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Half-yearly financial report

Quarter 2/2018

Deutsche Börse Group: key figures

		30 Jun 2018	Quarter ended 30 Jun 2017	Si 30 Jun 2018	x months ended 30 Jun 2017
Consolidated income statement					
Net revenue (total revenue less volume-related costs)	€m	687.0	623.6	1,378.6	1,247.0
thereof net interest income from banking business	€m	55.0	33.5	95.9	63.4
Operating costs (excluding depreciation, amortisation and impairment losses))	€m	-317.2	-271.4	-592.2	-545.0
Earnings before interest, tax, depreciation and amortisation (EBITDA)	€m	371.2	353.8	788.8	821.21)
Net profit for the period attributable to Deutsche Börse AG shareholders	€m	210.3	176.3	459.3	456.4
Earnings per share (basic)	€	1.13	0.94	2.47	2.44
Consolidated cash flow statement					
Cash flows from operating activities excluding CCP positions	€m	558.6	729.2	558.6	729.2
Consolidated balance sheet (as at 30 June)					
Non-current assets	€m	12,160.3	11,838.0	12,160.3	11,838.0
Equity	€m	4,808.1	4,586.4	4,808.1	4,586.4
Non-current interest-bearing liabilities	€m	2,283.8	1,687.3	2,283.8	1,687.3
Performance indicators					
Employees (average FTEs for the period)		5,742	5,575	5,707	5,491
EBITDA margin, based on net revenue	%	54	57	57	66 ¹⁾
Tax rate ²⁾	%	27.0	27.0	27.0	27.0
Gross debt / EBITDA ²⁾		1.1	1.3	1.1	1.3
Interest coverage ratio ²⁾	%	41.6	35.4	41.6	35.4
The shares					
Opening price	€	110.65	86.16	96.80	76.42
Closing price (as at 30 June)	€	114.15	92.42	114.15	92.42
Market indicators			_		
Eurex: Number of contracts	m	532.4	478.8	1,036.7	924.9
EEX: Power market trading volume	TWh	1,171.0	919.4	2,297.6	1,861.0
360T: Average daily trading volume	€bn	66.7	62.9	64.8	61.0
Xetra: Cash market trading volume (single-counted)	€bn	426.6	365.2	906.7	726.6
Clearstream: Value of securities deposited (average for the period)	€bn	11,354	11,234	11,255	11,284
IFS: Value of securities deposited (average for the period)	€bn	2,378	2,194	2,381	2,159
GSF: Outstanding volume (average for the period)	€bn	442,7	454.8	432,7	470.5
STOXX: Assets under management in ETFs (average for the period)	€bn	112.8	104.3	115.1	99.7
Data: Subscriptions	thousand	381.9	441.3	400.4	444.5
Transparency and stability key figures			_		
Proportion of companies reporting in accordance with maximum transparency standards ³⁾	%	91	91	91	91
Number of calculated indices		12,667	12,111	12,667	12,111
Number of sustainable index concepts		122	115	122	115
Availability of cash market trading system	%	100	100	99,918	100
Availability of derivatives market trading system	%	100	99.999	99,926	99.989
Average monthly cleared volumes across all products ⁴⁾	€bn	25,227	21,390	24,809	21,965

¹⁾ Including a non-recurring effect related to the disposal of shares in BATS Global Markets, Inc. in Q1/2017

Due to rounding, numbers presented throughout this document may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

²⁾ Adjusted for non-recurring items

³⁾ Ratio of the market capitalisation of companies listed in the Prime Standard (for shares) to the market capitalisation of all companies listed on Frankfurter Wertpapierbörse (FWB*, the Frankfurt Stock Exchange)

⁴⁾ Average monthly clearing volume, including exchange-traded and OTC derivatives, as well as securities and repo transactions. Clearing volumes are subject to double counting. Previous year figures have been adjusted to reflect this change.

Group management report 3

Q2/2018: Deutsche Börse maintains strong growth momentum

Quarterly results at a glance

- n Deutsche Börse Group's net revenue grew by 10 per cent in the second quarter of 2018, to €687.0 million (Q2/2017: €623.6 million). Secular growth factors contributed 7 per cent to this growth, while positive cyclical effects resulted in net revenue growth of 3 per cent. In addition, a small fraction can be attributed to consolidation effects.
- n Adjusted operating costs amounted to €262.9 million (Q2/2017: €245.4 million). The figure was adjusted for exceptional items of €54.3 million, largely for measures to enhance operating efficiency and to reduce structural costs, initiated within the framework of the "Roadmap 2020" strategy. Unadjusted operating costs totalled €317.2 million (Q2/2017: €271.4 million).
- n Group earnings before interest, tax, depreciation and amortisation (EBITDA) amounted to €371.2 million (Q2/2017: €353.8 million). Adjusted for exceptional items, Deutsche Börse Group increased its EBITDA by 12 per cent, to €425.5 million (Q2/2017: €379.5 million).
- n Net profit for the period attributable to Deutsche Börse AG shareholders amounted to €210.3 million (Q2/2017: €176.3 million). Adjusted for exceptional items, net profit increased by 13 per cent to €261.9 million (Q2/2017: €232.8 million).
- n Basic earnings per share amounted to €1.13 for an average of 185.0 million shares. Adjusted for exceptional items, they amounted to €1.42 (Q2/2017: €0.94 for 186.8 million shares; adjusted: €1.25).
- ⁿ With this result for the first half of the current financial year, the Group has affirmed its forecast of at least 10 per cent profit growth for 2018 as a whole (excluding exceptional items).
- n In May 2018, Deutsche Börse AG distributed dividends of €2.45 per no-par value share to its share-holders for the 2017 financial year (€2.35 for the 2016 financial year).

Material events at a glance

- Deutsche Börse Group's post-trade services provider Clearstream has expanded its offering in the funds business through the acquisition of Swisscanto Funds Centre Ltd, London (SFCL), from Zürcher Kantonalbank. The purchase agreement was signed on 23 April 2018. The transaction, involving an amount in the high double-digit million euro range, is expected to close during the fourth quarter of 2018, subject to approval from the relevant authorities. For Deutsche Börse Group, the investment will already be accretive in the first year.
- n Furthermore, Deutsche Börse has acquired GTX's Electronic Communication Network (ECN) business from GAIN Capital Holdings Inc. for US\$100 million. This transaction enables 360T, Deutsche Börse Group's foreign exchange unit, to expand its footprint in the global FX market. The transaction is in line with Deutsche Börse's Roadmap 2020, which is aimed at growing the company's business through add-on acquisitions.

Q2/2018 Group interim management report

Fundamental information about the Group

The fundamental information about the Group described \(\mathbb{N} \) on pages 18 to 31 of the 2017 financial report is still valid in principle.

Comparability of figures

More detailed segment reporting

Deutsche Börse Group adjusted its internal segment management as at the first quarter of 2018. The more detailed structure of the reporting segments creates additional transparency and points out growth areas.

- ⁿ The former Eurex segment was divided into three segments: Eurex (Financial Derivatives), EEX (Commodities), and 360T (Foreign Exchange).
- ⁿ The former Clearstream segment was divided into three segments: Clearstream (Post-trading), IFS (Investment Fund Services) and GSF (Collateral Management).
- n In future, the former Market Data + Services (MD+S) segment was separated into STOXX (Index) and Data. Revenues from the Infrastructure Services division, the third pillar of the former MD+S segment, have been allocated to the Eurex and Xetra segments.
- ⁿ The Group continues to report on business developments in the cash market within the Xetra segment (Cash Equities).

Recognising the growing importance of these business lines, the Group reports their net revenue, cost base, and EBITDA at segment level.

Changes to the basis of consolidation

EEX US Holdings, Inc., the parent company of Nodal Exchange Holdings, LLC, which Deutsche Börse acquired in the first quarter of 2017, has been fully consolidated in Deutsche Börse AG's consolidated financial statements since 3 May 2017, with revenues and costs being reported in the EEX (Commodities) segment.

On 29 June 2018, Deutsche Börse Group acquired GTX's Electronic Communications Network (ECN). Within the scope of the transaction, 360 Treasury Systems AG (a wholly-owned subsidiary of Deutsche Börse AG), established 360TGTX, Inc., which acquired GTX. Deutsche Börse Group has consolidated the business activities of 360TGTX for the first time as at 29 June 2018. However, due to the balance sheet date 30 June 2018, only the balance sheet has been consolidated in this half-yearly finanical report, while profit and loss have been consolidated as from 1 July 2018. Revenue and costs will be reported in the 360T segment (Foreign Exchange).

Changes to the balance sheet structure

Since the first quarter of 2018, Deutsche Börse Group has improved the transparency of its balance sheet structure with the first-time application of IFRS 9. Financial instruments are now recognised in

Group management report 5

the consolidated balance sheet according to different measurement categories; the comparative figures presented for the periods of 2017 are reported according to the new structure. With regard to accounting and measurement policies for the first half of 2017, IAS 39 has been applied, as before.

Material related party disclosures

Detailed material related party disclosures can be found in

note 17 of the notes to these interim financial statements.

Report on the economic position

The company's business operations as well as macroeconomic and sector-related environment have not changed significantly compared with the presentation in the \$\bar{\sigma}\$ 2017 financial report (pages 18 to 19 and 33 to 34).

At its annual Investor Day in London on 30 May 2018, Deutsche Börse Group presented its corporate strategy, "Roadmap 2020", in detail. The "Roadmap 2020" will focus on three strategic areas: organic growth, targeted acquisitions, and investments in new technologies. The goal is to strengthen – and further expand – Deutsche Börse's position as a leading European financial markets infrastructure provider with global growth ambitions. The company will be focusing even more consistently on the scalability of its business model and on enhancing its operational processes.

Strong organic portfolio growth in all businesses providing the baseline

The first of three strategic areas of the "Roadmap 2020" provides for stronger and faster exploitation of existing secular as well as cyclical growth opportunities. In Deutsche Börse's view, a higher level of market volatility – sustained over a longer-term horizon – will offer particular scope for cyclical growth, while the trend towards exchange-based trading and clearing holds potential for secular growth. Growth opportunities exist across all nine segments.

Within the scope of its strategy, Deutsche Börse projects net revenue growth from secular opportunities of at least 5 per cent p.a. between now and the end of 2020. In addition, expected positive cyclical effects on net revenue are to be expected. On this basis, the company anticipates an average annual growth rate for adjusted net profit between 10 and 15 per cent for the period between now and 2020.

Programme of targeted acquisitions in growth areas

Second, Deutsche Börse's strategy aims to strengthen the business through targeted acquisitions in five growth areas, comprising fixed-income securities, energy products, currencies, investment fund services, as well as data and indices. As a prerequisite, any transaction must generate noticeable added value for Deutsche Börse and its shareholders. A return on invested capital (ROIC) in excess of 10 per cent after three to five years will be used as a guideline for investments.

Investments in technology to realise growth potential and to enhance efficiency

The third core element of the "Roadmap 2020" are expanded investments in four key technologies: blockchain, big data analyses, cloud computing, as well as robotics and artificial Intelligence. Deutsche Börse plans to leverage blockchain technology to explore new lines of business, yielding corresponding profits. Investments in cloud-computing technology, as well as in robotics and artificial intelligence will predominantly serve to further enhance efficiency in the existing businesses. Big data investments will be made in order to boost profits and enhance efficiency. The company will continue to pursue – as well as expand – ongoing initiatives in these areas.

By splitting its business into nine segments, covering the company's entire value creation chain, Deutsche Börse will enhance its operational structure. Moreover, Deutsche Börse will enhance its operational efficiency whilst reducing structural costs: this will involve improved decision-making processes as well as streamlining the organisation. 350 jobs are planned to be cut, thereof 50 managers. The target is to reduce structural costs by around €100 million by the end of 2020. One-off costs for the strategic programme will amount to approximately €200 million, most of which will be incurred in 2018. Cost savings will create scope for investments in growth and technologies.

The entire Executive Board will be responsible for implementing the strategy. Deutsche Börse's Executive Board has been revamped, with Thomas Book (responsible for the Trading and Clearing business, excluding the cash market) and Stephan Leithner (Post-trading as well as Data and Index businesses) who have joined in the beginning of July 2018, and Christoph Böhm (Chief Information Officer and Chief Operating Officer), who will join on 1 November 2018.

With regard to Deutsche Börse's internal management of the Group there were no changes in the second quarter of 2018. Please refer to the details provided in the **\(\mathbb{L}\)** 2017 financial report (pages 25 to 27).

Research and development activities

As a service provider, Deutsche Börse Group does not engage in research and development activities comparable to those of manufacturing companies. As a result, this Group interim management report does not contain a detailed research and development report. However, Deutsche Börse does develop and operate its own trading and clearing systems as well as system solutions designed to achieve its structrural growth objectives. Thus, the company works constantly to maintain and enhance the technology leadership and stability of its electronic systems in the interests of its customers and the systemic stability of the financial markets. For instance, during the first half of 2018, Deutsche Börse Group introduced IT projects addressing the open order book and the launch of the 360T clearing functionality on the clearing platform of Eurex Clearing AG projected for the third quarter of 2018, as well as expansion of the Eurex EnLight request-for-quote service.

Key figures on results of operations of Deutsche Börse Group (reported)

	;	30 Jun 2018	Quarter ended 30 Jun 2017	Change	Si: 30 Jun 2018	months ended 30 Jun 2017	Change
				%			%
Net revenue	€m	687.0	623.6	10	1,378.6	1,247.0	11
Operating costs	€m	317.2	271.4	17	592.2	545.0	9
EBITDA	€m	371.2	353.8	5	788.8	821.2	-4
Depreciation, amortisation and impairment losses	€m	58.4	39.6	47	99.7	75.5	32
EBIT	€m	312.8	314.2	0	689.1	745.7	-8
Net profit for the period attribut- able to Deutsche Börse AG							
shareholders	€m	210.3	176.3	19	459.3	456.4	1
Earnings per share (basic)	€	1.13	0.94	20	2.47	2.44	1

Key figures on results of operations of Deutsche Börse Group (adjusted)

			Quarter ended	Six months ended			
		30 Jun 2018	30 Jun 2017	Change	30 Jun 2018	30 Jun 2017	Change
				%			%
Net revenue	€m	687.0	623.6	10	1,378.6	1,247.0	11
Operating costs	€m	262.9	245.4	7	517.4	490.5	5
EBITDA	€m	425.5	379.5	12	863.6	759.7	14
Depreciation, amortisation and impairment losses	€m	42.1	39.2	7	82.9	74.4	11
EBIT	€m	383.4	340.3	13	780.7	685.3	14
Net profit for the period attribut- able to Deutsche Börse AG							
shareholders	€m	261.9	232.8	13	532.6	465.0	15
Earnings per share (basic)	€	1.42	1.25	14	2.87	2.49	15

Results of operations

Results of operations in the second quarter of 2018

The global economic situation remained constrained during the second quarter of 2018. The trade dispute between the US and the EU, China and other important trading partners, including punitive tariffs on the import of raw materials and other goods, nourished concerns about an upcoming trade war and dampened expectations regarding Germany's economic development. Furthermore, the decision of the US administration to cancel the nuclear agreement with the Iran had macroeconomic repercussions: after the decision was announced, the price of oil climbed to its highest point since 2014, and possibly curbs economic momentum. Against this background, several economic research institutions lowered their growth projections. For instance, the German Institute for Economic Research (*Deutsches Institut für Wirtschaftsforschung*, "DIW") lowered its GDP growth projection for Germany – published in March – from 2.4 per cent to 1.9 per cent for this year, and from 1.9 per cent to 1.7 per cent for 2019. The Leibniz Institute for Economic Research at the University of Munich (Ifo Institute) lowered its 2018 economic growth expectation for Germany from 2.6 per cent to 1.8 per cent. The trade disputes also unsettled equity markets – at all major trading venues around the globe, considerable share price losses were registered during the second quarter of 2018.

During the last months, concerns about the escalation of trade disputes diverted attention from other issues. This applied for example to the planned exit of the United Kingdom from the EU, a process still surrounded by a plethora of questions – currently unanswered, and unresolved. Furthermore, the political situation in Italy – a government led by EU-sceptical parties – nourished fears of an EU breakup.

During the second quarter of 2018, volatility (measured in terms of the VDAX®) – which is one of the key drivers of trading activity on the cash and derivatives markets – thus remained on average above the second quarter of 2017, but was shy of the level reached during the first quarter of 2018.

Central banks started to take action regarding their interest rate policies during the second quarter of 2018. The European Central Bank announced a reduction of its Quantitative Easing (QE) programme to a monthly volume of €15 billion for the final three months of 2018, and to phase out the entire programme during 2019. Although key interest rates would remain untouched until at least the summer of 2019, the announcement that the low interest rate policy is coming to an end sparked some creative ideas on the interest rate derivatives market. The US Federal Reserve (Fed) tightened its monetary policy again, increasing its key interest rate by 0.25 percentage points to between 1.75 and 2.00 per cent. Moreover, the Fed indicated that there will be two more interest rate hikes during 2018. Against this background, the Eurex interest rate derivatives business picked up and net interest income from banking business increased significantly.

Against this background, Deutsche Börse Group's net revenue increased by 10 per cent, of which 7 per cent was attributable to secular factors, and 3 per cent to cyclical factors. Consolidation effects also made a minor contribution to higher net revenue. Secular growth was driven by the Eurex (Financial Derivatives) segment including over-the-counter (OTC) clearing, as well as by the EEX (Commodities), Clearstream (Post-trading) and IFS (Investment Fund Services) segments. Moreover, interest rate derivatives trading in the Eurex (Financial Derivatives) segment benefited from political uncertainty in Italy (among other factors) whilst net interest income from the banking business in the Clearstream (Post-trading) segment benefited from higher interest rates in the US. Business in the Xetra (Cash Equities) segment stabilised at a high level, given that volatility was slightly higher than in the previous year but no longer matched the levels seen in the first quarter of 2018.

Adjusted operating costs were up 7 per cent year-on-year, to €262.9 million (Q2/2017: €245.4 million). This is due, on the one hand, to higher staffing levels and higher expenses for share-based remuneration, given that the company's share price was considerably higher than in the second quarter of 2017. On the other hand, costs also rose due to inflation and due to the consolidation of Nodal Exchange in May 2017. Unadjusted operating costs were up 17 per cent year-on-year. They include exceptional items of €54.3 million (Q2/2017: €26.0 million) which were predominantly attributable to implementation of "Roadmap 2020", which provides for a delayering of management structure and enhanced processes. Further exceptional items were due to the integration of acquired companies, and to restructuring measures.

Depreciation, amortisation and impairment losses rose to €58.4 million during the second quarter of 2018 (Q2/2017: €39.6 million), mainly due to the €15.9 million impairment of a technological infrastructure.

Deutsche Börse Group's adjusted earnings before interest, taxes, depreciation and amortisation (EBITDA) increased by 12 per cent, mainly thanks to markedly higher revenue. Accordingly, net profit for the period attributable to Deutsche Börse AG shareholders was also clearly higher than in the previous year: adjusted for exceptional items, net profit for the period was up by 13 per cent.

Deutsche Börse Group's financial result amounted to €–16.6 million in the second quarter of 2018 (Q2/2017: €–18.1 million). As expected, the adjusted tax rate in the second quarter of 2018 was 27.0 per cent (Q2/2017: 27.0 per cent).

Results of operations in the first half of 2018

Business development for the first half of the year was largely in line with performance during the second quarter, showing significant net revenue growth in the EEX (plus 17 per cent), IFS (plus 14 per cent) and STOXX (plus 14 per cent) segments, whose performance is based exclusively on secular growth drivers. Eurex posted double-digit growth rates in both quarters, whilst Xetra recorded aggregate net revenue growth of 10 per cent for the first half, thanks to very high volatility during the first quarter and a good second-quarter performance. Clearstream posted growth in both quarters, especially regarding interest income from the banking business. Deutsche Börse Group achieved slight growth in its Data business during the first half of 2018, whereas the GSF segment fell slightly short of the previous year's results.

