

- **56%** Deposits in RUB
- **16%** Deposits in foreign currency and precious metals
- **16%** Cash
- **13%** Securities

Significant potential of attraction on Securities market

Share of securities in household financial assets
(equities, bonds, mutual funds)

Emerging markets

- Russia: 13%
- Turkey: 14%
- UK: 16%
- S. Korea: 22%
- Germany: 24%
- Brazil: 34%
- Canada: 38%
- Mexico: 45%

Developed markets

- USA: 52%

Drivers of retail investors growth

- **Return on investment in RUB, 7M2019**
  - 7% Return on deposits
  - 16% Return of the MOEX Index
  - 7% Dividend yield (average)
  - 8% Return on the Corporate bond index

**Key rate and deposit rate dynamics**

- Key rate, %
- Deposit rate (RUB), %

<table>
<thead>
<tr>
<th>Year</th>
<th>Key Rate (%)</th>
<th>Deposit Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>8.1%</td>
<td>6.9%</td>
</tr>
<tr>
<td>2015</td>
<td>7.9%</td>
<td>6.2%</td>
</tr>
<tr>
<td>2016</td>
<td>8.4%</td>
<td>6.9%</td>
</tr>
<tr>
<td>2017</td>
<td>9.1%</td>
<td>7.4%</td>
</tr>
<tr>
<td>2018</td>
<td>10.6%</td>
<td>7.7%</td>
</tr>
<tr>
<td>7M2019</td>
<td>12.6%</td>
<td>7.9%</td>
</tr>
</tbody>
</table>

Source: Moscow Exchange, the Central Bank of the Russian Federation, Bloomberg
Wide range of investment products

- Equities
- Bonds
- Foreign-law ETFs, Russian-law ETFs
- FX
- Futures and options

Non-exchange instruments
- Deposits
- Insurance products
- Mutual funds
- New securities (structural bonds)
Ecosystem vs Marketplace

Ecosystem of one bank

- Product 1
- Product 2
- Product N
- Product 3
- Product 4
- Product 5
- Product 6

Financial products Marketplace

- Product 1
  - Provider 1
  - Provider 2
  - Provider 3
  - Provider 4
  - Provider 5
  - Provider 6
  - Provider N

- Product 2
  - Provider 1
  - Provider 2
  - Provider 3
  - Provider 4
  - Provider 5
  - Provider N

- Product N
  - Provider 1
  - Provider 2
  - Provider 3
  - Provider 4
  - Provider 5
  - Provider N

Product 1

Product 2

Product N
Retail client journey

AS IS

Define needs product
Information search
Choice of financial product providers
Transactions
Settlement

TO BE

Identification
NEW
Define needs
Aggregator
Choice of providers
Transactions

SMART-services
Execution | Post-trade

Registrar of financial transaction – “golden source”

NEW
Market size for Financial products Marketplace

Deposits of individuals

- 30 RUB trln
- 70% Deposits from 700 RUB thousand
- 21 RUB trln
- 5% Share of deposits opened via marketplace
- 1 RUB trln

~ 25 mln individuals

Service Description
- New sales channel for providers of financial services
- Asset management for retail segment

Partners
- Banks
- Providers of financial services

Sources: the Central Bank of the Russian Federation, Moscow Exchange valuation
Business opportunities

Balance sheet management
Platform evolution: liquidity and FX position management

1992+
- Trading & Clearing system for banks and brokers
  - Negotiation deals
  - Repo with DVP
  - Liquidity management in money and securities
  - Conversion operations and FX swaps

2013+
- Exchange FX & Money Market
  - New access technologies (DMA / SMA)
  - New clients on FX market (brokers, non-residents, corporates, retail)
  - CCP guarantee and Repo rate trading

2019+
- Platform with flexible solutions for different clients
  - Corporate marketplace: sales channel
  - Wide range of treasury products
  - Atomic services on trading, clearing and settlement

MOEX vs OTC share on FX market
- 2012: 26%
- 2018: 53%

Share of Repo with CCP in volume of inter-dealer Repo
- 2013: 5%
- 9M’19: 88%

Share of corporates as % of total MOEX clients
- 25%

Share of deposits in total volume of Repo with GCC trading
- 35%

Source: Moscow Exchange
Platform evolution: hedging

1992+

Speculative market

- Key instruments: equity and FX derivatives
- Key clients: retail

2013+

Globalization and diversification

- Commodity derivatives growth
- Increase of non-residents share and development of market access technologies

2019+

Market institutionalization

- Growth of hedging operations by banks, asset managers and corporates
- Liquidity growth and new liquidity (RFQ/RFS)
- New technologies and instruments – interest rates derivatives and OTC derivatives

Derivatives market structure by client type (9M’19)

