Snapshot and Achieved Milestones
Growth Potential
Strategic Roadmap

2017 October

**Snapshot**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1873</td>
<td>Borsa Istanbul Exchange</td>
</tr>
<tr>
<td>1985</td>
<td>First Stock Exchange</td>
</tr>
<tr>
<td>2003</td>
<td>Borsa Istanbul Exchange Group</td>
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<tr>
<td>2013</td>
<td>Expansion of financial services</td>
</tr>
<tr>
<td>2017</td>
<td>Growth in market capitalization</td>
</tr>
</tbody>
</table>

**Shareholder Structure**

- **Turkiye Wealth Fund**: 73.6%
- **EBRD**: 10%
- **Nasdaq**: 7%
- **Union of Chambers and Commodity Exchanges of Turkey**: 1.3%
- **Borsa Istanbul A.Ş.**: 6.8%
- **Other**: including 0.79% shares owned by Borsa Istanbul A.Ş.

**Affiliations**

- **LCH.Clearnet**: 2.04%
- **Takas Istanbul** (Turkish CCP): 63.04%
- **Merkezi Kayıt İstanbul** (CSD): 71.01%
- **Licencing & Training Agency**: 34.08%
- **Energy Exchange Istanbul**: 30.83%
- **BİTÜ Technology**: 50.00%
- **ELİDAŞ Licensed Warehouse**: 19.93%
- **Istanbul Gold Refinery**: 0.01%
- **Istanbul Gemology Inst.**: 51.00%
Business Overview

VISION

To be the leading integrated marketplace bringing together investors and ideas

MISSION

To create an efficient marketplace that provides stability and confidence for investors, to promote an international business structure including Islamic finance products, to lead digital transformation and innovation, and to support economic growth.

The main purpose and field of activity of Borsa İstanbul

- to ensure that capital markets instruments, foreign currencies, precious metals and gems, and other contracts, documents, and assets approved by the Capital Markets Board of Turkey are traded subject to free trade conditions in a facile and secure manner, in a transparent, efficient, competitive, fair and stable environment,
- to create, establish and develop markets, sub-markets, platforms, systems and other organized market places for the purpose of matching or facilitating the matching of the buy and sell orders for the above mentioned assets to determine and announce the discovered prices,
- to manage and/or operate the aforementioned or other exchanges or markets of other exchanges,
- and to carry out the other activities listed in its Articles of Association.

SNAPSHOT AND ACHIEVED MILESTONES

Borsa İstanbul Board of Directors

Himmet KARADAĞ
Chairman of the Board
Serving Chairman of the Board, Türkiye Wealth Fund
19 years of experience in Ministry of Finance

Yunus ARICI
Deputy Chairman of the Board
10 years of experience in Prime Ministry
Chairman of the State Supervisory Council since 2015

Erişah ARICAN, PhD
Member
More than 25 years of experience in Marmara University, Banking and Insurance Institute Banking Department
Chairman and Board member since 2015

İhsan DURDU
Member
More than 20 years of public sector experience, counselor in Prime Ministry

İlhami KOÇ
Member
More than 30 years of experience in banking and capital markets
Chairman of Banko Security, CEO of Kebanlu Amerin Türk Sigorta

İşinso KESTELLI
Member
More than 25 years of experience in Islamic Commodity Exchange
Chairman Since 2006
She is founding partner in Agrifina Agricultural Products

Metin AYİŞIK
Member
More than 10 years of experience in banking and capital markets
CEO of Eksin Yatırım since 2013

Nicola Jane BEATTIE
Member
More than 25 years of capital markets experience
Founder and CEO of Market Bridge Partners
Moscow Exchange Board Member (2013-2016)

Murat ÇETINKAYA
CEO
Chairman of the Board, Taksimbank
More than 25 years of experience in banking and capital markets
CEO of Halk Yatırım between 2013-2017

