Investor day 2017
“Geared towards growth”
Deutsche Börse’s equity story combines substantial growth opportunities with attractive shareholder returns

- “Accelerate” programme has laid foundation for growth by making Deutsche Börse more agile, innovative and client-centric. Focus is now on systematic execution of growth strategy to ensure that value is captured.

- The Group’s diversified business model provides for a broad range of existing double-digit secular (euro OTC clearing, EEX, 360T, T2S, IFS, STOXX) and cyclical growth opportunities (volatility and interest rate changes).

- Industry trends, political developments and new client needs create new growth opportunities, mainly expanding the product offering across trading and clearing, as well as scaling the index and data business.

- The organic-growth initiatives will be supplemented by targeted M&A activity where value is closely aligned with strategic focus areas and is clearly accretive, and execution risk is manageable.

- Efficient management of operating costs will help to ensure full scalability of business model. As a result, 5–10% average annual net revenue growth is expected to result in 10–15% average annual net income growth until 2019.

- The Group’s strong cash flow will be deployed with a balanced approach. Around 50% of net income will be invested in growth and 50% will be returned to shareholders in the form of the regular dividend.
“Our vision is to turn Deutsche Börse Group into the global market infrastructure provider of choice, being top-ranked in all its activities.”

- Strengthened corporate culture to become more agile, innovative and client-centric
- Improved performance measurement and compensation alignment
- Ambitious organic growth targets and commitment to scalability
- Pursuit of accretive and executable external growth opportunities
- Efficient capital allocation that balances investments and returns

“Accelerate” – vision and growth strategy
“Accelerate” programme has laid foundation for growth by making Deutsche Börse more agile, innovative and client-centric

- New Executive Board responsibilities and divisional set-up
- More client-centric global product development and sales functions
- Ambitious financial targets: 10–15% average annual net income growth
- Improved performance measurement and 360° feedback
- Constant review of value enhancing M&A opportunities
- New compensation for executives to increase alignment with performance
- Capital allocation: right balance of investments and returns
- Direct P&L responsibility for owners of 40+ key products
- Active management of cost base to increase scalability of business
- Portfolio approach: constant evaluation of projects and shareholdings
## Industry trends and Deutsche Börse’s strengths underpin growth potential

<table>
<thead>
<tr>
<th>Industry trends</th>
<th>Deutsche Börse’s strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Several asset classes such as OTC IRS, FX and commodities show continuous and significant secular growth</td>
<td>Multi-asset class trading, clearing and settlement capabilities with deep liquidity pools</td>
</tr>
<tr>
<td>Big data, smart data and analytics dramatically improve insights generation, productivity and efficiency in capital markets</td>
<td>Infrastructure technology leader with a strong track record for high-volume market infrastructure and mass data processing</td>
</tr>
<tr>
<td>Disruptive technology and digitisation reshape the capital market infrastructure value chain and challenge incumbents</td>
<td>Operating competence with high safety, integrity, process reliability and stability</td>
</tr>
<tr>
<td>Buy-side increases its power while capitalisation requirements and regulation impose margin and cost pressure on the sell-side</td>
<td>Credible, reliable and neutral industry partner as well as ethical, transparent and strong partner for regulators</td>
</tr>
</tbody>
</table>
Uncertainty in Europe caused by political developments results in new client needs

- Times of **uncertainty in Europe and globally** (populist movements, Euroscepticism, US politics) make political processes and actions less predictable.

- The **discontinuity caused by Brexit**, together with the political will to strengthen the eurozone will result in new client requirements that need to be addressed.

- **Post-Brexit**, UK-based financial firms are likely to lose their existing EU passporting rights. Therefore **clients will seek support and new partners** to maintain access to EU financial market infrastructure.

- Regulation primarily creates **new opportunities across the value chain**, e.g. MiFID II, EMIR, CSD-R, review of the European Supervisory Authority structure as well as evolving regulation of Blockchain and fintechs.

- Regulation will continue to be a strong driver of change and potentially open up new revenue sources.

- Deutsche Börse to position itself as partner of choice to clients seeking access to EU capital markets.
Key areas for growth across Deutsche Börse Group

- Leverage opportunities to further expand derivatives business (trading and clearing) and exploit additional revenue pools
- Broaden product range by expanding into attractive asset classes
- Broaden customer reach by offering end-customer access solutions

- Post-trade business to significantly benefit from structural changes: TARGET2-Securities, securities financing services, fund markets
- Back-office outsourcing market as additional opportunity, if the economic rationale is compelling

- Significantly scale up data, index and analytics business
- Turn index business into investment product factory, expand data business to global market intelligence, and evolve from transaction reporting into European regulatory services

- Drive datafication and continuous enhancement of the value chain as basis to extend suite of value-adding data and analytics-driven offerings
- Establish digital technology platform via an open architecture for technological advancement, enhanced services and partnerships
Further build-out of Deutsche Börse Group into a leading multi-asset class trading and clearing provider

