Investor Day 2018
“Roadmap 2020”

London, 30 May 2018
Deutsche Börse equity story

- **Leading European** capital markets **infrastructure provider** with **global growth ambitions**
- **Nine business segments** that cover the **full capital markets value chain** including:
  - Eurex, the largest European derivatives exchange
  - Clearstream, a leading post-trading services provider
  - Promising new businesses: EEX (commodities), 360T (foreign exchange), and IFS (investment fund services)
- Deutsche Börse follows a **three pillar growth strategy:**
  - Systematically **execute** secular and cyclical **growth opportunities**, capitalizing on **key industry trends**, **political developments**, and **new client needs**
  - Pursue a **programmatic M&A** agenda in **five growth areas with a focused and disciplined approach**
  - Invest in **four key technologies to tap into new revenue opportunities and further increase the operating efficiency**
- The company will **efficiently manage operating cost to ensure scalability of the business** model and will reduce its **structural** cost base to **reinvest** into **growth and technology**
- **To ensure a successful execution**, Deutsche Börse will streamline the organisation and strengthen the consequence management
- **Dividend policy confirmed** with payout between 40 to 60 per cent of net profit
Agenda

- **Point of departure**
  - Roadmap 2020
  - Mid-term financial outlook
  - Business segment deep dive
  - Wrap-up and Q&A
Deutsche Börse operates in an environment with high dynamics, but very attractive opportunities

- Multiple strong secular growth opportunities (e.g. OTC to on-exchange, shift to buy-side)
- Ongoing consolidation in the industry and high M&A activity (though with very high multiples paid)
- Increasingly uncertain political environment (e.g. Brexit)
- Cyclical growth opportunities (e.g. market volatility, interest rates)
- Technology opportunities and new entrants in the industry

External opportunities and challenges
Deutsche Börse has a strong business portfolio that covers the full value chain

- Pre-trading
  - SMI (index)
  - Data

- Trading & clearing
  - Eurex (financial derivatives)
  - EEX (commodities)
  - 360T (foreign exchange)
  - Xetra (cash equities)

- Post-trading
  - Clearstream (post-trading)
  - IFS (investment fund services)
  - GSF (collateral management)

2017 net revenue
Size equals % of total net revenue

- 5% 6% 32% 9% 3% 9% 27% 6% 3%

- #4 exchange organisation globally by market capitalisation
- Nine diversified business segments covering the full capital markets infrastructure value chain
- €2.5 billion net revenue with 58% adjusted EBITDA margin in 2017
Solid financials proving the scalability of the business model

**Net revenue 2014–2017 (€bn)**

- 2014: 1.9
- 2017: 2.5
- CAGR: +9%

**Net profit (adjusted) 2014–2017 (€bn)**

- 2014: 0.6
- 2017: 0.9
- CAGR: +11%

**Growth Drivers**

- t/o inorganic growth: +3%
- t/o organic growth: +6%
- t/o secular: +4%
- t/o cyclical: +2%

1 Excluding International Securities Exchange (ISE)
Secular and cyclical growth opportunities along the value chain

<table>
<thead>
<tr>
<th>Pre-trading</th>
<th>Trading &amp; clearing</th>
<th>Post-trading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secular opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing importance of the buy-side and passive investments</td>
<td>Generational euro clearing opportunity</td>
<td>Opportunity to consolidate assets under T2S</td>
</tr>
<tr>
<td>Regulatory driven trend for OTC to on-exchange</td>
<td></td>
<td>Increase efficiency of fund markets</td>
</tr>
<tr>
<td></td>
<td>Growing demand for collateral management and collateral mobilisation</td>
<td></td>
</tr>
<tr>
<td>Cyclical opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return of market volatility</td>
<td></td>
<td>Increasing debt issuance activity</td>
</tr>
<tr>
<td></td>
<td>Increasing interest rates</td>
<td></td>
</tr>
</tbody>
</table>
Investor survey in Q1/2018 yielded positive feedback

Deutsche Börse primarily seen as growth stock …

… where cyclical growth is slightly more important

Deutsche Börse with a credible strategy …

… and a satisfying high dividend policy

Source: Deutsche Börse Investor survey Q1/2018, N=35 out of 100 institutional investors

1 Actual shareholder split: 35% of shareholders are growth oriented investors
Deutsche Börse is in a position of strength, with specific areas to be improved

**Areas of strength ...**

- #1 European player
- Technology leadership
- Diversified portfolio covering entire value chain
- Robust business model in times of cyclical headwinds
- Solid secular growth

**... and weakness**

- Valuation multiple disadvantage
- Slightly more cyclically driven business
- White spots in some areas (fixed income, buy-side)
- Sub-scale businesses (commodities, foreign exchange)
Execution excellence will be the key to our success

<table>
<thead>
<tr>
<th>Three priorities for the new CEO …</th>
<th>… to create value for the Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Grow the company</td>
<td>Build scale in sub-scale business segments</td>
</tr>
<tr>
<td>2. Maintain technology leadership</td>
<td>Reduce valuation multiple discount</td>
</tr>
<tr>
<td>3. Demonstrate execution discipline</td>
<td></td>
</tr>
</tbody>
</table>
Agenda