Overall, Deutsche Börse Group's net revenue increased by 11 per cent year-on-year during the first half of 2018. During the period under review, operating costs were up 9 per cent (up 5 per cent on an adjusted basis) from the previous year. Exceptional items related to operating costs totalled €74.8 million (H1/2017: €54.5 million), largely comprising the costs of restructuring measures in the context of the "Roadmap 2020" strategy programme and the integration of acquired companies.

Deutsche Börse Group's EBITDA decreased by 4 per cent in the first half of 2018. EBITDA for the same period of 2017 included €116.6 million in non-recurring revenue from the disposal of the remaining stake in BATS Global Markets, Inc. during the first quarter of 2017. Adjusted for exceptional items, the Group's EBITDA rose by 14 per cent. Expenses for depreciation, amortisation, and impairment losses rose by 11 per cent.

The Group's financial result amounted to €–32.9 million in the first half of 2018 (H1 2017: €–36.4 million).

Comparison of results of operations with the forecast for 2018

All in all, business development during the first half of 2018 was in line with Deutsche Börse Group's expectations. Therefore, the Group expects to reach its earnings forecast for the 2018 financial year. For details on our forecast, see the preport on expected developments.

Deutsche Börse AG shares: key figures

			Quarter ended	Six months ended		
		30 Jun 2018	30 Jun 2017	30 Jun 2018	30 Jun 2017	
Earnings per share (basic)	€	1.13	0.94	2.47	2.44	
Earnings per share (basic, adjusted)	€	1.42	1.25	2.87	2.49	
Opening price ¹⁾	€	110.65	86.16	96.80	76.42	
High ²⁾	€	119.80	98.42	119.80	98.42	
Low ²⁾	€	108.60	84.76	95.30	74.73	
Closing price (as at 30 June)	€	114.15	92.42	114.15	92.42	
Number of shares (as at 30 June)	m	193.0	193.0	193.0	193.0	
Market capitalisation (as at 30 June)	€bn	22.0	17.8	22.0	17.8	

¹⁾ Closing price on preceding trading day

²⁾ Intraday price

Eurex segment (Financial Derivatives)

Eurex segment (Financial Derivatives): key indicators

	30 Jun 2018	Quarter ended 30 Jun 2017	Change	S 30 Jun 2018	ix months ended 30 Jun 2017	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	239.6	212.7	13	476.6	427.3	12
Equity index derivatives	112.3	109.1	3	235.1	212.4	11
Interest rate derivatives	63.1	52.4	20	122.2	111.6	9
Equity derivatives	12.2	10.4	17	23.5	20.7	14
OTC clearing ¹⁾	6.2	2.4	158	11.4	4.8	138
Margin fees	15.4	8.4	83	23.5	18.8	25
Other ²⁾	30.4	30.0	1	60.9	59.0	3
Operating costs	-84.5	-79.3	7	-165.3	-153.9	7
EBITDA	154.9	132.9	17	310.8	390.1	-20
EBITDA (adjusted)	168.8	141.4	19	334.9	291.7	15
PERFORMANCE INDICATORS						
Financial derivatives trading volumes on Eurex Exchange	m contracts	m contracts	%	m contracts	m contracts	%
Derivatives ³⁾	532.4	478.8	11	1,036.7	924.9	12
Equity index derivatives	228.9	233.7	-2	483.2	444.5	9
Interest rate derivatives	174.6	147.5	18	337.7	314.4	7
Equity derivatives	128.9	97.6	32	215.7	165.9	30
OTC clearing volumes	€bn	€bn	%	€bn	€bn	%
Notional outstanding (average) ⁴⁾	6,271.3	1,381.2	354	4,917.2	1,252.0	291
Notional cleared	3,768.0	373.4	909	7,029.3	718.9	878

¹⁾ Incl. net interest income on margins for OTC interest rate swaps

Q2/2018

In the Eurex segment (Financial Derivatives), Deutsche Börse Group reports on the development of the financial derivatives trading and clearing business at Eurex Exchange. The clearing volume of OTC interest rate swaps, one of the secular growth factors for Deutsche Börse Group, is reported as a separate item.

Whilst trading volumes of equity index derivatives clearly increased during the first quarter of 2018 due to higher equity markets volatility, it was trading in interest rate derivatives that markedly rose during the second quarter of 2018. Decisions taken by the Fed and the ECB provided important stimuli to trading in long-term interest rate derivatives because the market now expects increasing interest rates in the euro area over the medium term. Furthermore, Eurex derivatives on Italian BTPs generated record-level volumes in May 2018. The high volumes were generated amidst the events surrounding the formation of a new government in Italy – given Eurex's broad product range of futures and options, investors were able to properly hedge their portfolios. Overall, the number of traded interest rate contracts increased by 18 per cent during the second quarter of 2018, and on 4 June Eurex achieved a new record volume of 10.5 million interest rate derivatives traded in a single day.

The increase in trading activity with single-equity derivatives was even greater (32 per cent) – and all major European derivatives exchanges recorded an increased flow of liquidity into single-equity transactions. This was due, among other things, to the spill-over of the currently positive investment climate

²⁾ Incl. connectivity and member fees

³⁾ Due to rounding differences, the total shown does not equal the sum of the individual figures.

⁴⁾ As at the end of the reporting period

from the European stock exchanges onto the futures and options markets. Trading in equity index derivatives was 2 per cent behind the previous year, given another decline in equity markets volatility.

The Eurex Clearing Partnership Programme picked up momentum: this was launched in October 2017 to create a liquid, EU 27-based alternative for the clearing of interest rate swaps denominated in euros. So far, 29 market participants from the US, the United Kingdom, Asia and Continental Europe have decided to participate in this programme. Clearing volumes in the interest rate derivatives segment booked during the second quarter of 2018 increased tenfold compared to the same period of the previous year. In fact, the outstanding nominal volume recorded in June 2018 was five times higher than in June 2017. Therefore, Eurex Clearing now serves about 8 per cent of the global euro-denominated interest rate derivatives market, based on the outstanding nominal volume of OTC interest rate derivatives denominated in euros and published on the websites of Eurex Clearing, LCH and CME (as at 30 June 2018).

Effective 1 April 2018, Eurex revoked the temporary reduction in handling fees for cash collateral provided by clients. Since then, Eurex has been charging fees of 20 basis points on cash collateral. Against this background, interest income, disclosed under the 'Margin fees' item within net revenue of the Eurex segment, increased considerably compared to the same period of the previous year.

First half of 2018

The financial derivatives segment generated double-digit growth rates during the first half of the year. During the first quarter of 2018, Eurex was able to generate growth with equity index derivatives thanks to increased market volatility, while during the second quarter of the year, revenue was boosted mainly by interest rate products. This confirms Eurex's strategy to offer a diversified product range across all asset classes, thereby allowing the exchange to cater to the trading and hedging strategies of market participants considering different macroeconomic influencing factors.

EEX segment (Commodities)

EEX segment (Commodities): key indicators

	Quarter ended			Six months ended		
	30 Jun 2018	30 Jun 2017	Change	30 Jun 2018	30 Jun 2017	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	61.1	51.7	18	122.9	105.3	17
Power spot	17.4	14.7	18	33.9	30.1	13
Power derivatives	19.0	14.2	34	37.1	30.1	23
Gas	7.7	6.8	13	18.6	15.6	19
Other 1)	17.0	16.0	6	33.3	29.5	13
Operating costs	-35.2	-30.3	16	-68.5	-60.9	12
EBITDA	25.9	21.4	21	54.4	44.4	23
EBITDA (adjusted)	27.2	21.6	26	57.1	45.9	24
PERFORMANCE INDICATORS						
Commodities trading volumes at EEX	TWh	TWh	%	TWh	TWh	%
Power spot	147.0	135.8	8	288.4	270.4	7
Power derivatives ²⁾	1,024.0	783.6	31	2,009.2	1,590.6	26
Gas	434.0	432.2	0	959.2	929.1	3

¹⁾ Incl. connectivity, member fees and admission allowance

²⁾ Incl. trading volumes at Nodal Exchange (since May 2017)

Q2/2018

In the EEX segment (Commodities), Deutsche Börse Group reports on the EEX group trading platforms activity, with locations in Europe, Asia and the US. The two most important revenue generators of the commodities segment are the power and gas markets.

EEX Group was able to carry the positive development from the first quarter of 2018 into the second quarter. Growth in the energy spot market was mainly attributable to higher volumes in France. In the power futures market, EEX is increasingly regaining liquidity with its new Phelix-DE Future product tailored to the German market, after volumes plunged in the second quarter of 2017 amid debate concerning the impending split of the German-Austrian price zone. Meanwhile, EEX has almost regained the market share it previously enjoyed with the old product in the joint German-Austrian market. Recovering confidence amongst market participants into the underlying instrument is also reflected by an increase in Phelix options trading by more than 200 per cent. The smaller European power markets of the EEX Group, such as Eastern Europe and the Netherlands, generated strong growth rates during the second quarter of 2018 as well. Development of the US-based Nodal Exchange, acquired by EEX Group in May 2017, was also positive. Faced with an overall declining market, Nodal was able to stabilise its trading volumes, and therefore to improve its market share against the competition.

The development of the gas market during the second quarter of 2018 presented a varied picture: EEX was able to further improve its position as market leader on the spot market, benefiting from its extended network of traders on the PEGAS® platform. However, transaction volumes on the futures market declined; this was apparently due to the revised MiFID II regulation, which dampened trading activity. Overall, EEX Group was able to achieve stable results in the gas business.

On 12 June 2018, the European Cross-Border Intraday Initiative (XBID) was launched – a power market platform developed under the initiative of the European Commission. At year-end 2013, Deutsche Börse had won the tendering process to develop and operate a pan-European intraday power market platform. The four leading European power exchanges involved in XBID – EPEX SPOT, GME, Nord Pool and OMIE – signed a contract with Deutsche Börse AG in June 2015. Launching XBID is an important milestone on the way to an integrated European intraday power market, opening up national markets to competition. During the second quarter of 2018, intraday volumes accounted for about 15 per cent of the total power spot market volume traded at EEX Group.

First half of 2018

Deutsche Börse Group's Commodities segment achieved further growth, both in the power and the gas business, during the first half of 2018. On the power futures market, EEX is on its way to regain the market share it lost in the previous year in the wake of the split of the German-Austrian price zone. The gradual migration of market participants onto new Phelix-DE products is one of the key elements of this process.

360T segment (Foreign Exchange)

360T segment (Foreign Exchange): key indicators

		Quarter ended		Six months ended			
	30 Jun 2018	30 Jun 2017	Change	30 Jun 2018	30 Jun 2017	Change	
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%	
Net revenue	18.5	16.3	13	36.1	32.8	10	
Trading	15.9	13.7	16	30.9	27.7	12	
Other ¹⁾	2.6	2.6	0	5.2	5.1	2	
Operating costs	-14.0	-12.0	17	-25.3	-23.5	8	
EBITDA	4.5	4.3	5	10.8	9.3	16	
EBITDA (adjusted)	8.2	7.1	15	16.1	14.5	11	
PERFORMANCE INDICATORS							
Foreign exchange trading volumes on 360T®	€bn	€bn	%	€bn	€bn	%	
Average daily volume	66.7	62.9	6	64.8	61.0	6	

¹⁾ Incl. connectivity and member fees

Q2/2018

In the 360T segment (Foreign Exchange), Deutsche Börse Group reports on the development of the foreign exchange (FX) trading business executed on the platform of its 360T subsidiary.

In addition to expanding the business by new customers gains, Deutsche Börse Group observed increasing volatility overall, boosting the Group's business development on the foreign exchange market. This was mainly attributable to two factors: (1) the announced and executed interest rate movements of the Fed, as well as the announcement of the ECB to phase out in the medium term its QE programme, and (2) the action taken by the US administration and its repercussions for global trade. Given the increased trading activity amongst all market participants, 360T recorded growth across all product groups. On 27 June 2018, 360T achieved a new record daily trading volume of €108.6 billion. The increase in net revenue was proportionally higher compared to the trading volume – mainly due to the product mix, which featured larger volumes of products with higher margins.

Furthermore, Deutsche Börse reached a definitive agreement to acquire GTX's Electronic Communication Network (ECN) business from GAIN Capital Holdings Inc., for US\$100 million. With the takeover of this US-based ECN platform, 360T has – in a single stroke – expanded its footprint in global foreign exchange trading and its presence in the US market. The acquisition is in line with Deutsche Börse's Roadmap 2020, which is aimed at growing the company's business through add-on acquisitions. This transaction will create one of the largest and most diversified off-exchange foreign exchange markets. With GTX, 360T has won a spot interbank FX platform whose product range and customer base compliment 360T's existing business. The acquisition is expected to be accretive for Deutsche Börse AG's shareholders already during the first year following transaction closing.

At the same time, 360T has achieved progress with various measures to realise revenue synergies. Technological development of a central order book for foreign exchange trading has been concluded; the system has entered its introductory stage. The pilot phase for clearing services for OTC-traded FX transactions is projected to start in the third quarter of 2018. Once the test mode has been completed successfully, market participants will be able to use the Group's clearing services for OTC-traded FX transactions for the first time. The third project comprises the introduction of rolling-spot futures and classic futures contracts, which were rolled out by way of a soft launch at the beginning of June. For 360T, the goal of all three measures over the coming months will be to attract market participants who will use these offers regularly, in order to gradually build liquidity.

First half of 2018

Business development in the Foreign Exchange segment during the first half of 2018 was in line with performance during the second quarter. Against the background of a more favourable foreign exchange market environment, traded volumes rose by 6 per cent, with a slightly higher increase in net revenue, given the product mix.

Xetra segment (Cash Equities)

Xetra segment (Cash Equities): key indicators

	30 Jun 2018	Quarter ended 30 Jun 2017	Change	30 Jun 2018	Six months ended 30 Jun 2017	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	55.5	53.5	4	117.2	106.5	10
Trading an clearing	38.3	36.3	6	81.9	72.1	14
Listing	3.9	3.3	18	7.8	6.5	20
Other ¹⁾	13.3	13.9	-4	27.5	27.9	-1
Operating costs	-28.9	-24.8	17	-54.3	-52.8	3
EBITDA	28.1	30.9	-9	65.9	56.4	17
EBITDA (adjusted)	32.2	32.6	-1	71.4	60.1	19
PERFORMANCE INDICATORS						
Trading volume ²⁾	€bn	€bn	%	€bn	€bn	%
Equities	384.4	325.5	18	813.8	648.9	25
ETF/ETC/ETN	42,2	39,7	6	92,9	77,7	20

¹⁾ Incl. connectivity and member fees

Q2/2018

In the Xetra segment (Cash Equities), Deutsche Börse Group reports on the development of its cash market trading venues (Xetra®, Frankfurt Stock Exchange, and Tradegate). Besides trading and clearing services, Deutsche Börse generates revenue from the admission and listing of securities, from connecting clients to their trading venues, and through services for partner exchanges.

Even though equity market volatility no longer reached the levels seen during the first quarter of 2018, the cash market segment maintained its solid growth, compared to the same period of the previous year. Compared to other European trading platforms, Deutsche Börse Group's trading venues performed very successfully: competing with other pan-European trading venues, Xetra further expanded its position as the reference market for trading in DAX® constituents, and increased its market share to 69 per cent (Q2/2017: 65 per cent). The attractiveness of Xetra exchange trading was also enhanced thanks to T7®, the new trading technology to which Xetra trading migrated in July 2017. T7 offers numerous advantages to clients. Due to fee schedules with rebates, among others, net revenue in securities trading did not quite match the growth rates seen in traded volumes.

Trading volumes of exchange-traded funds (ETFs) also increased year-on-year. Assets under management in ETFs amounted to €570.3 billion (Q2/2017: €452.6 billion), an increase of 26 per cent. The segment's trading volume increased by 5 per cent to €38.0 billion in the second quarter of 2018 (Q2/2017: €36.1 billion). Deutsche Börse thus remains Europe's leading marketplace for ETFs.

Low interest rates and the general market environment further increased demand for Xetra-Gold® – a bearer bond backed by physical gold – as an investment instrument, albeit not quite as dynamically as in the previous year. At the end of the second quarter 2018, 181.4 tonnes of gold were held in custody

²⁾ Single-counted order book turnover at the trading venues Xetra®, Börse Frankfurt and Tradegate

in Deutsche Börse's vaults (30 June 2017: 167.6 tonnes), equivalent to €6.3 billion (30 June 2017: €5.9 billion). Xetra-Gold is the most actively traded security amongst all the exchange-traded commodities (ETCs) available on Xetra: the aggregate order book turnover was approximately €796 million in the second quarter of 2018, representing an ETC market share of 40 per cent.

First half of 2018

During the first six months of the year, traded volumes on Deutsche Börse Group's cash market trading platforms were up 25 per cent year-on-year. The environment for initial public offerings was favourable during the first half of 2018, with 13 IPOs – a level last seen in 2007. In terms of aggregate issue volumes (€7.3 billion), this was the strongest first half for IPOs since 2000. Eleven companies opted for a Prime Standard listing, plus two issuers in the Scale segment for small and medium-sized enterprises. At €4.2 billion, the IPO of Siemens Healthineers AG in March 2018 was the biggest flotation by far. The IPO performance was evidence that Deutsche Börse Venture Network is a working option for growth financing of start-up companies: two of the IPOs during the first half of 2018 involved candidates from the Network.

Clearstream segment (Post-trading)

Clearstream segment (Post-trading): key indicators

	30 Jun 2018	Quarter ended 30 Jun 2017	Change	S 30 Jun 2018	ix months ended 30 Jun 2017	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	180.9	164.4	10	359.6	328.8	9
Custody	96.0	96.3	0	190.7	189.0	1
Settlement	18.1	18.0	1	39.4	41.4	-5
Net interest income from banking business	39.7	25.9	53	73.9	50.0	48
Third party services	10.1	5.1	98	19.4	12.4	56
Other ¹⁾	17.0	19.1	-11	36.2	36.0	1
Operating costs	-84.8	-71.9	18	-149.3	-143.4	4
EBITDA	96.2	92.5	4	210.4	185.4	13
EBITDA (adjusted)	109.3	99.5	10	225.6	201.4	12
PERFORMANCE INDICATORS			%			%
Assets under custody ICSD and CSD (average) (€bn)	11,354	11,234	1	11,255	11,284	0
Settlement transactions ICSD (m)	11.8	10.9	8	24.4	22.0	11
Cash balances (daily average) (€bn)	13.3	14.0	-5	13.1	14.6	-10

¹⁾ Incl. connectivity, account maintenance

Q2/2018

In the Clearstream segment (Post-trading) Deutsche Börse Group reports the settlement and custody businesses as well as net interest income from Clearstream's banking business.

Clearstream migrated the domestic settlement business of its national central securities depositories (CSDs) to ECB's TARGET2-Securities (T2S) platform at the beginning of February 2017. As a consequence of this migration, the segment no longer generates any net revenue from the settlement of domestic transactions. Yet even though Clearstream does not charge any mark-up on ECB settlement fees, it virtually offset the loss of settlement revenue through a new pricing model, adapted to the new T2S environment, and additional services in the CSD business. The value of securities held in custody rose during the second quarter, especially in the CSD business, whereas it remained largely constant in the International Central Securities Depository (ICSD) business. The quantity of international settlement transactions also slightly increased during the second quarter of 2018.

Growth in the second quarter of 2018 was driven, however, by net interest income which Clearstream generates on cash deposits pledged by its clients. In particular, this was due to rising US interest rates, given that around 55 per cent of cash deposits are denominated in US dollars. During the course of this year, the US Federal Reserve has raised its key interest rates twice, most recently in June, to a range between 1.75 per cent and 2.00 per cent.