- Broadened asset class offering in FX and energy (e.g. EEX, 360T)
- OTC IRS capabilities
- Repo and securities lending

Consider partnership approaches with clients for trading and clearing, incl. interest-rate, money-market and FX derivatives

Build out energy and commodities business with a focus on entering US energy market and expanding commodities footprint

Enter into other growing asset classes incl. corporate bonds, ETFs, loans, insurance and ESG

Broaden customer base by offering buy-side solutions

Including OTC markets and buy-side customers

Listed products and sell-side only
TARGET2-Securities and new client needs result in significant structural growth opportunities for Clearstream

Market imperatives
1. T2S and CSD-R are game-changing – size and complexity of adaptations favour large CSDs; Clearstream is now live in T2S and is implementing CSD-R.
2. CSDs without cross-border asset servicing capabilities cannot leverage T2S to grow beyond home market.
3. Global custodians have retreated from entering the CSD space.
4. Fintech uncertainty / opportunities
5. Clients under significant cost pressure

Success factors
A leading position in securities services:
- **Scale**: domestic and international custody volume and settlement liquidity
- **Value-added services**: investment funds, collateral management, asset servicing
- **Authority**: ability to set market standards and excel at operational processes
- **Innovation**: ability to adapt to and deploy new technologies

Clearstream strategy
1. Build on T2S to boost settlement liquidity, as well as collateral management, custody and funds
2. Focus global securities financing on client priorities and leverage Deutsche Börse’s collateral and clearing capabilities
3. Secure Clearstream’s market leadership in rapidly growing and still fragmented international fund market
4. Expand Clearstream’s market penetration in Asia and the Americas as part of a global offering and regional initiatives
5. Cater to clients’ cost-cutting need to outsource processes close to Clearstream
6. Create economies of scale with selected partners seeking to outsource infrastructure

Expansion of core business:
- Implement and sell investor CSD for T2S markets
- Secure CSD-R licences for ICSD and CSD
- Improve China (bond market) and US market coverage
- Leverage T2S for collateral and fund franchises

Innovative growth initiatives:
- Outsourcing services to clients and other market infrastructures in partnerships
- New technologies to enable efficiencies (e.g. robotics) and enter new market structures (e.g. DLT / Blockchain)

Today, Clearstream holds around €14 trillion of assets under custody.
Deutsche Börse’s data business to become investment and trading intelligence hub

**From equity indices to investment product factory**
- Advanced thematic and smart-beta indices and benchmarks
- Expanded multi-asset capabilities (e.g. LDI)
- Services for strategy simulation / creation

**USP:** new trends implemented quickly, optimised to purpose, tradeable, open architecture

**From order-book data to global market intelligence**
- Real-time and historical market / order book data
- Expanded analytics offering on Deutsche Börse / partner data
- Mass-customised analytics services to optimise trading flow

**USP:** Lowest latency, unique insights / database, complete value chain perspective

**From transaction reporting to comprehensive European regulatory services**
- ARM / APA services
- One-stop shop for trade / transaction reporting
- Regulatory data management services

**USP:** Full outsourcing, unique data, regulated / trusted
Digital transformation will be a catalyst for incremental efficiencies and future growth

<table>
<thead>
<tr>
<th>Description</th>
<th>Datafication</th>
<th>Digital technology</th>
<th>Open ecosystem</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Drive datafication across Deutsche Börse Group, creating an environment for analytics and data science</td>
<td>▪ Create a scalable digital infrastructure with open APIs and strong go-to-market capabilities</td>
<td>▪ Create revenue growth through monetised APIs and the digital business model</td>
<td></td>
</tr>
<tr>
<td>▪ Execute data extraction and monetise data intelligence through new or enhanced products and services</td>
<td>▪ Create commercial opportunities and allow effective business expansion via new digital capabilities</td>
<td>▪ Enable broad collaboration with partners and customers through open architecture</td>
<td></td>
</tr>
<tr>
<td>▪ Build up analytics capabilities through partnerships, minority investments or selected acquisitions</td>
<td>▪ Allow for better and faster product development and high responsiveness to customers through interfaces and smart portals</td>
<td>▪ Result in enhanced product and service offerings (e.g. “exchange as a service”) and reinforced links to key stakeholders</td>
<td></td>
</tr>
</tbody>
</table>
Clear mid-term targets on growth, cost management and capital allocation have been set

**Growth:**
- ambitious targets
  - Net revenue: 5–10% CAGR
  - Net income: 10–15% CAGR

**Cost management:**
- scalability
  - Operating costs: 0–5% CAGR

**Capital allocation:**
- balanced approach
  - Dividend policy: ~50% of net income
Secular and cyclical growth as well as unique opportunity to expand leading position in Europe are expected to result in sustained growth

**Electronification / penetration**
- Electronification / remote access / EU rules
- European benchmarks (Bund / EURO STOXX®)
- Diversification into post-trade (Clearstream)