Oral ERDOĞAN, PhD
Member
Board Member, Türkiye Wealth Fund
More than 30 years of experience in Financial Management & International Finance
President of Piri Reis University
A fully integrated business model

**LISTINGS**
- Domestic and foreign IPOs/SPOs
- Debt securities (e.g., corporate bonds, sukuk)
- 401 listed companies
- USD 224.9 bn market capitalization

**BORSALİSTANBUL MARKETS**
- Equity Market
- Debt Securities Market
- Derivatives Market
- Precious Metals and Diamond Market

**HORIZONTAL INTEGRATION**

**VERTICAL INTEGRATION**

**SNAPSHOT AND ACHIEVED MILESTONES**

**MARKET DATA & INDICES**
- 278k subscriptions for market data products
- 381 index types (equity indices, debt securities indices, risk-control indices, leveraged and short indices)

**CLEARING & SETTLEMENT**
- Takas İstanbul (Istanbul Settlement and Custody Bank)
  - CCP of Turkish Capital Markets
  - Borsa İstanbul's share: 63.04%

**CUSTODY**
- Merkezi Kayıt İstanbul (Central Securities Depository Institution)
  - Central securities depository
  - Borsa İstanbul's share: 30.1%
  - (with indirect ownership: 71.01%)
Landmark strategic partnerships

- **WORLD CLASS MARKET LEADING TECHNOLOGIES**
- **TRANSFER OF KNOW HOW AND EXPERTISE**
- **BRAND VALUE**
- **CORPORATE GOVERNANCE**
- **PRESTIGE AND VISIBILITY**

SNAPSHOT AND ACHIEVED MILESTONES

Integrated business model with robust growth

Borsa İstanbul’s fully-integrated platform offers a full spectrum of services, allowing to leverage its trading platform across the value chain.
High trading volume, strong liquidity

Equity Market Trading Volume (Billion TL)

- Equities, pre-emptive rights, exchange-traded funds, warrants and certificates
- 7% CAGR (2013-2016)
- Source: Borsa İstanbul

Debt Securities Market Trading Volume (Billion TL)

- Public and private sector debt securities, Turbonds, sukuk, repo, liquidity certificates
- 18% CAGR (2013-2016)
- Source: Borsa İstanbul

Derivatives Market Trading Volume (Billion TL)

- Options contracts written on single stocks, indices, currency, commodities, precious metals, foreign indices, sovereigns, and ETFs
- 13% CAGR (2013-2016)
- Source: Borsa İstanbul

Precious Metals and Diamonds Market Trading Volume (Billion TL)

- Gold, silver, palladium, platinum, precious stones trading as well as gold and silver custodial services
- 7% CAGR (2013-2016)
- Source: Borsa İstanbul

Value of Equity Trading (Bn USD)

- NYSE
- BATS Global M.
- Shenzhen SE
- Nasdaq - US
- Shanghai SE
- Japan Exch Group
- BATS Chi-europe
- LSE Group
- Euronext
- Korea Exch
- Hong Kong Exch
- Deutsche Börse
- TMX Group
- SIX Swiss Exch
- Australian SE
- Nasdaq Nordic Exch
- NSE of India
- BME Spanish Exch
- BM&FBOVESPA
- Taiwan SE
- Johannesburg SE
- The SE of Thailand
- Borsa Istanbul
- Saudi SE (Tadawul)
- Singapore Exch
- Taipei Exch
- Mexico Borsa
- BSE India
- Bursa Malaysia
- Indonesia SE
- Tel-Aviv SE
- Warsaw SE

Value of Bond Trading (Bn USD)

- Korea Exch
- Shanghai SE
- LSE Group
- Tel-Aviv SE
- BME Spanish Exch
- BC de Colombia
- Borsa Istanbul
- BC de Santiago
- Moscow Exch
- BC Buenos Aires
- Shenzhen SE

Turnover Velocity of Domestic Shares (%)

- World’s 7th largest debt securities market
- Among the most liquid markets in the world

USD/TL Currency Exchange Rate: 3.02

Growth potential in capital markets

Istanbul: a strong candidate to fill the financial center gap...