Business involving regulatory reporting services also increased markedly during the second quarter of 2018. Clearstream offers such regulatory services to market participants and supervisory authorities via REGIS-TR, a joint venture with Spain's Iberclear. Net revenue is recognised in third-party services; it was up 98 per cent all in all.

Five markets migrated to Clearstream's new investor-CSD model for T2S in April 2018: Belgium, France, Italy, Luxembourg, and the Netherlands. Clearstream has thus succeeded in migrating the first truly cross-border volumes onto the ECB's pan-European securities settlement platform. At the same time, Clearstream is the first central securities depository to provide its clients with access to all T2S markets (using central bank money) and to international markets, by way of a comprehensive investor-CSD strategy – and through a single access point. The new model has been rolled out to each market individually; further markets will be connected to T2S over the next months. On this basis, Clearstream anticipates custody volumes of euro-denominated securities to rise over the medium- to long-term.

First half of 2018

Business development in the Clearstream segment for the first half of 2018 showed a similar picture: interest income from the banking business drove a marked increase in net revenue, whilst revenue from the custody and settlement businesses was largely stable.

IFS segment (Investment Fund Services)

IFS segment (Investment Fund Services): key indicators

	Quarter ended			Six months ended			
	30 Jun 2018	30 Jun 2017	Change	30 Jun 2018	30 Jun 2017	Change	
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%	
Net revenue	37.5	32.1	17	76.8	67.2	14	
Custody	16.5	15.0	10	32.5	30.3	7	
Settlement	12.2	10.4	17	25.5	22.3	14	
Other ¹⁾	8.8	6.7	31	18.8	14.6	29	
Operating costs	-26.5	-20.0	33	-47.3	-41.3	15	
EBITDA	11.0	12.0	-8	29.5	25.7	15	
EBITDA (adjusted)	16.2	12.7	28	35.0	27.3	28	
PERFORMANCE INDICATORS			%			%	
Assets under custody (average) (€ trillion)	2,377.9	2,193.7	8	2,381.0	2,159.0	10	
Settlement transactions (m)	6.0	5.6	7	12.6	11.4	11	

¹⁾ Incl. connectivity, order routing, reporting fees

Q2/2018

In the IFS segment (Investment Fund Services), Deutsche Börse Group reports settlement activity and custody volumes of mutual and hedge funds processed by Clearstream. Customers are able to settle and manage their entire fund portfolio via Clearstream's Vestima® fund processing platform.

The value of securities held in custody increased considerably, mainly due to new clients which Clear-stream acquired for its investment fund services – including renowned names such as Banque Internationale à Luxembourg (BIL) and SIX, who chose Clearstream as a strategic partner to consolidate their funds business. Clearstream's Vestima system allows processing of all types of funds – traditional investment funds, ETFs, hedge funds – via a single platform. New clients gradually migrate their fund portfolios to Clearstream: BIL has already migrated its mutual fund holdings and will commence transferring hedge funds as a next step; SIX is looking to start this process in the near future.

The increase in settlement transactions reflected livelier trading activities compared to the previous year, and especially in the international business, as well as trading activity of new clients. Net revenue also rose markedly, in line with the growth in both business drivers.

In order to further expand its fund services offering, Clearstream acquired Swisscanto Funds Centre Ltd, London (SFCL) from Zürcher Kantonalbank. The transaction, involving an amount in the high double-digit million euro range, is expected to close during the fourth quarter of 2018, subject to approval from the relevant authorities. For Deutsche Börse Group, the investment will already be accretive in the first year. Through the transaction, Clearstream has extended its range of fund services, to include the management of distribution agreements as well as data compilation. Over and above SFCL's existing client base, Clearstream will also be able to offer SFCL's range of services to its international clientele. Thanks to this extended offering, Clearstream anticipates low double-digit million euro revenue in this segment, and will also be able to realise synergies in terms of cross-selling.

First half of 2018

As in the second quarter, Clearstream posted double-digit growth rates in its IFS segment for the first half of 2018: both custody volumes and the number of settlement transactions were markedly higher year-on-year – a successful business development which was reflected in the segment's significantly higher net revenue.

GSF segment (Collateral Management)

GSF segment (Collateral Management): key indicators

		Quarter ended				
	30 Jun 2018	30 Jun 2017	Change	30 Jun 2018	30 Jun 2017	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	21.0	19.6	7	40.1	40.7	-1
Repo	10.9	10.2	7	21.5	20.9	3
Securities lending	10.1	9.4	7	18.6	19.8	-6
Operating costs	-12.2	-8.6	42	-21.5	-17.6	22
EBITDA	8.8	11.0	-20	18.6	23.1	-19
EBITDA (adjusted)	11.3	11.4	-1	21.3	24.0	-11
PERFORMANCE INDICATORS	€bn	€bn	%	€bn	€bn	%
Average outstandings from repo	385.8	392.1	-2	375.3	409.6	-8
Average outstandings from securities lending	56.9	62.7	-9	57.4	60.9	-6

Q2/2018

In the GSF segment (Collateral Management), Deutsche Börse Group reports business development at Clearstream's collateral management.

Average outstanding volumes in the repo market was once again down slightly compared to the same period of the previous year; this was due to the fact that financial institutions continue to raise liquidity predominantly via the central bank – as opposed to collateralised money market transactions. However, a slight upward trend has been evident since the beginning of the year. Given that volumes predominantly declined in products yielding lower margins, net revenue in the repo business was up slightly. Profitability of securities lending showed a similar picture: outstanding volumes were down year-on-year, whilst net revenue increased thanks to the product mix.

First half of 2018

Looking at the first half of the year, developments were identical: the segment offset lower volumes in the repo business through its product mix, with a greater share of higher-margin products. Accordingly, net revenue was higher than for the first six months of the previous year. Securities lending volumes also declined slightly. In addition, the segment was unable to offset a non-recurring effect from the first quarter of 2018, despite better second-quarter results: hence, securities lending revenue was down slightly overall.

STOXX segment (Index)

STOXX segment (Index): key indicators

	30 Jun 2018	Quarter ended 30 Jun 2017	Change	30 Jun 2018	Six months ended 30 Jun 2017	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	34.8	35.0	-1	68.6	60.0	14
ETF licences	10.6	11.2	-5	21.7	18.6	17
Exchange licences	7.4	7.7	-4	16.0	15.1	6
Other licences ¹⁾	16.8	16.1	4	30.9	26.3	17
Operating costs	-14.5	-10.2	42	-27.2	-22.6	20
EBITDA	20.3	24.8	-18	41.4	37.4	11
EBITDA (adjusted)	24.1	26.0	-7	47.3	39.9	19
PERFORMANCE INDICATORS	€bn	€bn	%	€bn	€bn	<u></u> %
Assets under management in ETFs on STOXX® indices (average for the period)	84.7	75.7	12	86.5	71.5	21
Assets under management in ETFs on DAX® indices (average for the period)	28.1	28.6	-2	28.6	28.2	1
Index derivatives (traded contracts) (m)	211.8	218.7	-3	446.7	418.2	7

¹⁾ Incl. licences on structured products

Q2/2018

In the STOXX segment (Index), Deutsche Börse Group reports on the development of the index business of its STOXX Ltd. subsidiary. The extensive range of indices offered by STOXX provides issuers with a wealth of opportunities for creating financial instruments for most diverse investment strategies.

ETF licence revenues depend on the assets invested worldwide in exchange traded funds (ETFs) based on STOXX and DAX indices. Assets under management in this segment continued to grow during the second quarter of 2018. Changed accounting standards led to shifts in the recognition of revenue (for details, please refer to note 1 to the consolidated financial statements). Exchange licence revenues depend primarily on the Eurex trading activity in index derivatives on STOXX and Deutsche Börse indices. Given a slight decline in the volume of index contracts traded at Eurex during the second quarter of 2018, net revenue was also down slightly. Conversely, licence revenues from structured products increased; these are reported under revenue from other licences.

With the launch of fixed-income indices focused on liability-driven investing (LDI) during the second quarter of 2018, STOXX is targeting a market with a volume of some GBP 1 trillion. Such indices may serve as independent points of reference for defined-benefit plans; the indices can be used as flexible (and investable) building blocks for LDI portfolios. The methodology applied allows pension insurance schemes to better fine-tune their assets to their liabilities over time. STOXX already introduced a global index based on the so-called Knowledge Graph technology – a concept also used in connection with artificial intelligence – in the first quarter of 2018: the STOXX Al Global Artificial Intelligence Index comprises some 200 companies from various industry sectors which have accumulated intellectual property related to artificial intelligence by way of relevant patents. These sectors include technology, telecommunications, financial services, and internet services. In addition to this IP-based index, STOXX also launched a classic, revenue-based Al index. Once again, STOXX has showcased its innovative strength with these ground-breaking concepts.

First half of 2018

All told, a distinctly strong first quarter and a stable second quarter led to overall growth compared to the first half of 2017: the STOXX segment boosted net revenue for the first six months across all business areas.

Data segment

Data segment: key indicators

	Quarter ended Six months ended					
	30 Jun 2018	30 Jun 2017	Change	30 Jun 2018	30 Jun 2017	Change
FINANCIAL KEY FIGURES	€m	€m	%	€m	€m	%
Net revenue	38.1	38.3	-1	80.7	78.4	3
Cash and derivatives	26.0	26.6	-2	54.5	55.8	-2
Regulatory services	3.2	3.2	0	7.9	5.9	34
Equity derivatives	8.9	8.5	5	18.3	16.7	10
Other ¹⁾	-16.6	-14.3	16	-33.5	-29.0	16
Operating costs	21.5	24.0	-10	47.0	49.4	-5
EBITDA	28.2	27.2	4	54.9	54.9	0
EBITDA (adjusted)						
PERFORMANCE INDICATORS	thousand	thousand	%	thousand	thousand	%
Subscriptions	381.9	441.3	-13	400.4	444.5	-10

¹⁾ Incl. CEF® data services

Q2/2018

In the Data segment, Deutsche Börse Group reports on the development of its business concerning licences for real-time trading and market signals, together with the supply of historical data. The most important products in this respect are order book data from the cash and derivatives markets, as well as reference data of Deutsche Börse and its partner exchanges. Revenue from regulatory services is explicitly disclosed as a secular growth factor.

Net revenue in the Data segment was stable during the second quarter of 2018: a slight decline in business with cash and derivatives markets data was offset by increases in other areas, especially in index data. Net revenue from regulatory services was also in line with the same quarter of the previous year. The Regulatory Reporting Hub, which Deutsche Börse had developed in the previous year, went live at the beginning of January 2018. The Regulatory Reporting Hub offers clients bundled solutions tailored to their reporting requirements in accordance with the revised EU Markets in Financial Instruments Directive (MiFID II).

First half of 2018

Results in the Data segment for the first half of the year were up slightly year-on-year, thanks in particular to regulatory services.

Financial position

Cash flow

Deutsche Börse Group generated cash flows from operating activities before changes in reporting daterelated CCP positions of €558.6 million in the first half of 2018 (H1/2017: €729.2 million).

The decrease in cash flows from operating activities was primarily attributable to non-cash income of €53.7 million (H1/2017: non-cash expense of €45.2 million) and the decrease in working capital by €39.8 million (H1/2017: €113.3 million). The non-cash components are primarily impacted by exchange rate differences and the measurement of financial instruments at fair value.

Deutsche Börse Group made tax payments in the amount of €117.8 million in the first half of 2017 (H1/2017: €102.7 million).

Including the changes in the CCP positions, cash flows from operating activities were €544.8 million (H1/2017: €674.0 million).

Cash outflows from investing activities amounted to €318.5 million in H1/2018 (H1/2017: cash inflow of €970.5 million). The maturity of financial instruments generated cash inflows of €179.8 million. Cash outflows of €318.5 million were due to the acquisition of financial instruments. In the previous year the sale or maturity of financial instruments totalling €1,518.1 million had contributed in particular to cash outflows. Investments in intangible assets and property, plant and equipment amounted to €66.6 million (H1/2017: €67.1 million). In addition, Deutsche Börse Group acquired financial instruments with an original term of more than three months for a total value of €20.2 million (H1/2017: €315.0 million). The acquisition of GAIN Capital Holdings' electronic communication network (ECN) business involved a cash outflow of €86.1 million. In the previous year the acquisition of Nodal Exchange Holdings, LLC by EEX for a purchase price of US\$206.9 million (equivalent to €189.6 million) had involved a cash outflow of €157.5 million.

Cash outflows from financing activities of €625.4 million were recorded in the first half of 2018 (H1/2017: cash outflows of €449.8 million). These were mainly attributable to the €453.3 million dividend payment for financial year 2017 (H1/2017: €439.0 million) as well as share buybacks totalling €164.0 million. Furthermore, Deutsche Börse AG placed a fixed-rate bearer bond of €600 million and repaid bonds maturing in 2018 in the same amount. No commercial paper was issued or repaid on maturity in the first half of 2018.

As a result, cash and cash equivalents as at 30 June 2018 amounted to €183.3 million (30 June 2017: €1,046.1 million). Other cash and bank balances amounted to €1,042.6 million (30 June 2017: 1,415.2 million).

Capital management

The company's clients generally expect it to maintain conservative interest coverage and leverage ratios, and to achieve good credit ratings. Therefore, the Group targets a minimum consolidated interest coverage ratio (defined as the ratio of EBITDA to interest expenses from financing activities) of 16 at Group level. During the first half of 2018, Deutsche Börse Group achieved this target in the first six months of 2018, with an interest service cover ratio of 41.6 (H1/2017: 35.4). This figure is based on relevant interest expenses of €20.8 million and adjusted EBITDA of €863.6 million.

The parameters used to calculate interest coverage include interest expenses for financing Deutsche Börse Group, less interest expenses of Group entities which are also financial institutions – including Clearstream Banking S.A., Clearstream Banking AG and Eurex Clearing AG. Interest expenses unrelated to financing the Group are not taken into consideration for calculating interest coverage.

Moreover, Deutsche Börse Group targets a maximum ratio of interest-bearing gross debt to EBITDA of 1.5 at Group level. During the first half of 2018, the Group achieved a 1.1 ratio of gross debt to EBITDA. This figure is based on gross debt of €1,981.5 million, and adjusted EBITDA of €863.6 million.

Furthermore, the company endeavours to maintain the strong AA credit rating of Clearstream Banking S.A., in order to ensure the long-term success of its Clearstream securities settlement and custody segment. The activities of the Eurex Clearing AG subsidiary also require Deutsche Börse AG to have and maintain a strong credit quality. In its latest rating dated 25 July 2017, S&P affirmed the AA credit rating of Deutsche Börse AG and maintained the stable outlook.

Dividends and share buy-backs

Deutsche Börse Group generally aims to distribute dividends equivalent to between 40 and 60 per cent of adjusted net profit for the period attributable to Deutsche Börse AG shareholders. In recent years (where the Group's net profit was lower), the dividend payout ratio was kept at the upper end of this range, in order to distribute stable dividends to shareholders. Given the expected Group's profit growth, the company aims for a dividend payout ratio in the middle of the range between 40 and 60 per cent going forward.

For financial year 2017, Deutsche Börse AG paid a dividend of €2.45 per no-par value share on 22 May 2018 (2017 for financial year 2016: €2.35). The adjusted distribution ratio was 53 per cent (2017 for financial year 2016: 54 per cent). Given 185.0 million no-par value shares bearing dividend rights, this resulted in a total dividend amount of €453.3 million (2016: €439.0 million). The aggregate number of shares bearing dividend rights is produced by deducting 8.0 million treasury shares from the ordinary share capital of 193.0 million shares.

Furthermore, Deutsche Börse AG completed a share repurchase programme in the first quarter of 2018. The programme with a volume of around €200 million had been launched on 27 November 2017.

Net assets

The following section shows excerpts from the consolidated statement of financial position, describing material changes to net assets. The full consolidated statement of financial position is shown in the consolidated financial statements.

The decline in current assets was largely due to a decrease in financial instruments held by central counterparties. This asset item is matched by a liability item in the same amount.

Non-current liabilities went up, driven mainly by two factors: firstly, financial instruments held by central counterparties increased. This liability item is matched by an asset item in the same amount. Secondly, financial liabilities measured at amortised cost increased, since €599.1 million in bonds maturing in the 2018 financial year were shown under "current liabilities" and, following refinancing in March 2018, are now shown under "non-current liabilities".

Consolidated balance sheet (extract)		
	30 Jun 2018 €m	30 Jun 2017 €m
ASSETS		
Non-current assets	12,160.3	11,836.2
thereof intangible assets	4,146.9	4,103.8
thereof goodwill	2,823.5	2,773.9
thereof other intangible assets	920.4	927.9
thereof financial assets	1,518.2	1,744.5
thereof financial assets measured at amortised cost	1,353.0	-
thereof financial assets available-for-sale (AFS)	-	1,610.2
thereof financial instruments held by central counterparties	6,283.8	5,815.5
Current assets	123,489.9	153,115.3
thereof financial instruments held by central counterparties	75,241.3	105,043.4
thereof restricted bank balances	28,747.1	30,127.5
thereof other cash and bank balances	1,042.6	1,415.2
EQUITY AND LIABILITIES		
Equity	4,808.1	4,585.1
Liabilities	130,842.1	160,366.5
thereof non-current liabilities	9,057.9	8,001.8
thereof financial instruments held by central counterparties	6,283.8	5,815.5
thereof financial liabilities measured at amortised cost	2,287.2	1,687.3
thereof deferred tax liabilities	205.0	228.1
thereof current liabilities	121,784.2	152,364.7
thereof financial liabilities measured at amortised cost	17,460.3	16,664.9
thereof financial instruments held by central counterparties	74,544.1	104,544.0
thereof cash deposits by market participants	28,258.4	30,127.5

Report on post-balance sheet date events

There have been no material events after the balance sheet date.

Risk report

Deutsche Börse Group provides detailed information on its operating environment, strategy, principles, organisation, processes, methods and concepts of its risk management as well as the measures implemented to manage or minimise risks in its § 2017 financial report on pages 88 to 112.

Operational risks for Deutsche Börse Group relate to availability, processing, material goods, as well as litigation and business practice. Further information concerning operational risk and the measures to mitigate them can be found in Deutsche Börse Group's 2017 financial report on pages 98 to 105.

In its 2012 corporate report, Deutsche Börse Group informed about Peterson vs Clearstream Banking S.A., the first Peterson proceeding, initiated by various plaintiffs seeking turnover of certain customer positions held in Clearstream Banking S.A.'s securities omnibus account with its US depository bank, Citibank NA, and asserting direct claims against Clearstream Banking S.A. for damages of US\$250 million. That matter was settled between Clearstream Banking S.A. and the plaintiffs and the direct claims against Clearstream Banking S.A. were abandoned.

In July 2013, the US court ordered turnover of the customer positions to the plaintiffs, ruling that these were owned by Bank Markazi, the Iranian central bank. Bank Markazi appealed, and the decision was affirmed on 9 July 2014 by the Second Circuit Court of Appeals, and then by the US Supreme Court on 20 April 2016. Once the process of distribution of funds to the plaintiffs is complete, a related case, Heiser vs Clearstream Banking S.A., also seeking turnover of the same assets, should be dismissed.

On 30 December 2013, a number of US plaintiffs from the first Peterson case, as well as other plaintiffs, filed a complaint targeting restitution of certain assets that Clearstream Banking S.A. holds as a custodian in Luxembourg. In 2014, the defendants in this action, including Clearstream Banking S.A., moved to dismiss the case. On 19 February 2015, the US court issued a decision granting the defendants' motions and dismissing the lawsuit. The plaintiffs lodged an appeal against this ruling at the competent appeals court (Second Circuit Court of Appeals), which on 21 November 2017 confirmed large portions of the decision of the trial court. Regarding another aspect, the appellate court referred the case back to the court of first instance, which shall assess whether the assets held in Luxembourg are subject to execution in the U.S. In opposition to this point, Clearstream Banking S.A. filed a petition to the US Supreme Court on 8 May 2018.