- Point of departure
- **Roadmap 2020**
  - Mid-term financial outlook
  - Business segment deep dive
  - Wrap-up and Q&A
Growth programme “Roadmap 2020” built on three pillars

I. Strong organic portfolio as foundation
   - Strong organic secular net revenue growth >5% across nine business segments
   - Successful capturing of cyclical opportunities

II. Programmatic M&A
   - Programmatic investment into selected growth areas
   - Build scale in existing portfolio and help diversify
   - Focused and disciplined approach

III. New technologies
   - Creation of growth opportunities
   - Impact includes efficiency gains

Reduction of structural costs to fund growth and technology investments
   - Increased investments in new technologies to tap into new revenue opportunities
   - Further increase of the operating efficiency
Diversified organic portfolio with strong secular growth outlook

Cyclical growth
CAGR 2017-2020

Secular net revenue growth of at least 5% across the Group

Capturing cyclical effects on top

Secular growth
CAGR 2017-2020

Size represents 2017 net revenue (€m)

Very high
High
Moderate

Very high
High
Moderate
M&A was and will be an important contributor

- **2015**
  - **STOXX**
    - Step-up from 50% controlling stake to full ownership
    - Full control of leading European fast growth index franchise
    - Full acquisition
    - ~€725m
  - **Powernext**
    - Share swaps for controlling stakes in Powernext and APX
    - Consolidation of European Power and Gas markets by integration of French and Dutch markets
  - **EEX**
    - Expansion into US energy (power and gas)
    - Full acquisition
    - ~USD 207m

- **2016**
  - **Nodal EEX Group**
    - Full acquisition and increase of stake in EEX
    - Market entry into FX by acquiring leading multi-dealer platform
    - ~CHF 650m

- **2018**
  - **Swisscanto Funds Centre Ltd.**
    - Full acquisition
    - High double-digit million Euro amount
    - Expansion into additional fund services
We will follow a focused and disciplined M&A approach

**A disciplined M&A approach …**

- **General**
  - Systematic opportunity screening
  - Clear focus on defined areas
  - Partnership formats as option (e.g. post-trading business in Asia)

- **Financial guidelines**
  - ROIC >10% after 3-5 years
  - Cash accretive in general within year 1 – at the latest in year 3

**… focused on five growth areas**

**Pre-trading**
1. Data

**Trading & clearing**
2. Commodities
3. Foreign exchange
4. Fixed income

**Post-trading**
5. Investment funds
We want to stay a leading technology provider by focusing on four key technologies …

<table>
<thead>
<tr>
<th>Four transformational technology trends</th>
<th>How Deutsche Börse will capitalise</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DLT / blockchain</strong></td>
<td>Create markets/ drive revenue</td>
</tr>
<tr>
<td>Distributed ledger technology / blockchain creates new</td>
<td>Increase efficiency</td>
</tr>
<tr>
<td>market structures and allows adding products onto</td>
<td></td>
</tr>
<tr>
<td>existing structures</td>
<td>Enhance client service</td>
</tr>
<tr>
<td></td>
<td>![Strong match]</td>
</tr>
<tr>
<td></td>
<td>![Moderate match]</td>
</tr>
<tr>
<td></td>
<td>![Moderate match]</td>
</tr>
<tr>
<td><strong>Big data / Advanced Analytics</strong></td>
<td>![Strong match]</td>
</tr>
<tr>
<td>Advanced analytics is both a revenue driver adding</td>
<td>![Moderate match]</td>
</tr>
<tr>
<td>value to data, and an efficiency lever</td>
<td>![Moderate match]</td>
</tr>
<tr>
<td></td>
<td>![Moderate match]</td>
</tr>
<tr>
<td><strong>Cloud</strong></td>
<td>![Strong match]</td>
</tr>
<tr>
<td>Cloud and exposing of services via APIs is enhancing</td>
<td>![Moderate match]</td>
</tr>
<tr>
<td>scalability and opening new platform business options</td>
<td>![Moderate match]</td>
</tr>
<tr>
<td></td>
<td>![Moderate match]</td>
</tr>
<tr>
<td><strong>Robotics / automation / AI</strong></td>
<td>![Strong match]</td>
</tr>
<tr>
<td>Artificial intelligence and robotic process automation</td>
<td>![Moderate match]</td>
</tr>
<tr>
<td>are key efficiency drivers for operations-heavy tasks</td>
<td>![Moderate match]</td>
</tr>
<tr>
<td></td>
<td>![Moderate match]</td>
</tr>
</tbody>
</table>
... and are currently growing our capabilities in all four technologies

<table>
<thead>
<tr>
<th>Technology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLT / blockchain</td>
<td>Entering into phase II (from use cases to broader based application)</td>
</tr>
<tr>
<td>Big data / Advanced Analytics</td>
<td>Systematic monetisation of existing data across the Group</td>
</tr>
<tr>
<td>Cloud</td>
<td>New Executive Board member with extensive experience</td>
</tr>
<tr>
<td>Robotics automation / AI</td>
<td>Already identified potential to increase efficiency and capture savings in the double digit million Euro range</td>
</tr>
</tbody>
</table>
We will structurally improve our cost base to fund our growth and technology investments through two mechanisms.