**Post-financial crisis**
- Significant change of banking industry (higher capital requirements, less prop trading, etc.)
- Regulatory drive towards CCPs
- Large scale IT and infrastructure investments at Deutsche Börse (T7®, C7®, Prisma, T2S)

**Sustained growth**
- “Accelerate” programme laid foundation for growth
- Existing double-digit secular and cyclical opportunities
- Unique opportunity to extend leading position in Europe

1) Adjusted for exceptional items
Diversified business model provides for broad range of double-digit secular and cyclical growth opportunities

<table>
<thead>
<tr>
<th>Net revenue split</th>
<th>Secular growth</th>
<th>Cyclical growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>€m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,389</td>
<td>1 Euro OTC clearing</td>
<td>10 Index derivatives</td>
</tr>
<tr>
<td>1,035</td>
<td>2 Commodities (EEX)</td>
<td>11 Fixed-income derivatives</td>
</tr>
<tr>
<td>165</td>
<td>3 FX (360T)</td>
<td></td>
</tr>
<tr>
<td>797</td>
<td>4 New Eurex products</td>
<td></td>
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<tr>
<td>391</td>
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<th>Eurex</th>
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<td>Eurex</td>
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</tr>
<tr>
<td>Euro</td>
<td>64 Financial derivatives</td>
<td></td>
</tr>
<tr>
<td>OTC</td>
<td>216 Commodities</td>
<td></td>
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<tr>
<td>Clearing</td>
<td>755 FX</td>
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<tr>
<th></th>
<th>Xetra</th>
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<tbody>
<tr>
<td>Xetra</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trading / clearing</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Listing / others</td>
<td>133</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Clearstream</th>
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<tbody>
<tr>
<td>Clearstream</td>
<td></td>
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<tr>
<td>ICSD</td>
<td>63 Data</td>
<td></td>
</tr>
<tr>
<td>CSD</td>
<td>73 Index</td>
<td></td>
</tr>
<tr>
<td>IFS</td>
<td>124 Infrastructure</td>
<td></td>
</tr>
<tr>
<td>NII</td>
<td>422</td>
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</tbody>
</table>

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<th>MD+S</th>
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<tbody>
<tr>
<td>MD+S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>Index</td>
<td>162</td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>115</td>
<td></td>
</tr>
</tbody>
</table>
Euro OTC clearing – service offering addresses client needs in new political environment

Volume development

<table>
<thead>
<tr>
<th>Year</th>
<th>Outstandings (bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>260</td>
</tr>
<tr>
<td>2016</td>
<td>945</td>
</tr>
<tr>
<td>May 2017</td>
<td>1,354</td>
</tr>
</tbody>
</table>

Secular growth drivers

- Significant distribution with 57 clearing members and 143 registered customers has been established.
- Members are active in quoting and clearing of interest rate swaps and brokers are streaming quotes across the curve.
- Distribution capabilities were expanded by adding Bloomberg and Tradeweb as additional flow providers.
- Unparalleled capital efficiencies through portfolio risk management, allowing cross-margining between listed and OTC products.
- Only fully integrated cross-asset class clearing house in Europe with unique ability to access central bank refinancing facilities due to banking license via Clearstream.
- Implementation of trade compression services enabling clearing members to reduce the number of trade lines and overall gross notional.

Net revenue opportunity

- While the dealer-to-dealer business is largely cleared, there is still uncleared dealer-to-client business in Euro denominated interest-rate swaps.
- In H2/2016, US$250tr notional outstanding, thereof ~60% (around US$160tr) already cleared, but client market expected to grow.
- Eurex Clearing expects to generate net revenue of around €50–70m p.a. by 2019.

1) Source: BIS semi-annual survey (H1/2016,) BIS triennial survey (2016), Clarus FT
Commodities (EEX) – strong position in European energy markets expected to result in attractive net revenue growth

**Net revenue development**

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Revenue (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>175</td>
</tr>
<tr>
<td>2016</td>
<td>216</td>
</tr>
<tr>
<td>2019E</td>
<td>&gt;10% CAGR</td>
</tr>
</tbody>
</table>

**Secular growth drivers**

- The commodities business of the Group has grown significantly in recent years and EEX has developed into the leading energy exchange in Europe.
- Main reasons for growth were: a) acquisitions (France, Netherlands, Belgium), b) gains from OTC markets (currently ~30% market share\(^2\)) and c) organic expansion into new markets (Italy, Spain).
- Besides continuing customer demand for more efficient on-exchange trading, EEX is expected to benefit from a further liberalisation of gas markets.
- With the acquisition of Nodal exchange, EEX expands its global footprint and membership base and will benefit from high growth rates and cost synergies (net revenue of €13m in 2016 expected to grow by ~25% p.a.).
- Net revenue in the commodities business is expected to grow organically with an average annual rate of 10%.
- EBITDA margin currently at around 50%.