On 14 October 2016, a number of US plaintiffs filed a complaint naming Clearstream Banking S.A. and other entities as defendants. The complaint in this proceeding, Havlish vs Clearstream Banking S.A., is based on similar assets and allegations as in the Peterson proceedings. The complaint seeks turnover of certain assets that Clearstream Banking S.A. holds as a custodian in Luxembourg. The complaint also asserts direct claims against Clearstream Banking S.A. and other defendants and purports to seek damages of up to approximately US\$6.6 billion plus punitive damages and interest.

On 2 April 2014, Clearstream Banking S.A. was informed that the United States Attorney for the Southern District of New York has opened a grand jury investigation against Clearstream Banking S.A. due to Clearstream Banking S.A.'s conduct with respect to Iran and other countries subject to US sanction laws. Clearstream Banking S.A. is cooperating with the US attorney.

In the context of the ongoing disputes regarding assets of Bank Markazi, Clearstream Banking S.A. was served with a complaint of Bank Markazi on 17 January 2018 naming Banca UBAE S.P.A. and Clear-stream Banking S.A. as defendants. The complaint filed before the Luxembourg courts primarily seeks the restitution of assets of Bank Markazi which the complaint alleges are held on accounts of Banca UBAE S.P.A. and Bank Markazi with Clearstream Banking S.A. totalling approximately US\$ 4.9 billion plus interest. Alternatively, Bank Markazi seeks damages to the same amount. The assets sought include assets to the amount of approximately US\$1.9 billion that were turned over to US plaintiffs pursuant to a 2013 binding and enforceable US court order in a proceeding to which Bank Markazi was a party. The claim also addresses customer assets of approximately US\$2 billion, which include assets that are held at Clearstream Banking S.A. and which are currently subject to US and Luxembourg litigation brought by US plaintiffs, and addresses assets that were previously transferred out of Clearstream Banking S.A. to Banca UBAE S.P.A.

On 15 June 2018, Banca UBAE S.p.A. filed a complaint against Clearstream Banking S.A. in front of the Luxembourg courts. The complaint is a recourse action linked to the complaint that Bank Markazi filed against Clearstream Banking S.A. and Banca UBAE S.p.A. on 17 January 2018 and asks that Banca UBAE S.p.A. be indemnified and held harmless by Clearstream Banking S.A. in case it were to lose in the Bank Markazi complaint and ordered by the court to pay damages to Bank Markazi.

Beginning on 16 July 2010, the liquidators of two investment funds domiciled in the British Virgin Islands and named Fairfield Sentry Ltd. and Fairfield Sigma Ltd. filed complaints in the US Bankruptcy Court for the Southern District New York, asserting claims against more than 300 financial institutions for restitution of redemption payments made to investors of the funds for the redemption of shares in such funds prior to December 2008. On 14 January 2011, the liquidators of such funds asserted claims for restitution against Clearstream Banking S.A. in an amount of USD 13.5 million for redemption payments made by the funds to investors using the settlement system of Clearstream Banking S.A. The proceedings, which were stayed for multiple years, are continuing.

Disputes have arisen regarding a bond issued by MBB Clean Energy AG (MBB), which is held in custody by Clearstream Banking AG. MBB issued a first tranche of the bond in April 2013 and a second tranche of the bond in December 2013. The global certificates for the two tranches of the bond were delivered into Clearstream Banking AG by the paying agent of the issuer. The disputes relate to the non-payment of the bond and the purported lack of validity of the bond. Clearstream Banking AG's role in the context of the purported lack of validity of the MBB bond is primarily to safekeep the global certificate as national central securities depository. Insolvency proceedings have meanwhile been opened in respect of the issuer, MBB.

In September 2017, Clearstream Banking AG and Clearstream Banking S.A. were made aware that the Public Prosecutor's Office in Cologne had initiated proceedings for tax evasion against an employee of Clearstream Banking AG for his alleged involvement in the settlement of transactions of market participants over dividend date (cum/ex transactions). On 22 January 2018, the public Public Prosecutor's Office in Cologne addressed to Clearstream Banking AG a notification of hearing Clearstream Banking AG and Clearstream Banking S.A. as potential secondary participants (Nebenbeteiligte). Due to the early stage of the investigations, it is not possible to predict timing, scope or consequences of a potential decision. The companies are cooperating with the competent authorities.

On 1 February 2017, Deutsche Börse AG announced that the public prosecutor's office in Frankfurt/Main was investigating Deutsche Börse AG in respect of a share purchase by its former Chief Executive Officer Carsten Kengeter which was carried out on 14 December 2015, in implementation of the Executive Board's remuneration programme as approved by the Supervisory Board of Deutsche Börse AG. On 18 July 2017, the public prosecutor's office in Frankfurt/Main issued a notification of hearing to Deutsche Börse AG. According to this notification of hearing, the public prosecutor's office intends to formally involve the company in the ongoing investigation proceedings against Carsten Kengeter. In the notification of hearing, the public prosecutor, with regard to the company, held out the prospect that two fines totalling €10.5 million could be imposed on Deutsche Börse AG in accordance with section 30 of the Gesetz über Ordnungswidrigkeiten (OWiG, German Act on Regulatory Offences) due to an alleged violation of the insider trading prohibition in December 2015 and an alleged failure to disclose an adhoc announcement in January 2016. On 13 September 2017, Deutsche Börse AG's Executive Board and Supervisory Board decided to accept the fine which would potentially be imposed by the competent local court (Amtsgericht). On 23 October 2017, however, the local court of Frankfurt am Main refused to approve the closure of the investigation proceedings against the former Chief Executive Officer of Deutsche Börse AG, Carsten Kengeter, subject to conditions in the form of payment of €500,000, as applied for by the public prosecutor. In light of the significance of the proceedings the court considers it appropriate to continue the investigation proceedings at this time. The further investigations could lead from a closure of the proceedings due to lack of adequate suspicion to an indictment. The court has returned the matter, both as relates to the investigation proceedings against Carsten Kengeter as well as to potential actions against Deutsche Börse AG, to the public prosecutor which will now decide upon further procedural steps. On 26 October 2017, Carsten Kengeter informed the Supervisory Board of Deutsche Börse AG that he would like to step down as the company's Chief Executive Officer with effect from 31 December 2017. The Supervisory Board accepted this request. Following expert consultation, Deutsche Börse AG continues to believe the allegations made are unfounded in all respects.

In addition to the matters described above and in prior disclosures, Deutsche Börse Group is from time to time involved in various legal proceedings that arise in the ordinary course of its business. Deutsche Börse Group recognises provisions for litigation and regulatory matters when it has a present obligation from an event in the past, an outflow of resources with economic benefit to settle the obligation is probable and it is possible to reliably estimate the amount. In such cases, there may be an exposure to loss in excess of the amounts accrued. When these conditions are not met, Deutsche Börse Group does not recognise a provision. As a litigation or regulatory matter develops, Deutsche Börse Group evaluates on an ongoing basis whether the requirements to recognise a provision are met. Deutsche Börse Group may not be able to predict what the eventual loss or range of loss related to such matters will be. Deutsche Börse Group does not believe, based on currently available information, that the results of any of these various proceedings will have a material adverse effect on its financial statements as a whole.

Deutsche Börse Group is exposed to financial risks mainly in the form of credit risk and liquidity risk in the financial institutions of the Clearstream Holding group and Eurex Clearing AG. In addition, the Group's cash investments and receivables are subject to credit risk. The majority of cash investments involve short-term transactions that are collateralised, thus minimising liquidity risk as well as market price risk from cash investments. Market price risk is immaterial for the entire Group. Further information on financial risks can be found on pages 105 to 111 of the 2017 financial report.

Business risk reflects the sensitivity of the Group to macroeconomic developments and its vulnerability to event risk, such as regulatory initiatives or changes in the competitive environment. In addition, it includes the Group's strategic risk, which relates to the impact of risk on the business strategy and any resulting adjustment to the strategy. Furthermore, external factors such as a lack of investor confidence in the financial markets may impact financial performance. Further information concerning business risks can be found on page 111 of the 2017 financial report.

Currently, the Group is pursuing several major projects. These are constantly monitored to identify risks at an early stage and enable appropriate countermeasures to be taken. Further information concerning project risks can be found in the <u>§</u> 2017 financial report on pages 111 to 112.

The Group evaluates its risk situation on an ongoing basis. Taking into account the stress test calculations performed, the required economic capital and earnings at risk as well as the risk management system, which it considers to be effective, the Executive Board of Deutsche Börse AG is of the opinion that the risk-bearing capacity of the Group is sufficient. A significant change in the Group's risk profile described in the the 2017 financial report cannot be identified by the Executive Board at present.

Report on opportunities

Deutsche Börse Group's management of opportunities aims to identify and assess opportunities as early as possible and to initiate appropriate measures in order to take advantage of opportunities and transform them into business success. At present, the Executive Board cannot identify any significant change in the Group's opportunities that were described in detail in the 2017 corporate report on pages 114 to 119. The implementation of products and services identified as growth opportunities is based on the "Roadmap 2020" growth strategy, which was announced in 2018 (see report on the economic positon).

Report on expected developments

The report on expected developments describes how Deutsche Börse Group is expected to perform in financial year 2018. It contains statements and information on events in the future. These forward-looking statements and information are based on the company's expectations and assumptions at the time of publication of this report. In turn, these are subject to known and unknown opportunities, risks and uncertainties. Numerous factors influence the Group's success, its business strategy and financial results. Many of these factors are outside the company's control. Should opportunities, risks, or uncertainties materialise or one of the assumptions made turn out to be incorrect, the actual development of the Group could deviate either positively or negatively from the expectations and assumptions contained in the forward-looking statements and information contained in this report on expected developments.

Deutsche Börse Group is not planning any fundamental change to its operating policies in the coming years.

Development of results of operations

For the remainder of financial year 2018, Deutsche Börse Group does not expect any material deviation from the forecasts for its operating environment made in its § 2017 consolidated financial statements.

In financial year 2018, Deutsche Börse Group expects net revenue growth of at least 5 per cent from secular opportunities as well as from the success of new products and functionalities. At the same time, the Group expects the cyclical economic environment to develop in such a way that net revenue will not decrease, at least, in those business areas that depend on cyclical factors.

Net revenue was up by approximately 11 per cent during the first half of 2018. With an increase of around 7 per cent, net revenue from secular factors slightly exceeded the Group's expectations, whilst cyclical factors – in a market environment that was favourable overall – contributed around 4 per cent to overall net revenue growth. In addition, consolidation effects contributed net revenue growth to a small extent.

Within the scope of its growth strategy, Deutsche Börse Group furthermore pursues specific principles for managing operating costs. The core element of these principles is to ensure the scalability of the Group's business model. To this end, the Group continuously manages operating costs adjusted for exceptional items relative to the development of net revenue. As at the publication date of this combined management report, the company expects that operating costs will be affected by exceptional items of some €80 million which have already been forecast in the 2017 annual report. The majority of these effects is attributable to the integration of acquired companies, but also due to efficiency measures, restructuring and costs incurred in connection with criminal proceedings against Clearstream Banking S.A. in the US. Furthermore, in connection with its "Roadmap 2020" strategy programme, the Group announced at the end of April 2018 that it will reduce structural costs by approximately €100 million per annum by the end of 2020. In this context, the company anticipates additional one-off costs of some €200 million, of which around €150 million will be incurred in 2018. Consequently, Deutsche Börse Group now expects exceptional items of some €230 million in total for FY 2018.

Given the expected increase in net revenue driven by secular factors of at least 5 per cent, and further given the scalability of the Group's business model and its efficient cost management, the Group anticipates a growth rate of at least 10 per cent (excluding exceptional items) for net profit for the period attributable to Deutsche Börse AG shareholders and thus confirms its forecast for the financial year 2018.

The assumptions on which the forecast is based, together with the reconciliation of net revenue and operating costs (incl. depreciation and amortisation), are set out on pages 119 to 126 of the 2017 financial report.

Development of the Group's financial position

The company expects cash flows from operating activities to remain clearly positive in the future; these are Deutsche Börse Group's main financing instrument. In the period under review, the company plans to invest amounts of around €180 million per year in intangible assets and property at Group level. The investments will serve primarily to develop new products and services in the Eurex and Clear-stream segments and enhance existing ones. The total mainly comprises investments in the trading infrastructure and risk management functionalities. In addition, the Group announced that it would implement two share repurchase programmes of €200 million each. The first programme was launched at the end of November 2017, and was completed at the end of March 2018. The second programme will be completed by the end of 2018 at the latest.

Within the framework of a programme to optimise its capital structure, Deutsche Börse Group generally aims to distribute dividends equivalent to between 40 and 60 per cent of adjusted net profit for the period, attributable to Deutsche Börse AG's shareholders. In recent years (where the Group's net profit was lower), the dividend payout ratio was kept at the upper end of this range, in order to preserve a stable distribution to shareholders. In connection with the expected earnings growth, the company aims for a dividend payout ratio in the middle of the range between 40 and 60 per cent going forward.

To maintain its strong credit ratings at Group level, the company aims at a ratio of interest-bearing gross debt to EBITDA of no more than 1.5. The Group expects to slightly come below this figure in 2018.

Consolidated income statement

for the period 1 January to 30 June 2018

	Note	30 Jun 2018	Quarter ended 30 Jun 2017 (restated)	30 Jun 2018	Six months ended 30 Jun 2017 (restated)	
		€m	(restated) €m	€m	(restateu) €m	
Sales revenue		719.5	665.8	1,452.7	1,332.2	
Net interest income from banking business		55.0	33.5	95.9	63.4	
Other operating income		3.3	6.7	8.3	12.9	
Total revenue		777.8	706.0	1,556.9	1,408.5	
Volume-related costs		-90.8	-82.4	-178.3	-161.5	
Net revenue (total revenue less volume-related costs)		687.0	623.6	1,378.6	1,247.0	
Staff costs —		-199.9	-162.7	-374.0	-316.7	
Other operating expenses	5	-117.3	-108.7	-218.2	-228.3	
Operating costs ¹⁾		-317.2	-271.4	-592.2	-545.0	
Net income from strategic investments		1.4	1.6	2.4	119.2	
Earnings before interest, tax, depreciation and amortisation (EBITDA)		371.2	353.8	788.8	821.2	
Depreciation, amortisation and impairment losses		-58.4	-39.6	-99.7	-75.5	
Earnings before interest and tax (EBIT)		312.8	314.2	689.1	745.7	
Financial income		0.6	0.5	5.6	2.9	
Financial expense		-17.2	-18.6	-38.5	-39.3	
Earnings before tax (EBT)		296.2	296.1	656.2	709.3	
Other tax		-0.1	-0.3	-0.4	-0.7	
Income tax expense		-79.9	-115.4	-183.2	-241.9	
Net profit for the period		216.2	180.4	472.6	466.7	
thereof attributable to Deutsche Börse AG shareholders		210.3	176.3	459.3	456.4	
thereof attributable to non-controlling interests		5.9	4.1	13.3	10.3	
				0.4-		
Earnings per share (basic) (€)		1.13	0.94	2.47	2.44	
Earnings per share (diluted) (€)		1.13	0.94	2.47	2.44	

¹⁾ Since the second quarter of 2017, operating costs have contained staff costs and other operating expenses; depreciation, amortisation and impairment losses are disclosed separately. Prior-year figures have been adjusted accordingly.

Consolidated statement of comprehensive income

for the period 1 January to 30 June 2018

	Note	30 Jun 2018 €m	Quarter ended 30 Jun 2017 (restated) €m	30 Jun 2018 €m	Six months ended 30 Jun 2017 (restated) €m
Net profit for the period reported in consolidated income statement		216.2	180.4	472.6	466.7
Items that will not be reclassified to profit or loss:	8				
Changes from defined benefit obligations		-1.7	-1.1	-0.6	24.7
Equity investments measured at fair value through other comprehensive income		4.0	_	-1.1	-
Deferred taxes		-0.3	0.3	-0.4	-6.7
		2.0	-0.8	-2.1	18.0
Items that may be reclassified subsequently to profit or loss:	8				
Exchange rate differences		11.6	-14.3	0.8	-12.4
Other income from investments accounted for using the equity method		0.3	-0.2	-4.4	0.8
Remeasurement of cash flow hedges		-2.4	-1.6	-1.0	-1.9
Remeasurement of other financial instruments		-	4.4	-	-82.1
Deferred taxes		-1.0	3.1	0.7	45.0
		8.5	-8.6	-3.9	-50.6
Other comprehensive income after tax		10.5	-9.4	-6.0	-32.6
Total comprehensive income		226.7	171.0	466.6	434.1
thereof Deutsche Börse AG shareholders		218.5	170.4	452.2	426.9
thereof non-controlling interests		8.2	0.6	14.4	7.2

Consolidated balance sheet

as at 30 June 2018

Assets					
	Note	30 Jun 2018	1 Jan 2018	31 Dec 2017 (restated)	30 Jun 2017 (restated)
		€m	€m	€m	€m
NON-CURRENT ASSETS					
Intangible assets	6				
Software		362.4	322.1	322.1	315.5
Goodwill		2,823.5	2,770.9	2,770.9	2,773.9
Payments on account and construction in progress		40.6	86.8	86.8	86.5
Other intangible assets		920.4	911.2	911.2	927.9
		4,146.9	4,091.0	4,091.0	4,103.8
Property, plant and equipment	6				
Fixtures and fittings		31.9	34.8	34.8	35.2
Computer hardware, operating and office equipment		75.1	76.4	76.4	74.2
Payments on account and construction in progress		5.6	2.2	2.2	1.6
		112.6	113.4	113.4	111.0
Financial assets	7				
Investments in associates and joint ventures		37.6	38.7	38.7	35.5
Equity investments measured at FVOCI		109.9	101.6	_	-
Financial assets measured at amortised cost		1,353.0	1,574.1		-
Financial assets at fair value through profit or loss (FVPL)		17.7	15.9	_	_
Derivatives		0	0.1		_
Available-for-sale equity investments (AFS)		_		99.4	93.0
Financial assets available-for-sale (AFS)		_		1,592.6	1,610.2
Financial assets at fair value through profit or loss (Fair value option)		-		1.2	0
Derivatives (held for trading)		_		0.1	0.1
Loans and receivables		_		4.9	5.7
		1,518.2	1,730.4	1,736.9	1,744.5
Financial instruments of the central counterparties		6,283.8	4,837.2	4,837.2	5,815.5
Other non-current assets		4.1	4.1	4.1	4.1
Deferred tax assets		94.7	101.4	101.1	57.3
Total non-current assets		12,160.3	10,877.5	10,883.7	11,836.2
CURRENT ASSETS					
Receivables and other current assets					
Financial instruments of the central counterparties		75,241.3	79,510.7	79,510.7	105,043.4
Financial assets measured at amortised cost		17,488.1	13,172.6	0	0
Financial assets at fair value through profit or loss (FVPL)		0	1.5	0	0
Derivatives		64.6	5.2	5.2	0.9
Financial assets available-for-sale (AFS)		0	0	254.5	351.2
Loans and receivables		0		12,922.8	15,472.3
Trade receivables		355.0	330.9	329.4	494.7
Receivables from related parties		1.0	2.5	2.5	1.1
Income tax receivables		93.3	91.3	91.3	106.2
Other current assets		456.9	451.7	451.7	102.9
		93,700.2	93,566.4	93,568.1	121,572.7
Restricted bank balances		28,747.1	29,392.0	29,392.0	30,127.5
Other cash and bank balances		1,042.6	1,297.6	1,297.6	1,415.2
Total current assets		123,489.9	124,256.0	124,257.7	153,115.4
Total assets	11	135,650.2	135,133.5	135,141.4	164,951.6