- Non-residents: 8%
- Retail: 45%
- Corporates: 46%
- Funds: 1%

Share of commodity derivatives on Derivatives market

- 2013: 3%
- 9M’19: 35%

OTC derivatives (on-exchange) trading volumes

- 2015: 4
- 2018: 884

RUB bln

Source: Moscow Exchange
New challenges for banks and advantages of MOEX platform

### New challenges for banks

- Regulatory requirements
- Competition for clients and decreasing margins
- Fragmentation of markets and increased competition from non-banking liquidity providers
- Growing technology requirements
- Strengthening risk management and compliance

### MOEX platform offering

- Central Counterparty
- Wide range of clients
- Flexible technologies for liquidity search and distribution
- Neutral and technological competitive environment
- DVP/PVP Settlement
Corporate client journey

Define needs
- Placement / fundraising
- Currency conversion
- Hedging

Information search

Relationship with counterparties
KYC, risk management, contracts

Transactions with banks or on exchange

Settlement and reports

AS IS

TO BE

SMART-services

EXECUTION | POST-TRADE
**MOEX platform: market size**

### Corporates
- ~9 thousand non-financial companies with annual revenue of more than 2 RUB bln
- ~7% or 600 companies
- 8 RUB trln ~7% of annual corporate short-term investments by TOP-600
- 0.4 RUB trln 5% potential volume of corporates’ open interest on MOEX

### OTC FX
- 15 USD bln OTC volumes ADV (Voice, SDP, ECN)
- ~30%
- 5 USD bln
- 50%
- 0.4 RUB trln 5% potential volume of corporates’ open interest on MOEX

### Standardized OTC derivatives
- Share of interest rate derivatives (IRD) in total OTC derivatives trading volume
- ~420 RUB trln ~1.2% or 5 RUB trln
- World benchmarks and potential
- 5 Russia
- 70 EM
- 120 OM*
- 195 DM
- 20% Potential market share
- 15 RUB trln Trading volumes on MOEX
- * - oil markets

Source: SPARK, Moscow Exchange valuation, the Central Bank of the Russian Federation

I | Strategy 2024
Business opportunities

Financial platform
Financial market infrastructure development

- **Central Depository**
  - Direct access for non-residents via foreign nominee accounts

- **Collateral management system**
  - Repository

- **National significant Payment system**
  - Central depository status
  - Russian government eurobonds

- **Corporate Action Reform**

- **Corporate Information Center**
  - Pricing centre

- **Infrastructure financial market ecosystem**

### Assets on depo client accounts

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>9M'19</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUB trln</td>
<td>12.0</td>
<td>49.2</td>
</tr>
</tbody>
</table>

**Source**: NSD

### OFZ in foreign nominee accounts

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>9M'19</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUB trln</td>
<td>0.6</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Significant growth of FNA share:
- from 17.4% (31.12.12) to 28.9% (30.09.19)

### Russian government eurobonds in foreign nominee accounts

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>9M'19</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUB trln</td>
<td>0.1</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Significant growth of FNA share:
- from 6.0% (31.12.16) to 56.3% (30.09.19)

---

¹ End of period

Source: NSD
| Key directions and strategic priorities of NSD’s strategy 2019-2024 |

<table>
<thead>
<tr>
<th>Strategic priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Settlement and custody infrastructure</strong></td>
</tr>
<tr>
<td>Maintaining and developing NSD’s positions as the leading provider of post-trade services</td>
</tr>
<tr>
<td>• Maintenance of operational reliability</td>
</tr>
<tr>
<td>• Infrastructure modernization: infrastructure consolidation, collateral management and segregated account structure</td>
</tr>
<tr>
<td>• Integration into the global market: regional ICSD in the Eurasian space</td>
</tr>
</tbody>
</table>

| **New services and client segments** |
| Income diversification |
| • Launch of custody and settlement services for marketplaces/online trading platforms, pension and insurance industry, sub-federal and corporate segments |
| • Management of new collateral types. Post-trading services for digital assets |
| • Implementation of complimentary services and innovative technologies, including distributed ledger technology |

| **Data assets** |
| Unlocking the potential of data as the 'new oil' |
| • Development of NSD’s information services as the 'gold standard' for financial market players |
| • Big Data-based analytical solutions |
| • RegTech development |
## Strategic initiatives 2019-2024

<table>
<thead>
<tr>
<th>Direction</th>
<th>Initiative</th>
<th>Corresponding direction of MOEX strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Settlement and custody infrastructure</strong></td>
<td>Modernization of accounting infrastructure</td>
<td>Core markets penetration</td>
</tr>
<tr>
<td></td>
<td>Cross-border integration</td>
<td>Market gateway</td>
</tr>
<tr>
<td><strong>New services and client segments</strong></td>
<td>Platform solutions for B2B2C</td>
<td>Financial platform</td>
</tr>
<tr>
<td></td>
<td>Transit 2.0</td>
<td>Financial platform</td>
</tr>
<tr>
<td></td>
<td>Infrastructure for Digital Assets</td>
<td>Financial platform</td>
</tr>
<tr>
<td></td>
<td>Collateral management of global creditors, capital market participants, insurance and pension markets</td>
<td>Balance sheet management</td>
</tr>
<tr>
<td><strong>Data assets</strong></td>
<td>Development of the Corporate Information Center, Price Center</td>
<td>Financial platform</td>
</tr>
<tr>
<td></td>
<td>Building an Information Asset Management Infrastructure (Data Lake)</td>
<td>Financial platform</td>
</tr>
</tbody>
</table>
Innovations and fintech
CMIP do not consider fintech startups as competitors