**Allowed cost increase** at given **scalability**: At 10 per cent net revenue growth operating cost can grow up to 5 per cent.

**Shift by structurally improving productivity:**
- Reduction of cost by €100 million by end of 2020 through reducing work force by ~350 FTE, thereof 50 managers, and reducing operating cost
- Re-investing in growth
Deutsche Börse will strengthen its execution discipline through four main levers

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Consequent realisation of secular growth</strong></td>
</tr>
<tr>
<td></td>
<td>▪ Strong business segment heads established</td>
</tr>
<tr>
<td></td>
<td>▪ Business segment heads with full P&amp;L responsibility</td>
</tr>
<tr>
<td>2</td>
<td><strong>New executive board members</strong></td>
</tr>
<tr>
<td></td>
<td>▪ Clearer responsibilities</td>
</tr>
<tr>
<td></td>
<td>▪ Stronger business focus</td>
</tr>
<tr>
<td></td>
<td>▪ Stronger technology focus</td>
</tr>
<tr>
<td>3</td>
<td><strong>Professionalisation of key processes</strong></td>
</tr>
<tr>
<td></td>
<td>▪ Upgrade M&amp;A capabilities</td>
</tr>
<tr>
<td></td>
<td>▪ Systematic development of new technologies</td>
</tr>
<tr>
<td></td>
<td>▪ Tighter steering</td>
</tr>
<tr>
<td>4</td>
<td><strong>Consequence management</strong></td>
</tr>
<tr>
<td></td>
<td>▪ Strict consequence management including e.g.</td>
</tr>
<tr>
<td></td>
<td>▪ Investment allowance</td>
</tr>
<tr>
<td></td>
<td>▪ Personal compensation cuts</td>
</tr>
</tbody>
</table>
**Strong Executive Board team completed …**

**Existing Executive Board team …** completed by three new members

<table>
<thead>
<tr>
<th>Theodor Weimer</th>
<th>Gregor Pottmeyer</th>
<th>Hauke Stars</th>
<th>Thomas Book</th>
<th>Stephan Leithner</th>
<th>Christoph Böhm</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO</td>
<td>CFO</td>
<td>Cash market, director of labour</td>
<td>Trading &amp; clearing(^1)</td>
<td>Pre- &amp; Post-trading</td>
<td>CIO/COO</td>
</tr>
<tr>
<td>Member of the Executive Board since January 2018</td>
<td>Member of the Executive Board since October 2009</td>
<td>Member of the Executive Board since December 2012</td>
<td>Member of the Executive Board as of 1 July 2018</td>
<td>Member of the Executive Board as of 1 July 2018</td>
<td>Member of the Executive Board as of 1 November 2018</td>
</tr>
</tbody>
</table>

\(^1\) Excluding the cash market
… and supported by strong business segment management

**Eurex Clearing**  
(financial derivatives clearing)  
Erik Müller

**EEX**  
(commodities)  
Peter Reitz

**360T**  
(foreign exchange)  
Carlo Kölzer

**Clearstream**  
(post-trading)  
Philip Brown

**IFS**  
(investment fund services)  
Philippe Seyll

**GSF**  
(collateral management)  

**STOXX**  
(index)  
Holger Wohlenberg

**Data**
Agenda

- Point of departure
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Mid-term financial targets are confirmed and made more specific with a clear ambition to achieve secular growth

**Growth aspirations until 2020**
- Organic/secular net revenue growth of >5% CAGR
- Positive cyclical effects every year
- Net profit 10-15% CAGR

**Cost management**
- Scalable business model
  - Net revenue: +5% → Costs: 0%
  - Net revenue: +10% → Costs: max. +5%

**Capital management**
- Dividend policy: ~40% to 60% of net profit
- Rating: AA (gross debt/EBITDA <1.5)

Including €100 million structural cost reduction by end of 2020 to finance growth
In past years, Deutsche Börse business model has proven to be scalable – supported by active cost management in 2016/17

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Revenue Growth (€m)</th>
<th>Net Profit Growth (adjusted) (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014¹</td>
<td>1,921</td>
<td>634</td>
</tr>
<tr>
<td>2015¹</td>
<td>2,220</td>
<td>712</td>
</tr>
<tr>
<td>2016¹</td>
<td>2,389</td>
<td>811</td>
</tr>
<tr>
<td>2017</td>
<td>2,462</td>
<td>857</td>
</tr>
</tbody>
</table>

¹ Excluding International Securities Exchange (ISE)
Deutsche Börse will grow strongly over the next years

Mid-term organic net revenue growth opportunities (€m)