	Note	30 Jun 2018	1 Jan 2018	31 Dec 2017	30 Jun 2017
				(restated)	(restated)
		€m	€m	€m	€m
EQUITY	8				
Subscribed capital		193.0	193.0	193.0	193.0
Share premium		1,332.3	1,332.3	1,332.3	1,327.8
Treasury shares		-498.6	-334.6	-334.6	-311.4
Revaluation surplus		10.6	13.4	19.6	18.8
Accumulated profit		3,638.6	3,632.0	3,631.0	3,229.5
Shareholders' equity		4,675.9	4,836.1	4,841.3	4,457.7
Non-controlling interests		132.2	118.1	118.1	127.4
Total equity		4,808.1	4,954.2	4,959.4	4,585.1
NON-CURRENT LIABILITIES					
Provisions for pensions and other employee benefits	9	156.4	144.2	144.2	149.3
Other non-current provisions		122.6	120.3	120.3	114.0
Deferred tax liabilities		205.0	225.4	226.8	228.1
Financial liabilities measured at amortised cost		2,282.7	1,689.7	1,688.4	1,687.3
Financial liabilities at fair value through profit or loss (FVPL)		0.9	0.8	0.8	0.2
Derivatives		0	0	0	1.5
Financial instruments of the central counterparties		6,283.8	4,837.2	4,837.2	5,815.5
Other non-current liabilities		6.5	6.1	6.1	5.9
Total non-current liabilities		9,057.9	7,023.7	7,023.8	8,001.8
CURRENT LIABILITIES					
Tax provisions		399.0	339.4	339.4	349.3
Other current provisions		189.9	191.6	191.6	139.1
Financial instruments of the central counterparties		74,544.1	78,798.6	78,798.6	104,544.0
Financial liabilities measured at amortised cost		17,460.3	13,975.9	13,975.9	16,664.9
Financial liabilities measured at fair value through profit or loss		0	0.3	0	0
Derivatives		2.5	29.1	32.0	93.6
Trade payables		115.1	148.9	148.9	270.5
Liabilities to related parties		1.0	1.5	1.5	1.1
Cash deposits by market participants		28,568.4	29,215.3	29,215.3	30,127.5
Other current liabilities		503.9	455.0	455.0	174.7
Total current liabilities		121,784.2	123,155.6	123,158.2	152,364.7
Total liabilities		130,842.1	130,179.3	130,182.0	160,366.5
וטנמו וומטווונוכט		130,042.1	130,179.3	130,102.0	100,300.5
Total equity and liabilities	11	135,650.2	135,133.5	135,141.4	164,951.6

Consolidated cash flow statement

for the period 1 January to 30 June 2018

		Six months ended	
	Note	30 Jun 2018	30 Jun 2017
		€m	€m
Net profit for the period		472.6	466.7
Depreciation, amortisation and impairment losses	6	99.7	75.5
Increase in non-current provisions		13.9	3.1
Deferred tax (income)/expense	8	-13.6	24.0
Other non-cash (income)/expense		-53.7	45.2
Changes in working capital, net of non-cash items:		39.8	113.3
(Increase)/decrease in receivables and other assets		-66.4	141.4
Increase/(decrease) in current liabilities		106.5	-27.8
Decrease in non-current liabilities		-0.3	-0.3
Net (gain)/loss on disposal of non-current assets		-0.1	1.4
Cash flows from operating activities excluding CCP positions		558.6	729.2
Changes from liabilities from CCP positions		14.4	-440.1
Changes in receivables from CCP positions		-28.2	384.9
Cash flows from operating activities		544.8	674.0
Payments to acquire intangible assets		-46.4	-49.0
Payments to acquire property, plant and equipment		-20.2	-18.1
Payments to acquire non-current financial instruments		-20.2	-315.0
Payments to acquire investments in associates and joint ventures		-0.5	-8.0
Payments resulting from business combinations, net of cash acquired		-86.1	-157.5
Net decrease/(increase) in current receivables and securities from banking business			
with an original term greater than three months		-318.5	909.8
Proceeds from disposals of non-current financial instruments		179.8	608.3
Cash flows from investing activities		-312.1	970.5

		s	Six months ended		
	Note	30 Jun 2018	30 Jun 2017		
		€m	€m		
Purchase of treasury shares		-164.0	0		
Payments to non-controlling interests		-0.5	-10.8		
Repayment of long-term financing		-600.0	0		
Proceeds from long-term financing		592.4	0		
Dividends paid		-453.3	-439.0		
Cash flows from financing activities		-625.4	-449.8		
Net change in cash and cash equivalents		-392.7	1,194.7		
Effect of exchange rate differences		-4.2	-1.7		
Cash and cash equivalents as at beginning of period		580.2	-146.9		
Cash and cash equivalents as at end of period	13	183.3	1,046.1		
Additional information to payments reflected within cash flows from operating activities:					
Interest income and other similar income		218.7	179.5		
Dividends received		3.9	4.3		
Interest paid		-157.9	-148.2		
Income tax paid		-117.8	-102.7		

Consolidated statement of changes in equity

for the period 1 January to 30 June 2018

	Attributable to shareholders of Deutsche Börse AG			
	Subscribed capital €m	Share premium €m	Treasury shares €m	
Balance as at 1 January 2017	193.0	1,326.0	-311.4	
Net profit for the period	0	0	0	
Other comprehensive income after tax	0	0	0	
Total comprehensive income	0	0	0	
Exchange rate differences and other adjustments	0	0	0	
Changes due to capital increases/decreases	0	0	0	
Acquisition of the interest of non-controlling shareholders in European Energy Exchange Exchange AG	0	0	0	
Dividends paid	0	0	0	
Transactions with shareholders	0	1.8	0	
Balance as at 30 June 2017	193.0	1,327.8	-311.4	
Balance as at 1 January 2018	193.0	1,332.3	-334.6	
Profit for the period	0	0	0	
Other comprehensive income	0	0	0	
Total comprehensive income	0	0	0	
Exchange rate differences and other adjustments	0		0	
Purchase of treasury shares	0	0	-164.0	
Changes due to capital increases/decreases	0	0	0	
Dividends paid	0	0	0	
Transactions with shareholders	0	0	-164.0	
Balance as at 30 June 2018	193.0	1,332.3	-498.6	

		Attributable to shareholders of Deutsche Börse AG					
Total equity €m	Non- controlling interests €m	Shareholders' equity €m	Accumulated profit €m	Revaluation surplus €m			
4,623.2	142.2	4,481.0	3,230.1	41.5			
466.7	10.3	456.4	456.4	0			
-32.6	-3.1	-29.5	-6.8	-22.7			
434.1	7.2	426.9	449.6	-22.7			
-4.4	0.3	-4.7	-4.7				
-29.6	-29.6		0				
0.8	7.3	-6.5	-6.5				
-439.0	0	-439.0	-439.0				
-472.2	-22.0	-450.2	-450.2				
4,585.1	127.4	4,457.7	3,229.5	18.8			
4.054.2	118.1	4,836.1	2 622 0				
4,954.2			3,632.0				
<u>472.6</u> -6.0	13.3	<u>459.3</u> –7.1	459.3 -4.3				
466.6	14.4	452.2	-4.3 455.0	-2.8			
100.0	<u> </u>	102.2					
5.1	0.2	4.9	4.9	0			
-164.0	0	-164.0	0	0			
-0.5	-0.5	0	0	0			
-453.3	0	-453.3	-453.3	0			
-612.7	-0.3	-612.4	-448.4	0			
4,808.1	132.2	4,675.9	3,638.6	10.6			

Notes to the interim financial statements

Basis of preparation

1. Accounting policies

Deutsche Börse AG ("the company") is incorporated as a German public limited company ("börsennotierte Kapitalgesellschaft") and is domiciled in Germany. The company's registered office is in Frankfurt/Main.

The interim financial statements have been prepared in compliance with the International Financial Reporting Standards (IFRSs) and the related interpretations issued by the Financial Reporting Standards Interpretations Committee (IFRIC), as adopted by the European Union in accordance with Regulation No. 1606/2002 of the European Parliament and of the Council on the application of International Accounting Standards.

In addition to the standards and interpretations applied as at 31 December 2017, the following standards and interpretations were applied for the first time as at 1 January 2018:

- Amendments to IFRS 2 "Classification and Measurement of Share-Based Payments"
- IFRS 9 "Financial Instruments" (July 2014) and Amendments to IFRS 9 Regarding Prepayment Features with Negative Compensation (October 2017); for details, please refer to the ⊡ "Changes in accounting policies" section.
- IFRS 15 "Revenue from Contracts with Customers" (May 2014, plus clarification dated April 2016); for details, please refer to the 🖸 "Changes in accounting policies" section.
- Amendments to IAS 40 "Transfers of Investment Property" (December 2016)
- Amendments resulting from the "Annual Improvements Project 2014–2016" (December 2016)
- IFRIC 22 "Foreign Currency Transactions and Advance Consideration" (December 2016)

Deutsche Börse Group applied IFRS 9 "Financial Instruments" and IFRS 15 "Revenue from Contracts with Customers". In accordance with the transitional provisions set out in IFRS 9 (7.2.15) and (7.2.26) as well as in IFRS 15.C3 (b), comparative figures have not been restated.

The changes in accounting policies and methods resulting from the first-time adoption of IFRS 9 and IFRS 15 are described below. For further details on the impact on Deutsche Börse AG's consolidated financial statements, see \bigcirc note 2.

The other amended standards mentioned above did not have any impact on the Group's accounting policies and did not require retrospective adjustments.

Furthermore, IAS 34 ("Interim Financial Reporting") was applied. The income tax expense for the interim reporting period was calculated using a forecast effective Group tax rate of 27 per cent. The nominal tax rates used when calculating the Group tax rate ranged between 12.5 and 36 per cent. Deferred tax assets were recognised for tax loss carry-forwards at the end of the interim reporting period where these can be expected to be realised within the next five tax periods.

39

In accordance with the provisions of the Wertpapierhandelsgesetz (WpHG, German Securities Trading Act), these interim financial statements are supplemented by a Group interim management report. Both parts of the report were subject to a review by the external auditors ("prüferische Durchsicht").

New accounting standards - not yet implemented

IFRS 16 "Leases" (January 2016)

As described in the \(\mathbb{L} \) corporate report 2017, Deutsche B\(\mathbb{G} \) see AG as lessee expects a material impact on its consolidated balance sheet as at 1 January 2019 from the first-time application of the new leasing standard. As a result of the recognition of right-of-use assets and the corresponding lease liabilities, total assets are expected to increase as at the date of conversion by a mid-range three-digit million euro amount. The main part is attributable to long-term contracts for office space and data centres.

Moreover, the splitting of previous rental or lease expenses is expected to result in shifts in the consolidated income statement from the line item "other operating expenses" to the line items "depreciation, amortisation and impairment losses" and "financial expense" amounting to a double-digit million euro sum. This is expected to improve EBITDA. The precise impacts are highly dependent on the contract portfolio at the time of first-time application and the execution of options on a case-by-case basis under the modified retrospective approach.

Changes in accounting policies

Changes resulting from the first-time application of IFRS 9

Financial assets: recognition and derecognition

Financial assets are recognised when a Group company becomes a party to the contractual provisions of the instrument. Regular way purchases and sales of financial assets are generally recognised and derecognised at the trade date. Purchases and sales of debt instruments classified as "at amortised cost" and of equities eligible for clearing via the central counterparties (CCPs) of Deutsche Börse Group are recognised and derecognised at the settlement date.

Financial assets are derecognised when the contractual rights to the cash flows expire or when substantially all risks and rewards of ownership of the financial assets are transferred.

Financial assets: measurement

Since 1 January 2018, the Group has classified its financial assets according to the following measurement categories:

- fair value (through other comprehensive income or through profit or loss)
- amortised cost

The classification depends on the entity's business model for managing the financial assets and contractual terms of the cash flows.

For assets measured at fair value, gains and losses will be recognised in profit or loss or in other comprehensive income. For investments in debt instruments, the recognition method will depend on the business model according to which the investment is held. For investments in equity instruments that are not held for trading, this will depend on whether Deutsche Börse Group made an irrevocable decision at the time of initial recognition to account for the equity investment at fair value through other comprehensive income.

The Group reclassifies debt instruments when – and only when – its business model for managing those assets changes.

Financial assets: initial measurement

At initial recognition, Deutsche Börse Group measures a financial asset at its fair value through profit or loss. In the case of financial assets measured through other comprehensive income, measurement also takes into account transaction costs that are directly attributable to the acquisition of the respective asset. Transaction costs of financial assets carried at fair value through profit or loss are recognised in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

Financial assets: subsequent measurement of debt instruments

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and cash flow characteristics of the respective assets. There are three measurement categories to which the Group may allocate its debt instruments:

- Amortised cost: Assets held for collection of contractual cash flows, where those cash flows represent solely payments of principal and interest, are measured at amortised cost. A gain or loss on a debt instrument that is subsequently measured at amortised cost is recognised through profit or loss when the asset is derecognised or impaired. Interest income from these financial assets is included in financial income or in net interest income from banking business using the effective interest rate method. Foreign-exchange gains and losses are shown in other income or expenses or in financial income or expense.
- Fair value through other comprehensive income (FVOCI): Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Changes in the carrying amount are shown in other comprehensive income. An exception to this rule is the recognition of impairment gains or losses, interest revenue and foreign-exchange gains and losses which are recognised in profit or loss. When a financial asset is derecognised, the cumulative gain or loss previously recognised in other comprehensive income is reclassified from equity to profit or loss and recognised in other operating income or expenses. Interest income from these financial assets would be included in financial income or in net interest income from banking business using the effective interest rate method. Foreign-exchange gains and losses are presented in other income or expense or in financial income or expense. Impairment expenses are shown in other operating expenses. The Group did not follow the business model to hold and to sell in the reporting period. Accordingly, no debt instruments were classified at FVOCI.

• Fair value through profit or loss (FVPL): Assets that do not meet the criteria for a measurement at amortised cost or at FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL and not part of a hedging relationship is recognised in profit or loss and included as a net amount in the consolidated income statement within net income from strategic investments in the period in which it arises.

Financial assets: subsequent measurement of equity instruments

Deutsche Börse Group subsequently measures all equity investments at fair value. Where the Group's management opted for presenting fair value gains and losses on equity investments in other comprehensive income, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments are recognised in profit or loss as net income from strategic investments when the Group's right to receive payments is established.

Changes in the fair value of financial assets measured at fair value through profit or loss are recognised in net income from strategic investments in the consolidated income statement as applicable.

Impairment losses (and reversal of impairment losses) on equity investments measured at FVOCI are not reported separately from other changes in fair value.

As at the reporting date, Deutsche Börse Group has designated all equity instruments as at fair value through other comprehensive income.

Impairment

The Group assesses the expected credit losses associated with its debt instruments carried at amortised cost or at FVOCI on a forward-looking basis. The impairment is measured based on an amount equal to twelve-month expected losses or lifetime expected losses at Deutsche Börse Group. The impairment methodology applied depends on whether there has been a significant increase in credit risk. A loss allowance equal to twelve-month expected losses is recognised unless the credit risk on a financial instrument has increased significantly since initial recognition.

In accordance with IFRS 9, a default is assumed and a transfer to stage 3 is required when a financial asset is credit-impaired, i.e. when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Deutsche Börse Group has identified the following triggers to identify an event of default and which cause a transfer to stage 3 accordingly:

- Legal default: a contractual partner is unable to fulfil its contractual obligation according to an agreement with Deutsche Börse Group due to insolvency/bankruptcy.
- Contractual default: a contractual partner is unable or unwilling to fulfil, in a timely manner, one or more of its scheduled contractual obligations according to an agreement with Deutsche Börse Group. The non-fulfilment of the contractual obligation could potentially result in a financial loss for Deutsche Börse Group.

IFRS 9 sets out that a default is to be assumed if a debtor is past due for more than 90 days. This is only used as a fallback at Deutsche Börse Group, as the company expects to identify a debtor's default based on the above-mentioned criteria at an earlier point in time. For trade receivables, a default is assumed for amounts which are overdue for more than 360 days.

Financial assets are considered to have low credit risk if listed bonds and other financial investments or counterparties have an investment-grade credit rating. For financial assets with a low credit risk rating, a twelve-month expected loss is calculated.

For trade receivables, the Group applies the simplified approach permitted by IFRS 9, which requires lifetime expected losses to be recognised from initial recognition of the receivables.

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and demand deposits as well as financial assets that are readily convertible into cash. They are subject to only minor changes in value. Cash and cash equivalents are measured at amortised cost.

Restricted bank balances mainly include cash deposits by market participants that are invested largely overnight, mainly at central banks or in the form of reverse repurchase agreements with banks.

Derivatives and hedging activities since 1 January 2018

Derivatives are initially recognised at fair value on the date a derivatives contract is entered into and are subsequently re-measured at their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivatives contract is designated as a hedging instrument.

The Group designates currency or interest rate derivatives as hedges of foreign-exchange risk associated with the cash flows of highly probable forecast transactions and of interest rate swaps if required as hedges of interest rate risk associated with the expected issuance of fixed interest rate bonds in the future (both cash flow hedges).

Deutsche Börse Group has not entered into fair value hedges in 2017 or 2018.

At the inception of the hedging transaction, the Group documents the economic relationship between hedging instruments and hedged items including whether the hedging instrument is expected to offset changes in cash flows of hedged items. The Group also documents its risk management objective and strategy for undertaking various hedge transactions at that point in time.

The fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than twelve months; it is classified as a current asset or liability when the remaining maturity of the hedged item does not exceed twelve months.

Cash flow hedges that qualify for hedge accounting

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income, limited to the cumulative change in fair value of the hedged item on a present value basis from the inception of the hedge. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss, within net interest income from banking business or within financial income or expense.

Amounts accumulated in other comprehensive income are reclassified in the periods when the hedged item affects profit or loss, as follows:

- The amount accumulated in the cash flow hedge reserve is reclassified to profit or loss as a reclassification adjustment in the same period or periods during which the hedged future cash flows affect profit or loss. If that amount is a loss and Deutsche Börse Group expects that the entirety or a portion of that loss will not be recovered in one or more future periods, it immediately reclassifies the amount that is not expected to be recovered into profit or loss as a reclassification adjustment.
- The gain or loss relating to the effective portion of the interest rate-related instruments hedging fixed-rate borrowings is recognised in profit or loss within "financial expenses".

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, the Group discontinues hedge accounting. When the forecast transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately reclassified to profit or loss.

Hedge ineffectiveness is recognised in profit or loss within net interest income from banking business or financial income or expenses.

Hedges of a net investment in a foreign operation

The portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognised in other comprehensive income. It is recognised in profit or loss when the foreign operation is sold. The ineffective portion of the gain or loss on the hedging instrument is recognised immediately in the consolidated income statement.

Changes resulting from the first-time application of IFRS 15

Deutsche Börse Group applied IFRS 15 "Revenue from Contracts with Customers" as issued in May 2014 and the corresponding clarifications as issued in April 2016. IFRS 15 replaces the following standards and interpretations on revenue recognition:

- IAS 11 "Construction Contracts"
- IAS 18 "Revenue"
- IFRIC 13 "Customer Loyalty Programmes"
- IFRIC 15 "Agreements for the Construction of Real Estate"
- IFRIC 18 "Transfers of Assets from Customers"
- SIC-31 "Revenue Barter Transactions Involving Advertising Services"

In accordance with the transition provisions set out in IFRS 15, Deutsche Börse Group has adopted the new accounting policies according to the modified retrospective approach.

The accounting treatment of the most important performance obligations of Deutsche Börse Group's segments is described below:

Eurex (financial derivatives)

Deutsche Börse Group operates one of the leading global derivatives exchanges as well as one of the leading clearing houses. Revenue in the derivatives business is generated primarily from fees that are charged for transactions with regard to the matching/registration, administration and regulation of order book and off-book transactions on Eurex Deutschland. Additionally, there are connectivity fees. Fees as well as any reductions due to discounts and rebates are specified in price lists and circulars. Rebates depend mainly on monthly volumes or the monthly fulfilment of liquidity provisioning obligations in certain products or product groups.