...with expanding Turkish Institutional Investor Base

Pension Funds Net Asset Value
Mutual Funds Net Asset Value
Participants in Private Pension System (Million Persons)

Fast-growing economy...

GDP, 2016 (Bn USD)

USA 18,017
China 11,088
Japan 4,123
Germany 3,363
UK 2,858
France 2,419
India 2,095
Italy 1,822
Brazil 1,775
Canada 1,551
South Korea 1,378
Australia 1,340
Russia 1,311
Spain 1,299
Mexico 1,144
Indonesia 862
Turkey 856
Netherlands 750
Sweden 671
Saudi Arabia 646

17th Largest Economy in the World

Increasing Real GDP per Capita (PPP)...

Source: IMF, Worldbank

...decreasing Inflation and Interest Rates

Source: TÜİK, CBRT

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17th Largest Economy in the World

Increasing Real GDP per Capita (PPP)...

Source: IMF, Worldbank

...decreasing Inflation and Interest Rates

Source: TÜİK, CBRT
... appreciated by foreign investors

As an important market for global investments

Foreign Direct Investment (USD Bn)

Source: Ministry of Economy

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<tbody>
<tr>
<td>Value</td>
<td>1.1</td>
<td>1.7</td>
<td>2.8</td>
<td>10.1</td>
<td>22.0</td>
<td>19.9</td>
<td>8.6</td>
<td>9.1</td>
<td>16.2</td>
<td>13.3</td>
<td>12.9</td>
<td>12.8</td>
<td>17.5</td>
<td>12.1</td>
<td></td>
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</tbody>
</table>

Higher foreign participation

Share of Government Debt Held By Non-Residents, %

Source: CBRT

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>22.7%</td>
<td>27.0%</td>
<td>25.4%</td>
<td>23.3%</td>
<td>19.9%</td>
</tr>
</tbody>
</table>

Companies with foreign capital has significantly increased

No. of Companies with Foreign Capital (Thousand)

Source: Ministry of Economy

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</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>5.6</td>
<td>6.7</td>
<td>8.8</td>
<td>11.6</td>
<td>15</td>
<td>16.6</td>
<td>24.4</td>
<td>27.7</td>
<td>30</td>
<td>40.1</td>
<td>41.4</td>
<td>46.8</td>
<td>53.2</td>
<td></td>
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</tbody>
</table>

A global marketplace

Foreign participation in Borsa İstanbul market cap - free float (%)

Source: Central Registry Agency

<table>
<thead>
<tr>
<th>Year</th>
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<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>43.0</td>
<td>57.0</td>
<td>66.5</td>
<td>72.4</td>
<td>67.3</td>
</tr>
</tbody>
</table>

GROWTH POTENTIAL

Accessible, liquid and deep markets for investors

2018 Sustainable Income Flow and Structure

- Product and service diversity
- Expansion of the institutional and individual investor base
- Increased income from technology, derivatives market, equity market and data

2018 Operational Efficiency

- Strategic cooperations and partnerships
- Intragroup integration
- Organizational and cost efficiency
- Regional gold custody center

2018 Inorganic Growth & Subsidiary Management

- Fintech investments
- Other investment opportunities in value chain

2023 STRATEGIC ROADMAP
New products and initiatives...

- **Real Estate Certificates**: A financing opportunity for real estate projects in cooperation with TOKİ (Housing Development Administration).

- **Securitization with PPP Products**: Certificates to share revenue streams of large infrastructure projects such as bridges, highways, airports, hospitals, etc.

- **International Custody Center**: The capacity of the precious metals custody center has been increased from 100 tonnes to 1600 tonnes to act as the International Custody Center.

- **International Interest-free Finance Advisory Board**: An international board on Shariah Standards in cooperation with other capital market and financial institutions.