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1) Other includes Connectivity, Membership and Market data
2) See page 33 in the appendix for more details
FX (360T) – entry point into highly attractive and rapidly growing FX market with substantial revenue synergies

**Net revenue development**

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Revenue (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>63</td>
</tr>
<tr>
<td>2016</td>
<td>64</td>
</tr>
<tr>
<td>2019E</td>
<td>&gt;20% CAGR</td>
</tr>
</tbody>
</table>

**Secular growth drivers**

- 360T is a leading global FX trading platform catering to a broad customer base (corporates, buy-side firms, banks) with double-digit revenue CAGR since inception in 2000.
- Organic growth trajectory will be accompanied by significant double-digit million euro revenue synergies.
- Net revenue expected to grow organically with a ~10% CAGR, which increases to >20% CAGR including synergies.
- EBITDA margin currently at around 50%.

**Key organic growth drivers**

- Ongoing transition from OTC markets to regulated platforms (market share of regulated platforms <10%).
- Increasing customer demand for FX exchange trading ECN and clearing solutions and broader derivatives offering.

**Key revenue synergy drivers**

- Monetisation of 360T data via Deutsche Börse infrastructure.
- New FX spot ECN trading venue (launched in May 2017).
- FX products on Eurex infrastructure including trading and clearing capabilities (planned for 2017).

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1) Other includes e.g. access, maintenance and installation fees
New Eurex products – strongly increasing net revenue contribution from product innovation

Net revenue development

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Revenue (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>64</td>
</tr>
<tr>
<td>2016</td>
<td>76</td>
</tr>
<tr>
<td>2019E</td>
<td>&gt;15% CAGR</td>
</tr>
</tbody>
</table>

Secular growth drivers

- Eurex is frequently launching new products in order to address client needs or adapt to changes in regulation.
- While newly launched products need a certain period of time to gain traction\(^2\), in sum their net revenue contribution reached €76m in 2016 (10% of Eurex excl. EEX and 360T).
- Around €50m additional net revenue from recently or newly launched products expected until 2019.

Expansion in existing asset classes

- Index derivatives: MSCI derivatives as leading index concepts in asset management and interbank market.
- Italian (BTP), French (OAT), and Spanish (BONO) government bond futures: addressing wider yield spreads across the different countries in Europe.

New asset classes

- Volatility derivatives: client interest has strongly increased starting in 2017.
- Total-return futures: Eurex-listed contracts are a viable alternative to OTC equity swaps especially against the background of more favourable margin requirements.

1) Other includes the KOSPI 200 option, Mini-DAX® futures and RDX derivatives

2) See page 34 in the appendix for more details
Support of growth financing – Deutsche Börse is a key pillar of the German capital market in terms of financing growth and innovation

- Deutsche Börse defines the reputation, perception and credibility of the German capital market.
- Positioned as the “face of the German capital market”, Deutsche Börse's value goes beyond revenues.
- Deutsche Börse’s public role needs to be nurtured and promoted and its broad stakeholder base educated and managed.
- This mandate can be a catalyst for growth for the company, Finanzplatz Frankfurt and the German and EU economy.

- Promote Frankfurt as the EU’s gateway and leading financial centre for non-EU financial institutions post-Brexit
- FinTech Hub as focal point of technology innovation, attracting top class talent; leveraging collaboration with DB1 Ventures
- Expand Deutsche Börse Venture Network and grow new listing segment “Scale” to attract inspiring and dynamic financial community

- Position Deutsche Börse as the centre and the face of Frankfurt’s financial community and the German capital market
- Intensify collaboration with broad and diverse stakeholder base
- Deutsche Börse as pioneer for innovation and growth financing

- Relevance for German and EU economy with high political impact
- Guarantor of market integrity, neutrality and reliability
- Corporate citizen with deep roots in Frankfurt promoting topics such as economic education, equity culture etc.
Custody (ICSD/CSD) – TARGET2-Securities enables Clearstream to benefit from a consolidation of custody volumes

**Net revenue development**

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>535</td>
</tr>
<tr>
<td>2016</td>
<td>538</td>
</tr>
<tr>
<td>2019E</td>
<td></td>
</tr>
</tbody>
</table>

- 5–10% CAGR

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**Secular and cyclical growth drivers**

**Secular drivers**

- T2S is game-changing: size and complexity of adaptations favour large CSDs; this is expected to result in consolidation of custody business across Europe.
- The combination of ICSD and CSD custody volumes is unique and creates the largest liquidity pool in Europe.
- Clearstream offers the full settlement, custody and collateral management services suite for its single liquidity pool.
- Cost saving potential of €30–70m annually per client based on a) cash and securities pooling, b) central collateral management and c) more efficient operations.

**Cyclical drivers**

- International issuance activity increased in 2016, but only driven by an increase in US$-denominated securities.
- Euro-denominated international issuance remained flat, but is expected to increase significantly once the liquidity supply by central banks in Europe to financial institutions is discontinued.