<table>
<thead>
<tr>
<th>Pre-trading</th>
<th>Trading &amp; clearing</th>
<th>Post-trading</th>
<th>Cyclical opportunities</th>
<th>At least 5% secular growth plus cyclical growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOXX (indices)</td>
<td>OTC IRS</td>
<td>Custody (T2S)</td>
<td>~500</td>
<td></td>
</tr>
<tr>
<td>50-70</td>
<td>50-70</td>
<td>~50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data &amp; regulatory services</td>
<td>EEX (commodities)</td>
<td>IFS (investment fund services)</td>
<td>~300</td>
<td></td>
</tr>
<tr>
<td>30-50</td>
<td>70-90</td>
<td>60-80</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FX</td>
<td>GSF (collateral management)</td>
<td>~10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50-80</td>
<td>~10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New Eurex products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>60-80</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Pricing</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>~30</td>
<td></td>
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<tr>
<td></td>
<td>Xetra</td>
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<td></td>
<td>~10</td>
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<td>Pricing</td>
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<td>Xetra</td>
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<td>~10</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,462</td>
<td>80-120</td>
<td>250-350</td>
<td>100-150</td>
<td></td>
</tr>
</tbody>
</table>

2017

2020E

Index derivatives [50-100]
Fixed-income derivatives [50-100]
Net interest income [50-150]
Custody / Collateral management [50-100]
Secular and cyclical growth opportunities across segments

<table>
<thead>
<tr>
<th>Business segments</th>
<th>Net revenue 2017 (€m)</th>
<th>Growth expectation</th>
<th>t/o secular growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-trading</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STOXX (index business)</td>
<td>128</td>
<td>&gt;10%</td>
<td>Very high</td>
</tr>
<tr>
<td>Data</td>
<td>154</td>
<td>5-10%</td>
<td>High</td>
</tr>
<tr>
<td><strong>Trading &amp; clearing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eurex (financial derivatives)</td>
<td>796</td>
<td>&gt;10%</td>
<td>High</td>
</tr>
<tr>
<td>EEX (commodities)</td>
<td>212</td>
<td>&gt;10%</td>
<td>High</td>
</tr>
<tr>
<td>360T (foreign exchange)</td>
<td>67</td>
<td>&gt;10%</td>
<td>Very high</td>
</tr>
<tr>
<td>Xetra (cash equities)</td>
<td>218</td>
<td>~5%</td>
<td>Moderate</td>
</tr>
<tr>
<td><strong>Post-trading</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearstream (post-trading)</td>
<td>668</td>
<td>5-10%</td>
<td>Moderate</td>
</tr>
<tr>
<td>IFS (investment fund services)</td>
<td>138</td>
<td>&gt;10%</td>
<td>Very high</td>
</tr>
<tr>
<td>GSF (collateral management)</td>
<td>82</td>
<td>5-10%</td>
<td>Moderate</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>2,462</td>
</tr>
</tbody>
</table>
## Cyclical growth opportunities

<table>
<thead>
<tr>
<th>Description</th>
<th>Volatility</th>
<th>Interest rates</th>
<th>Net revenue impact 2020E (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Increase of market volatility resulting in higher index derivatives activity</td>
<td>![✓]</td>
<td>![✓]</td>
<td>50-100</td>
</tr>
<tr>
<td>b. Expectation on future interest rates drives fixed income activity</td>
<td>![✓]</td>
<td>![✓]</td>
<td>50-100</td>
</tr>
<tr>
<td>c. Net interest income directly correlated to ECB / US Fed rates</td>
<td>![✓]</td>
<td></td>
<td>50-150</td>
</tr>
<tr>
<td>d. Higher net issuance of bonds if interest rates increase</td>
<td>![✓]</td>
<td></td>
<td>50-100</td>
</tr>
</tbody>
</table>
Eurex well positioned to capture cyclical effects

**Index derivatives gross revenue and volatility development**

Structural change in revenue composition, ~€50m from new products

**Fixed income derivatives gross revenue and government bond yield development**

Structural change in revenue composition, ~€30m from new products

Source: Bloomberg

1 VSTOXX yearly development; computed as average of monthly prices; 2 GDBR10 Index, yearly development; computed as average of daily prices
Clearstream well positioned to capture cyclical effects

**Net interest income (NII) and central bank rates development**

- NII share driven by increased US Fed rates

**Debt issuance activity and ECB deposit rates**

Source: Bloomberg, BIS

1 Yearly development; computed as average of monthly prices
Structural performance improvement to scale business model

<table>
<thead>
<tr>
<th>Net revenue growth</th>
<th>Cost development</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>2017</td>
</tr>
<tr>
<td>2020E</td>
<td>2020E</td>
</tr>
</tbody>
</table>

Scalability of business model

- **Net revenue growth**
  - 2017: 100
  - 2020E: +10% CAGR

- **Cost development**
  - 2017: 100
  - 2020E: -100

- **Structural performance improvement**
  - 2017: 100
  - 2020E: +5% CAGR

- **Reinvestment if net revenue growth allows**
  - 2017: 100
  - 2020E: 100
Key levers for structural cost savings split between staff and non-staff cost

Cost distribution 2017

- Staff cost: 51%
- Non-staff cost: 49%

100% = €1,197 million

Savings targets

- €50m

Key levers to reduce cost base

- Management delayering
- Process automation and digitisation (Robotics / AI)
- Nearshoring
- Position cuts
- IT simplification and legacy replacements
- Enhanced IT sourcing (offshoring)
- Procurement optimisation
- Spend reductions across all cost categories
Savings of €100 million will be invested into growth and new technologies

<table>
<thead>
<tr>
<th>Cost savings (€m)</th>
<th>Cost to achieve (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cumulative:</strong></td>
<td>200</td>
</tr>
<tr>
<td>2019</td>
<td>33</td>
</tr>
<tr>
<td>2020</td>
<td>66</td>
</tr>
<tr>
<td>2021</td>
<td>100</td>
</tr>
</tbody>
</table>

**€100 million** creates flexibility – if net revenue growth allows, savings will be **reinvested**

To achieve structural improvements a **one-time investment** of ~€200 million will be made.