- **QIC Gold Trading Platform**: A platform to trade spot and forward and store gold, among the OIC countries which represent one-fifths of the gold mine supplies in the world.

- **Strategic Cooperation with IDB Group**: Collaboration in several fields with IDB Group.

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**Gold Bond & Gold Indexed Ijara Sukuk**

*Turkish Experience*

November, 2017

Hakan AYTEKIN
Borsa ISTANBUL–Precious Metals Dept.
Gold Demand by Local Investors

- Gold is an important traditional investment instrument.
- Also, gold is used as a gift.
- However, physical gold is held out of the financial system by individual investors.
- The total amount of gold which is held out of the financial system is estimated around 2.200 tonnes (100 billion USD).

Sukuk Issuances by the Treasury

- The Treasury started to issue sukuks in local and international markets in 2012.
- In local market, between 2012-2016:
  - 2 years - fixed lease rate ijara sukuk
- Since 2016,
  - Both 2 and 5 years
  - Both fixed lease rate and CPI indexed ijara sukuk
- In 2017 ‘Gold Indexed Ijara Sukuk’
Gold Bond & Gold Indexed Ijara Sukuk (GIIS)

- The aim is to provide a new investment instrument to the individual investors and to bring idle gold into the economy.
- Only retail investors can invest to the GIIS.
- Sukuk Model: Ijara based sukuk.
- Physical gold payment at the maturity (optional).
- Investors could invest via intermediary bank: 344 branches of Ziraat Bank, all over the country
- The type of accepted physical gold is determined by Treasury (only 22K and 24K gold)

Key Features:

- Maturity: 728 days (2 years)
- Coupon/Lease Period: 6 months
- Periodic Coupon/Lease Rate: 1.20%
- Annual Coupon/Lease Rate: 2.40%
- The coupon/rent payments are indexed to the gold prices and paid in local currency.
- Withholding tax rate 0%
- Investors can sell back the security to the intermediary bank before the maturity. But they can receive principal + accrued return in local currency.
- Investors can transfer the security to another individual investor via bank account.
Issuance Procedure of Gold Bond

1. Investor
   - Physical Gold

2. Intermediary Bank
   - Physical Gold

3. Refinery
   - Standard Gold

4. The Treasury
   - Physical Gold

5. Issuance of Bond

Issuance Procedure of Sukuk

1. Investor
   - Physical Gold

2. Intermediary Bank
   - Physical Gold

3. Refinery
   - Standard Gold

4. SPV of The Treasury
   - Standard Gold

5. Takeover of the gold

6. Issuance of Sukuk
At the Maturity Date

- **Borsa Istanbul**
  -→ **Standard Gold**
  → **The Treasury / SPV of The Treasury**

- **Investor**
  -→ **Gold coin or kilo bar**
  → **Intermediary Bank**

- **Intermediary Bank**
  -→ **Standard Gold**
  → **Gold coin or kilo bar**

- **Turkish State Mint**

Methodology of Payments

**Physical Gold**

- **Local Currency Payment**
- **Local Currency Payment**
- **Local Currency Payment**
- **Local Currency Payment**

**Principal:** "Physical Delivery Option"

Coupon/Lease payments are paid in local currency, indexed to gold prices.

**Calculation of TRY Coupon/Lease Payment**

\[
\text{Amount of bond in the account} \times \text{Coupon/Lease Rate} \times \text{TRY Gold Price}
\]

**Calculation of TRY Gold Price**

\[
\left(\frac{\text{LBMA USD/ounce gold fixing price on the business day before the payment date}}{31,1035}\right) \times \text{Benchmark USD/TRY exchange rate announced by the Central Bank of Turkey on the business day before the payment date}
\]
Issuance Result:

- Total amount of gold collected (bond&sukuk): 2.5 tonnes (100 million USD)
- 53% of investors demand sukuk
- Total number of investors 12,800
- The number of women higher than men.
- 37% of investors between 18-34 years old.