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1) ICSD + CSD net revenue excluding net interest income
2) Source figures: ECSDA
3) See pages 35 and 36 in the appendix for more details
Investment fund services (IFS) – building upon a globally leading industry position

**Net revenue development**

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>124</td>
</tr>
<tr>
<td>2016</td>
<td>124</td>
</tr>
<tr>
<td>2019E</td>
<td>~10% CAGR</td>
</tr>
</tbody>
</table>

**Secular growth drivers**

**Market size and competition**
- €10tr\(^2\) market and growing with demand for pension and increasing saving capacities in emerging economies.
- Only 10–20%\(^3\) of the market is using a platform like Vestima\(^\circledR\). ~80% “direct transfer agent” market is targeted.

**Clearstream positioning**
- Full coverage of funds types: mutual funds, exchange-traded funds and hedge funds.
- Align fund processing with processing efficiency and safety of other more mature asset classes.

**Areas of growth**
- Offer one-stop shop for all funds types processing by further integration of mutual and alternative fund services.
- Increase service offer to ETFs (e.g. ICSD settlement, T2S, and transactions “at NAV”).
- Continue expansion into new regions (starting with UK) and capture more institutional flows.
- Extend fund issuance service to domestic CSDs and T2S.
- Provide fund data and new distribution support services.

1) Other includes e.g. account maintenance and tax services
2) Source: The Investment Company Institute and Clearstream IFS market access intelligence
3) Source: Clearstream IFS intelligence
Indices (STOXX) – unique and innovative index offering basis for sustainable growth in assets under management

Net revenue development

<table>
<thead>
<tr>
<th>Year</th>
<th>€m</th>
<th>~10% CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>115</td>
<td></td>
</tr>
<tr>
<td>2019E</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Net revenue breakdown 2016

- **Index data**: 32%
- **ETF licences**: 5%
- **Structured products**: 26%
- **Exchange licences**: 25%
- **Other**: 12%

Other includes customised indices and third-party services

Secular growth drivers

**Market situation**
- Strong expected growth in passive assets (15% p.a. until 2020) enlarges revenue pools in passive investments, benchmarks, ETFs and structured products.
- Increasing sophistication and customisation of passive investment strategies.
- Untapped market opportunities in thematic and smart-beta investing.

**Organic growth areas**
- Expand regional presence and increase direct sales coverage for buy-side clients.
- Increase capacity for thematic and customised index innovation.
- Build-out multi-asset class capabilities (e.g. liability-driven investing).
- Launch services allowing clients to self-configure indices.
Data & regulatory services – unique assets in market data and regulatory services space provide for growth opportunities

Net revenue development

<table>
<thead>
<tr>
<th>€m</th>
<th>2015</th>
<th>2016</th>
<th>2019E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>161</td>
<td>162</td>
<td></td>
</tr>
</tbody>
</table>

~10% CAGR

Secular growth drivers

Market situation
- Information services in capital markets to grow from US$55bn to US$98bn by 2020 (12% p.a.)
- Growth potential derives from new analytics capabilities and growing / alternative (big) data pools.
- In addition, unprecedented opportunity for data-driven services created by MiFID II and further regulations.

Growth in data services
- Expand analytics offering leveraging all data sets of the Group (pre-trade, trade, post-trade).
- Partner with external providers to create joined analytics.
- Introduce mass-customised analytics (e.g., risk filters, TCA predictions) to optimise clients’ trading flow.

Growth in reporting services
- Assume status of ARM and APA service provider (MiFID II).
- Build one-stop shop solution for regulatory reporting of transactions / trades (Regulatory Reporting Hub) across regulations (MiFID II, SFTR, FinFraG etc.).
- Enter regulatory data management services.

Net revenue breakdown 2016

<table>
<thead>
<tr>
<th>€162m</th>
<th>Fundamental data</th>
<th>Regulatory reporting hub</th>
<th>Other 1)</th>
<th>Market data and analytics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10%</td>
<td>5%</td>
<td>4%</td>
<td>81%</td>
</tr>
</tbody>
</table>

1) Other includes consolidated exchange feed (CEF®)
Index derivatives – Cyclical growth opportunity from improving European equity market environment and normalised volatility

**Volume development** (traded contracts in m; ADV)

- In 2008 record average daily volume of more than 4m average daily traded contracts based on extremely high volatility levels at the beginning of the financial crisis.
- Against the background of a) deleveraging, b) general downward trend in volatility and c) shift to certain regional indices, average daily volumes reached low in 2013 (2.4m average daily traded contracts).
- Based on 2016 average daily volumes of 3.2m contracts, cyclical upside potential of around 25% growth or €75m net revenue expected (back to 2008 volumes).
- Growth assumption anticipates a normalisation of equity market volatility, a stabilising political environment and sustainable economic growth.