Majority of cost to be incurred in 2018.
Cost savings and one-time investments for non-staff measures are reinvested into growth and efficiency

Reinvestment
Cumulative cost savings **directly** invested into growth / new technologies

One-time investment
Cost to achieve for non-staff measures are **invested directly**

Segment growth
Big data / analytics
DLT / blockchain
Robotics / AI
Cloud

Total
€270m

About 2/3 invested into growth, 1/3 into efficiency
Balanced approach: capital allocation between growth and dividend distribution – confirmation of policy going forward

<table>
<thead>
<tr>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Strong AA credit rating mainly because of post-trading business</td>
</tr>
<tr>
<td>▪ Gross debt to EBITDA required to be &lt;1.5x</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dividend policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Payout between 40% to 60% of net profit</td>
</tr>
<tr>
<td>▪ Mid-term payout target ~50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Excess cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Use includes M&amp;A and potentially share buy-backs</td>
</tr>
</tbody>
</table>
Agenda

- Point of departure
- Roadmap 2020
- Mid-term financial outlook
- Business segment deep dive
- Wrap-up and Q&A
Eurex’ global competitive position – leading venue to trade and clear European derivatives

Business overview and attractions

Markets & products
- Leading venue to trade Euro-Yield-Curve with 70% market share in Euro-denominated interest rate derivatives
- Leading venue to trade international benchmark indices with 65% market share in European equity and index derivatives
- Strong innovation track record with new products contributing more than 10 per cent of net revenue in 2017

Clearing & risk management
- Innovative portfolio margining under single framework with unmatched capital efficiencies across listed derivatives, OTC and repo
- Unique collateral segregation, margin financing and repo solutions to facilitate direct buy-side access
- Unmatched member base under single risk framework: 61 members in OTC, 73 in listed derivatives and 137 in repo; more than 130 registered customers in OTC and 24 in listed derivatives

Technology & distribution
- Leading next generation on-book data and proximity services, complementary price discovery and off-book trading models
- 370 member firms with more than 7100 traders in 33 countries; more than 70% of trading volumes from outside Eurozone

Net revenue breakdown Q1/2018

<table>
<thead>
<tr>
<th>Category</th>
<th>Revenue Breakdown</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTC clearing</td>
<td>52%</td>
</tr>
<tr>
<td>Margin fees^1</td>
<td>2%</td>
</tr>
<tr>
<td>Equity derivatives</td>
<td>5%</td>
</tr>
<tr>
<td>Interest rate derivatives</td>
<td>25%</td>
</tr>
<tr>
<td>Other^2</td>
<td>13%</td>
</tr>
</tbody>
</table>

1 Includes NII and securities collateral fee
2 Includes connectivity and member fees

Strategic imperative

Increase market share vs OTC
Eurex’ secular growth drivers – opportunities from transformational shifts in market demands

Secular growth drivers

Passive investment strategies
Shift to passive strategies accelerates buy-side demand for index derivatives; demand for international benchmarks across time-zones

- Advanced starting position in fastest growing global MSCI index family; outperformed global competitors

Futurisation of OTC derivatives
Balance sheet and cost pressure drive buy- and sell-side demand for listed derivatives and futurisation of OTC derivatives

- First exchange to offer total return futures (€16 billion notional open interest; 20–30% of OTC swap market migrated)

CCP clearing of OTC derivatives
Market demand for liquid, EU-based alternative for the clearing of OTC derivatives and repo markets in wake of Brexit

Net revenue guidance (€m)

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>672</td>
</tr>
<tr>
<td>2017</td>
<td>796</td>
</tr>
<tr>
<td>2020E</td>
<td></td>
</tr>
</tbody>
</table>

>10% CAGR
6% CAGR

t/o share of secular growth: high
Eurex Clearing – industry platform for an EU-based liquid alternative for interest rate derivatives

EU OTC derivatives ecosystem

- Govt agencies
  - Debt issuance
- Pension Funds
  - LDI
- Insurance companies
- Hedge
- Fixed receiver
- Fixed payer
- Dealers & international banks
  - Action
    - Market-making
    - Client facilitation
  - Objective
    - Run balanced book to maximise netting efficiencies and to minimise cost
- Regional banks
  - Mortgages & savings
- Corporates
  - Corporate / hedging
- Asset managers
  - Asset purchases
- Funds

Eurex Clearing – world class IT and risk management systems

Eurex Clearing Partnership Program

Balanced European OTC derivatives ecosystem

Liquid, EU-based alternative for the clearing of OTC interest rate derivatives

Note: Some client types can operate on either side of the market

1 Primarily domiciled outside EU, but likely to be attracted by natural liquidity pool within EU and margin efficiencies across OTC and ETD
Eurex Clearing – significant progress in establishing alternative liquidity pool for OTC interest rate derivatives