Fees are also collected for clearing and settlement services of off-exchange (over-the-counter, OTC) derivatives. Revenue in OTC derivatives is generated primarily from booking and maintenance fees. Fees for these transactions and the related discounts and rebates are also specified in price lists and circulars of Eurex Clearing AG.

Revenue for transactions in listed derivatives is recognised as soon as contracts are matched/registered and there is no unfulfilled obligation towards the customer. A receivable is recognised when the promised service is transferred at a point in time and the consideration being unconditional with only the passage of time being required before the payment is due. Transaction fees are invoiced on a monthly basis and are payable when invoiced. As rebates are mainly granted on a monthly basis, there is no need to recognise a contract liability. In general, the invoiced payments are directly debited from the clearing member and, consequently, no financing component exists.

OTC booking fees are recognised at novation on a monthly basis. A receivable is recognised when the promised service is transferred at a point in time and the consideration being unconditional with only the passage of time being required before the payment is due. OTC maintenance fees are recognised over time due to the fact that the service is provided until the transaction is closed or terminated, or has matured. A receivable is recognised monthly based on the usage within the respective month, assumed the respective position is still open at month end. In general the invoiced payments are directly debited from the clearing member and consequently no financing component exists.

Deutsche Börse Group offers a whole range of connectivity options to the trading and clearing platforms. The customer simultaneously receives and consumes the benefits by the entity's performance as the entity performs during the contract term. As the smallest reporting period is on par with the contract term of one month, the measurement of progress equals 100 per cent. Revenue is generally recognised monthly as the fees are billed. Revenue from connectivity services is presented in line item "other" (please see $\ensuremath{\,\square\,}$ note 15).

EEX (commodities)

The EEX segment operates the central marketplace for energy and other commodity products. Its product portfolio comprises contracts on power, natural gas and emission allowances as well as freight rates and agricultural products. Revenue is generated primarily from fees that are charged for exchange trading and clearing of commodity products. Transaction fees as well as any reductions due to discounts and rebates are specified in the price list. Monthly rebates such as volume or liquidity provisioning rebates depend on monthly overall volumes or the monthly fulfilment of liquidity provisioning obligations.

Revenue is recognised as soon as contracts are matched/registered and there is no unfulfilled obligation towards the customer. The service has been fulfilled at this point in time. A receivable is recognised when the promised service is transferred at a point in time and the consideration being unconditional with only the passage of time being required before the payment is due. The majority of invoiced payments is directly debited from the clearing member and, consequently, no financing component exists.

360T (foreign exchange)

Via 360T group, the segment operates TEX, one of the biggest independent global multibank and multi-product trading platforms. 360T is one of the largest providers of execution services in the global foreign-exchange market. It generates commission income from transaction fees and access fees payable for the usage of TEX. It also generates revenues from fees for using technology solutions such as I-Tex, installation fees for the onboarding of customers on TEX, user set-up fees, as well as the programming and maintenance of necessary interfaces.

Revenue from transaction fees is recognised at the point in time when the promised services are transferred to the customer which is as soon as the parties agree on the terms of the deal. Revenue for using the platform as well as maintenance is recognised over time (by time elapsed).

Access fees, transaction fees as well as I-Tex fees contain different discount schedules over a one-month period and are invoiced on a monthly basis, payable within 21 days. Installation fees and user set-up fees are one-off fees. Maintenance is charged on an annual basis.

Xetra (cash equities)

Securities that are to be listed on the regulated market on Frankfurter Wertpapierbörse (FWB, the Frankfurt Stock Exchange) generally require admission and introduction or inclusion by the Management Board of FWB. As the operator of the public stock exchange, Deutsche Börse AG charges levies for these services (admission, introduction, inclusion and listing) in the regulated market. The services can be clearly separated in terms of their content, legally as well as factually and are therefore treated as distinct performance obligations.

For admission, introduction and inclusion, revenue is recognised when the service is transferred and the customer obtains control of that asset. This is the point in time when the Management Board decides on the admission or the security is listed initially. A receivable is recognised when the service is delivered as it is the point in time that the consideration is unconditional because only the passage of time is required before payment is due. Customers are invoiced on a quarterly basis and consideration is payable when invoiced.

For contracts relating to structured products two annual caps apply to the inclusion fees in the Open Market. Before the first cap has been reached, issuers pay a fixed price per inclusion. After that cap, there are caps depending on the number of inclusions and total amount of fees, which limit the fees per calendar year and issuer. In accordance with IFRS 15, revenue is deferred over the contract term. Each month's revenue is estimated for each issuer based on its average number of inclusions over the last twelve months.

Listing fees are levied for the activity of all bodies of FWB, which supervise the trading and the settlement of trades as well as ensure the proper functioning of all trading activities (permanent possibility to make use of the stock exchange). The listing fee is a recurring fee, which is charged for a service that is delivered over time. Accordingly, the revenues are realised when the customer benefits from the service (allocation over the contract term).

For trading contracts of cash market products as well as connectivity services the same accounting treatment as described within the Eurex segment applies for the Xetra segment.

Clearstream (post-trading)

Clearstream provides post-trading infrastructure and services; it offers safekeeping, transaction settlement services, administration and custody of securities.

Customers of safekeeping services simultaneously receive and consume the benefits by the entity's performance as the entity performs during the contract term. Revenue from administration of securities, settlement and custody services is recognised when the promised service is transferred to the customer. This occurs when instructions are received and the transactions are processed. The service has been fulfilled at this point in time.

Revenue is recognised based on the price specified in the fee schedule as well as reduced by the corresponding rebates. Customers are invoiced on a monthly basis and consideration is payable when invoiced. In accordance with the general terms and conditions the customer authorises direct debiting and consequently no financing component has been identified.

IFS (investment fund services)

The segment provides services to standardise fund processing and to increase efficiency and safety in the investment fund sector. The services offered comprise order routing, settlement and asset administration as well as custody services.

Revenue is recognised when the promised service is transferred to the customer. This occurs when instructions are received and the transactions are processed. The service has been fulfilled at this point in time.

Revenue is recognised based on the price specified in the price list as well as reduced by the corresponding rebates. Customers are invoiced on a monthly basis and consideration is payable when invoiced. In accordance with the general terms and conditions the customer authorises direct debiting and consequently no financing component has been identified.

GSF (collateral management)

Via Clearstream, Deutsche Börse Group provides a comprehensive range of global securities financing (GSF) services with the two most prominent being collateral management and securities lending services. A customer of collateral management services simultaneously receives and consumes the benefits provided by the company's performance.

Revenue is recognised with the progress towards satisfaction of collateral management services. The securities lending service obligation is performed at a point in time.

STOXX (index)

STOXX is Deutsche Börse Group's global index provider that calculates and distributes a comprehensive index family. Its offering ranges from blue-chip to benchmark to strategy to sustainability to smart-beta indices. The Group generates revenue from calculating and merchandising indices, which financial market participants use as underlyings for financial instruments or as a benchmark for the performance of investment funds. A customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs during the contract term. Revenue for index licences is based on fixed payments, variable payments (usage-based volumes; mostly assets under management), or a combination of the two.

For variable payments, customers report their usage, and fees are charged in the quarter after usage; monthly estimates are recognised. This is determined either based on the customer's average usage of the last twelve months adjusted by current developments in the markets or based on the real data in the markets on customer level. Estimates of revenues are revised if circumstances change, and increases or decreases in estimated revenues are reflected in the consolidated income statement in the period in which the circumstances that give rise to the revision become known by management.

For two fee components (minimum fee and usage-based fee), a contract liability is recognised and reduced each month based on the usage that has been recognised each month. Customers are invoiced on a quarterly basis and consideration is payable when invoiced.

Data

Market participants subscribe to real-time trading and market signals, or licence it for their own use, processing, or dissemination. The customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs during the contract term. Customers report their usage, and fees are charged in the month after usage; monthly estimates are recognised. This is determined based on the trend of the preceding months. Estimates of revenues are revised if circumstances change, and increases or decreases in estimated revenues are reflected in the consolidated income statement in the period in which the circumstances that give rise to the revision become known by management.

Revenue is recognised based on the price specified in the price list. Customers are invoiced on a monthly basis and consideration is payable when invoiced.

Presentation of contract assets and contract liabilities

Changes resulting from the first-time application of IFRS 15 relate to contract assets and contract liabilities. Deutsche Börse Group has changed the presentation of certain amounts in the consolidated balance sheet to reflect the terminology of IFRS 9 and IFRS 15. Contractual items that have not been performed in full are to be presented as "contract assets"; they were previously presented as part of "trade receivables and other current receivables". "Contract liabilities (current and non-current)" were previously presented as "other current liabilities".

Further changes

To enhance transparency in reporting, expenses for staff training, food and drinks have been reported in staff costs with effect from 1 January 2018. To date, these costs were included in other operating expenses. The reclassification amounts to approximately €1.0 million per month; comparative figures were adjusted accordingly.

Changes in estimates with regards to defined benefit obligations

On 20 July 2018, Heubeck AG published new mortality tables for Germany taking into account the most recent statistics of Statistisches Bundesamt (German Federal Statistical Office) and the German statutory pension insurance. The new mortality tables are generally expected to increase the German defined pension obligations by about 1.5 to 2.5 per cent with a respective reduction of the revaluation surplus. Deutsche Boerse Group did not yet apply the new mortality tables.

2. Changes in accounting policies

Impact resulting from the first-time adoption of IFRS 9 "Financial instruments"

Deutsche Börse Group has adopted IFRS 9 as at 1 January 2018 resulting in changes in accounting policies and adjustments to the amounts recognised in the financial statements. Furthermore, the Group amended the presentation of its consolidated balance sheet to increase transparency for the financial instruments by showing most of the measurement categories of IFRS 9 on the face of the consolidated balance sheet.

Changes in measurement categories									
Financial assets	Loans and receivables €m	Available- for-sale €m	FVPL (FV option) €m	Amortised cost €m	FVPL (mandatory) €m	FVOCI €m			
Balance as at 31 Dec 2017 - IAS 39	12,927.7	1,946.5	1.2	0	0	0			
Reclassify equity investments from available-for-sale to fair value through other comprehensive income	0	-99.4	0	0	0	99.4			
Reclassify financial assets from available-for-sale to at amortised cost	0	-1,832.0	0	1,832.0	0	0			
Reclassify financial assets from available-for-sale to fair value through profit or loss (mandatory)	0	-15.1	0	0	15.1	0			
Reclassify financial assets from loans and receivables to at amortised cost	-12,923.6	0	0	12,923.6	0	0			
Reclassify financial assets from loans and receivables to fair value through profit or loss (mandatory)	-4.1	0	0	0	4.1	0			
Reclassify financial assets at fair value through profit or loss (fair value option) to fair value through profit or loss (mandatory)	0	0	-1.2	0	1.2	0			
Balance as at 1 Jan 2018 – IFRS 9	0	0	0	14,755.6	20.4	99.4			

The total impact on Deutsche Börse Group's accumulated profit and revaluation reserve due to classification and measurement of financial instruments, as well as the first-time adoption of IFRS 15 "Revenue from contracts with customers" as at 1 January 2018 is as follows:

1	0	tal	li	mp	act	on	De	ut	scl	ne	Böı	rse	Gro	oup	's	equ	ity	

	Revaluation reserve €m	Accumulated profit €m
Closing balance as at 31 Dec 2017 – IAS 39 / IAS 18	19.6	3,631.0
Reclassification of equity investments from available for sale to fair value through other comprehensive income	2.2	0
Reclassification of debt investments from available for sale to at amortised cost	-8.6	0
Reclassification of financial assets from available for sale to fair value through profit or loss	-2.0	1.6
Change in provision for trade receivables	0	1.5
Change in provision for debt investments at amortised cost	0	-0.3
Recognition of deferred tax asset	1.0	-0.7
Recognition of deferred tax liability	1.2	-0.1
Adjustment due to adoption of IFRS 9 on 1 Jan 2018	-6.2	2.0
Recognition of contract liability	0	-1.4
Recognition of deferred tax asset	0	0.4
Adjustment due to adoption of IFRS 15 on 1 Jan 2018	0	-1.0
Opening balance as at 1 Jan 2018 – IFRS 9 / IFRS 15	13.4	3,632.0

Reclassification of equity instruments from available for sale to fair value through other comprehensive income (FVOCI)

Equity instruments categorised as available for sale (€99.4 million) had been presented in other equity investments until 31 December 2017. Since 1 January 2018, they have been shown within the "equity investments measured at fair value through other comprehensive income (FVOCI)" line item.

All equity instruments recognised as at 1 January 2018 are designated as at FVOCI by Deutsche Börse Group.

Under IAS 39, equity instruments for which no active market existed and for which no alternative valuation methods could be applied, had been measured at cost. Deutsche Börse Group developed valuation models to calculate the fair values for these financial assets leading to an increase of €2.2 million in the amounts shown under "equity investments measured at fair value through other comprehensive income (FVOCI)".

Reclassification of debt instruments from available for sale to amortised cost

The management of Deutsche Börse Group assessed the business model for the financial assets classified as available for sale under IAS 39 as at 1 January 2018.

Following the analysis, debt instruments complying with the criteria to solely represent payments of principal and interest and following the business model "to hold" have been classified to the category "at amortised cost" and are shown in the "financial assets measured at amortised cost" line item. In 2017, these instruments had been shown as non-current and current receivables and securities from

banking business ($\[mathebox{\@scale}1,563.0$ million and $\[mathebox{\@scale}254.5$ million, respectively) and as other non-current financial instruments ($\[mathebox{\@scale}14.5$ million). Related fair value gains amounting to $\[mathebox{\@scale}8.6$ million were derecognised from other comprehensive income and from the related financial assets as at 1 January 2018.

Reclassification of debt instruments from available for sale to financial assets at fair value through profit or loss (FVPL)

Debt instruments that do not meet the criteria to be classified as "at amortised cost" in accordance with IFRS 9 because their cash flows do not represent solely payments of principal and interest, were reclassified to financial assets at fair value through profit or loss ($\[\in \]$ 15.1 million). As Deutsche Börse Group applied the "at cost" exemption under IAS 39 for instruments without active market, the revaluation at fair value led to a reduction of $\[\in \]$ 0.4 million in accumulated profit. Furthermore, the measurement of financial instruments at FVPL led to a reduction of $\[\in \]$ 2.0 million of the revaluation surplus and an increase of accumulated profit in the same amount. These financial instruments were already measured at fair value before adoption of IFRS 9.

Change in provision for trade receivables

For trade receivables, Deutsche Börse Group applies the simplified approach to calculate the expected credit losses, which requires the use of the lifetime expected loss provision for all trade receivables. The transfer from the incurred loss model of IAS 39 to the expected loss model of IFRS 9 reduced the impairment charges for trade receivables by epsilon1.5 million and increased retained earnings accordingly.

Change in provision for debt instruments at amortised cost

Debt investments at armortised cost are considered to be generally low risk, and thus the impairment provision is determined as twelve-months expected credit loss. The expected loss calculated as at 1 January 2018 amounted to €0.3 million reducing retained earnings accordingly.

Change in deferred tax assets

The impact on the deferred taxes is mainly driven by the reclassifications of financial instruments measured at available for sale under IAS 39 to "amortised cost" under IFRS 9.

Impact resulting from the first-time adoption of IFRS 15

Recognition of contract liabilities

Scale prices for consistent service provision exist. Therefore, the average will be calculated and used as a basis for the recognition of the annual revenue. Due to the fact that a higher consideration is levied to the customer in the first years than the performance is provided, a contract liability has to be recognised and will be straightlined until the end of the contract.

3. Basis of consolidation

On 29 June 2018, Deutsche Börse Group acquired GTX's Electronic Communications Network (ECN) business from GAIN Capital Holdings, Inc., Bedminster, USA. Within the scope of the transaction, 360 Treasury Systems AG, Frankfurt/Main, Germany, (a wholly-owned subsidiary of Deutsche Börse AG) established 360TGTX, Inc., New York City, USA, which acquired the business at a purchase price of US\$100.1 million, by way of an asset deal. This transaction will create one of the world's largest and most diversified off-exchange foreign-exchange (FX) markets. 360T and GTX currently offer foreign-exchange solutions to more than 2,000 clients in 75 countries. Deutsche Börse Group has consolidated the business activities of 360TGTX for the first time as at 29 June 2018. Based on the purchase price allocation (which was preliminary as at the reporting date), this has yielded the following effects:

Goodwill resulting from the business combination of GTX ECN business

	Preliminary goodwill calculation 29 Jun 2018 €m
Consideration transferred	
Purchase price in cash	86.1
Total consideration	86.1
Acquired assets and liabilities	
Customer relationships	20.4
Trade names	0.3
Software	11.9
Other non-current assets	0.4
Other short-term assets less liabilities	2.3
Total assets and liabilities acquired	35.3
Goodwill	50.8

Goodwill resulting from the transaction largely reflects expected cost and revenue synergies.

On 23 April 2018, Clearstream International S.A., Luxembourg, signed an agreement for the full acquisition of Swisscanto Funds Centre Ltd., London, United Kingdom (SFCL). The transaction, involving a high double-digit million euro amount, is expected to close during the fourth quarter of 2018, subject to approval from the competent regulatory authorities. At present, SCFL is a wholly-owned subsidiary of Swisscanto Holding AG, Zurich, Switzerland, a group company of Zürcher Kantonalbank Group, Zurich, Switzerland. With this transaction, the Investment Fund Services (IFS) segment has extended its range of services, to include the management of distribution agreements as well as data compilation.

4. Seasonal influences and valuations

The Group's revenues are influenced more by the volatility and the transaction volumes on the capital markets than by seasonal factors. Owing to a concentration of costs for projects only coming to completion in the fourth quarter, costs in the fourth quarter tend to be higher than in the first three quarters of the financial year.

Consolidated income statement disclosures

5. Other operating expenses

Composition of other operating expenses

		Quarter ended 30 Jun 2017	:	Six months ended 30 Jun 2017
	30 Jun 2018	(restated)	30 Jun 2018	(restated)
	€m	€m	€m	€m
Costs for IT service providers and other consulting services	35.2	30.6	63.8	79.2
IT costs	29.5	22.8	56.8	46.7
Premises expenses	22.1	18.1	39.7	35.3
Non-recoverable input tax	8.5	10.7	17.2	20.2
Travel, entertainment and corporate hospitality expenses	6.1	5.4	10.5	11.1
Advertising and marketing costs	4.5	4.1	8.6	7.6
Non-wage labour costs and voluntary social benefits	1.9	1.1	3.1	2.2
Insurance premiums, contributions and fees	4.1	3.8	7.5	7
Cost of agency agreements	0	0.9	0.2	1.8
Supervisory Board remuneration	1	0.5	2	1.4
Expense due to exchange rate differences	0.5	-0.1	0.5	0
Miscellaneous	3.9	10.8	8.3	15.8
Total	117.3	108.7	218.2	228.3

Costs for IT service providers and other consulting services relate mainly to expenses in connection with software development. These costs also contain costs of strategic and legal consulting services as well as of audit activities. As at 1 January 2018, staff-related costs in connection with training, food and beverage have been included in staff costs to enhance transparency. Before, these costs were included in other operating expenses. The reclassification amounts to approximately €1.0 million a month; comparative figures have been adjusted accordingly.

Consolidated balance sheet disclosures

6. Intangible assets and property, plant and equipment

As at 30 June 2018, intangible assets amounted to €4,146.9 million (31 December 2017: €4,091.0 million).

This item primarily consists of goodwill in the amount of €2,823.5 million (31 December 2017: €2,770.9 million), other intangible assets (licences, trade names and customer relationships) in the amount of €920.4 million (31 December 2017: €911.2 million), as well as internally developed software in the amount of €316.8 million (31 December 2017: €285.5 million).

The €52.6 million increase in goodwill was predominantly attributable to the first-time consolidation of the GTX ECN business (€50.8 million; please refer to 🖪 note 3 for details regarding this transaction) as well as positive currency translation effects of €1.8 million.