**Cyclical growth drivers**

- **Volume development**

<table>
<thead>
<tr>
<th>Year</th>
<th>New products</th>
<th>Classic equity index derivatives</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>3.0</td>
<td>2.6</td>
<td>5.6</td>
</tr>
<tr>
<td>2008</td>
<td>4.0</td>
<td>3.1</td>
<td>7.1</td>
</tr>
<tr>
<td>2009</td>
<td>3.1</td>
<td>3.6</td>
<td>6.7</td>
</tr>
<tr>
<td>2010</td>
<td>3.1</td>
<td>2.8</td>
<td>5.9</td>
</tr>
<tr>
<td>2011</td>
<td>3.6</td>
<td>2.4</td>
<td>6.0</td>
</tr>
<tr>
<td>2012</td>
<td>2.8</td>
<td>3.2</td>
<td>6.0</td>
</tr>
<tr>
<td>2013</td>
<td>2.4</td>
<td>3.1</td>
<td>5.5</td>
</tr>
<tr>
<td>2014</td>
<td>2.6</td>
<td>3.2</td>
<td>5.8</td>
</tr>
<tr>
<td>2015</td>
<td>3.1</td>
<td>3.0</td>
<td>6.1</td>
</tr>
<tr>
<td>2016</td>
<td>3.2</td>
<td>3.0</td>
<td>6.2</td>
</tr>
<tr>
<td>2017</td>
<td>3.0</td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

- Source: Bloomberg; VSTOXX development since 2007

1) ADV Jan–May 2017
2) New Products comprises volatility derivatives, dividend derivatives, new underlyings, e.g. MSCI, and co-operation products, e.g. the TAIEX option
3) Source: Bloomberg; VSTOXX development since 2007
Fixed-income derivatives – significant upside from interest rate cycle

Cyclical growth drivers

- The fixed-income derivatives business saw sustained growth in trading activity until 2007. Afterwards, the loose monetary policy of central banks with historically low interest rates led to a rapid decrease in trading activity.

- In 2014, European fixed-income derivatives trading activity fell to the lowest level since 2005 as government bond yields continued to fall.

- While trading in Eurex’s fixed-income derivatives in 2016 was around 40% below the pre-crisis peak, CME in the US saw new record levels in its fixed-income derivatives business due to speculation and actual rate increases.

- Since 2007 the outstanding government debt in Europe has increased by ~57%, suggesting greater need for hedging.

- Based on 2016 average daily volumes of around 1.8m, cyclical upside potential of around 70% growth or around €150m net revenue is expected (back to 2008 volumes).

- Growth assumption anticipates sustainable economic growth and increasing inflation, leading to a normalisation of the monetary policy of the ECB.

---

1) ADV Jan–May 2017
2) New products comprise e.g. OAT, BTP and bono derivatives
3) Fixed-income derivatives; source: company data
4) See page 37 in the appendix for more details
Net interest income – interest rate cycle provides for significant opportunity to grow interest income at Clearstream

Net interest income development

- Record high net interest income (NII) in 2007/08 was based on interest rate levels of around 4% and average cash balances of €5-6bn.
- In line with historic low interest rates, the NII decreased significantly (high/low: €237m/€34m).
- Cash balances have increased significantly since 2007/08 mainly because of the growth of international settlement transactions.
- On the back of increasing US rates, the NII started to increase meaningfully in 2015 (currency split: US$ 43%, Euro 42%, others 15%).
- Net interest income is expected to increase significantly with rates rising further (100bp increase of average short-term rates = €140m EBIT).

Cyclical growth drivers

Settlement transactions and cash balances

- Before 2010, settlement transactions are estimated

1) Q1/17 annualised
2) Before 2010, settlement transactions are estimated
Collateral management (GSF) – address key priorities of customers via unique and innovative capabilities

### Net revenue development

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Revenue (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>68</td>
</tr>
<tr>
<td>2016</td>
<td>73</td>
</tr>
<tr>
<td>2019E</td>
<td></td>
</tr>
</tbody>
</table>

>10% CAGR

### Net revenue breakdown 2016

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secured money market</td>
<td>61%</td>
</tr>
<tr>
<td>Securities lending</td>
<td>39%</td>
</tr>
</tbody>
</table>

### Cyclical and secular growth drivers

- Collateral management at Clearstream includes secured money market (GC Pooling®, tri-party repo) and securities lending services.
- Increasing demand for these products was seen from 2010 to 2015 with peak outstandings of €653bn in March 2015.
- After that, volumes decreased significantly, especially in GC Pooling, mainly as a result of the monetary policies of central banks (€460bn outstandings in April 2017).
- Lower overall outstandings have been overcompensated by growth of volumes and rates in securities lending services (strong demand for high-quality assets as a result of regulatory requirements).
- Growth assumptions anticipate sustainable economic growth and increasing inflation, leading to a normalisation of the monetary policy of the ECB.
Secular and cyclical opportunities result in 5–10% average annual revenue upside until 2019

<table>
<thead>
<tr>
<th>Mid-term net revenue opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>€m</td>
</tr>
</tbody>
</table>

### Secular opportunities (~400–600)

- ~250
- ~150
- ~100

### Cyclical opportunities

- ~200–400

### +5–10% CAGR

#### 2016

- Eurex
  - 1. Euro OTC clearing
  - 2. Commodities (EEX)
  - 3. FX (360T)
  - 4. New Eurex products