**Secular growth drivers**

**Stepwise approach to build Euro OTC interest rate derivatives ecosystem:**

- ✓ Sign-up broad range of banks to participate in the Eurex Clearing Partnership Program (27 participants as at May 2018)
- ✓ Win share in dealer-to-dealer business to establish initial liquidity
- ✓ Connect buy-side execution platforms and facilitate attractive and fair execution prices quoted to the buy-side by large dealers

- ❑ Increase client base to hedge funds, asset managers insurance firms and pension funds based on superior value proposition (collateral, margin and capital efficiencies)
- ❑ Foster competition and innovation in cross CCP risk and capital management

**Eurex OTC services**

Notional amounts outstanding (€tr)

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1.0</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.61</td>
<td></td>
</tr>
</tbody>
</table>

**Key figures:**

- 27 partner banks
- > 60 clearing members
- > 130 registered clients

1 As at 23 May 2018
EEX (commodities) – strong growth expectation

**Business overview and attractions**

- Scale up through acquisitions in 2015 (new products and regions)
- EEX is the **leading power trading platform** with:
  - >65 per cent market share of exchange traded power derivatives in Europe and
  - Highest power trading volume worldwide in 2017 (>3,200 TWh)
- Temporary slowdown in 2017 – mainly due to regulatory changes – back on growth path in 2018
- Diversification strategy pays off: **natural gas** and **emissions** stable pillars for EEX
- **Entry into North America** with 100 per cent acquisition of Nodal Exchange in 2017
- Strong settlement business operated by two clearing houses, European Commodity Clearing (ECC) and Nodal Clear
- Business built on **state-of-the-art Deutsche Börse technology**

**Net revenue breakdown Q1/2018**

100% = €62 million

- **Power derivatives**
  - 29%
- **Gas**
  - 18%
- **Power spot**
  - 27%
- **Other**
  - 26%

1 Includes net revenue from connectivity, member fees and emission allowances

**Strategic imperative**

- Increase market share vs OTC and enter into new markets
EEX (commodities) – secular growth drivers

Business overview and attractions

- **Continuous customer demand** for more efficient on-exchange trading and clearing of commodities from OTC market
- **Liquidity expected to return fully** in European benchmark product German power
- **Strong position in European gas spot market** to be leveraged to strengthen role in derivatives market
- Further **expansion of emissions trading** in Europe and development of emissions markets in other time zones
- **Roll-out of T7® technology at Nodal** as starting point for expansion of asset classes in the US (gas, emissions)
- **Continuous expansion of multi-commodity offering**

Net revenue guidance (€m)

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2017</th>
<th>2020E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>70</td>
<td>212</td>
<td></td>
</tr>
</tbody>
</table>

>10% CAGR

1 Thereof organic: 12%
360T (foreign exchange) – global FX trading platform with confirmed strong growth ambitions

**Business overview and attractions**

- **Acquisition in 2015 to enter into new asset class**
- **360T is a top ranked FX trading venue** providing global market participants access to strong FX liquidity, seamless execution and top-notch IT solutions
- **Structural growth of +9%** in FY 2017 (e.g., through new clients) countered by cyclical headwinds (-5%); YTD run-rate improving
- **Revenue formula**: Customer base \( \times \) trading activity \( \times \) brokerage
- **APAC region** with significant growth (+20% in 2017) – continuing strong expansion in key markets (e.g. India, Japan)
- **US region** picking up pace (+10% in 2017) – giving proof of growth potential, focus to accelerate growth rate further
- **Asset management**: major success having won key asset managers (go-lives effective in 2018)
- **Holistic solutions** through hybrid OTC and exchange-based FX market (including clearing services)

**Net revenue breakdown Q1/2018**

100% = €18 million

- **Spot**: 31%
- **Forward**: 20%
- **Swap**: 34%
- **Other**: 15%

1 Includes net revenue from connectivity and member fees

**Strategic imperative**

Increase market share vs OTC and win new clients in key growth segments
360T (foreign exchange) – secular growth drivers

**Secular growth drivers**

**360T stand-alone / OTC FX**
- **Electronification of FX**: continuing transformational shifts towards electronic trading venues to boost volumes
- **360T® platform**: improved execution management system (EMS) regarding corporate and buy-side functionalities
- **Anonymous FX trading**: introduction of new all-to-all CLOB running on DBG T7® technology
- Focus on high-potential asset managers globally
- **Growth in regions outside of Europe** – acceleration of growth rates in US and APAC

**Deutsche Börse FX** (based on 360T and Eurex offerings)
- **Futurisation of FX**: shift from pure OTC FX towards futurisation; Deutsche Börse Group to launch new listed FX offering
- **OTC FX and XCCY clearing**: introducing new FX / XCCY clearing offering during 2018 with solid market potential

**Net revenue guidance (€m)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2017</th>
<th>2020E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>59</td>
<td>67</td>
<td></td>
</tr>
</tbody>
</table>

- >10% CAGR
- t/o share of secular growth: very high

- 4% CAGR
Xetra (cash equities) – continuous revenue delivery via capturing of cyclical effects and buildout of pre-IPO ecosystem / platform updates