The €9.2 million increase in other intangible assets was driven in particular by changes to the basis of consolidation, as described above (see \boxdot note 3), contributing €20.7 million, as well as positive currency translation effects of €2.2 million. This was partly offset by amortisation in the amount of €13.7 million.

The increase of internally developed software in the amount of $\[mathebox{\@iffered}{\mathfrak{S}}1.3\]$ million was primarily due to reclassifications from payments on account and construction in progress ($\[mathebox{\@iffered}{\mathfrak{S}}7.7\]$ million. This was partly offset by amortisation in the amount of $\[mathebox{\@iffered}{\mathfrak{S}}3.5\]$ million and an impairment loss of $\[mathebox{\@iffered}{\mathfrak{S}}1.7\]$ million which, together with a $\[mathebox{\@iffered}{\mathfrak{S}}3.2\]$ million impairment loss on intangible assets under development, relate to the carrying amount of the Regulatory Reporting Hub platform. This is due to the fact that changed requirements necessitated significant adjustment to the platform. The amounts are reported under "Depreciation, amortisation and impairment losses" and relate to the Data segment. The recoverable amount was measured at fair value less costs of disposal, using a discounted cash flow model (level 3 inputs).

Property, plant and equipment totalled €112.6 million as at 30 June 2018 (31 December 2017: €113.4 million).

7. Financial assets

Financial assets totalled \in 1,518.2 million as at 30 June 2018 (1 January 2018: \in 1,730.4 million). The decline of \in 221.1 million is attributable to debt instruments measured at amortised cost. Debt instruments with a fair value of \in 232.3 million will mature within the next year and are thus classified as current.

8. Equity

In financial year 2018, equity decreased by $\$ 151.3 million to $\$ 4,808.1 million (31 December 2017: $\$ 4,959.4 million). It includes net profit for the period attributable to Deutsche Börse AG shareholders of $\$ 459.3 million and the dividend in the amount of $\$ 453.3 million distributed by Deutsche Börse AG that had an offsetting effect.

As a result of the purchase of treasury shares, equity was reduced by €164.0 million.

Non-controlling interests increased by €14.1 million in the reporting period.

9. Pension provisions

Pension provisions are measured using the projected unit credit method in accordance with IAS 19 on the basis of actuarial reports. As at 30 June 2018, the discount rate for pension plans and other employee benefits was 1.80 per cent in Germany and Luxembourg (31 December 2017: 1.80 per cent; 30 June 2017: 1.90 per cent); in Switzerland, the discount rate used was unchanged as against yearend 2017, at 0.70 per cent (30 June 2017: 0.60 per cent).

10. Financial liabilities measured at amortised cost

The euro bonds issued by Deutsche Börse AG have a carrying amount of €2,281.6 million (31 December 2017: €2,288.1 million) and a fair value of €2,435.1 million (31 December 2017: €2,451.5 million). They are recognised under "Financial liabilities measured at amortised cost".

At the end of the first quarter of 2018, Deutsche Börse AG issued a corporate bond with a nominal volume of €600 million. The bond has a term of ten years and an annual coupon of 1.125 per cent. It serves to refinance the €600 million nominal volume of the bond, which expired at the end of the first quarter of 2018.

11. Total assets

The decline in consolidated total assets by €10.4 billion to €135.7 billion as at 30 June 2018 (31 March 2018: €146.1 billion) depends to a significant extent on the financial instruments of the central counterparties, receivables and liabilities from banking business as well as cash deposits by market participants. The level of these items can vary widely on a daily basis according to customers' needs and actions.

12. Fair value hierarchy

Financial assets and liabilities that are measured at fair value are allocated to the following three hierarchy levels: financial assets and liabilities are allocated to level 1 if there is a quoted price for identical assets and liabilities in an active market that can be accessed by the entity. They are allocated to level 2 if the inputs on which fair value measurement is based are observable either directly or indirectly; these inputs must be based on market expectations. Financial assets and liabilities are allocated to level 3 if the fair value is determined on the basis of unobservable inputs.

As at 30 June 2018, financial assets and liabilities measured at fair value according to IFRS 9 were allocated to the hierarchy levels 1 to 3 as follows:

Fair value hierarchy

rall value illeratory				
	Fair value as at 30 Jun 2018	thereof attributabl		
	€m	Level 1 €m	Level 2 €m	Level 3 €m
Recurring fair value measurements				
ASSETS				
Financial assets measured at fair value through other comprehensive income				
Equity investments measured at fair value through other comprehensive income	109.9	26.9	0	83.0
Financial assets measured at fair value through profit or loss (FVPL)				
Non-current financial assets measured at fair value through profit or loss	17.7	9.8	0	7.9
Non-current financial instruments held by central counterparties	6,283.8	0	6,283.8	0
Current financial instruments hof the central counterparties	75,241.3	0	75,241.3	0
Current derivatives	64.6	0	64.6	0
Total	81,607.4	9.8	81,589.7	7.9
Total assets	81,717.3	36.7	81,589.7	90.9
LIABILITIES				
Financial liabilities measured at fair value through profit or loss (FVPL)				
Non-current financial liabilities ar fair value through profit or loss (FVPL)	-0.9	0	0	-0.9
Non-current financial instruments of the central counterparties	-6,283.8	0	-6,283.8	0
Current financial instruments held by central counterparties	-74,544.1	0	-74,544.1	0
Current derivatives	-2.5	0	-2.5	0
Total liabilities	-80,831.3	0	-80,830.4	-0.9

As at 30 June 2017, financial assets and liabilities measured at fair value according to IAS 39 were allocated to the hierarchy levels 1 to 3 as follows:

Fair value hierarchy				
	Fair value as at 30 Jun 2017			
	€m	Level 1 €m	Level 2 €m	Level 3 €m
Recurrently carried at fair value				
ASSETS				
Financial assets available for sale				
Equity investments available for sale	45.9	39.3	0	6.6
Non-current financial assets available for sale	1,606.1	1,606.1	0	0
Current financial assets available for sale	351.2	351.2	0	0
Total	2,003.2	1,996.6	0	6.6
Financial assets held for trading				
Non-current financial instruments of the central counterparties	5,815.5	0	5,815.5	0
Current financial instruments of the central counterparties	104,934.7	0	104,934.7	0
Non-current derivatives	0.1	0	0	0.1
Current derivatives	0.8	0	0.8	0
Total	110,751.1	0	110,751.0	0.1
Total assets	112,754.3	1,996.6	110,751.0	6.7
LIABILITIES	-	·		
Financial liabilities held for trading	-			
Non-current financial liabilities ar fair value through profit or loss (FVPL)	-0.2	0	0	-0.2
Non-current financial instruments of the central counterparties	-5,815.5	0	-5,815.5	0
Current financial instruments of the central counterparties	-104,435.3	0	-104,435.3	0
Non-current derivates	-1.5	0	0	-1.5
Current derivatives	-93.6	0	-91.7	-1.9
Total liabilities	-110,346.1	0	-110,342.5	-3.6

The derivatives listed in level 2 relate to forward foreign exchange transactions. The fair value of the forward foreign exchange transactions is determined on the basis of the forward foreign exchange rates for the remaining period to maturity as at the balance sheet date.

The fair value of the financial instruments held by central counterparties allocated to level 2 is determined by market transactions for identical or similar assets in markets that are not active and by option pricing models based on observable market prices.

As at the balance sheet date, the items allocated to level 3 and their measurements were as follows:

Development of financial instruments in level 3

	Assets			Liabilities					
	Equity investments measured at fair value through OCI €m	Non-current financial assets measured at fair value through profit or loss €m	Non-current derivatives €m	Current financial assets measured at fair value through profit or loss €m	Non-current financial liabilities ar fair value through profit or loss (FVPL) €m	Non-current financial instruments held by central counterparties €m	€m		
Balance as at 1 Jan 2018	67.8	5.9	0.1	1.5	-0.8	-0.3	74.2		
·									
Additions	13.5	1.6	0	0	0	0	15.1		
Diposals	-0.2	-0.1	0	-1.5	0	0.3	-1.5		
Unrealised capital gains recognised in income	0	0.5	-0.1	0	-0.1	0	0.3		
Unrealised FX gains/(losses)	0.4	0	0	0	0	0	0.4		
Changes recognised in the revaluation surplus	1.5	0	0	0	0	0	1.5		
Balance as at 30 Jun 2018	83.0	7.9	0	0	-0.9	0	90.0		

The value of level 3 investments is reviewed on a quarterly basis, using internal valuation models. During the first half of 2018, fair value measurement resulted in positive effects of $\[\in \]$ 3.4 million and negative effects of $\[\in \]$ 1.9 million, both recognised directly in equity.

Long-term financial instruments carried at fair value through profit or loss include investment fund units: fair value measurement is based on the net asset value determined by the issuer, and yielded positive effects of €0.4 million recognised in income. This item also comprises a convertible bond and a convertible loan, whose market values are determined using internal valuation models. The fair value of these two financial instruments was unchanged as at 30 June 2018, at €2.3 million.

The fair value of a call option included in long-term derivatives was derived from a Black Scholes model based on unobservable market data. The fair value stood at nil as at the reporting date, yielding an unrealised loss of €0.1 million recognised in income.

The financial instrument reported under "short-term financial instruments at fair value through profit or loss" at the beginning of 2018 matured during the first half of 2018; as a result, €1.5 million was derecognised.

At the beginning of the 2018 financial year, "non-current financial liabilities at fair value through profit or loss (FVPL)" comprised two contingent purchase price components in the aggregate amount of €0.8 million. During the period under review, reassessment of the probability that such components would be utilised resulted in unrealised losses of €0.1 million, recognised in income. These two purchase price components are measured on the basis of internal discounted cash flow models, which discount the expected future payment obligations to the measurement date, using interest rates appropriate to the risk.

Changes in "Current financial liabilities at fair value through profit or loss (FVPL)" resulted from a disbursement of €0.3 million.

The fair values of other financial assets and liabilities not measured at fair value are derived as follows:

The bonds issued by Deutsche Börse Group have a fair value of €2,435.1 million (31 December 2017: €2,451.5 million) and are disclosed under interest-bearing liabilities. The fair value of such instruments is based on the debt instruments' quoted prices. Hence, debt instruments were allocated to level 2.

Debt instruments held as investments by Deutsche Börse Group have a fair value of €1,671.6 million. They are recognised as part of debt instruments measured at amortised cost.

The carrying amounts of the following items represent a reasonable approximation of their fair value:

- Other loans and other financial assets reported under long-term debt instruments carried at amortised cost
- Other financial assets reported under short-term financial instruments carried at amortised cost
- Restricted bank balances
- Cash and other bank balances
- Cash deposits by market participants
- Other financial liabilities reported under long-term financial liabilities carried at amortised cost

Other disclosures

13. Reconciliation to cash and cash equivalents

Reconciliation to cash and cash equivalents		
	30 Jun 2018 €m	1 Jan 2018 €m
Restricted bank balances	28,747.1	29,392.0
Other cash and bank balances	1,042.6	1,297.6
Financial instruments of the central counterparties (netted)	697.2	712.1
	30,486.9	31,401.7
Reconciliation to cash and cash equivalents		
Current financials assets measured at amortised cost	17,488.1	13,172.6
less loans and receivables not being held for meeting short-term cash commitments	-1,475.2	-1,140.8
less CCP receivables	-170.0	-112.3
less debt securities with an original maturity of more than three months	-318.9	-254.0
Current financial liabilities measured at amortised cost	-17,460.3	-13,975.9
less liabilities that are not integral part of the cash managment	67.4	704.2
Current liabilities from cash deposits by market participants	-28,568.4	-29,215.3
	-30,437.3	-30,821.5
Cash and cash equivalents	49.6	580.2

14. Earnings per share

Under IAS 33, earnings per share are calculated by dividing the net profit for the period attributable to Deutsche Börse AG shareholders by the weighted average number of shares outstanding.

Diluted earnings per share are determined by adding the number of potentially dilutive ordinary shares that may be acquired under the share-based payment programmes to the average number of shares. In order to calculate the number of potentially dilutive ordinary shares, the exercise prices were adjusted by the fair value of the services still to be provided.

When determining diluted earnings per share, all long-term sustainable investment (LSI) tranches for which cash settlement has not been resolved are assumed to be equity-settled – regardless of the actual accounting in accordance with IFRS 2.

There were the following potentially dilutive rights to purchase shares as at 30 June 2018:

Calculation of the number of potentially dilutive ordinary shares

Tranche	Exercise price €	Adjustment of the exercise price according to IAS 33¹¹ €	Average number of outstanding options 30 Jun 2018	Average price for the period ²⁾ €	Number of potentially dilutive ordinary shares 30 Jun 2018
2014 ³⁾	0	0	10,346	109.24	7,674
20184)	0	0	15,222	109.24	15,222

¹⁾ According to IAS 33.47A for share options and other share-based payment arrangements, the issue price and the exercise price shall include the fair value of any goods or services to be supplied to the entity in the future under the share option or other share-based payment arrangement.

As the volume-weighted average share price was higher than the adjusted exercise prices for the 2014 tranche, these options are considered dilutive under IAS 33 as at 30 June 2018.

Calculation of earnings per share (basic and diluted)

		Quarter ended		Six months ended
	30 Jun 2018	30 Jun 2017	30 Jun 2018	30 Jun 2017
Number of shares outstanding as at beginning of period	185,075,293	186,805,015	186,610,158	186,805,015
Number of shares outstanding as at end of period	185,013,738	186,805,015	185,013,738	186,805,015
Weighted average number of shares outstanding	185,015,091	186,805,015	185,597,258	186,805,015
Number of potentially dilutive ordinary shares	37,879	40,482	22,896	43,554
Weighted average number of shares used to compute diluted				
earnings per share	185,052,970	186,845,497	185,620,154	186,848,569
Net income for the period (€m)	210.3	176.3	459.3	456.4
Earnings per share (basic) (€)	1.13	0.94	2.47	2.44
Earnings per share (diluted) (€)	1.13	0.94	2.47	2.44

As at 30 June 2018, 2,672 options were excluded from the calculation of the weighted average number of potentially dilutive shares, as their effect during the period is not dilutive.

²⁾ Volume-weighted average price of Deutsche Börse AG shares on Xetra for the period 1 January to 30 June 2018.

³⁾ This relates to rights to shares under the Long-term Sustainable Instrument for senior executives. As the 2014 tranche options will only be granted in future financial years, the number indicated for the balance sheet date may change subsequently.

⁴⁾ This relates to rights to shares under the Group Share Plan (GSP).

15. Segment reporting

Composition of sales revenue by segment

	30 Jun 2018	Quarter ended 30 Jun 2017	30 Jun 2018	Six months ended 30 Jun 2017
Futawal calca varianus	€m	€m	€m	€m
External sales revenue Eurex (financial derivatives)	236.1	212.0	476.6	426.0
Equity index derivatives	124.0	118.5	259.1	230.9
Interest rate derivatives	63.5	52.8	123.0	112.4
Equity derivatives	13.8	11.5	26.6	22.9
OTC clearing	5.4	2.1	10.2	4.2
Other	29.4	27.1	57.7	55.6
EEX (commodities)	67.0	55.9	133.2	113.7
Power spot	17.3	15.1	33.9	30.6
Power derivatives	22.1	17.0	43.2	35.2
Gas	9.9	8.6	23.1	19.3
Other	17.7	15.2	33.0	28.6
360T (foreign exchange)	18.4	16.4	36.2	33.0
Trading	15.9	13.8	31.0	27.8
Other	2.5	2.6	5.2	5.2
Xetra (cash equities)	59.4	58.5	126.5	118.2
·				
Trading and clearing	45.9	3.5	98.8 7.5	90.6
Listing	9.7			
Other		10.4	20.2	20.9
Clearstream (post-trading)	191.2	185.9	384.2	370.4
Custody	130.1	129.5	257.2	253.5
Settlement	27.3	27.3	58.6	58.0
Net interest income from banking business				
Third Party Services	10.2	5.2	19.5	12.6
Other	23.6	23.9	48.9	46.3
IFS (investment fund services)	39.6	34.2	80.7	71.1
Custody	17.3	15.2	33.9	31.0
Settlement	13.0	11.3	27.1	23.9
Other	9.3	7.7	19.7	16.2
GSF (collateral management)	35.4	32.8	68.8	67.2
Repo	11.0	10.3	21.8	21.1
Securities lending	24.4	22.5	47.0	46.1
STOXX (index business)	38.4	36.9	75.4	65.4
ETF licences	11.6	11.9	23.6	20.2
Exchange licences	8.3	8.5	17.6	16.7
Other licences	18.5	16.5	34.2	28.5
Data	45.3	44.4	94.3	90.4
Cash and derivatives	29.3	30.6	61.4	62.8
Regulatory services	3.8	3.5	8.6	6.8
Other	12.2	10.3	24.3	20.8
Total external sales revenue	730.8	677.0	1,475.9	1,355.4
Internal sales revenue	-11.3	-11.2	-23.2	-23.2
Total sales revenue	719.5	665.8	1,452.7	1,332.2

Net interest income from banking business

	30 Jun 2018 €m	Quarter ended 30 Jun 2017 €m	30 Jun 2018 €m	Six months ended 30 Jun 2017 €m
Net interest income				
Eurex (financial derivatives)	13.3	7.6	18.7	13.5
EEX (commodities)	2.0	0	3.3	-0.1
Clearstream (post-trading)	39.7	25.9	73.9	50.0
Total net interest income	55.0	33.5	95.9	63.4

Net revenue

	30 Jun 2018 €m	Quarter ended 30 Jun 2017 €m	30 Jun 2018 €m	Six months ended 30 Jun 2017 €m
Eurex (financial derivatives)	239.6	212.7	476.6	427.3
EEX (commodities)	61.1	51.7	122.9	105.3
360T (foreign exchange)	18.5	16.3	36.1	32.8
Xetra (cash equities)	55.5	53.5	117.2	106.5
Clearstream (post-trading)	180.9	164.4	359.6	328.8
IFS (investment fund services)	37.5	32.1	76.8	67.2
GSF (collateral management)	21.0	19.6	40.1	40.7
STOXX (index business)	34.8	35.0	68.6	60.0
Data	38.1	38.3	80.7	78.4
Total	687.0	623.6	1,378.6	1,247.0

Operating costs¹⁾

	30 Jun 2018 €m	Quarter ended 30 Jun 2017 €m	30 Jun 2018 €m	Six months ended 30 Jun 2017 €m
Eurex (financial derivatives)	84.5	79.3	165.3	153.9
EEX (commodities)	35.2	30.3	68.5	60.9
360T (foreign exchange)	14.0	12.0	25.3	23.5
Xetra (cash equities)	28.9	24.8	54.3	52.8
Clearstream (post-trading)	84.8	71.9	149.3	143.4
IFS (investment fund services)	26.5	20.0	47.3	41.3
GSF (collateral management)	12.2	8.6	21.5	17.6
STOXX (index business)	14.5	10.2	27.2	22.6
Data	16.6	14.3	33.5	29.0
Total	317.2	271.4	592.2	545.0

¹⁾ Since the second quarter of 2017, operating costs include staff costs and other operating expenses; depreciation, amortisation and impairment losses are recognised separately. Prior-year periods have been adjusted accordingly.