- Clearstream
  - 6. Custody (CSD / ICSD)
  - 7. Investment fund services (IFS)
  - 15. Collateral management (GSF)

- MD+S
  - 8. Indices (STOXX)
  - 9. Data & regulatory services

- Cyclical
  - 10. Index derivatives
  - 11. Fixed-income derivatives
  - 12. Net interest income
  - 13. Collateral management (GSF)
  - 14. Custody (ICSD)
    - Equity volumes

### 2019E

- 2,389
Efficient management of operating costs helps to ensure full scalability of business model

**Approach to cost management**

- In order to achieve scalability of the business model, operating costs will be managed in the 0–5% range, depending on the Group’s net revenue performance.
- Ongoing active management of the operating costs ensures off-set of higher depreciation (~€30m in 2017) and of inflation of staff costs (~€20m p.a.).
- Recently implemented efficiency measures include internalisation of external service providers at lower costs.
- Further potential mid-term efficiency gains from:
  - direct P&L responsibilities for 40+ key products.
  - enhanced performance management across products, projects and people.
  - standardisation, automatisation and digitalisation of technology, products and processes to improve efficiency and agility.

**Mid-term guidance (2016–2019)**

<table>
<thead>
<tr>
<th></th>
<th>2016 (€m)</th>
<th>Expected growth (CAGR; %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net revenue</td>
<td>2,389</td>
<td>5–10</td>
</tr>
<tr>
<td>Operating costs</td>
<td>-1,174</td>
<td>0–5</td>
</tr>
<tr>
<td>Net income</td>
<td>811</td>
<td>10–15</td>
</tr>
</tbody>
</table>
Balanced approach to capital allocation between growth and dividend distribution

<table>
<thead>
<tr>
<th>Development of dividend and pay-out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay-out ratio (%)&lt;sup&gt;1)&lt;/sup&gt;</td>
</tr>
<tr>
<td>2.10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capital management policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>- In general, Deutsche Börse Group aims to distribute 40 to 60% of the adjusted annual net income to shareholders in form of the regular dividend.</td>
</tr>
<tr>
<td>- In years with depressed net income, the pay-out ratio stood at the upper end of this range.</td>
</tr>
<tr>
<td>- Going forward, the Group is expecting substantial earnings growth, therefore, it targets a pay-out ratio in the middle of the 40 to 60% range (~50%).</td>
</tr>
<tr>
<td>- Out of the €1bn proceed from the divestiture of ISE in 2016, the Group plans to implement a one-off share buy-back programme with a volume of €200m in H2/17.</td>
</tr>
<tr>
<td>- The remaining cash at hand and the recurring free cash is planned to be fully invested into organic or external growth opportunities.</td>
</tr>
<tr>
<td>- In case there should be no use for the free cash, additional distributions to shareholders via share buy-backs might be considered.</td>
</tr>
</tbody>
</table>

1) Adjusted for exceptional items
Organic growth is supplemented by targeted M&A activities, if accretive and executable

Guiding principles on M&A / management of shareholdings portfolio

- The organic growth initiatives will be supplemented by targeted M&A activities which are accretive and executable.
- Focus will mainly be on asset class extensions and adjacent opportunities like data, analytics, investment strategy, and post-trade. Besides acquisitions, different formats like partnerships and joint ventures are evaluated.
- Portfolio approach with constant evaluation of shareholdings will be followed to free up additional investment capacity.
- Financial flexibility includes cash at hand, annual free cash flow, equity financing and potentially higher debt capacity due to a rating differential between Deutsche Börse’s and Clearstream’s ratings.

<table>
<thead>
<tr>
<th>Acquisitions</th>
<th>Disposals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodities</td>
<td>ISE 2016: disposal</td>
</tr>
<tr>
<td>2015: majority stake</td>
<td>infobolsa 2016: disposal</td>
</tr>
<tr>
<td>Commodities</td>
<td>mni 2016: disposal</td>
</tr>
<tr>
<td>2015: majority stake</td>
<td>Bats 2016/17: disposal</td>
</tr>
<tr>
<td>FX</td>
<td>STOXX 2015: full acquisition</td>
</tr>
<tr>
<td>2015: full acquisition</td>
<td>NODAL 2017: full acquisition</td>
</tr>
</tbody>
</table>
Deutsche Börse’s equity story combines substantial growth opportunities with attractive shareholder distributions

- “Accelerate” programme has laid foundation for growth by making Deutsche Börse more agile, innovative and client-centric. Focus is now on systematic execution of growth strategy to ensure that value is captured.

- The Group’s diversified business model provides for a broad range of existing double-digit secular (euro OTC clearing, EEX, 360T, T2S, IFS, STOXX) and cyclical growth opportunities (volatility and interest rate changes).

- Industry trends, political developments and new client needs create new growth opportunities, mainly expanding the product offering across trading and clearing, as well as scaling the index and data business.