Business overview and attractions

- **Reference market** for liquid German equities and #1 in European ETF trading, strong retail position in Germany
- **Strong growth** of market share in DAX® (from below 60 per cent to 69 per cent in Q1/2018) due to technology refresh, incentive programme and new customers
- **“Face” of Deutsche Börse** – shapes company reputation and perception in public; starting point of Group value chain

Initiatives:

- **Renewed technology** stack to leading next-generation platform (T7® trading system)
- **Enhanced pricing** and incentive mechanisms (liquidity provider programme)
- **New** trading **functionality** (Xetra EnLight)
- Developed **pre-IPO ecosystem**: IPO pipeline filled by Deutsche Börse Venture Network exits

Net revenue breakdown Q1/2018

100% = €62 million

- **Trading and clearing** 77%
- **Listing** 6%
- **Other** 17%

1 Includes net revenue from connectivity and partner exchanges

Strategic imperative

Starting point of Group value chain / capture cyclical effects / increase market share vs OTC
Xetra (cash equities) – secular growth drivers

**Secular growth drivers**

- Attract OTC trading volumes to Xetra® order books (leverage MiFID II regulation), focus on German blue chips and ETFs
- Benefits of T7® technology platform, e.g. for gaining new customers
- Liquidity provider programme extension to further segments
- Primary market activity: IPO business and related order book volumes
- Further development of pre-IPO ecosystem (Deutsche Börse Venture Network and SME initiative), expand “funnel” for IPOs

**Net revenue guidance (€m)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2017</th>
<th>2020E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net revenue guidance</td>
<td>212</td>
<td>218</td>
<td></td>
</tr>
</tbody>
</table>
Clearstream (post-trading) – T2S enables Clearstream to benefit from a consolidation of custody volumes

**Business overview and attractions**

- **Leading European supplier** of post-trading services (ICSD; ~40 per cent market share) and largest CSD by volume in the Eurozone (~40 per cent market share of settlement activity)

- **Around 2,500 clients** in more than 110 countries; about €14 trillion assets under custody, of which more than €11 trillion in securities

- Post-trade industry **moving out of a phase of large investments** driven by regulation (EMIR, T2S, CSDR)

- **Investments** in regulatory requirements at an early stage leading to a full service range for clients at present

- **Strong AA credit rating**

- **Highly performant and reliable technology**

- **Holistic post-trade offering** including custody, settlement and banking services, deeply integrated with securities financing and funds services

- **Very high client satisfaction**

---

**Net revenue breakdown Q1/2018**

100% = €179 million

- **Custody**: 53%
- **Settlement**: 12%
- **Other¹**: 11%
- **Net interest income**: 19%
- **Third party services**: 5%

---

¹ Includes net revenue from connectivity, account services and reporting

---

**Strategic imperative**

Win market share in custody through T2S / benefit from higher interest rates
Clearstream (post-trading) – secular growth drivers

Secular growth drivers

T2S markets
- Investor CSD with local market partnerships for asset servicing in T2S zone
- Widened EU clearing infrastructure

Eurobond market
- Eligible ICSD securities will be made available for auto-collateralisation operations within T2S (new Eurosystem collateral rules)
- Globalisation of issuance market

Global markets
- Create global market links faster and more efficiently
  - China market access
  - US market access
  - Emerging markets

Net revenue guidance (€m)

- 5-10% CAGR
- 6% CAGR
- t/o share of secular growth: moderate

2014: 555
2017: 668
2020E: 800
GSF (collateral management) – address increasing demand for collateral management services

Business overview and attractions

- **Lower overall outstanding volumes in** repo and central bank activity overcompensated by growth of volumes in securities lending, OTC derivatives and growing buy-side community
- **Leading government bond lender** supported by strong demand for HQLA bonds in securities lending programme
- **Non-recurring** effect having a negative impact on net revenue

Secular growth drivers

- **Continued growth** in securities lending extending new asset types (equities and ETFs) and leveraging T2S – investor CSD strategy
- **Innovative solutions** based on blockchain technology to resolve collateral fragmentation through partnerships (such HQLAX as enabler to increase fungibility of liquidity and LA Ledger)
- Lending capacity optimisation across client book
- Focus on funding and financing solutions for buy-side
- Custodian of choice for cleared and non-cleared OTC derivatives obligations.

Net revenue breakdown Q1/2018

100% = €19 million

<table>
<thead>
<tr>
<th>Securities lending</th>
<th>Collateral management</th>
</tr>
</thead>
<tbody>
<tr>
<td>45%</td>
<td>55%</td>
</tr>
</tbody>
</table>

Strategic imperative

**Address client demand for more efficient capital / collateral management**

Net revenue guidance (€m)

<table>
<thead>
<tr>
<th>2014</th>
<th>2017</th>
<th>2020E</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>82</td>
<td></td>
</tr>
</tbody>
</table>

8% CAGR 5-10% CAGR t/o share of secular growth: moderate
IFS (investment fund services) – continuously onboarding new clients and building upon a globally leading industry position

Business overview and attractions

- **Leading provider** of international fund order routing, settlement and custody services, supporting clients from 70+ countries to invest in funds from 40+ domiciles
- **Leading Vestima® funds platform** covers all fund types (mutual funds, ETFs, hedge funds etc.)
- **Consolidation** potential (e.g. Swisscanto Funds Centre)