Earnings before interest, tax, depreciation and amortisation (EBITDA)

		Quarter ended	Six months ended		
	30 Jun 2018 30 Jun 2017		30 Jun 2018	30 Jun 2017	
	€m	€m	€m	€m	
Eurex (financial derivatives)	154.9	132.9	310.8	390.1	
EEX (commodities)	25.9	21.4	54.4	44.4	
360T (foreign exchange)	4.5	4.3	10.8	9.3	
Xetra (cash equities)	28.1	30.9	65.9	56.4	
Clearstream (post-trading)	96.2	92.5	210.4	185.4	
IFS (investment fund services)	11.0	12.0	29.5	25.7	
GSF (collateral management)	8.8	11.0	18.6	23.1	
STOXX (index business)	20.3	24.8	41.4	37.4	
Data	21.5	24.0	47.0	49.4	
Total	371.2	353.8	788.8	821.2	

Investment in intangible assets and property, plant and equipment

	Six months end		
	30 Jun 2018 €m	30 Jun 2017 €m	
Eurex (financial derivatives)	15.6	14.8	
EEX (commodities)	7.1	4.9	
360T (foreign exchange)	1.4	1.7	
Xetra (cash equities)	2.9	4.6	
Clearstream (post-trading)	27.3	28.1	
IFS (investment fund services)	3.2	0.6	
GSF (collateral management)	0.4	1.8	
STOXX (index business)	3.8	0.1	
Data	4.9	10.6	
Total	66.6	67.2	

16. Financial liabilities and other risks

Interest-bearing liabilities

The following expected payment obligations arose from interest-bearing liabilities as at 30 June 2018:

Expected payment obligations from interest-bearing liabilities

	Expected paym 30 Jun 2018	ent obligations at 30 Jun 2017
	€m	€m
Up to 1 year	38.9	645.6
1 to 5 years	1,349.5	739.0
More than 5 years	1,164.9	1,146.8
Total	2,553.3	2,531.4

Other risks

Peterson vs Clearstream Banking S.A., Citibank NA et al. ("Peterson I") and Heiser vs Clearstream Banking S.A.

In its 2012 corporate report, Deutsche Börse Group informed about proceedings, Peterson vs Clear-stream Banking S.A., the first Peterson proceeding, initiated by various plaintiffs seeking turnover of certain customer positions held in Clearstream Banking S.A.'s securities omnibus account with its US depository bank, Citibank NA, and asserting direct claims against Clearstream Banking S.A. for damages of US\$250 million. That matter was settled between Clearstream Banking S.A. and the plaintiffs and the direct claims against Clearstream Banking S.A. were dismissed.

In July 2013, the US court ordered turnover of the customer positions to the plaintiffs, ruling that these were owned by Bank Markazi, the Iranian central bank. Bank Markazi appealed, and the decision was affirmed on 9 July 2014 by the Second Circuit Court of Appeals, and then by the US Supreme Court on 20 April 2016. Once the process of distribution of funds to the plaintiffs is complete, a related case, Heiser vs Clearstream Banking S.A., also seeking turnover of the same assets, should be dismissed.

Peterson vs Clearstream Banking S.A. ("Peterson II")

On 30 December 2013, a number of US plaintiffs from the first Peterson case, as well as other plaintiffs, filed a complaint targeting restitution of certain assets that Clearstream Banking S.A. holds as a custodian in Luxembourg. In 2014, the defendants in this action, including Clearstream Banking S.A., moved to dismiss the case. On 19 February 2015, the US court issued a decision granting the defendants' motions and dismissing the lawsuit. The plaintiffs lodged an appeal against this ruling at the competent appeals court (Second Circuit Court of Appeals), which on 21 November 2017 confirmed large portions of the decision of the trial court. Regarding another aspect, the appellate court referred the case back to the court of first instance, which shall assess whether the assets held in Luxembourg are subject to execution in the US. In opposition to this point, Clearstream Banking S.A. filed a petition to the US Supreme Court on 8 May 2018.

Havlish vs Clearstream Banking S.A. ("Havlish")

On 14 October 2016, a number of US plaintiffs filed a complaint naming Clearstream Banking S.A. and other entities as defendants. The complaint in this proceeding, Havlish vs Clearstream Banking S.A., is based on similar assets and allegations as in the Peterson proceedings. The complaint seeks turnover of certain assets that Clearstream Banking S.A. holds as a custodian in Luxembourg. The complaint also asserts direct claims against Clearstream Banking S.A. and other defendants and purports to seek damages of up to approximately US\$6.6 billion plus punitive damages and interest.

Criminal investigations against Clearstream Banking S.A.

On 2 April 2014, Clearstream Banking S.A. was informed that the United States Attorney for the Southern District of New York has opened a grand jury investigation against Clearstream Banking S.A. due to Clearstream Banking S.A.'s conduct with respect to Iran and other countries subject to US sanction laws. Clearstream Banking S.A. is cooperating with the US attorney.

Bank Markazi vs Clearstream Banking S.A.

In the context of the ongoing disputes regarding assets of Bank Markazi, Clearstream Banking S.A. was served with a complaint of Bank Markazi on 17 January 2018 naming Banca UBAE S.p.A. and Clear-stream Banking S.A. as defendants. The complaint filed before the Luxembourg courts primarily seeks the restitution of assets of Bank Markazi which the complaint alleges are held on accounts of Banca UBAE S.p.A. and Bank Markazi with Clearstream Banking S.A. totalling approximately US\$4.9 billion plus interest. Alternatively, Bank Markazi seeks damages to the same amount. The assets sought include assets to the amount of approximately US\$1.9 billion that were turned over to US plaintiffs pursuant to a 2013 binding and enforceable US court order in a proceeding to which Bank Markazi was a party. The claim also addresses customer assets of approximately US\$2 billion, which include assets that are held at Clearstream Banking S.A. and which are currently subject to US and Luxembourg litigation brought by US plaintiffs, and addresses assets that were previously transferred out of Clearstream Banking S.A. to Banca UBAE S.p.A.

Banca UBAE S.p.A. vs Clearstream Banking S.A.

On 15 June 2018, Banca UBAE S.p.A. filed a complaint against Clearstream Banking S.A. in front of the Luxembourg courts. The complaint is a recourse action linked to the complaint that Bank Markazi filed against Clearstream Banking S.A. and Banca UBAE S.p.A. on 17 January 2018 and asks that Banca UBAE S.p.A. be indemnified and held harmless by Clearstream Banking S.A. in case it were to lose in the Bank Markazi complaint and ordered by the court to pay damages to Bank Markazi.

Fairfield vs Clearstream Banking S.A.

Beginning in 16 July 2010, the liquidators of two investment funds domiciled in the British Virgin Islands and named Fairfield Sentry Ltd. and Fairfield Sigma Ltd. filed complaints in the US Bankruptcy Court for the Southern District New York, asserting claims against more than 300 financial institutions for restitution of redemption payments made to investors of the funds for the redemption of shares in such funds prior to December 2008. On 14 January 2011, the liquidators of such funds asserted claims for restitution against Clearstream Banking S.A. in an amount of US\$13.5 million for redemption payments made by the funds to investors using the settlement system of Clearstream Banking S.A. The proceedings, which were stayed for multiple years, are continuing.

MBB Clean Energy AG

A dispute has arisen between MBB Clean Energy AG (MBB), the issuer of a bond eligible in Clearstream Banking AG, and end investors. MBB issued a first tranche of the bond in April 2013 and a second tranche of the bond in December 2013. The global certificates for the two tranches of the bond were delivered into Clearstream Banking AG by the paying agent of the issuer. The dispute relates to the non-payment of the second tranche of the bond with a nominal value of €500 million and the purported lack of validity of the bond. Clearstream Banking AG's role in the dispute on the purported lack of validity of the MBB Clean Energy AG bond is primarily to safekeep the global note, deposited by the paying agent of the issuer as national central securities depository. At this stage, it is unclear if and to what extent potential damages exist and if so who would ultimately be responsible. Insolvency proceedings have meanwhile been opened in respect of the issuer, MBB Clean Energy AG.

Proceedings by the Public Prosecutor's Office in Cologne

In September 2017, Clearstream Banking AG and Clearstream Banking S.A. were made aware that the Public Prosecutor's Office in Cologne had initiated proceedings for tax evasion against an employee of Clearstream Banking AG for his alleged involvement in the settlement of transactions of market participants over dividend date (cum/ex transactions). On 22 January 2018, the public Public Prosecutor's Office in Cologne addressed to Clearstream Banking AG a notification of hearing Clearstream Banking AG and Clearstream Banking S.A. as potential secondary participants (Nebenbeteiligte). Due to the early stage of the investigations, it is not possible to predict timing, scope or consequences of a potential decision. The companies are cooperating with the competent authorities.

Proceedings by the Public Prosecutor's Office in Frankfurt / Main

On 1 February 2017, Deutsche Börse AG announced that the Public Prosecutor's Office in Frankfurt/Main was investigating Deutsche Börse AG in respect of a share purchase by its former Chief Executive Officer Carsten Kengeter which was carried out on 14 December 2015, in implementation of the Executive Board's remuneration programme as approved by the Supervisory Board of Deutsche Börse AG. On 18 July 2017, the Public Prosecutor's Office in Frankfurt/Main issued a notification of hearing to Deutsche Börse AG. According to this notification of hearing, the Public Prosecutor's Office intends to formally involve the company in the ongoing investigation proceedings against Carsten Kengeter. In the notification of hearing, the Public Prosecutor, with regard to the company, held out the prospect that two fines totalling €10.5 million could be imposed on Deutsche Börse AG in accordance with section 30 of the Gesetz über Ordnungswidrigkeiten (OWiG, German Act on Regulatory Offences) due to an alleged violation of the insider trading prohibition in December 2015 and an alleged failure to disclose an ad-hoc announcement in January 2016. On 13 September 2017, Deutsche Börse AG's Executive Board and Supervisory Board decided to accept the fine which would potentially be imposed by the competent local court (Amtsgericht). On 23 October 2017, however, the local court of Frankfurt am Main refused to approve the closure of the investigation proceedings against the former Chief Executive Officer of Deutsche Börse AG, Carsten Kengeter, subject to conditions in the form of payment of €500,000, as applied for by the Public Prosecutor. In light of the significance of the proceedings the court considers it appropriate to continue the investigation proceedings at this time. The further investigations could lead from a closure of the proceedings due to lack of adequate suspicion to an indictment. The court has returned the matter, both as relates to the investigation proceedings against Carsten Kengeter as well as to potential actions against Deutsche Börse AG, to the Public Prosecutor which will now decide upon further procedural steps. On 26 October 2017, Carsten Kengeter informed the Supervisory Board of Deutsche Börse AG that he would like to step down as the company's Chief Executive Officer with effect from 31 December 2017. The Supervisory Board accepted this request. Following expert consultation, Deutsche Börse AG continues to believe the allegations made are unfounded in all respects.

In addition to the matters described above and in prior disclosures, Deutsche Börse Group is from time to time involved in various legal proceedings that arise in the ordinary course of its business. Deutsche Börse Group recognises provisions for litigation and regulatory matters when it has a present obligation from an event in the past, an outflow of resources with economic benefit to settle the obligation is probable and it is possible to reliably estimate the amount. In such cases, there may be an exposure to loss in excess of the amounts accrued. When these conditions are not met, Deutsche Börse Group does not recognise a provision. As a litigation or regulatory matter develops, Deutsche Börse Group evaluates on an ongoing basis whether the requirements to recognise a provision are met. Deutsche Börse Group may not be able to predict what the eventual loss or range of loss related to such matters will be. Deutsche Börse Group does not believe, based on currently available information, that the results of any of these various proceedings will have a material adverse effect on its financial statements as a whole.

Tax risks

Due to its business activities in various countries, Deutsche Börse Group is exposed to tax risks. A process has been developed to recognise and evaluate these risks, which – in the first place – are recognised depending on the probability they will arise. In a second step, these risks are measured on the basis of their expected value. In case it is more probable than not that the risks will arise, a tax provision is recognised. Deutsche Börse Group continuously reviews if the preconditions for the recognition of corresponding tax provisions are met.

17. Material business transactions with related parties

Related parties as defined by IAS 24 are members of the executive bodies of Deutsche Börse AG as well as the companies classified as associates of Deutsche Börse AG, investors and investees, and companies that are controlled or significantly influenced by members of the executive bodies.

Business relationships with related parties

The following table shows transactions entered into within the scope of business relationships with non-consolidated companies of Deutsche Börse AG during the first six months of 2018. All transactions were concluded at prevailing market terms.

Transactions with related parties	trans re as of	at of the sactions evenues second quarter	ex as of	actions spenses second quarter	trans re as of f	at of the sactions evenues irst half	trans ex as of f	at of the sactions openses irst half	ba rece	anding alances ivables	ba liabil	anding alances ities as
	2018 €m	30 Jun 2017 €m	2018 €m	30 Jun 2017 €m	of t 2018 €m	he year 2017 €m	of t 2018 €m	he year 2017 €m	as at 2018 €m	30 Jun 2017 €m	at 2018 €m	30 Jun 2017 €m
Associates	2.3	3.3	-4.7	-4.5	5.1	6.3	-9.7	-8.4	1.4	1.5	-1.0	-1.2
Joint venture	0	0	0	0	0	0	0	0	0	0	0	0
Other shareholdings	0	0	0	0	0	0	0	0	0	0	0	0
Total sum of business transactions	2.3	3.3	-4.7	-4.5	5.1	6.3	-9.7	-8.4	1.4	1.5	-1.0	-1.2

Monetary business relationships with key management personnel

Key management personnel are persons who directly or indirectly have authority and responsibility for planning, directing and controlling the activities of Deutsche Börse Group. The Group defines the members of the Executive Board and the Supervisory Board as key management personnel for the purposes of IAS 24.

European Commodity Clearing Luxembourg S.à r.l., Luxembourg, (ECC Luxembourg), – a subsidiary of European Commodity Clearing AG and therefore a member of the EEX group – entered into an agency agreement for the exercise of the managing director function with IDS Lux S.à r.l., Luxembourg. The subject of the agreement is to provide a natural person for the function of managing director in the management of ECC Luxembourg. In addition to this position as managing director of ECC Luxembourg, this person is also a member of the key management personnel at IDS Lux S.à r.l. During the first half of 2018, ECC Luxembourg paid approximately €7.0 thousand for these management services.

A member of the board of directors of STOXX Ltd., Zurich, Switzerland, also holds a key management position within law firm Lenz & Staehelin AG, Geneva, Switzerland. Deutsche Börse Group reported expenses to this law firm of approximately €594.8 thousand in the first half of 2018.

On the board of directors of Powernext SA, Paris, France – one of the subsidiaries of European Energy Exchange AG, Leipzig, Germany – there are representatives of GRTgaz, Bois-Colombes, France, parent company of 3GRT, Tarascon, France, and EDEV S.A., Courbevoie, France. During the first six months of 2018, Powernext SA rendered development and maintenance services for customised software solutions in the area of market coupling and balancing, as well as in connection with an electronic trading platform for 3GRT. In this context, the company generated €361.9 thousand in revenue with these services during the first half of 2018. As at 30 June 2018, there were receivables amounting to €130.8 thousand.

The board of directors of LuxCSD S.A., Luxembourg, an associate from Deutsche Börse Group's perspective, comprises two members of management of fully consolidated subsidiaries within Deutsche Börse Group who are maintaining a leading position within these subsidiaries, too. LuxCSD S.A. holds business transactions with Clearstream Banking S.A., Luxembourg, Clearstream Services S.A., Luxembourg, Clearstream International S.A., Luxembourg, and Clearstream Banking AG, Frankfurt/Main, Germany. Within the scope of these transactions there have been expenses in the amount of €640.2 thousand and revenue in the amount of €394.8 thousand during the first six months of 2018.

Furthermore, an executive board member of Clearstream Banking AG concurrently holds an executive position within Deutsche Börse Commodities GmbH, Frankfurt/Main, Germany, an associate of Deutsche Börse Group. In the first half of 2018, Deutsche Börse Group generated approximately €1,872.5 thousand in revenue as well as €8,215.4 thousand in expenses with Deutsche Börse Commodities GmbH.

Two members of the Executive Boards of Deutsche Börse AG and Eurex Frankfurt AG are members of the supervisory board of China Europe International AG, Frankfurt/Main, Germany, (CEINEX) as well. This company is a joint venture of Shanghai Stock Exchange Ltd., Shanghai, China, China Financial Futures Exchange, Shanghai, China, and Deutsche Börse AG. In the first half of 2018, Deutsche Börse Group generated approximately €26.6 thousand in revenue and €85.6 thousand in expenses with CEINEX.

A member of the Executive Board of Eurex Frankfurt AG holds a key position on the Supervisory Board of PHINEO gAG, a non-profit entity based in Berlin, Germany, which is an associate from Deutsche Börse Group's perspective. During the first half of 2018, expenses of €250.0 thousand were incurred, representing a donation to this non-profit entity for the year 2017.

Other business relationships with key management personnel

Selected executives of Deutsche Börse Group subsidiaries also hold key management positions within the Clearstream pension fund ("association d'épargne-pension", ASSEP). This defined benefit plan, established in favour of Luxembourg staff of Clearstream International S.A., Clearstream Banking S.A., as well as Clearstream Services S.A., is funded through cash payments to the ASSEP under Luxembourg law.

18. Employees

Employees

	30 Jun 2018	Quarter ended 30 Jun 2017	30 Jun 2018	Six months ended 30 Jun 2017
Average number of employees during the period	5,742	5,575	5,707	5,491
Employed as at the balance sheet date	5,789	5,613	5,789	5,613

The increase in the number of employees results largely from the internalisation of external service providers.

There was an average of 5,350 full-time equivalent (FTE) employees during the second quarter of 2018 (Q2/2017: 5,183).

19. Events after the balance sheet date

There have been no material events after the balance sheet date.

Responsibility statement

To the best of our knowledge, and in accordance with the applicable reporting principles for interim financial reporting, the interim consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group in accordance with German accepted accounting principles, and the interim management report of the Group includes a fair review of the development and performance of the business and the position of the Group, together with a description of the material opportunities and risks associated with the expected development of the Group for the remaining months of the financial year.

Frankfurt/Main, 25 July 2018

Deutsche Börse AG The Executive Board

Theodor Weimer

Andreas Preuss

Thomas Book

Stephan Leithner

Gregor Pottmeyer

Hauke Stars

Naule Stas

71

Review report

To Deutsche Börse Aktiengesellschaft, Frankfurt/Main

We have reviewed the condensed interim consolidated financial statements – comprising the consolidated balance sheet, consolidated income statement, consolidated statement of comprehensive income, consolidated cash flow statement, consolidated statement of changes in equity and selected explanatory notes – together with the interim group management report of the Deutsche Börse Aktiengesellschaft, Frankfurt/Main, for the period from 1 January to 30 June 2018, that are part of the semi annual financial report according to § 115 WpHG ("Wertpapierhandelsgesetz": "German Securities Trading Act"). The preparation of the condensed interim consolidated financial statements in accordance with International Accounting Standard IAS 34 "Interim Financial Reporting" as adopted by the EU, and of the interim group management report in accordance with the requirements of the WpHG applicable to interim group management reports, is the responsibility of the Company's management. Our responsibility is to issue a report on the condensed interim consolidated financial statements and on the interim group management report based on our review.

We performed our review of the condensed interim consolidated financial statements and the interim group management report in accordance with the German generally accepted standards for the review of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW). Those standards require that we plan and perform the review so that we can preclude through critical evaluation, with a certain level of assurance, that the condensed interim consolidated financial statements have not been prepared, in material aspects, in accordance with IAS 34 "Interim Financial Reporting" as adopted by the EU, and that the interim group management report has not been prepared, in material aspects, in accordance with the requirements of the WpHG applicable to interim group management reports. A review is limited primarily to inquiries of company employees and analytical assessments and therefore does not provide the assurance attainable in a financial statement audit. Since, in accordance with our engagement, we have not performed a financial statement audit, we cannot issue an auditor's report.

Based on our review, no matters have come to our attention that cause us to presume that the condensed interim consolidated financial statements have not been prepared, in material respects, in accordance with IAS 34 "Interim Financial Reporting" as adopted by the EU, or that the interim group management report has not been prepared, in material respects, in accordance with the requirements of the WpHG applicable to interim group management reports.

Frankfurt/Main, 25 July 2018

KPMG AG Wirtschaftsprüfungsgesellschaft

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