- The organic-growth initiatives will be supplemented by targeted M&A activity where value is closely aligned with strategic focus areas and is clearly accretive, and execution risk is manageable.

- Efficient management of operating costs will help to ensure full scalability of business model. As a result, 5–10% average annual net revenue growth is expected to result in 10–15% average annual net income growth until 2019.

- The Group’s strong cash flow will be deployed with a balanced approach. Around 50% of net income will be invested in growth and 50% will be returned to shareholders in the form of the regular dividend.
Appendix
Commodities (EEX) – strong position in European energy markets expected to result in attractive net revenue growth

European power markets: Constant gains in market share from the OTC space since 2014

European gas markets: Constant gains in market share from the OTC space since 2015

Source: Based on publically available volume reporting
New Eurex products – strongly increasing net revenue contribution from product innovation

Significant growth in new products constantly increased volume contribution

<table>
<thead>
<tr>
<th>Year</th>
<th>RDX</th>
<th>Equity Dividend</th>
<th>Index Dividend</th>
<th>MSCI</th>
<th>KOSPI 200 Options</th>
<th>Weekly Index Options</th>
<th>VSTOXX®</th>
<th>OAT</th>
<th>BTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>9.9</td>
<td>0.9</td>
<td>0.9</td>
<td>0.0</td>
<td>0.8</td>
<td>-0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>33.3</td>
<td>0.9</td>
<td>0.9</td>
<td>0.0</td>
<td>0.8</td>
<td>-0.1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2012</td>
<td>32.4</td>
<td>0.9</td>
<td>0.9</td>
<td>0.0</td>
<td>0.8</td>
<td>-0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>74.4</td>
<td>0.9</td>
<td>0.9</td>
<td>0.0</td>
<td>0.8</td>
<td>-0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>74.4</td>
<td>0.9</td>
<td>0.9</td>
<td>0.0</td>
<td>0.8</td>
<td>-0.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>101.2</td>
<td>3.1</td>
<td>1.9</td>
<td>0.8</td>
<td>0.4</td>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>120.1</td>
<td>2.5</td>
<td>1.3</td>
<td>1.6</td>
<td>6.4</td>
<td>7.2</td>
<td>136.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YTD-May-17</td>
<td>85.1</td>
<td>4.9</td>
<td>3.1</td>
<td>2.2</td>
<td>0.7</td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Company data
Custody (ICSD/CSD) – TARGET2-Securities enables Clearstream to benefit from a consolidation of custody volumes

Decline of international issuance activity provides for significant upside for custody

Source: BIS; net issuance of international bonds in developed countries all currencies USD equivalent (table C3)
Custody (ICSD/CSD) – TARGET2-Securities enables Clearstream to benefit from a consolidation of custody volumes

Reduced issuance activity by financial institutions due to central bank liquidity supply

€bn; gross issuance

<table>
<thead>
<tr>
<th>Year</th>
<th>Financial institutions</th>
<th>Corporates</th>
<th>Governments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>907</td>
<td>115</td>
<td>129</td>
</tr>
<tr>
<td>2008</td>
<td>905</td>
<td>101</td>
<td>187</td>
</tr>
<tr>
<td>2009</td>
<td>804</td>
<td>79</td>
<td>244</td>
</tr>
<tr>
<td>2010</td>
<td>706</td>
<td>68</td>
<td>234</td>
</tr>
<tr>
<td>2011</td>
<td>707</td>
<td>63</td>
<td>231</td>
</tr>
<tr>
<td>2012</td>
<td>670</td>
<td>68</td>
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<td>2013</td>
<td>454</td>
<td>59</td>
<td>53</td>
</tr>
<tr>
<td>2014</td>
<td>359</td>
<td>218</td>
<td>46</td>
</tr>
<tr>
<td>2015</td>
<td>301</td>
<td>218</td>
<td>205</td>
</tr>
<tr>
<td>2016</td>
<td>295</td>
<td>49</td>
<td>198</td>
</tr>
</tbody>
</table>

Source: ECB
Fixed-income derivatives – significant upside from interest rate cycle

Stock of government debt in the Euro area has increased substantially

€tr; outstanding amounts

<table>
<thead>
<tr>
<th>Year</th>
<th>Stock</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>4.5</td>
</tr>
<tr>
<td>2008</td>
<td>4.7</td>
</tr>
<tr>
<td>2009</td>
<td>5.2</td>
</tr>
<tr>
<td>2010</td>
<td>5.7</td>
</tr>
<tr>
<td>2011</td>
<td>6.1</td>
</tr>
<tr>
<td>2012</td>
<td>6.3</td>
</tr>
<tr>
<td>2013</td>
<td>6.5</td>
</tr>
<tr>
<td>2014</td>
<td>6.8</td>
</tr>
<tr>
<td>2015</td>
<td>7.0</td>
</tr>
<tr>
<td>2016</td>
<td>7.1</td>
</tr>
</tbody>
</table>

Source: ECB
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