Type of companies with the biggest impact within the next five years

<table>
<thead>
<tr>
<th>Type of companies</th>
<th>Share of responses in percent, %, n=46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large technology companies</td>
<td>41</td>
</tr>
<tr>
<td>Incumbents</td>
<td>39</td>
</tr>
<tr>
<td>Start-ups</td>
<td>20</td>
</tr>
</tbody>
</table>

- Enablers vs Disruptors

Source: WFE-McKinsey Fintech survey
What models are most efficient when it comes to fintech relationships?

<table>
<thead>
<tr>
<th>Model</th>
<th>Share of responses in percent, %, n=46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration agreements</td>
<td>40</td>
</tr>
<tr>
<td>Joint ventures</td>
<td>25</td>
</tr>
<tr>
<td>Minority investments</td>
<td>13</td>
</tr>
<tr>
<td>Majority investments</td>
<td>13</td>
</tr>
<tr>
<td>Acquisition and integration</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: WFE-McKinsey Fintech survey
Companies are leveraging multiple organizational solutions and collaboration models to innovate.

**Internal focus**
- **IT team**: Make pilot technological projects in core business
- **Business idea labs**: Build internal or external "start-up like" capabilities
- **Business incubator**: Gain early insights and acquire equity share
- **Corporate venture fund**: Make pilot projects in a separate company with equity participation

**External focus**
- **VC/PE**: Invest into funds portfolio
- **Partnership**: Cross-sell customers with each other's products
MOEX Innovation – corporate technology

Stated goals

- Screening perspective ideas
- Development of non-core business areas
- Business expansion through synergies
- IRR of projects should be more than MOEX COE

Technology focus

- Distributed ledger technologies
- Alternative trading platforms
- Advanced data analysis methods
- Interfaces for retail

Mechanisms of cooperation

- Grants / R&D
- Acquihiring
- Revenue sharing
- Direct investments

Results

2 projects in implementation stage, 20+ in pipeline
Financial forecast and dividend policy
Effect of organic growth and strategy on MOEX Fee & Commission Income

- **Macro and organic growth**
  - 2018: 23.4 RUB bln
  - CAGR 18-24: ~3-4%

- **Core Markets Penetration**
  - CAGR 18-24: 3-4%

- **More than exchange**
  - CAGR 18-24: ~10%

- **2024**
## Key drivers of Fee & Commission Income growth until 2024

### Macro
- GDP growth
- Inflation
- Foreign trade turnover

### Core Markets Penetration
- Primary market development (capital raising by companies, incl. SMEs)
- Development of Derivatives market and Standardized OTC derivatives market
- Expansion of trading hours and product line
- Market Data

### Financial Platform
- Registrar of financial transactions
- Transit 2.0

### Balance Sheet Management
- Corporate Marketplace
- OTC services

### Market Gateway
- Financial products Marketplace
- Investment Marketplace
Target structure of Group's Operating Income

Fee & Commission Income  Interest Income

2015
- Fee & Commission Income: 61%
- Interest Income: 39%

2018
- Fee & Commission Income: 40%
- Interest Income: 60%

Target structure
- Fee & Commission Income: 30%
- Interest Income: 70%

Source: Moscow Exchange

Strategy 2024
The Company seeks a dividend payout representing **100% of Free Cash Flow**

### Free Cash Flow – guideline for dividend payments

- **Operating Income**
- **Operating Expenses**
- **Taxes**
- **CAPEX**
- **M&A**
- **Regulatory capital changes and stress-test**
- **Amortization**

**Free Cash Flow**

\[
\text{Free Cash Flow} = \text{Operating Income} - \text{Operating Expenses} - \text{Taxes} - \text{CAPEX} - \text{M&A} - \text{Regulatory capital changes and stress-test} + \text{Amortization}
\]

**MIN**

60% of Net Profit
## Compliance with regulatory capital requirements

<table>
<thead>
<tr>
<th>MOEX (Trading venue)</th>
<th>~ 5 RUB bln</th>
<th>Trading venue capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCC (CCP)</td>
<td>~ 55 RUB bln</td>
<td>N1ccp – 120%</td>
</tr>
<tr>
<td></td>
<td>~ 13 RUB bln</td>
<td>Regulatory NCC stress-test</td>
</tr>
<tr>
<td>NSD (Central Depository)</td>
<td>~ 7-8 RUB bln</td>
<td>Economic capital</td>
</tr>
</tbody>
</table>
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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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