Secular growth drivers

- Expand market share based on:
  - **Offer one-stop shop** for all fund types – consecutive client onboarding with focus on global custodians
  - **Increase breadth of service** offering to ETFs
  - Develop new **geographies** for investors (pipeline)
- **Add new value-adding services**
  - New acquisition of Swisscanto Funds Centre as a basis for wider distribution support capabilities for investors banks and for asset managers

Net revenue breakdown Q1/2018

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custody</td>
<td>41%</td>
</tr>
<tr>
<td>Settlement</td>
<td>34%</td>
</tr>
<tr>
<td>Other1</td>
<td>25%</td>
</tr>
</tbody>
</table>

100% = €39 million

Strategic imperative

Win market share by onboarding new clients / funds

Net revenue guidance (€m)

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>93</td>
</tr>
<tr>
<td>2017</td>
<td>138</td>
</tr>
<tr>
<td>2020E</td>
<td>138</td>
</tr>
</tbody>
</table>

>10% CAGR

1 Includes net revenue from connectivity and order routing
2 Thereof organic: 7%
Data – leverage platform to address broader demand for intelligence

Business overview and attractions

- Global real-time distribution network for data to all capital markets segments (>4,500 institutions, 550 data vendors connected)
- Revenues from proprietary as well as partner data assets from pre- to post trade – 90% recurring
- Innovation platform for value added data and service offerings, such as Regulatory Reporting (2,200 customers at launch)
- Well positioned to capture increasing demand for advanced analytics and new data-driven services beyond Deutsche Börse’ footprint

Secular growth drivers

- Commercialize yet untapped data assets of the Group and open platform to external datasets
- Expand proprietary analytics and services combining DB1-, client and partner data
- Extend regulatory services offering through new regulations and services

Net revenue breakdown Q1/2018

100% = €43 million

<table>
<thead>
<tr>
<th>Category</th>
<th>Revenue (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory services</td>
<td>22%</td>
</tr>
<tr>
<td>Cash and derivatives data</td>
<td>67%</td>
</tr>
<tr>
<td>Other†</td>
<td>11%</td>
</tr>
</tbody>
</table>

1 Includes net revenue from internal and external cooperations and CEF data services
2 Adjusted for divestures: 6%

Strategic imperative

Leverage platform to address broader market

Net revenue guidance (€m)

- 2% CAGR
- 5-10% CAGR
- t/o share of secular growth: high
STOXX (index) – capture demand for passive investing

Business overview and attractions

- **#1 European tradable index, #2 European provider** for rules-based strategies, benchmarks and data sets, **#4 globally**
- **93 per cent recurring** revenues from used-based **licensing** (mandates, ETFs, ETDs, structured products, trading, data) leveraging **issuing venues Eurex and Xetra**
- **Award-winning innovator in premium** tradable thematic and custom investment strategies
- Well positioned for trend to **passive and smart-beta/thematic investing** – with open data architecture

Secular growth drivers

- Expand **client coverage capacity** on buy- and sell-side to steer flow into STOXX universe
- Launch **indexing tools** to capture assets in the investment decision process
- Accelerate development and extend scope of **smart, thematic and customised** investment strategies using **partner data** (eg., AI with Yewno)
- Extend calculation service capacity for **self-indexers**

Net revenue breakdown Q1/2018

100% = €34 million

<table>
<thead>
<tr>
<th></th>
<th>Exchange licences</th>
<th>Other licences</th>
<th>ETF licences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>33%</td>
<td>42%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Strategic imperative

**Capture asset flows towards passive investments**

Net revenue guidance (€m)

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2017</th>
<th>2020E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>90</td>
<td>128</td>
<td></td>
</tr>
</tbody>
</table>

>10% CAGR

t/o share of secular growth: **very high**
Agenda

- Point of departure
- Roadmap 2020
- Mid-term financial outlook
- Business segment deep dive

- Wrap-up and Q&A
## Roadmap 2020 – focused on growth

<table>
<thead>
<tr>
<th>Strong starting position</th>
<th>Deutsche Börse starts from a strong position and has many assets to leverage.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunities ahead</td>
<td>Deutsche Börse is well positioned to capture both secular and cyclical opportunities along the way.</td>
</tr>
<tr>
<td>Execution is key</td>
<td>As we have a broad and well-organised portfolio of initiatives and M&amp;A targets, execution and delivery of projects are key to success.</td>
</tr>
<tr>
<td>Management</td>
<td>The CEO and the senior management are dedicated to and focused on delivering this organic / external growth and enhancing the structural cost base.</td>
</tr>
<tr>
<td>Targets are strengthened</td>
<td>We confirm our growth ambition while maintaining scalability: 10–15 per cent net profit growth per annum until 2020.</td>
</tr>
</tbody>
</table>
Key performance indicators to measure success

Deutsche Börse will achieve at minimum 5% CAGR in secular net revenue until 2020 across the Group.

Deutsche Börse will achieve a 10–15% CAGR in net profit until 2020.

Deutsche Börse will reduce its structural cost base by €100 million until end of 2020.
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